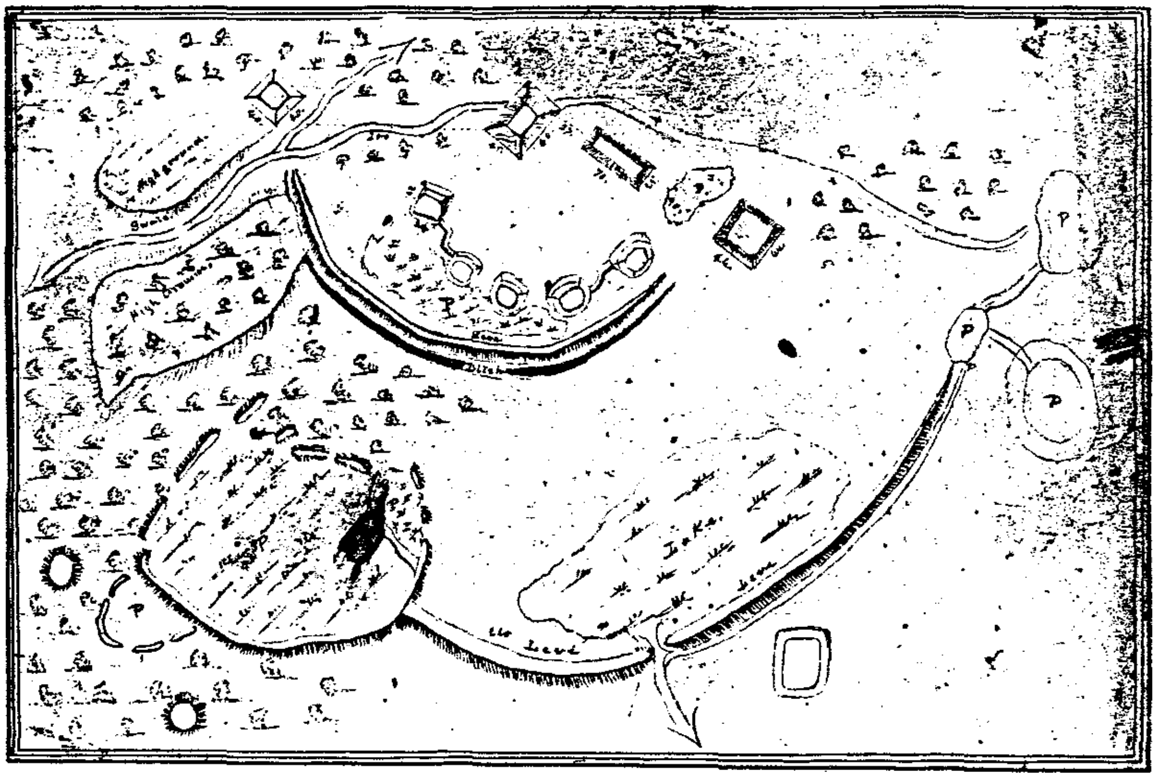
FINAL REPORT ON ARCHAEOLOGICAL TEST EXCAVATIONS IN THE CENTRAL BOEUF BASIN, LOUISIANA, 1985



by

Tristram R. Kidder

With Contributions by Diane M. Ring and Roger T. Saucier

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LOWER MISSISSIPPI SURVEY

Peabody Museum • Harvard University
Cambridge, Massachusetts 02138

1986

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Dr. Stephen Williams
Principal Investigator

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Lower Mississippi Survey
Peabody Museum, Harvard University
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ABSTRACT

In the summer of 1985 the Lower Mississippi Survey, Peabody Museum, Harvard University, conducted test excavations at eight sites in Morehouse and Richland Parishes, Louisiana. The primary goal of testing was to determine whether sites tested would be eligible for inclusion in the National Register of Historic Places. Three of the eight sites tested are considered to warrant nomination. As a result of test excavations the LMS ammassed a collection of over 40000 artifacts, many of which have never been noted before. Data from test excavations were also utilized to test two hypotheses concerning aboriginal use of the study area. One hypothesis addressed the nature of human occupation of active Arkansas River levees, while the second hypothesis was concerned with the pattern of cultural dynamics in the protohistoric period. This paper will outline the program of investigation, field methods, and results from the 1985 season.

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ACKNOWLEDGMENTS

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In a project such as this I am certain I have overlooked a number of contributors. Those who I have overlooked are remembered in spirit, if not by name. While the above mentioned individuals most generously offered their time and energy, they are in no way accountable for the contents of this report. The author is solely responsible for the contents and ideas expressed in the manuscript.

* Throughout this report sites will be designated by their State site number followed by the Lower Mississippi Survey site number in brackets.

CHAPTER ONE

INTRODUCTION

Background

During the summer of 1985 the Lower Mississippi Survey (LMS), Peabody Museum, Harvard University conducted archaeological test excavations at eight sites in the central Boeuf Basin in Louisiana (Maps 1-2). Research was oriented toward three goals; determination of National Register eligibility; investigating the relationship between sites and active watercourses; and an examination of late prehistoric and protohistoric cultural dynamics. Three sites were given extensive testing and are believed to be eligible for inclusion in the National Register of Historic Places. The remaining sites failed to produce enough evidence of suitably intact cultural remains to warrant eligibility.

Field work was conducted over three months, from June 1, 1985 to August 23, 1985. Research in 1985 was conducted using a combined strategy of surface collecting, shovel testing, and limited test excavations. The LMS conducted a total of 350 shovel tests at eight sites (Map I), and 17 test excavations at three of the original eight sites. Research by the LMS in 1985 resulted in the accumulation of over 40000 artifacts for study. This paper is the final report for the LMS excavations in 1985.

The Principal Investigator for the 1985 excavations was Dr. Stephen Williams. The LMS field crew consisted of Tristram Kidder as field director and project supervisor. Richard and Diane Fuller were the crew chiefs, and in addition, Richard Fuller served as field supervisor in the absence of the field director. The field crew was made up of three Harvard University Anthropology Department undergraduate concentrators, Mark Bitgood, David Cohen, and Diane Ring. Two local hands were hired for field operations. A full time laboratory assistant was employed to process and sort artifacts from the field. During the course of the summer we were visited by several professionals. Dr. Stephen Williams, the project principal investigator, spent a week in the field in late July, and conferred with the field director on a weekly basis. Dr. Roger Saucier and Dr. Lawson Smith of the U.S. Army Corps of Engineers Waterways Experiment Station also visited the project area twice as geomorphic consultants.

Research Goals

As a result of archaeological survey in the Boeuf Basin in the summers of 1981, 1983, and 1984 the LMS had accumulated considerable amounts of data pertaining to aboriginal utilization of the Boeuf Basin (Belmont 1985; Fuller 1985; Fuller and Williams 1985; Kidder 1985; Kidder and Williams 1984, n.d. a, n.d. b; Williams 1983). However, with the exception of excavations at the Gold Mine site, 16RI13 (24-I-14) (Belmont 1980, 1982), no subsurface stratigraphy was available to construct a regional chronological framework. In order to begin to correct the imbalance between surface collected and excavated components, the

LMS proposed a season of test excavations in the northern portion of the Boeuf Basin in Louisiana (Kidder and Williams n.d. a, n.d. b).

The 1985 test excavations proceeded with three primary research goals. First, we sought to identify and test sites which were considered to be possibly eligible for inclusion in the National Register of Historic Places. Second, we wished to address the nature of the relationship between human settlement and the changing courses of the Arkansas River when it was flowing through the study area. And finally, we hoped to use the data from excavations at the Jordan site, 16MO1 (22-I-1), to investigate the nature and dynamics of protohistoric population movements. Each goal will be briefly discussed below and the results will be summarized in the conclusion of this report.

As a result of previous survey in the Boeuf Basin the LMS had a relatively large number of sites recorded and many had already been surveyed. The time span noted for the central Boeuf Basin ran the entire aboriginal sequence in Louisiana, from late Paleo-Indian through the historic period (Kidder n.d. a). We also had a spectrum of known site types, including villages, mound sites, base camps (?), temporary hunting or resource extraction sites, and possibly lithic workshops. Thus, as a result of previous investigations we had ample resources to draw on to construct our National Register testing schedule. In the fall and winter of 1984/1985 the author established a list of the top 22 sites which we would have liked to test (Kidder and Williams n.d.

a: Appendix B). Each site was ranked in descending order of importance, regardless of our knowledge if the site could be tested. Our goal in drawing up this list was to represent in our tested sample a wide range of site types and cultural units, and as much time depth as possible. During the late winter and spring of 1985 inquiries were made with local landowners about the possibility of testing on their property. However, even when we arrived in the field we were uncertain if we would be allowed to test a number of sites. Several factors influenced our decision making process once we arrived in Louisiana. First and possibly most significant was the pattern and nature of crop practices. A number of sites which we desired to test we unavailable because they were planted in crops and the landowners would not, or could not grant permission to conduct test excavations. In several instances sites had been significantly altered since they were surveyed, and thus their integrity was highly questionable. Time and resources were budgeted according to presumed or known significance and in accord with our other research goals. The concept of National Rregister testing, however, was the overall guideline used in the 1985 test excavation season.

The second goal of the 1985 project was to examine the relationship of aboriginal settlement to the changing courses of the Arkansas River and its tributaries and/or relict channels. Prior to our research in 1985 the Arkansas River chronology had been worked out by Saucier (1974), but our earlier surveys had noted several discrepancies in chronology, and hence possible cultural influences. Three objectives were maintained in this part of the program. First was chronology building, both cultural and geological. Second was to investigate how, if at all, had the river systems influenced settlement through time, and lastly we hoped to utilize the foregoing data to construct a tentative predictive model of aboriginal settlement. In consultation with Roger Saucier, project geomorphologist, I formulated a "strawman" hypothesis which stated that aboriginal cultures would attempt to settle active stream channels not inactive oxbows and cutoffs. The hypothesis was formulated to allow recognition criteria to be possitive. That is we expected to see channel deposits interbedded with cultural deposits if the hypothesis were true. And furthermore, if the hypothesis was true, each culture, or certain cultures should have shown a preference for specific channels or channel segments.

Testing at potential National Register sites was conducted in such a way as to address the second research goal. Geomorphic data was recorded at all tested sites, and Roger Saucier visited several sites to investigate specific problems. Furthermore, cultural data were plotted against new geomorphic and geological maps to attempt to discern settlement patterns. Throughout the excavation and analysis portions of the project Roger Saucier and I consulted frequently to exchange our developing ideas about cultural and geological chronology and significance. Continued feedback between the archaeologist and geologist allowed both to proceed with more confidence, particularly in matters of chronology and settlement patterns.

The last goal was to investigate the Jordan site, 16MO1 (22-I-1), to determine, if possible, its age and cultural affiliations. The site was a physical and cultural anomaly, and testing was needed to investigate this unique site. I hypothesized that the occupation of the site occurred after the DeSoto expedition had passed through the Lower Mississippi Valley, and was in part a result of the social and political changes that were known to have happened as a result. I hypothesized, based on survey data, that the occupants had migrated to the site from the north, possibly from the upper Bayou Bartholomew region. I also proposed to test the hypothesis that the site occupants were ethnically diverse groups which were forced to live together as a result of biological stress in population size caused by European introduced diseases.

Overall, the 1985 season was quite successful and the LMS was able to address each area of research interest. At least three of the eight sites tested were found to be eligible for inclusion in the National Register of Historic Places. The other five sites examined are not considered eligible at present, but in no case can they be ruled out entirely. The LMS excavations proved that our initial hypotheses concerning the relationship of sites to the Arkansas River watercourses was incorrect. However, the negative evidence from our test excavations will still provide a wealth of data concerning human utilization of the Arkansas River when it was flowing through what is now the Boeuf Basin. Concerning our research on the cultural dynamics of the latest period of aboriginal presence in the study area, we were fortunate to conduct excavations at the preeminent site in the region, Jordan (16MO1). Although a final appraisal of this great site cannot be undertaken at present, our research at the site revealed that it was almost, if not wholly, a protohistoric and early historic site, and that it has physical features which make it unique in the southeast. These concepts will be elaborated upon further below. Although this paper represents the final report on the 1985 season it should not be taken as the final word on any of the sites which were tested by the LMS. The operative concept which we used was testing, and as such our investigations were limited. Further research at sites in the central Boeuf Basin would certainly be a valuable addition to Louisiana archaeology.

CHAPTER TWO

PHYSICAL ENVIRONMENTAL SETTING

(Roger T. Saucier and Tristram R. Kidder)

Purpose and scope.

The basic purpose of this chapter of the report is to summarize the input of earth sciences information and methodologies (e.g. geology, geomorphology, soils science) into the overall program of archaeological research in the central Boeuf Basin. The specific objectives of this part of the research program were to a) develop a scenario of the geological history of the area reflecting the latest thinking regarding the chronology of events, b) evaluate the significance of geomorphic agents and processes in man/land relationships, c) analyse the paleoenvironmental setting (landscape evolution) of the area in terms of prehistoric habitation, and d) provide input into the testing of various "strawman" hypotheses regarding specific site locations.

Existing information on the general geologic framework of the area (Fisk 1944) and the chronology of Quaternary events was reviewed and existing geologic mapping in the area was compiled for further evaluation and refinement (Saucier 1967). This was accomplished using aerial photo index mosaics of several photographic coverages dating to the 1940s (available from the Agriculture Stabalization and Conservation Service) and small-scale infrared coverage obtained from the U.S. Army Corps of

Engineers. Attention was devoted to identifying and delineating features of smaller size (e.g., crevasse channels) and in more detail than had been attempted in previous reconnaissance-scale mapping.

Detailed geologic/geomorphic mapping and reevaluation was restricted primarily to the areas of the Bastrop (21-I), Bonita (21-J), Collinston (22-I), and Hurricane (22-J) 1:62,500-scale U.S.G.S. quadrangles. On these maps were also plotted the locations of all known archaeological sites for which there is sufficient information to establish probable cultural affiliations (Kidder n.d. a). This amounted to a total of 108 sites. Each site location was analysed with regard to landform association and implications of the age of the sites in terms of area geologic history.

In late May 1985, a one-day field reconnaissance of the area was made to verify the accuracy of photo and map interpretations and to observe the associations of soils with certain types of landforms. Particular attention was paid to several areas containing archaeological sites scheduled for testing (test excavation and/or coring) during the summer of 1985.

Prior to the begining of archaeological field testing, a list of research design questions was provided to the field director. This list identified sites likely to be of special significance in terms of understanding area geologic history and site/landform associations and suggested what types of observations should be made if the site could be tested within program time/cost restraints.

Visits to particular sites during or after archaeological testing were made on two days during July and August 1985. These afforded views of subsurface conditions, opportunities for discussion of significant findings, and a chance to obtain cores in selected locations. Of six sites singled out as potentially important contributors to geologic as well as archaeological knowledge, time and resources permitted excavation or investigation at three. Observations at these sites are discussed later in this report.

<u>Location and Geographic Setting</u>

The Boeuf Basin, one of several separately named lowland areas of the Mississipi Alluvial Valley, is a north-south elongated area located between Pine Bluff, Arkansas on the north and Sicily Island, Louisiana on the south, a distance of about 170 miles. On the west, the basin is bounded by uplands consisting of dissected Tertiary formations and Pleistocene terraces of Sangamonian age or older. On the east, the basin is bounded (from north to south) by the Arkansas River, the Mississippi River, and Macon Ridge (Fisk 1944: 30).

Archaeologically the Boeuf Basin has been divided into three subdivisions, North, Central, and South. The northern part extends from Pine Bluff south to the Arkansas-Louisiana state line (also where Bayou Bartholomew turns west to flow into the Ouachita

River). The central portion runs from the border south to the line formed by U.S. Hwy. 80/I-20, and the channel of Bayou Lafourche. The southern portion stretches from Bayou Lafourche to Sicily Island. The particular part of the Boeuf Basin of concern in this study is situated in Morehouse, Richland, and West Carroll Parishes of northeastern Louisiana between the Arkansas-Louisiana state line on the north and U.S. Hwy. 80/I-20 on the south (trending through the the towns of Delhi and Rayville, Louisiana) (Map 2). In this 35-mile-long stretch of the basin, the Tertiary/Pleistocene uplands on the west are designated the Bastrop Hills and the eastern boundary is Macon Ridge. The latter, also of Pleistocene age but younger than Sangamonian, is a low, north-south trending series of terrace levels formed by the Arkansas and/or Mississippi Rivers when they were carrying and depositing large volumes of glacial outwash from their headwaters.

Topographically, there is no clearly defined boundary between Macon Ridge and the central Boeuf Basin proper. Macon Ridge consists of five mapped terrace levels (Saucier 1967) that step down in elevation from highest along the eastern side of the ridge to lowest along the western side. The lowest two levels, designated Qtb4 and Qtb5 (Map 2) are as low as any points in the Boeuf Basin proper, and are distinguishable on the basis of soils and surface morphology rather than elevation. Actual basin elevations range from an average low of about 105 feet (above National Geodetic Vertical Datum) along the Arkansas state line to about 65 feet near U.S. Hwy. 80/I-20. Natural levee ridges of two types or modes of origin (discussed later) occur in parts of the basin and have crest elevations 10 to 15 feet above adjacent lowlands. Both average elevations and local relief are higher on Macon Ridge and increase eastward away from the basin.

All present hydrographic features in the basin are directly or indirectly related to local basin drainage--there are no through-flowing regional streams. This is in sharp contrast to the recent geological past when the basin was under the dominant hydrographic influence of the Arkansas and Mississippi Rivers. Some contemporary streams are in channels of their own making, such as Boeuf River, while others (such as Bayou Bonne Idee) are relict, underfit streams in channels constructed by a larger stream.

Geologic Controls and Geomorphic Agents

The Mississippi River established the overall geologic framework and "set the stage" for the development of the landscape of the Boeuf Basin, but all major basin landforms and nearsurface deposits are directly and primarily attributable to the Arkansas River. The Mississippi River (and its principal tributaries) alternately developed floodplains and entrenched into them (thereby creating terraces) during much of the Pleistocene epoch. In the Boeuf Basin area, the Mississippi River system was responsible for creating the Sangamon-aged Prairie terrace now present in the Bastrop Hills to the west. It was also responsible for subsequently eroding both it and older Tertiary-aged formations, by lateral and vertical erosion, to elevations well below present floodplain level beneath the basin area per se and Macon Ridge, thereby creating an entrenched valley. Practically all of the alluvium deposited in this entrenched valley since the Sangamonian Stage (during the Wisconsian Stage, or from about 120,000 to 12,000 years ago, and the Holocene, or the last 12,000 years) has been by the Arkansas River. These deposits reflect three different large-scale depositional processes, each of which is manifested by distinctive landforms. Each process and resultant landform type strongly influenced prehistoric settlement patterns and land utilization in a different manner and each is discussed below.

<u>Braided Stream Terraces</u>

The traditional explanation (Fisk 1944: 31) is that Macon Ridge represents the surviving western portion of the alluvial cone of the Arkansas River. It was deposited as a consequence of the large load of glacial outwash and meltwater carried by that stream during waning of the early Wisconsinan glaciation (Late Altonian Substage of the Wisconsinan Stage) (Saucier 1968: 72-75, fig. 4 c). Because of the heavy sediment load produced by alpine glaciation in the Rocky Mountains, the Arkansas River at that time possibly flowed in a braided stream regimen. The typical pattern of anastomosing channels of braided streams is still well preserved on Macon Ridge and dominates the present drainage pattern, spacing, and orientation. At this time, however, we feel that Macon Ridge actually represents the combined outwash of the Arkansas and Mississippi Rivers, with the latter stream quite important at first but becoming relatively less important with time as the glaciation waned.

The several terrace levels present on Macon Ridge indicate that the Arkansas River (or combined Arkansas/Mississippi Rivers) episodically downcut or degraded its floodplain (i.e., alluvial fan) during this time of outwash deposition. This was probably in response to a declining sediment load and/or increasing stream competency that occurred as the stream migrated to the west closer to the edge of the alluvial valley.

Macon Ridge topographically is characterized by low irregular to linear ridges and knolls showing a generally north-south orientation. They are separated by shallow swales that mark the position of relict braided channels. Typically the ridges are composed of silts and fine sands that are well oxidized and have a distinctive yellowish to reddish brown color. Soils of the swales are finer grained and darker in color, consisting mostly of gray to brown silty and sandy clays.

In the latest atttempt to synthesize the geology of the Lower Mississippi Valley, Saucier postulated that the lowest terrace level of Macon Ridge, the Qtb5 level, represents a geologically later episode of outwash deposition (Saucier 1974). This episode was during the waning of the Late Wisconsin glaciation (Late Woodfordian Substage of the Wisconsinian Stage). This hypothesis is now considered tenuous and evidence seems to favor all five levels being of the same (i.e., Altonian Substage) age. However, this is a matter of geological rather than archaeological significance and is not worthy of elaboration here.

In terms of topography, Macon Ridge would have afforded prehistoric populations unlimited choices for permanent habitation. Except for the lowest levels, the ridge was free from regional backwater flooding from both the Arkansas and Mississippi Rivers. Permanent water sources would have been present along the larger streams; however, during certain times of the year or during relatively arid cycles, the sandy ridge soils would have produced large tracts (e.g., of several square miles or more) devoid of surface water.

Based on observations of similar landscapes elsewhere in the Lower Mississippi Valley, an unusually favorable situation for permanent habitation would have been the edges of the various terrace levels, especially on the lowest level adjacent to the basin and near permanent interior basin drainage such as Boeuf River. In this category also would have been outliers of the braided-stream terraces occurring as "islands" of high ground in the basin proper. These would have been surrounded by lowland swamp or seasonally by floodwaters. Outliers are not numerous in the Boeuf Basin area; however, they may have been more numerous in the past when basin vertical aggradation had not proceeded as far as it has at the present time.

Arkansas River Meander Belts

The Arkansas River, excluding times when it may have carried glacial meltwater and outwash, has been a dynamic meandering stream carrying a large suspended load high in fine sand and silt. Consequently, it has had the capacity to rapidly form natural levees, meander freely, and adopt a highly sinuous pattern. It has also tended to divert channelized flow, probably during major floods, into topographically lower basin areas, thereby creating new courses and abandoning previous ones. In Arkansas and Louisiana, there are six abandoned meander belts and segments of abandoned meander belts that have been recognized (Saucier 1974: fig. 1). Each is a distinct morphological complex exhibiting an abandoned channel, areas of lateral accretion (point bar ridges and swales), numerous abandoned channels in various stages of filling, and natural levees.

Influenced at first by the configuration and location of Macon Ridge, the earlier Arkansas River meander belts developed routes through the Boeuf Basin lowland that closely followed the western side of the alluvial valley southward to Sicily Island and beyond before eventually becoming tributary to the Mississippi River. Progressive vertical alluviation (aggradation) in the Boeuf Basin and events elsewhere in the alluvial valley eventually permitted the Arkansas River to flow more directly eastward and to become tributary to the Mississippi River east of Macon Ridge. Progressive alluviation in the basin has had other effects as well. The relatively older meander belts are more obscure and are less pronounced topographic ridges because of sediment accumulation over their flanks and even a veneering over the natural levee crests in some cases. The oldest meander belts sometimes have no topographic expression and are discernible only by way of present drainage patterns that reflect the underlying buried features. Another consequence of alluviation has been the ability of relatively younger meander belts to cut directly across relatively older ones since the latter were less effective topographic barriers when the younger ones formed.

In the Boeuf Basin, the oldest meander belt that can be traced as a continuous feature, designated No. 3 (Saucier 1974: fig. 1), is occupied by Coffee Bayou in the northeastern part of the study area. Elsewhere, it is not occupied by a named drainage. The location of stage 3 is shown in Map 2. In many areas, this meander belt is obscure and its precise delineation is uncertain because of near complete burial beneath younger alluvium. The next youngest meander belt, designated No. 5, is occupied from north to south, by Bayou Bartholomew, Bayou Bonne Idee, and the Boeuf River (Map 2). This feature is topographically quite prominent and its features are clearly identifiable and easily delineated. Burial or encroachment by younger sediments is nil and many cutoffs are still largely open water features. The youngest meander belt (No. 6) is marked by the course of Bayou Bartholomew throughout. While the No. 5 meander belt was active, a diversion occurred near the Arkansas-Louisiana state line and a new meander belt developed through an upland gap north of the Bastop Hills into the Ouachita lowlands. The segment of the No. 5 meander belt occupied by Bayou

Bonne Idee and the Boeuf River was abandoned at this time in favor of the new course.

Examination of Map 2 will reveal that while each of the three meander belts mentioned above are of Arkansas River origin, as is the No. 4 meander belt (located east of Macon Ridge and now occupied by Joes Bayou and Bayou Macon), they are noticeably different in terms of width, sinuosity, and numbers of cutoffs. There are several possible explanations for this, including differences in length of occupation, the nature of the deposits through which they formed, variations in the regional slopes of the basin segments, and temporal variations in stream discharge. However, knowledge is presently insufficient to favor one explanation over another. If variations in stream discharge were a factor, this could be quite significant from the standpoint of human habitation since it could be an indication of a response to climatic change.

During episodes that lasted perhaps 500 to 1000 years each, the Arkansas River repeatedly was able to extend its course and develop prominent meander belts for hundreds of miles south of Pine Bluff, Arkansas. This attests to its very large sediment load. Natural levee growth as well as the amount of basin flooding must have been enormous during times of active meander belt formation. Considering these factors plus the probable high rates of channel migration (probably on the order of tens of feet per year) and cutoff formation, it is highly unlikely that an active meander belt was an environment conducive to permanent habitation.

Furthermore, there is an extremely high probability that any sites of prehistoric occupation during active meander belt growth would now be buried or would have been subsequently destroyed by lateral channel migration. Whether or not any meander belts in the Boeuf Basin were active during times of human presence in the area is discussed later in this report.

An abandoned meander belt such as the No. 5 one in the Boeuf Basin would have been an exceptionally favorable setting for human activities of all types. Because of an apparent rapid rate of abandonment, the relict main channel remained as a prominent permanent water course relatively free from flooding. So did the numerous cutoffs (oxbow lakes). Natural levees afforded high ground and fertile soils in proximity to swamps and aquatic habitats that were undoubtedly rich in natural resources.

Crevasse Channel/Distributary Systems

When a river such as the Arkansas constructs a meander belt through or into a lowland area, it is normal for it to occasionally form crevasse channels during major floods. In most cases, these are ephemeral channels that develop across the natural levees and into the adjacent backswamp for a few miles. They usually have small and poorly developed natural levees of their own. In the Boeuf Basin, two unusually large and persistent crevasse channels that developed into major distributary systems of uncommon size and complexity are significant elements of the landscape. The northern system is herein designated the Mer Rouge distributary system and the southern one the Oak Ridge distributary system for the towns centrally located on their natural levees (Map 3).

Both distributary systems originated as crevasses along the No. 5 meander belt (the Bayou Bonne Idee segment). While they never diverted a majority of the flow of the Arkansas River, for centuries they must have carried water and sediments during floods and possibly even sometimes functioned during low water stages. Each developed narrow but relatively high and steep natural levees along narrow channels that bifurcated frequently, thereby creating complex branching networks consisting of tens of miles of ridges separated by lower backswamp areas. Due to subtle differences in basin slopes and channel gradients and probably sediment loads, some channels are quite linear while others are highly sinuous. However, it is doubtful that much true meandering took place along any of the distributary channels and no cutoffs have been detected.

In many respects, the distributary channels are analogous to and only smaller versions of meander belt ridges. Like the meander belts, habitation conditions would have been poor because of rapid sedimentation and frequent flooding while they were actively forming. However, there are important differences that could be significant from the standpoint of prehistoric settlement patterns. The absence of cutoffs would have meant less abundant permanent water supplies and reduced aquatic habitats and resources once the systems were abandoned. On the other hand, the configuration and narrowness of the systems provided widespread and easy access to backswamp areas and convenient corridors for movement. While perhaps limiting to particular types of activities and large populations densities because of restricted water supplies and/or aquatic resources, the distributary system landscape may have been more attractive for small groups and other types of activities.

Interior Basin Drainage and Flooding

The Boeuf Basin is a true topographic depression of significant size. Thus, during times of heavy local rainfall and seasonal flooding, there has been (at least since the formation of Macon Ridge) a need for one or more channels to convey appreciable quantities of water through the area and to the south. Boeuf River has been the principal channel to serve this need at least through much of the Holocene period. Prior to formation of the No. 5 meander belt, Boeuf River (or a counterpart) possibly was more centrally located in the basin midway between Macon Ridge and the Bastrop Hills. Formation of the No. 5 meander belt, however, necessarily forced the channel eastward into or near its present location because of the inherent tendency of natural levee-forming streams like the Arkansas River to discourage tributaries. In the Boeuf Basin, small channels such as Cypress Bayou and The Swale may represent abandoned segments of more westerly courses of the Boeuf River.

As the No. 5 meander belt developed southward through the basin and encountered the higher elevations of Macon Ridge, it forced the Boeuf River to occupy one or more relict braided-stream channels on the Qtb4 level. Eventually the river could find no satisfactory lowland outlet farther eastward and it was finally forced to become tributary to the Arkansas River. Later, after the meander belt was abandoned, Boeuf River continued to flow in the relict Arkansas River channel. However, the present course of the river through Lake Lafourche into Bayou Lafourche is largely the result of artificial channelization for flood control during the last few decades.

Despite the presence of the Boeuf River as an outlet, the Boeuf Basin must have experienced significant seasonal flooding throughout much of its history. During the early and middle parts of the Holocene, this would have been exclusively from the Arkansas River. After formation of the present meander belt of the Mississippi River between Helena, Arkansas and Vicksburg, Mississippi during the late Holocene, the latter stream also introduced floodwaters into the upper end of the basin. The most serious flooding, which may have produced water depths of five to ten feet over large parts of the basin for several months of the year, would have been coincident with new meander belt formation.

Several small, mostly enclosed basins occur along the western edge of the basin at the base of the Bastrop Hills. They are the result of drainage interruption by natural levee development along channels of the Mer Rouge distributary system where the channels are close to but not directly against the valley margin. These features would have been especialy attractive to prehistoric people because of their probably rich aquatic flora and fauna in a location immediately adjacent to high ground.

Landscape Evolution and Chronology

Chronological Data and Data Gaps

New information is slowly becoming available for refinements, but it is still necessary to rely heavily upon the attempt made by Saucier in 1974 to synthesize knowledge of Lower Mississippi Valley chronology. Absolute age estimates of features and events must be considered as quite tenuous; however, the relative ages are mostly sound.

In general, age estimates for Macon Ridge and the first three Arkansas River meander belts (Saucier 1974: fig. 3) do not warrant substantial modification at this time. However, Saucier would like to point out that while it is premature to make definitive statements, some evidence is emerging that suggests that the earliest Arkansas River meander belts may date well back into the Late Wisconsinan Stage rather than just the Holocene. In other words, it is possible that the Arkansas River maintained a meandering regime throughout the last glaciation, flowing in an area sheltered behind (west of) Macon Ridge and not subjected to glacial outwash from the Mississippi River. Part of the evidence for this is the nature and composition of fluvial terraces in the Arkansas River valley west of Little Rock (Lawson Smith, personal communication to R.T.S.) that do not substantiate that this river carried glacial outwash in Wisconsinan times.

With regard to the No. 5 meander belt, evidence has come to light since 1974 from southeastern Arkansas that there are Late Archaic sites associated with the Bayou Bartholomew meander belt ridge (Marvin Jeter, personal communication to R.T.S.). This association, while not definitive as to whether the sites were occupied during or after the period of active discharge, nevertheless suggests that the 1974 age estimate of 3000 to 5100 years before present might have to be revised backward in time.

In addition, several years of site survey in the Boeuf basin by the LMS has revealed the presence of Late Archaic (Meso-Indian III) sites associated with both abandoned channels (cutoffs) and relict courses of the Arkansas River in the No. 5 meander belt (Kidder n.d. a). Testing at several of these sites indicates that initial occupational horizons are situated at the top of the natural levees and are not interfingered with natural levee sediments. Hence, the meander belt must have been essentially inactive when first occupied. Consequently, it is necessary to shift the age estimate of the No. 5 meander belt at least 1000 years back in time with abandonment not being any later than 4000 years before present.

There are two sites (Caney Bayou, 16MO69 (21-I-7), and Bottleneck, 16MO71 (21-I-9)) located in the floodplain of Bayou Bartholomew west of Bonita, Louisiana where the No. 6 meander belt flows through a gap between the Bastrop Hills and the uplands to reflect a habitation preference not determined by environmental factors. On the other hand, it could focus attention on the fact that geologically there is no known relationship (e.g., relative position) between the meander belts that establishes the Joes Bayou (No. 4) meander belt as necessarily older than the Bayou Bonne Idee (No. 5) meander belt. Both archaeologically and geologically, a chronological scenario needs to be tested wherein the Bayou Bonne Idee meander belt is No. 4, the Bayou Bartholomew meander belt is No. 5, and Joes Bayou meander belt is No. 6. We know of no present evidence directly in conflict with this possibility.

Key Elements in Landscape Evolution

Based on the relatively soundest interpretation of known relationships and in deference of data gaps, Saucier offers the following landscape evolution scenario for consideration.

About 12,000 years ago, at which time it is presumed that the earliest populations inhabited northeastern Louisiana, the well drained sandy terraces (prairies?) of Macon Ridge, such as the Qtb2 and Qtb3 levels of today, were more extensive and included the Qtb4 and Qtb5 levels. The often-inundated lowland through which the Arkansas River flowed was confined to a five-to-ten-mile-wide belt immediately east of the Bastrop Hills. At that time, the Arkansas River probably was dividing its flow between a channel in the Boeuf Basin (No. 2) and one further east in the Tensas Basin (Map 2). The Boeuf River or its ancestral the north. These two sites have been designated as having Late Archaic (Meso-Indian III) components. Since the No. 6 meander belt unquestionably is younger than the No. 5 one (these relative ages are undeniable), the presence of sites of this period truly associated with the meander belt is questionable and certainly critical to the area chronology. At present, however, there is no conclusive evidence to link these sites with the No. 6 meander belt. The sites may be associated with an outcrop of the upland terrace which was never fully eroded by the Arkansas River or was buried by Arkansas River aluvium. Both the cultural affiliations and geologic contexts of these sites need to be carefully evaluated. If the implied ages are correct, this would necessarily shift the age of the No. 5 meander belt back in time to perhaps 6000 years before present, or earlier. However, other lines of evidence do not support such an old age.

It is perhaps beyond the scope of the Boeuf Basin investigation, but we wish to point out another aspect of Arkansas River meander belt chronology that is interesting and unsettled and that needs resolution someday. The situation in question is the apparent absence of sites older than Poverty Point associated with the Joes Bayou (No. 4) meander belt (Map 2) that trends down the eastern side of Macon Ridge. This could be interpreted as suggesting that the No. 4 meander belt is as much as 1000 years younger than the No. 5 meander belt. The fact that there are no known pre-Poverty Point Late Archaic or older sites along Joes Bayou may be only an artifact of the survey adequacy or it may equivalent, draining the basin of local precipitation, was probably west of the edge of the Qtb5 level (Map 2). Considering the postulated habits and exploitation patterns of the prehistoric populations at that time, it would appear that they roamed freely and extensively acrosss Macon Ridge but probably did not inhabit the lowlands on a permanent basis.

Perhaps about 9000 years ago, the Arkansas River made an upstream diversion and constructed the No. 3 meander belt in the lowland area between Macon Ridge and the uplands (Map 2). It is not known how long it took this river to develop a meander belt. Nevertheless, judging from the relative lack of cutoffs, the No. 3 meander belt was probably occupied for a relatively short period of time. By short, we are talking in terms of 500 to 1000 years although this is largely a guess.

During the time of meander belt formation, the lower parts of the basin experienced pronounced seasonal flooding and would not have been areas favorable for permanent habitation. Higher areas on Macon Ridge, in contrast, would have continued as highly favorable locations. Perhaps their attractiveness even increased with time as the extent of the swamp and/or bottomland hardwood forest increased. North of the latitude of Oak Grove (Map 2), the Boeuf River was forced eastward to about its present position by formation of the No. 3 meander belt; however, south of this latitude, it probably flowed on or close to the Qtb5 level (Map 2).

After abandonment of the No. 3 meander belt and before the formation of the No. 5 one during a period lasting about 1000 years (from about 6000 to 7000 years ago), there was no Arkansas River discharge through the Boeuf Basin. However, this is not to say that there were not abundant water and aquatic resources. The Boeuf River still served as a principal outlet for local precipitation and the abandoned course and abandoned channels of the No. 3 meander belt no doubt held water on a permanent basis. In fact, with the absence of seasonal flooding, this time interval (occurring during the Middle Archaic or Meso-Indian II stage) would perhaps have been relatively more suitable for habitation. If this was a time of relatively more arid climate as evidence seems to indicate, only the higher levels of Macon Ridge probably would have responded with diminished or less dependable water supplies of a proportion significant enough to have affected settlement patterns.

Development of the No. 5 meander belt starting about 6000 years ago meant a return of more frequent overbank flooding and expanded swampiness in the western portion of the basin. In the area north and west of Cross Bayou and extending into southeastern Arkansas (Map 2), the extent of flooding for at least several hundred years was probably unusually large. This was brought about by the ponding of seasonal floodwaters north of the No. 3 meander belt until such time as the newly developing course cut an effective gap through it. Once this occurred, better drained conditions returned. When the meander belt became well established south of the gap, the Boeuf River was forced to become tributary to it since higher elevations to the east prevented this stream from diverting farther in this direction.

As discussed earlier, formation of the present (No. 5) meander belt of the Mississippi River in the area between Helena and Vicksburg would have been another major contributor to heavy seasonal flooding in the Boeuf Basin, especially east of the No. 5 Arkansas River meander belt. When this occurred is difficult to say. It definitely post-dates the No. 4 meander belt but could have occurred while the No. 5 meander belt was forming or after it was abandoned. Our present best guess is that it was coincident with the early full-flow conditions in the No. 5 meander belt about 5000 years ago or a little earlier.

Perhaps about 5000 years ago when the No. 5 meander belt was well established in position and in a temporary state of relative equilibrium, the Oak Ridge and Mer Rouge distributary systems formed in the low part of the basin west of the meander belt (Map 3). Based only on their physiography, it is not possible to say which one formed first or if indeed they were both active at the same time. The distribution of archaeological sites presently does not suggest relative ages; therefore, detailed geological studies with radiocarbon dating ultimately may be the only way to establish their precise relationship to each other.

As the distributaries developed, living conditions in the area would have been quite unfavorable. On the other hand, the pulses of seasonal flooding and heavy rates of sedimentation may have created unusual ecological conditions favoring the exploitation of certain particular types of flora and/or fauna. As in the situation of an actively forming meander belt, human seasonal occupation or use would not have been completely precluded. Hence, there is a small possibility of encountering buried cultural resources, but they are certain to be minor in extent (camp sites or hunting/gathering stations) and very widely scattered. There is consequently a high probability of finding permanent village sites along the edges of the higher terraces of Macon Ridge or the edges to the upland to the west. The high probability zone would include any alluvial fans or aprons in the ecotone between the uplands and the basin lowland.

Diversion of the Arkansas River from the Bayou Bonne Idee course to the Bayou Bartholomew course through a gap in the uplands into the Ouachita Valley probably occurred about 4000 years ago or possibly a little earlier. The diversion process probably required several hundred years to complete, and after that time, conditions very similar to the present would have become established. That these conditions were quite favorable for permanent habitation is attested to by the relatively large number of Late Archaic and Poverty Point sites located along the No. 5 meander belt.

After abandonment of the No. 5 meander belt, there was a wide choice of relatively high ground, fertile soils, dependable water resources, and both aquatic and terrestrial resources available in the Boeuf Basin. The only exceptions were the lower backswamp areas and most of the No. 3 meander belt which, by 4000 years ago, was too heavily suroundded and veneered with floodbasin sediments to be a favorable setting for occupation. Thus, during the last several millenia, settlement patterns were largely a matter determined by economic practices and cultural preferences rather than physiographic limitations.

Climate, Flora, Fauna

The location of the sites excavated by the LMS in 1985 is between 32° 30′ and 33° 00′ north latitude. This location affords the Central Boeuf Basin a semi-tropical environment which is characterized by moderate winters and hot, humid summers (Helfert 1978; Reynolds et. al. 1985: 3, tables 2-4; Thompson et. al. 1983). Rainfall is relatively abundant, but is concentrated in the late fall and winter. Late spring and summer is the driest period, but even then moisture is common, however unpredictably it may fall. There are no adequate data available which would allow for a confident climatic reconstruction for the study area. Recent weather patterns which demonstrate a trend toward a cooler, dryer climate are not valid for long-term climatic reconstruction (Helfert 1978: 17-20).

As a generalization, flora in the study area is primarily confined to bottomland hardwood species, levee community hardwoods, and upland pine-oak forests (St. Amant 1959: 62-66, tables 7-9). The vast bulk of the alluvial portion of the Boeuf Basin was covered with bottomland hardwood forests. These regions would have been subject to frequent and recurrent flooding during long portions of the year. Oaks and cypress dominate this community, although other hardwood species abound. Cane was also common, particularly in dense stands along smaller water courses. Along the edge of Macon Ridge the Qtb5 terrace would have also been dominated by similar hardwood species, although it is likely that more park-like vegetation existed further up on the Qtb4 and higher terraces.

Historically the study area was known for two naturally occurring prairies, Prairie Mer Rouge, and Prairie Jefferson (Forshey 1845; Swanson 1978). Both of these prairies were located on soils which were deposited as a result of the crevassing of the No. 5 Arkansas River channel (Map 3). It is possible that one, or both prairies were the result of burning by the Indians (Rowland 1930: 225-226), but whatever their genesis, it is certain that they supported a grassy, open floral community (Swanson 1978). Specific observations about the flora at individual sites will be detailed below.

Faunal communities are poorly known in the central Boeuf Basin. It is possible to identify a number of animals from archaeological contexts: deer, squirrel, rabbit, muskrat, oppossum, racoon, Passenger pigeon, turkey, garfish, drumfish, catfish, and freshwater mussels. Many more species are certainly represented, but not identified. The central and northern Boeuf Basin and northern Tensas Basin support some of the highest densities of game animals in the state today, and there is no reason to suppose that they support more animals today than they did in the past (St. Amant 1959). Evidence from archaeological fauna will be incorporated into the discussions of the individual sites.

CHAPTER THREE

FIELD AND LABORATORY METHODS

Sites which had been surveyed in 1983 were examined for the possiblity of subsurface integrity, and in early 1985 a roster was compiled which indicated which sites we hoped to test. Because we could not be certain that we could test each site, our initial roster contained more sites than we could possibly investigate. Each site was assessed for its cultural and historical importance, potential for integrity, location and accessibility, and significance to our research goals. Twenty-two sites were initially chosen to be tested (Kidder and Williams n.d. a: Appendix B), and in the end eight were actually excavated or tested.

Our testing procedure varied from site to site. We had two primary testing criteria; one was to cover the site as well as possible, and the other was to make an accurate assessment of the subsurface conditions prevailing at each site. In order to accomplish our goals we maintained a flexible process of site testing. Each site to be tested was surveyed by the field director, who had visited each site in 1983 (except Horseshoe Church, 16MO123 (22-J-52), which was first visited in 1985). During the initial visit the site size was reassessed by randomly placed surface collection survey transects. This was done to insure that site configurations had not been too dramatically altered since 1983. During the same visit a temporary datum was established once the site configurations had been confirmed. Datum was always established near a feature recorded by the 1983 survey, although in several cases site configurations had radically changed from 1983. Permanent datum pipes were only affixed at sites which were further tested.

Using a transit we would then establish a shovel test grid. In all cases the grid was aligned with the cardinal directions. Spacing of shovel test units was determined at each site by the field director, and was based on a subjective formula of site size, integrity, and expectations. Initial subsurface testing was accomplished using a shovel test method. Wooden stakes were set at established intervals along the shovel test grid. Elevations relative to an arbitary datum height were established for each stake. Excavations were conducted next to each stake (average distance from each stake was 20 cm, all shovel tests were conducted within 30 cm of the northeast corner of each stake, except when the northeast corner could not be utilized). Excavation diameter averaged 30 cm. A two person team conducted excavation, with one digging, while the other screened the soil through 1/4 inch mesh. All artifacts were saved and bagged with a field catalogue number. The excavator was responsible for noting stratigraphy, soil color and character, and artifacts. All data was recorded in a pocket notebook, and transfered to a permanent field notebook at the end of each day.

The excavator and field director (often the same person) would then assess the site for further exploration. Two criteria were used to determine if further work was necessary. First, the site had to have evidence of intact subsurface deposits, and second those deposits had to have some merit in a culture historical sense. Determination of subsurface integrity was usually simple and staight-forward. First, deposits had to extend below the visible plowzone; second there had to be evidence that the intact deposits were undisturbed (or at least undisturbed by recent intrusions); and finally, the deposits had to contain sufficient artifacts to further justify continued excavation. Determining cultural merit was actually just as easy as finding out if the site was worth digging. Basically, any cultural remains were valid, and with merit, if they were found in an intact deposit.

Three sites were found to have sufficient subsurface deposits, and to be important enough to warrant further research. Each site was then investigated by a more intensive program of test excavation. Research at this stage was oriented toward the accumulation of stratigraphic data which would allow us to build a regional chronological framework. Furthermore, we were interested in examining a hypothesis about the relationship of sites to the Arkansas River relict channels. Throughout the excavation portion of our research we were aware of the primary goal of establishing whether each site was eligible for the National Register of Historic Places.

Further testing was accomplished by excavation of test units of different sizes. The average size of each test unit was 1x2 meters. In some cases several 1x2 meter units were joined to form larger units. All test excavations were conducted in 10 cm levels, unless natural stratigraphy could be isolated. All soil was screened through 1/4 inch hardware cloth, and additionally a 2 gallon sample from each level was waterscreened through a 1/16th inch mesh. A one gallon soil sample was retained for all levels below the plow zone. All artifacts were bagged with a field catalogue number, and shipped to the lab in Oak Ridge. At the lab the artifacts were washed, catalogued, and sorted.

Each excavation was supervised by an experienced crew chief. Each excavator was responsible for maintaining field notes and profiles. All levels were photographed with a black and white camera. Slide film was used as necessary. Many levels, and any unique phenomenon, would also be photographed using a Polaroid camera. Film from this camera was mounted directly into the field notebooks and provided an up-to-date record of finds. The field director also maintained a separate notebook which recorded his impressions and observations. Notes were checked each night by the field director who also maintained an index of excavation units.

After each unit was excavated the supervisor was responsible for drawing profiles and photographing each face of the excavation unit. Artifacts in the walls were noted by level and removed and catalogued separately. In some cases soil samples were removed from the walls after the profiles were drawn. After the supervisor and field director were satisfied that all work had been conducted, the pits were backfilled and resodded.

Once the artifacts left the field, they were taken to the LMS lab in Oak Ridge. All artifacts were given a field designation which became their permanent LMS catalogue number. For the LMS Boeuf Basin project, all artifacts are designated with a catalogue prefix "K". Artifacts excavated in 1985 are designated with a four digit code after the "K" prefix. Each test unit was assigned a "K" number, and four digit code (begining at 1500). Each level in each unit was further assigned an alphabetic code. Thus, Test Unit One at Stevenson, 16RI14 (22-J-2), was given the designation K1500. Level one in Test Unit One was given the code K1500a, level 2, K1500b, and so on until the last level was reached. Surface collections were assigned a "K" number plus a three digit code begining at K800. While the system may sound cumbersome, it is actually very flexible, and keeps the actual amount of numbers on a given artifact to a minimum.

In the lab the artifacts were washed, and labeled using waterproof ink. Organic material or delicate artifacts were not physically labeled, but a catalogue number would be attached to their container. Radiocarbon samples and soil samples were given special designations which were peculiar to the 1985 excavations and need not be detailed here. All artifacts were catalogued, washed, and labeled within 48 hours of being received at the lab. The enitire crew spent a minimum of six hours a week sorting the artifacts. All artifacts recovered in 1985 were washed, labeled, and preliminarily sorted by the end of the field season. All artifacts (except some soil samples) were transported to Peabody Museum, Harvard University, for further study.

Laboratory Methods

With few exceptions (noted above) all of the artifacts and soil samples from the 1985 excavations were transported to Peabody Museum, Harvard University for analysis and curation. Artifacts were placed in temporary storage and all paper records were entered into the LMS file system. All artifacts were stored by site designation, and were cross-indexed by site name, site number, and storage location. All the artifacts collected by the Boeuf Basin project have been accessioned into the Peabody Museum catalogue system under the number 986-11.

Analysis was conducted in several stages by a number of individuals. However, the author has personally sorted all collections at least once, except those from Stevenson which were sorted by Diane Ring (who worked under the author's supervision). All artifacts were sorted once in the field and recorded on artifact sheets; these sheets then became working copies for further sorting. Once in the lab all artifacts were first sorted by their excavation provenience. After this had been accomplished artifacts were resorted by analysis units, and then as a collection of artifacts (i.e., typological analysis).

Sorting was conducted using methods which had been arrived at by years of LMS experience. Ceramics were sorted into types and varieties. Basic reference manuals were utilized to produce the initial type lists (Brown 1978; Phillips 1970; Williams and Brain 1983). LMS collections were also regularly consulted for comparative purposes. The author was also greatly aided by Dr. Jeffrey Brain and Dr. Stephen Williams who both contributed their considerable expertise to the ceramic analysis.

Lithics were sorted into gross classes, and often subdivided by material categories. All lithic artifacts listed in Tables 1-42 were made of locally available chert, unless otherwise noted. Attempts were made to subdivide the lithic artifacts into a reduction sequence typology, however, this was not rewarding as the samples were invariably too small for adequate analysis. Formal tools were sorted into types, and where possible varieties (following Williams and Brain 1983: 221-238).

Faunal and floral artifacts were counted and weighed, but their analysis was limited by the authors lack of experience. Some fauna from Jordan was analyzed by David Hatfield, a Harvard undergraduate, and the results are incorporated in the appropriate section. Where possible flora and fauna was identified by species; however, this was only done on remains which were easily recognized, or for which we had a comparative type specimen.

Other artifact categories (historic, daub, concretions) were sorted into appropriate categories and counted and weighed. Little or no attempt was made to utilize these categories beyond their enumeration. In this report all artifacts are recorded, regardless of their importance or significance. They are presented below in tabular form on a site-by-site basis. These data, it is hoped, will provide future researchers with the raw material necessary to reconstruct our research, as well as the activities of the Indians.

CHAPTER 4

THE 1985 TEST EXCAVATIONS

Introduction

A total of eight sites were tested in 1985. Sites were chosen from a roster derived from previous survey research. Of the eight sites tested, one was on Bayou Bartholomew (16MO2 [2I-2]), one was on an abandoned crevasse feature (16MO1 [22-I-1]), one was on Boeuf River (16RI14 [22-J-2]), one was located on a Qtb4 terrace feature between Boeuf River and Bayou Bonne Idee in an area known locally as the "Little Missouri" (16MO106 [22-J-25]), one was on a Qtb4 terrace remnant (16MO103 [22-J-18]), and three were located on inactive levees of Bayou Bonne Idee (16MO101 [22-J-15]; 16MO110 [22-J-32]; and 16MO123 [22-J-52]). I had reason to suspect that these sites would represent a chronologically broad spectrum ranging from Meso-Indian III (16MO106 [22-J-25]) through the protohistoric period (16MO1 [22-I-1]). I also knew from previous survey that these sites would represent a variety of settlement types, from small, presumably temporary camps through major mound and village occupations. Thus, the sites tested in 1985 met the requirements set forth in the original proposal (Kidder and Williams n.d. a). Sites which were tested but not excavated will be reported first, followed by a discussion of the three sites which were subject to more intensive research.

Denler (16MO106 [22-J-25]), Tables 1-2

The Denler site consists of a moderate to dense scatter of artifacts on the crest and slope of a prominent ridge located between Boeuf River and Bayou Bonne Idee. Denler was first recorded by the LMS in the summer of 1983. At that time it was noted that the site had a very strong late Archaic (Meso-Indian III) component, as well as remains of several Neo-Indian cultures. Denler was chosen for testing because I hoped that we could obtain stratigraphic data for the Late Archaic period, which is almost unrepresented in Louisiana archaeology. Furthermore, I believed that testing at Denler would allow us to begin to address the questions of sedentism, and the development of cultural complexity which is later manifested as the Poverty Point culture. Testing was conducted over a single day, and resulted in the excavation of 33 shovel tests. Results of the shovel tests indicated that the subsurface deposits at Denler had no apparent integrity, and that further testing in search of stratigraphic data would be futile.

The Site and its Setting

(by Roger T. Saucier)

The Denler site is located about ten miles northeast of Oak Ridge, Louisiana on the Qtb4 surface of Macon Ridge. It is in the midst of what until recently was a broad expanse of bottomland hardwood forest situated between the Bayou Bonne Idee meander belt on the west and Boeuf River on the east. Having yielded an artifact assemblage indicating initial occupation in the Archaic period, this site attracted my attention as a possible means of assessing the nature of backwater sedimentation resulting from the No. 5 Arkansas River meander belt on the low braided stream terrace. Ideally, the relationship between site occupation and sedimentation could help establish the age of the meander belt.

On July 31, 1985, I visited the site with Lawson Smith and Tristram Kidder. At that time, I was informed that no intact cultural accumulation remains at the site and that several feet of the knoll that the site is located on has been graded down. Despite this, the knoll is still a very prominent topographic feature in the area. Its crest elevation is estimated to be about ten feet higher than any other point within several miles and is about 15 feet higher than an adjacent broad, arcuate swale that swings around its western side. Considering the height of the knoll and its relationship to the surrounding landscape, it would be incredible for the knoll not to have been a favored habitation site, especially in Archaic times.

Several similar knolls, of comparable relief but more in the form of irregular ridges, were observed several miles further north in the same geologic context. While not closely examined, it appears that these knolls are composed of well oxidized fine sandy silt or sandy loam as is the knoll at the Denler site. The nature of the soils, the relief, their location relative to relict braided channels, and the history of the area suggest that the knolls are either outliers (erosion remnants) of a higher level of Macon Ridge, or dunes formed on the lee (eastern or southern) sides of large favorably oriented point bars where there was an abundant source of sand. If they are dunes, the most probable time of formation would have been during the peak of the Late Wisconsinan glaciation about 15,000 to 20,000 years ago.

Because of the height of the knoll when occupied, it is not possible that it would have been subjected to backwater sedimentation from the No. 5 Arkansas River meander belt. Consequently, even had it not been graded down, it would not have provided an opportunity to test the relationship between site occupation and sedimentation.

Culture History

Prior to the clearing and development of modern agriculture, the Denler site would have been an island in the midst of the backswamps of Boeuf River and Bayou Bonne Idee. Throughout the Holocene period the Denler site would have been an attractive settlement location. However, it is obvious from the cultural remains that intensive site occupation did not commence until the Meso-Indian III stage, roughly 6000 to 4000 years B.P. (Brain 1971: fig.3; Kidder n.d. a). Following the Late Archaic occupation at Denler there were a series of Neo-Indian cultures which visited the site. The earliest Neo-Indian occupation apparently dated to the Tchefuncte culture of the Tchula period. Evidence for this component is meager, consisting of a single, but definitive sherd of Lake Borgne Incised, var. Unspecified, and several sherds of Tchefuncte Plain. Following a lengthy hiatus the site was briefly reoccupied by late Coles Creek cultures. The evidence for this occupation is also rare, and probably indicates that the site was a temporary camp or special activity station. Later still, the site witnessed a very brief occupation by protohistoric Indians who seem to have been related to the Jordan phase peoples around Oak Ridge. Table 1 lists the surface collected artifacts recovered from Denler in 1983 and 1985.

With the exception of the Meso-Indian III occupation, there is little evidence to support a hypothesis concerning the use of Denler as a permanent village site. The material evidence strongly suggests that the Neo-Indian occupations were brief in duration, and most likely seasonal in nature. The Meso-Indian III component, however, is strongly represented, and may indicate the location of a Late Archaic village, or heavily exploited camp. The Meso-Indian III component is marked by the presence of a series of diagnostic Late Archaic projectile points, and also several diagnostic ground stone tools (Plate 1). Diagnostic points include Ellis, Evans, Gary, Kent, Marcos, and Sinner points. Furthermore, there are three untyped points which are undoubtedly Late Archaic (one is similar to the Burkett type (Morse and Morse 1983: 116, fig. 6.2), and another like a Big Creek point (ibid.)) (Plate 1 b). There is also an assortment of non-diagnostic chipped stone tools and point fragments in the Denler collection, but none of these can be confidently assigned to any specific culture period (table 1).

There are several medium sized ground stone axes in the Denler collection, as well as a polished triangular atlatl weight (Plate 1, f-g). These tools are highly diagnostic of a Meso-Indian

III stage occupation elsewhere in the Mississippi Valley (Morse and Morse 1983: figs. 6.3, 6.4; McElrath and Fortier 1983: fig. 55), and are considered to be diagnostic at Denler. Markers of the Poverty Point culture are absent at the Denler site, further strengthening the Meso-Indian III assessment. The points are often on non-local chert, and one point fragment is made of novaculite. The percentage of novaculite is very low in Meso-Indian III occupations elsewhere in the Boeuf Basin (Fuller 1985; Kidder n.d. a), and the Denler assemblage is in keeping with my ideas about the spatial distribution of novaculite in the central Boeuf Basin, which is found most frequently during the Poverty Point period.

The appearance of the Meso-Indian III material assemblage is partly indicative of a semi-permanent occupation. There is an emphasis on hunting tools, but there are also chipped stone tools which indicate a range of behaviors, including lithic rejuvenation, drilling, cutting, and scraping. The presence of groundstone axes are possible markers of wood working or clearing, and there are several biconcave and concave grinding stones which suggest vegetable food processing (Table 1) (Plate 1 e). The location of the Denler site would have afforded its inhabitants with a dry location from which to exploit the abundant (and seasonal?) resources of the Boeuf River backswamp. It is not impossible to suggest a scenario in which more permanent Meso-Indian III occupations would be located on the higher terraces of Macon Ridge east of Boeuf River while semi-permanent or seasonal camps were situated to exploit the riverine environment to the west. The presence of the No. 5 Arkansas River channel to the west would have been a factor in dictating a settlement pattern which exploited riverine and backswamp resources from the more stable braided stream terrace surface of Macon Ridge.

<u>Subsurface Testing</u>

While the above scenario was plausible, it could only be substantiated through excavation and testing. Denler was an obvious choice to initiate a program of research oriented towards an explication of Late Archaic lifeways. The site was therefore placed high on our list of sites to be tested.

Prior to testing we negotiated with the farm manager, Mr. Reilly Slack for permission to excavate. Mr. Slack kindly allowed us to conduct research, but limited our testing to the non-cultivated portions of the site. In 1985 over two thirds of the site was cultivated, with only a portion of the site being covered with grass as a farm shop area. The grassy farm shop area occupied the north face of the knoll from the crest downslope to the actual farm shop. The cultivated area included portions of the ridge crest, as well as the south face of the ridge, and the flanks of the ridge to the east and west. Thus, our ability to test was limited to a small portion of the site.

The surface collections of 1983 had been obtained primarily from the cultivated area outlined above. Artifacts were noted all over the knoll, but seemed to concentrate along the upper slope, rather than the crest or bottom. No artifact clusters had been noted in 1983, and none were observed in 1985. While talking to farm crew members it was discovered that a portion of the crest of the knoll had been removed in the 1970s to use as fill in a low area. The knoll was reduced in height by approximately half a meter, although this is not a precise estimate. Unfortunately this data was not received until after testing had begun.

The LMS conducted a total of 33 shovel tests at Denler (Plate 2). In order to get the most of our time we established a shovel test grid with three lines. One line (designated A-A') was run from temporary datum east to west across the grassy portion of the ridge crest. Shovel tests were spaced every five meters, and this line consisted of 19 shovel tests. Two lines (B-B', and C-C') were extended to the north and perpendicular to the first line of shovel tests. Spacing was at five meter intervals and a total of seven shovel tests were performed along each line (B-B' and C-C' intersected A-A' and thus the profile for the north-south lines are actually derived from eight shovel test stations).

The stratigraphy at Denler was essentially simple. There were four stratigraphic units compressed in a fairly shallow deposit. The basal level was sterile, and was found between 15 to 50 cm from the surface. Sterile soil was always encountered nearest the surface at the north end of the site (i.e. downslope) , while it was found farthest from the surface at the top of the knoll. The basal deposits at Denler were uniformly comprised of an oxidized orange to orange-brown silty clay which clearly underlies the bulk of the site.

Above the sterile subsoil was a shallow layer of medium grey-brown to brown silty loam. This level occasionally contained artifacts, but rarely evidence of true intact midden. At the eastern end of line A-A′ there was a notable increase in artifacts in this deposit, and there was no question that midden was represented. However, it was clear that this midden deposit was very mixed and badly disturbed, and in no cases was it deeper than 50 cm. Artifacts from the midden deposits included recent material mixed with aboriginal artifacts. The mixing and shallow depth of the midden ruled out further testing.

Above the midden level was the plowzone and surface, with no apparent integrity. Artifacts were concentrated in the upper two strata, however, they were most dense at the eastern end of line A-A′. It was clear from our tests that the downslope portions of the site are probably destroyed or badly mixed. As one progresses upslope the subsurface deposits are deeper, but do not have any appreciable integrity. The densest midden was located along the eastern crest of the ridge, and may extend downslope somewhat. The western portion of the ridge crest and slope had almost no subsurface integrity, at least where the LMS tested.

In retrospect, it was not surprising that so little was found beneath the surface at Denler. Recent and modern land alterations combined with heavy machinery have played havoc with the subsurface deposits. Moreover, the age of the landform, and its location have subjected the site to a long term process of erosion and deflation. Erosion and natural transformation processes probably account for the location of artifacts all along the slopes of the ridge. However, it is curious that we did not detect significant evidence of slope wash or erosion deposits along the north flank of the ridge. It is highly possible that we did not follow our test line far enough to the north to detect appreciable quantities of redeposited slope wash. The pattern noted at Denler was unfortunately played out at a number of excavated sites in the northern Boeuf Basin. Erosion and deflation have been active ever since the Arkansas channel abandoned northeast Louisiana, and most landsurfaces have not been alluviated.

Artifacts

The bulk of the excavated artifacts at Denler consisted of very small fragments of pottery, fired clay, and an occasional flake. Artifact proveniences are listed in Table 2. Only a single diagnostic artifact was found, a small, serrated-edge Alba-like point (Plate 3 a). No pottery was decorated, and only two rim fragments were identified. All but one of the sherds recovered in 1985 were grit-grog tempered. The lithic material was sparse, and consisted of unmodified flakes. Some of the chipped stone was non-local, but the sample is too small for comparison. The single diagnostic point probably indicates a Coles Creek period occupation, however, there was no supporting ceramic data in the shovel tests. A single fish vertebra was recovered, and several of the shovel tests yielded unidentified freshwater shell fragments.

Conclusions

Although Denler is an important site in the central Boeuf Basin it does not have any appreciable subsurface deposits which would enhance its significance. Testing in 1985 failed to resolve any questions about the Meso-Indian III occupation at the site, nor did it contribute to a stratigraphic understanding of local culture history. The LMS only tested a portion of the site, so it is possible that intact deposits exist elsewhere on the site. Also, it is important to bear in mind the possibility that horizontal stratigraphy exists at Denler. Perhaps if a sufficient area could be exposed it would be possible to recover additional data, particularly about the Meso-Indian III occupation. However, as it now stands, it would be hard to justify the expense of such labor against the probability of finding intact horizontal stratigraphy.

The Lower Mississippi Survey does not consider the Denler site as a suitable candidate for inclusion in the National Register of Historic Places. However, it is recommended that the site be periodically monitored to determine if any features are exposed, or if additional area becomes available for testing. The Denler site is certainly significant, even if intact subsurface deposits are lacking.

Moss (16MO101 [22-J-15]), Table 3

The Moss site is located on the levee of Bayou Bonne Idee in Morehouse Parish (Map 1). The site was first brought to our attention by a local collector who showed the site to Stephen Williams and John Belmont in 1981. The site itself did not yield a large surface collection, but there was a private collection which showed the site to have a significant Poverty Point occupation. The LMS decided to test the Moss site because it was believed to represent a "classic" Poverty Point occupation. Furthermore, testing at the Moss site was designed to allow us to gather data relative to human occupation of the Arkansas River No. 5 channel. Testing at Moss consumed one and one half days, and resulted in 16 widely spaced shovel tests and a small surface collection. Testing at Moss revealed that the site was not sufficiently intact enough to warrant further research.

The Site and its Setting

The Moss site occupies the crest and flanks of the levee of Bayou Bonne Idee. The site is located on the northern side of a small stream which drained the point bar area of an abandoned meander of Bayou Bonne Idee. To the north and west the site is borderd by Bayou Bonne Idee, while on the east and south the site is bounded by the small stream, and a small lake caused by impounding the stream. The levee on which the site is located extends along Bayou Bonne Idee for its entire length, and thus would form a communication route with the surrounding region. Therefore, despite being in a circumscribed location, the site occupants would have always been in contact with neighboring groups. The levee at the Moss site is well elevated and quite dry, being a relict of the No. 5 channel of the Arkansas River.

At the time the site was tested the known site area was not freshly cultivated, although the field had been turned within three months of our visit. To the northeast of the known site area the levee was covered in grass and used as pasture. This portion of the levee was also tested by the LMS under the presumption that the site boundaries would have extended parallel with the levee, and along its crest. Southeast of the known site area was also uncultivated, but turned. As no surface material was found here, and as informants reported that they too had never found surface material, we declined to test south of the small pond.

Culture History

When the LMS first visited the Moss site in 1981 we were able to collect only a small amount of aboriginal material. The LMS collection consisted of several flakes, and a couple of sherds. The flakes were non-diagnostic, except that one was made of novaculite. The sherds were on a Tchefuncte paste, but were undecorated. In 1983 no collection was made because the site had not been cultivated that year. In 1985 the LMS again made a small surface collection, but it too, was quite small, and non-diagnostic. Surface collected artifacts from 1981 and 1985 are listed in Table 3. Thus, despite several attempts by the LMS to gather a large collection from Moss, none was to be had. However, not all was lost because of this. The landowner, Mr. Robert Barham had a large collection which he gladly let the LMS examine and photograph (Plate 3 b-j). The Barham collection forms the basis for our chronological and cultural assessment of the Moss site.

The Barham collection consists of a variety of lithic tools, and a single red jasper owl (Plate 3 b). The owl, a virtually exact duplicate of ones found at the Poverty Point site, caught our attention and made the cultural assessment relatively easy. Besides the owl, there are at least three Gary points, two made of novaculite (Plate 3 h-j), a Carrollton point (Plate 3 c),a Delhi point, two Macon points (Plate 3 f-g), and four untyped dart points (Plate 3 d-e). No Poverty Point objects or other ceramics are found in the Barham collection. My interpretation of the Moss site was that it represented a pure "classic" Poverty Point site, with only minor representation by later cultures. Based on data provided by the LMS, Webb included the Moss site among the Poverty Point sites in the Bayou Bonne Idee site cluster (Webb 1982: 6).

That the Moss site has a Poverty Point component seems clear, however, the descrepancy between the Barham collection, and that of the LMS is difficult to reconcile. The LMS visited the site with Mr. Barham, so we are certain that we have not mislocated the Moss site. Several possibilities exist to explain why the LMS collections are so meagre. First, it is important to remember that each time the LMS visited the site the collecting conditions were never favorable, and often very poor. In 1985, for example, we had to search on our hands and knees just to find some flakes. Lack of cultivation and dry conditions made surface collecting almost impossible. Another possible reason is that the Moss site found by Mr. Barham may actually have been a very minor site, possibly a single burial, or very temporary camp. Finally, the site location on the levee of the No. 5 channel of the Arkansas River would have meant that the site was subjected to erosional forces since its occupation. The levees of the No. 5 meander belt are exceptionally high, and have probably never been alluviated since the Arkansas River ceased to flow in the Bonne Idee meander belt. Although the testing at Moss was limited, we only recovered a single artifact in the shovel tests conducted in 1985. This despite the fact that the shovel tests bisected the area collected by Mr. Barham, and also extended along the levee of Bayou Bonne Idee. Thus, it is apparent that the Moss site today is not yielding appreciable amounts of cultural material.

Subsurface testing

The LMS excavated a total of 16 shovel tests at the Moss site. The number of tests was the lowest conducted by the LMS in 1985. As noted above, part of the site was uncultivated but turned, and the rest was in pasture. The cultivated area was circumscribed, but the pasture extended for the length of the levee. Tests were conducted in both the pasture and uncultivated area, although the bulk of the tests were in the pasture. Because the levee of Bayou Bonne Idee runs northeast to southwest, the LMS test grid consisted of relatively short transects aligned with the cardinal directions. Shovel test spacing was 20 meters. Tests were wide spaced in order to cover a large portion of the levee and uncultivated area.

The stratification of the Moss site shovel tests was very simple. Subsoil consisted of a orange-red clayey silt loam which consistently got redder with depth. This soil undoubtedly represents the original levee of the Arkansas River. Above the subsoil was a level of hard packed tan-beige silt with occasional brown mottles. The tan-beige silt level was located within 18 cm of the surface along the levee crest, and was found at deeper levels along the lower flanks. The top layer consisted of a light tan (almost white in some cases) fine silt loam often run through with roots. The upper level was consistently between five and ten cm thick. In order to be certain that we had not missed any deeply buried deposits seven of the 16 shovel tests were cored to a minimum level of 75 cm. The soil core profiles duplicated the subsoil shovel test profiles, suggesting no buried deposits exist, at least where the LMS tested. At the base of one shovel test, between 69 and 75 cm there was a lens of light tan silt with red mottling. This level contained a few flecks of charcoal, but was otherwise sterile and not duplicated in any other shovel test.

Artifacts

Only one artifact was recovered in the shovel tests conducted by the LMS. The single artifact consisted of a large primary flake of local tan-brown stream cobble chert. The surface collections from the 1985 survey are meager at best (Table 3). the most diagnostic artifacts are the ten flakes of novaculite, one with unifacial retouch along one margin. Similar flake artifacts are known from the Niemeyer-Dare site in the northern part of the survey area (Kidder 1986 b, n.d. a; Webb 1982: 6). A single biface fragment made on a pinkish-red, fine grained chert was also present. This could have come from any number of point types, and is thus not culturally or chronologically diagnostic. Other artifacts included a flake on non-local chert, and several pieces of shatter, also on non-local chert. A chunk of sandstone, two pieces of fire-cracked rock and a quartzite fragment round out the surface collection.

On the whole the 1985 artifact collection is unspectacular, to say the least. However, from the data at hand it is possible to substantiate a Poverty Point component. The presence of novaculite, particularly in conjunction with other, non-local lithic sources argues for a Poverty Point component, even in the absence of other diagnostics. This, combined with the Barham collection data, indicates that the site was the locus of a "classic" Poverty Point component. Unfortunately, the LMS was unable to locate this component stratigraphically .

Conclusions

The LMS test excavations at the Moss site failed to reveal any substantial detail relating to the site occupation. The shovel tests indicated that the tested portion of the site is devoid of any intact subsurface deposits. However, limited surface collections allow us to suggest the presence of a Poverty Point component at the site. Surface collected sherds also indicate the possibility of a Tchefuncte component nearby. Although the Moss site was thought to be potentially important in terms of culture history, the LMS investigations failed to do justice to its presumed significance.

Results from the LMS investigations at the Moss site are not considered to be significant enough to warrant nomination to the National Register of Historic Places. The LMS believes that the site potential is limited, but would suggest periodic monitoring to insure that no deposits are uncovered outside of the area tested in 1985.

Horseshoe Church (16MO123 [22-J-52]), Table 4

The Horseshoe Church site was first brought to the attention of the LMS in the winter of 1985 when informants told the author of a site uncovered during the construction of Horseshoe Church. The site is located on the crest and slopes of a levee of Bayou Bonne Idee at the point where Horseshoe Brake is terminated by the more recent levee of the No. 5 Arkansas River channel (Map 1). The site area is covered in grass or pasture, and thus no surface collections have been recovered. In 1985 the LMS interviewed the owner, Mr. William Dawson, who told us that the site had yielded pottery and stone tools. Mr. Dawson further told us that he had witnessed artifacts eroding out of a road-grader cut at the west end of the site. Because the site seemed to have stratigraphic potential, and it was thought to have a lengthy culture history, a decision was made to explore the site through shovel tests. Testing by the LMS yielded equivocal results. Stratigraphically intact deposits were located but were of limited extent, and no truly diagnostic material was located. Shovel test data suggest that further research at the Horseshoe Church site would be warranted.

The Site and its Setting

The Horseshoe Church site is located on the crest and eastern slope of the levee of the No. 5 Arkansas River channel now occupied by Bayou Bonne Idee. The site is situated at the confluence of the southwestern arm of Horseshoe Lake, and the levee of Bayou Bonne Idee. The site is on the levee created by the relict brake and the more recent levee of the channel occupied by the Bonne Idee. Data from the shovel tests strongly suggests that the Arkansas River was no longer active in the Bonne Idee meander belt at the time the site was initially occupied. Such data, then, would suggest that the Arkansas had ceased to be active in this area by roughly 4000-2000 B.C. Assuming that Horseshoe Brake was an inactive oxbow at the time the site was occupied, the Horseshoe Church site would have been strategically located to exploit both the brake and the active stream, as well as the backswamp to the east. The high levees of Bayou Bonne Idee would have provided access to all major drainage systems, as well as a communications link to sources of non-local commodities.

The Horseshoe Church site is divisible into two separate areas, the pasture and the church property. The church is surrounded on three sides by the pasture, and has a gravel driveway on the southwest side. The church is built on the crest of the levee, and evidence suggests that part of the levee was leveled to accommodate the church and an outbuilding. Just west of the church is a fence, and the pasture lies west of the fence, between the church and Bayou Bonne Idee. North and east of the church is also pasture, although the land to the north is lower than the levee. Further east, beyond the church, the land drops off into the backswamp drained by tributaries of Turkey Bayou.

Culture History

Little is known about the culture history of the Horseshoe Church site, for a variety of reasons. Unfortunately, the site is inaccessible for surface collecting. A large part of the site is occupied by the church and its outbuildings, while the rest is covered with grass or is in pasture. The LMS visited the site twice prior to testing, and failed to find a single aboriginal artifact. Several informants told of finding pottery and "arrowheads" when the church was constructed, yet no collections were available for study. We were also told that large dart points had also been found just west of the church. Using data gathered from informants we hypothesized two occupations, one dating to the Late Archaic or Poverty Point period, and one dating to the later Neo-Indian era, possibly the Coles Creek period.

Subsurface Testing

The LMS conducted 29 shovel tests over a two day period during the summer of 1985. Datum was established just west of the church near the fence line, and all test were oriented to the cardinal directions. The LMS conducted testing only in the pasture area, no work was done on the church property. Two primary shovel test lines were laid out, with two supplementary lines spaced to cover select areas. The major line (A-A′) was run north to south, and was placed just west of the fence line, between the church and Bayou Bonne Idee. The A-A′ line was placed to transect the levee crest perpendicular to its axis. A very short line (designated B-B′) was placed perpendicular to A-A′, and ran parallel with the levee crest. Two other lines were extended east of the church, and were designed to test the levee crest away from Bayou Bonne Idee. The C-C′ and D-D′ lines were excavated on the levee of Horseshoe Brake, and D-D′ was extended into the backswamp deposits east of the church.

Results of the tests indicated that the occupation was concentrated on the levee crest and slope west of the church (Table 4). The levee of Horseshoe Brake was essentially sterile, although some historic debris was recovered. Furthermore, when coupled with informant data, it is clear that the bulk of the occupation was probably located in the area of the church and its outbuildings, and is now unavailable for testing. Intact subsurface deposits were located in lines A-A′, and B-B′, however, the deepest deposits were confined to the levee crest. In order to be certain that we were not missing any deeply buried deposits, deep core tests were excavated in three shovel tests at the crest of the levee. Deep tests did not reveal any buried deposits, but rather suggested episodes of Arkansas River alluviation prior to human occupation of the site.

Subsurface stratigraphy was relatively simple, generally consisting of four levels. Subsoil consisted of red-brown clayey silt loam, clearly deposited by the Arkansas River. At the crest of the levee, subsoil was located between 50-54 cm below surface. Downslope (to the north) subsoil was found at shallower levels, usually between 30-50 cm. Subsoil was always sterile. Above the subsoil was a level of medium-brown clayey silt loam with occasional white to tan mottles. This level was extremely hard-packed and was generally sterile. On the levee crest this level was found between 27-45 cm below surface, and was found at similar depths downslope. Above this was a level of culturally modified soil often described as "midden" in the field notes. The midden level consisted of a dark to medium brown compact silt loam. The midden was relatively rich in artifacts, particularly along the levee crest west of the church. East of the church the midden was absent, instead an orange-tan clayey silt was found. The upper part of all the shovel tests consisted of a humus zone with recent disturbance. Midden was usually found between 5-10 cm below surface, and had an average depth of 25-30 cm. In a number of cases the midden was noted to grade from medium brown to dark brown as depth increased. Midden was always hard-packed, and tended to break up in angular chunks or blocks. We are uncertain if the hardness of the midden is due to aboriginal or modern conditions.

<u>Artifacts</u>

The artifacts from the Horseshoe Church site are limited in diagnosticity. The main artifact type recovered consists of fired clay. Small quantities of pottery and lithics were also recovered. Bone and historic debris were also found, but were rare. Table 4 lists the artifacts recovered in shovel tests at Horseshoe Church. Artifacts were found to be most abundant at the crest of the levee in shovel test lines A-A′, and B-B′. Most, if not all of the artifacts came from the midden zone, discussed above. Because there are no diagnostic artifacts a culture historical assessment is difficult; however, there are some chronologically suggestive artifacts which can be used to propose a tentative culture historical sequence.

Surprisingly, the most diagnostic artifact type consists of the abundant fired clay fragments found on the crest of the levee. The fired clay was found in large quantities in all of the tests on the levee crests, and declined in frequency as one moved downslope. Almost no fired clay was found to the east of the church. The fired clay was not found in a stratigraphically distinct deposit, but was scattered throughout the midden. The fired clay is relatively soft, often slightly friable, and is usually a soft yellow-orange, or tan color. No fired clay was found to be deliberately shaped, but the overall apperance is that the fired clay represents Poverty Point object fragments. The fired clay fragments are usually small, and only a few approach the 3-6 cm diameter range. Despite the absence of notable features of grooving or shaping, it is felt that these fired clay fragments most likely represent Poverty Point objects in an advanced state of decomposition.

The identification of the fired clay as Poverty Point object fragments is strengthened by the presence of a single flake of novaculite and other "non-local" chert types. Flakes and lithic debitage form the second largest artifact category at the Horseshoe Church site, but none can be considered exclusively diagnostic. In the Boeuf Basin, however, the presence of "exotic" cherts and novaculite is taken as an indication of a Poverty Point period occupation. Such an assessment is strengthened by the frequency of local to non-local cherts, which at Horseshoe Church runs at a ratio of 1:3. Assemblages with ratios of local to exotic cherts greater than 1:1 are usually considered to have a Poverty Point component. Only two of the flakes were utilized, and none showed obvious retouch. No complete flake cores were found in 1985, however, several core fragments were recovered. Several chunks of brown sandstone and a quartzite pebble round out the lithics at Horseshoe Church.

A small handful of pottery was recovered from the midden west of the church. In no case are the ceramics diagnostic, other than to point to a Neo-Indian occupation. A single shell tempered sherd was recovered from the levee crest. All the ceramics, save one, are grit-grog tempered. No diagnostic rims or vessel forms were noted. Although sherd size is small, based on texture and paste it is possible to suggest a Coles Creek period occupation, although it would be by no means secure.

Several unidentifiable bone fragments were recovered from the midden on the levee crest. Historic artifacts were also found, particularly in shovel tests along line D-D'. Wire, nails, and brick were the usual historic artifacts. As noted above, midden was restricted to the west part of the site. The eastern portion, tested by lines C-C', and D-D', was virtually devoid of aboriginal material, suggesting either that the area was not a locus of occupation, or that erosion has impacted the topography.

Conclusions

Results from the LMS shovel tests at the Horseshoe Church site suggest that there are two components, one dating to the Poverty Point period, and one to an unknown point in the Neo-Indian era, probably the Coles Creek period. Data from shovel tests suggest that intact midden is limited to the upper part of the levee crest, west of Horseshoe Church. The intact midden is not apparently stratified, and thus its integrity cannot be assessed at this point. The lack of diagnostic artifacts makes it difficult to be positive as to cultural assessment, but the presence of exotic cherts and Poverty Point object fragments is good evidence for a Poverty Point occupation.

The presence of ceramics at Horseshoe Church is not surprising, however, the absence of even a single decorated sherd is unusual. The ceramic sample from the shovel tests is very sparse, however, it does suggest a later Neo-Indian occupation. A single, tiny shell tempered sherd is an indication of a late period occupation, but it is hardly data enough to indicate a specific component.

As a result of the LMS tests in 1985 it is recommended that further research be conducted to determine the following data: 1) is the LMS chronology correct, at least in outline; 2) is the midden of sufficient horizontal extent to warrant excavation; and 3) is the midden of sufficient integrity to make stratigraphic separation possible. If the latter two questions can be answered, then the site should receive further testing and excavation. The LMS recommends that the site not be nominated to the National Register until such work is conducted. Intact Poverty Point period sites are almost non-existent in the central Boeuf River Basin, and thus work at Horseshoe Church could be of great significance to Louisiana archaeology.

Bapp Arnold (16MO110 [22-J-32]), Tables 5-6

The Bapp Arnold site is located on the levee of the east bank of Bayou Bonne Idee in Morehouse Parish (Map 1). The Bapp Arnold site was first brought to the attention of the LMS in the summer of 1981. At that time the site was noted to have an extensive Meso-Indian III, or Poverty Point component, and also a strong late prehistoric or protohistoric occupation. The site was surveyed in 1983 and a small collection was recovered. In 1983 the majority of the site was uncultivated, and thus the LMS collection was quite small. The site was tested because we hoped to get intact stratigraphic deposits which would yield information about both Poverty Point and protohistoric cultures. The LMS conducted 51 shovel tests over a three day period in the summer of 1985. Data gathered by the LMS suggests that little, or no intact subsurface deposits exist at the site, and thus it is not eligible for inclusion in the National Register of Historic Places.

The Site and its Setting

Bapp Arnold is located on the levee of the No. 5 Arkansas River channel which is now occupied by Bayou Bonne Idee. The site consists of a sparse scatter of lithics and ceramics strewn along the levee, and occasionally on the levee backslope. Artifacts seemed to be concentrated on low knolls situated on the levee crest. Survey conducted in 1985 in anticipation of shovel testing indicated that the artifact scatter was relatively uniformly distributed, but there were more artifacts along the levee than the levee backslope.

The location of the site is such that it is on a cutbank of Bayou Bonne Idee, and thus erosion may have modified the site. To the east of the site the elevation decreases into the backswamp of Turkey Bayou. The levee of Bayou Bonne Idee is continuous for the length of the stream, and thus would have provided a corridor for movement within the central Boeuf River Basin. Although Bapp Arnold is not situated in a strategic location, it would have been possible to exploit bayou, levee, and backswamp communities from the site. Furthermore, the height and drainage of the levee would have provided a relatively dry, virtually flood free environment in which to live.

Culture History

As was noted above, the Bapp Arnold site was slated for testing because previous data had suggested two important components, one dating to the Late Archaic or Poverty Point period, and the other to the late prehistoric or protohistoric periods. Data for chronological assessment comes from two sources, private collections, and the LMS 1983 survey. Table 5 lists the surface collected artifacts gathered by the LMS in 1983 and 1985. The data from private collections are to a large degree more representative than are the LMS collections. Poor collecting conditions precluded accurate survey in 1983 and 1985, mostly due to excessive ground cover and drought.

The S.L. Parks collection from Bapp Arnold indicates at least three components. There are a number of large points and bifaces from the site which indicate a Late Archaic or Poverty Point component. No typed points are available for study, but on typological grounds they would fit into a Poverty Point period time frame. However, there are no tools or points made on diagnostic novaculite, nor is novaculite debris common. There are several sherds in the Parks collection which are clearly of Coles Creek period affiliation. None of the sherds is typable, but they have a late Coles Creek, or early Plaquemine look, possibly on a time line with the Gran Marais phase (Rolingson and Schambach 1981).

Finally, the Parks collection has two shell tempered vessels, and a shell tempered platform pipe (Plate 4), all of which indicate a very late prehistoric, or probably protohistoric age. The platform pipe is common on Bayou Bartholomew to the west, particularly at the Sycamore Landing (16MO30 [22-H-4]), Keno (16MO31 [22-H-5]), Seven Pines Landing (16MO10 [21-I-4]), and Bray (16MO11 [21-I-3]) sites (Moore 1909: 117-119, 127-128, 158, 164-165). These pipes are clearly a diagnostic of some of the latest aboriginal manifestations in northeast Louisiana. The two shell tempered vessels are unique to the area, but on shape and vessel design they can be placed in the Jordan I or II phases, which would indicate a protohistoric or early historic date. According to Mr. S.L. Parks, the vessels and pipe were recovered from one, or possibly two burials located near the levee crest at the Bapp Arnold site. The LMS surface collections yielded only a few sherds of shell tempered pottery, making it likely that the vessels, and the burials they were found with, represent intrusive deposits in an otherwise earlier site. As will be shown below, such an interpretation is consistent with the LMS shovel test data.

Subsurface Testing

The LMS excavated 51 shovel tests in 1985. Shovel tests were conducted along six lines, with 10 meter spacing between all tests. Datum was established near the edge of the levee near Bayou Bonne Idee, and all tests were aligned with the cardinal directions. Testing was conducted over a three day period in early July. In all cases the subsurface stratigraphy was simple, consisting of four levels. No intact midden deposits were revealed during shovel testing, and it is unlikely that any exist, even where the LMS failed to test.

The LMS shovel test lines consisted of four north to south transects (A-A', C-C', E-E', and F-F'), and two east to west transects (B-B', and D-D'). The north to south transects generally paralleled the levee of Bayou Bonne Idee, while the east to west transects were placed to cross low knolls located off the crest of the levee. Shovel test line F-F' was placed well away from the levee of Bayou Bonne Idee, on a low knoll separated from the rest of the site by a deep gully. Surface collections in 1983 suggested this area was an occupation locus. Unfortunately, we found no cultural evidence in the six shovel tests here.

The subsoil at Bapp Arnold is similar to all sites which occupy Arkansas River levee soils. Subsoil consisted of a red-brown clayey silt loam which was always sterile. Above subsoil was a a level of light beige silty loam which was also sterile. The light beige silty loam ranged from 20-50 cm below ground surface, and had an average thickness of 10-15 cm. In some shovel tests this level had the appearance of being water sorted, but this could not be confirmed. Above this was a level of medium brown to light brown-tan silt loam which contained some artifacts but could not be classified as midden. This level was usually located between 10-15 cm below ground surface, and had an average thickness of 10-15 cm. In most cases it was evident that this level was part of the plow zone, separated from the upper level by an accumulated hardpan which post-planting cultivation did not penetrate. The top level consisted of a loose medium brown to tan silt loam. The bulk of artifacts were found in the top soil, but artifacts were located in the next level down as well.

Artifacts

Table 6 lists the artifacts recovered from shovel tests in 1985. Ceramics make up the bulk of the recovered artifacts at Bapp Arnold. On the whole the sherds are very small, and usually undiagnostic. Only four rims and a small number of decorated sherds were found. The majority of the pottery is grit-grog tempered, but roughly 1/4 of the ceramic collection consists of shell tempered sherds. Only a single decorated shell tempered sherd was found. The two classified decorated sherds are typed as Coles Creek Incised, var. Unspecified (like Hardy), and Coles Creek Incised, var. Mott. A single rim is tapered with a flat lip, and is probably an example of a "Vicksburg" rim. The other three rims are simple and round. The plain grit-grog tempered pottery approaches Baytown Plain, var. Vicksburg, but lacks the characteristic polish and color (Phillips 1970: 56-57; Williams and Brain 1983: 104-105). The shell tempered pottery is poorly fired, very friable, and ranges in color from deep brown to black. Similar pottery has been found at the Jordan site in a very late context, and has been dubbed Mississippi Plain, var. Morehouse. The presence of Morehouse confirms the very late nature of the Mississippian occupation at Bapp Arnold.

Lithic debris was relatively common at Bapp Arnold. Only a single diagnostic artifact was recovered, however, making the lithics category of limited use. The single point is a beautiful example of an Alba Stemmed, var. Alba point, made of a fine white to cream chert. The rest of the lithics consist of flakes, debitage, and a single flake core. Over half of the flakes are made of non-local cherts, including three novaculite flakes, and several of a fine-grained maroon chert unique to the central Boeuf Basin. The absence of large quantities of novaculite, or other diagnostic lithic types makes a chronological assessment difficult for the non-ceramic occupation. The LMS surface collection also contains novaculite and non-local cherts, but no diagnostic points or other artifacts. Informants have reported that a number of large dart points and bifaces have been recovered, suggesting a Late Archaic or Poverty Point component, but the LMS is unable to confirm the presence of such an occupation. We would suggest, however, that the presence of such a component is quite likely, and we would speculate that such a component would belong in the Poverty Point period, rather than before that time.

Other artifacts include a few fragments of bone, and a small amount of historic material, most recovered from tests in line F-F′. The presence of late Coles Creek period types in conjunction with an Alba point suggests that the Bapp Arnold site was the locus of a small camp or possibly village of that culture. I would venture that the late Coles Creek occupation was the most intense that the site had, with the earlier and later occupations being much more ephemeral. Although the data are very slim, I would suggest that the Bapp Arnold site served as a small camp for Poverty Point period peoples. The late Mississippian occupation is slightly stronger, but not really diagnostic. The presence of shell tempered ceramics and two whole pots points to a very late date for this occupation, possibly into the 18th century. Bapp Arnold was obviously not a large, or probably even permanent occupation at this time, but rather it seemed to serve as a camp related to the Jordan phase occupation at the Jordan site.

Conclusions

Although the LMS conducted 51 shovel tests and several surface collections at Bapp Arnold we have not been able to use the data from the site to expand our understanding of local culture historical events. The LMS tests in 1985 revealed that there were no intact subsurface deposits, nor are any likely to be found in the future. Like so many sites on the Arkansas River levees, Bapp Arnold has been subject to severe erosion and land modification, with little, or no alluviation to preserve deposits.

The LMS can only sketch an outline of the prehistory of the Bapp Arnold site, based on surface collections and shovel tests. Local collections make some chronological assessments more secure, however, the total data base is quite slim. A Late Archaic or Poverty Point occupation is certainly represented, but we cannot be specific as to its precise cultural or chronological position. The Neo-Indian occupation is dominated by a late Coles Creek occupation. The presence of Mott is a marker of the Wimberly Barn phase of the Coles Creek culture in the central Boeuf Basin. It is unfortunate that only one good ceramic diagnostic marker is available at this time, however, the other grit-grog tempered ceramics lend some credence to a late Coles Creek component. A very late Mississippian occupation is also present at Bapp Arnold, and it appears to be related to the protohistoric Jordan phase. The burials at Bapp Arnold were clearly intrusive into an earlier Coles Creek period site.

The lack of intact subsurface and near surface deposits makes further research at the Bapp Arnold site unwarranted. For this reason the LMS does not consider the Bapp Arnold site to be suitable for nomination to the National Register of Historic Places. The LMS does not recommend monitoring or observation.

Book Shepard (16MO103 [22-J-18]), Tables 7-8

The Book Shepard site is located on the crest and flanks of a relict Qtb4 terrace ridge west of Boeuf River and north of Bayou Lafourche (Map 1). The site was first visited by the LMS in 1983 during a survey of the central Boeuf River Basin (Kidder n.d. a). The site was first recorded by the LMS in 1981 during a reconnaissance of the entire Boeuf Basin. In 1981 the site was noted to have a Poverty Point component, and also several Neo-Indian components of unknown affiliation. As a result of the 1983 LMS survey we were able to expand the chronology of the site to include Plaquemine and late Mississippian manifestations. Surface collections made in 1985 resulted in the discovery of a Tchefuncte component as well. The presence of a strong late Mississippian component was particularly significant in light of the proximity of Book Shepard to the Jordan site (16MO1 [22-I-1]). Jordan is a large mound-village complex, and it is hypothesized that Book Shepard represented one facet of late Mississippian settlement, the hamlet or farmstead. Furthermore, testing at Book Shepard would help resolve the question of the occupation of the Qtb4 terrace, and the relationship between terrace occupations and the Arkansas River and its floodplain. I hoped to find stratigraphic deposits of Late Archaic or Poverty Point age which we could tie to a local geomorphic sequence. The LMS conducted 78 shovel tests and made several large surface collections over a three day period in 1985. Results of testing indicate that little, if any, substantial subsurface deposits exist at the site, and it is not felt that the site warrants further research at this point. The site name is the result of confusion about the owner's name. The site should have been called Buck Shephard. However, it is in the files as Book Shepard, and so it will stay.

The Site and its Setting

As was noted above the Bapp Arnold site occupies the crest and flanks of a north to south trending ridge which is a relict of the Qtb4 terrace to the east. The terrace remnant on which the site is located is not an isolated island, but rather it is one of a number of Pleistocene ridges west of Boeuf River. Immediately to the north and west of the site there are channels of a now abandoned crevasse of the Arkansas River. Further east is Boeuf River, while to the south is an arm of Lake Lafourche known as Little Lake. Further south and west is the overflow channel for Boeuf River, now dredged to form Bayou Lafourche. West of the site there are a series of parallel ridges which stretch to the westward extent of the braided stream terrace (Map 2). The ridge on which the site is located is a prominent feature which shows as an 85′ contour on the U.S.G.S. 15′ quad map. Soils on the ridge are classed as Dexter silt loams (Reynolds et. al. 1985: map 67), and have none of the clay-like attributes common to Arkansas River sediments. The Book Shepard site would have been strategically situated to exploit a number of ecological zones which occur in close proximity.

Culture History

Prior to testing in 1985 the known chronology of the Book Shepard site consisted of an undifferentiated Late Archaic/Poverty Point component, a possible Troyville component, an early Plaquemine component, and a protohistoric Mississippian component. As was noted above, in 1985, a Tchefuncte component was added to the list. Table 7 lists the surface collected artifacts from Book Shepard.

The LMS surface collection includes two Gary points, one made of novaculite, a Kent-like point, an unclassified stemmed dart point, a barbed novaculite dart point fragment, several bifaces on non-local cherts, and a small amount of novaculite flakes. Several local collectors told of finding large dart points and other bifaces from the site, but no collection was available for study. Based on the tentative data in the LMS collection it was suggested that the site was the locus of a Poverty Point period camp or temporary village (Kidder n.d. a).

A single sherd of Tammany Punctated, var. Fisk Bayou, one sherd of Tchefuncte Incised, var. Unspecified, and ten sherds of Tchefuncte Plain, var. Unspecified constitute the evidence for a Tchefuncte component at the site. The LMS collections from 1983 included a sherd of Chevalier Stamped, var. Unspecified, and a sherd of Hollyknowe Pinched, var. Unspecified. In 1985 a sherd classified as Coles Creek Incised, var. Unspecified (Hunt-like) was recovered. All of these sherds could date to the Troyville or early Coles Creek periods, but the Hollyknowe sherd argues for the former component. It is possible that the Hollyknowe sherd could date to the Plaquemine culture occupation, but the paste is foreign to the Plaquemine Addis tradition. On the basis of these three sherds it is tentatively suggested that the site supported a Troyville culture occupation.

A Plaquemine component was also noted in 1983 and 1985. Evidence for such an occupation consists of Coleman Incised, var. Unspecified, Coles Creek Incised, var. Hardy, Mazique Incised, var. Manchac, and Plaquemine Brushed, var. Plaquemine. Several unspecified sherds approach Pargoud Incised, var. Unspecified, a marker for the Gran Marais phase in the Felsenthal region of south-central Arkansas (Rolingson and Schambach 1981). The markers of this component suggest that the Book Shepard occupation is closely related to the Brodenax Church phase from the nearby Brodenax Church site (16MO61 [21-I-4]). The Brodenax Church phase is an early Plaquemine culture phase coeval with the Routh phase in the Tensas Basin to the east (Hally 1967, 1972).

Following the Plaquemine occupation there appeared to be a brief hiatus in site occupation which lasted until the protohistoric period, ca. 1550-1750. A single sherd of Parkin Punctated, var. Transylvania is the only evidence of a Mississippian occupation predating the protohistoric period. The protohistoric occupation is marked by the presence of Barton Incised, var. Unspecified, Grace Brushed, vars. Grand Gulf and Warren, Kinlock Simple Stamped, var. Unspecified, Mississippi Plain var. Morehouse , and a sherd of Winterville Incised, var. Wailes. A single Alba Stemmed, var. Jordan point serves as further support for the protohistoric component. Additionally, a local collector has a beautiful example of an Owens Punctated, var. Menard sherd. Based on diagnostic pottery and the single point it is clear that the Book Shepard site supported a Jordan II phase occupation. It is hypothesized that the site represented a hamlet or farmstead within the Jordan phase settlement system. A small late historic occupation was also noted at the north end of the ridge.

Subsurface Testing

The LMS excavated 78 shovel tests in six lines aligned to the cardinal directions. Datum was established at the western side of the ridge near the edge of a small slough flowing past the site. The shovel test lines were set out both to follow the ridge crest, and to transect it perpendicular to the main axis of the ridge. The north to south lines (B-B′, D-D′, and F-F′) followed the ridge crest, while the other three lines crossed the axis of the ridge. Spacing of shovel tests was set at 5 meter intervals, except line A-A′ which was at ten meter intervals.

Subsurface stratigraphy was for the most part quite simple, consisting of three levels, or occasionally four. No major amounts of midden soil were encounterd, although it is possible that isolated features exist near the subsoil. The subsoil consisted of an orange to orange-brown slightly clayey sandy silt loam. Subsoil was generally found between 40-60 cm below ground surface, although it frequently intergraded with the next level which was distinguishable mostly on color and texture differences.

Above subsoil was a level of tan-orange to orange-brown sandy silt loam. This level occasionally contained artifacts, but for the most part it was sterile. In some tests this level yielded large amounts of orange-red iron concretions (not saved). In several instances this level was replaced by a more brown sandy silt which yielded small amounts of artifacts. This soil type may represent disturbed in situ midden deposits, however, there was never any true "midden". This level was usually found between 10-20 cm below ground surface, and had a variable thickness from 20-50 cm. The upper level consisted of a fine, light tan sandy silt, often with rootlets and other disturbances. This level was clearly the recent plow zone. This level yielded the largest amount of artifacts, but in no shovel test were the numbers of artifacts very large. The upper level was consistently quite thick, ranging between 10-25 cm. This level was clearly badly mixed, with recent and aboriginal artifacts coming from the same shovel test. The large quantities of fired clay recovered in the shovels tests came from this zone, which may be a reflection of recent clearing and burning activities. In several cases we extended deep soil cores to depths of 120 cm below ground surface. The deep tests yielded no cultural material, but suggested a complex depositional history no doubt related to the braided terrace feature.

Artifacts

The bulk of the artifacts at Book Shepard consisted of fired clay and pottery, with stone, bone, and historic material as well. Table 8 lists the artifacts from shovel tests. The ceramic artifacts are generally quite small, and usually non-diagnostic.

Three classes of plain pottery appear in the LMS collections, Addis Plain, Baytown Plain, and Mississippi Plain. The division of the plainware roughly reflects the history of the Neo-Indian occupation of the site, with the exception of the Tchefuncte Plain pottery recovered in the surface collections. A small number of unclassified decorated sherds were also present. The decorated sherds indicate a generalized Neo-Indian occupation, as well as a protohistoric Mississippian component. The Plaquemine occupation is inferred from the Addis Plain pottery.

The Baytown Plain pottery is largely undiagnostic. Several rims exist in the LMS collection, but none hint at a chronological or cultural affiliation. Several decorated sherds on Baytown Plain were found. All are unclassified, but at least one has the "feel" of a Baytown period sherd. Such data are, however, not sufficient for placing the site in a chronological or cultural context within the Neo-Indian era. The surface collections serve as the best guide to the Neo-Indian occupations at the site.

It is possible to infer a Plaquemine component based on the presence of Addis Plain, var. Unspecified. The total sample is relatively small, but the plain sherds are supported by the surface collection data. Based on the surface collections we would reiterate that the Plaquemine occupation is related to the Brodenax Church phase of the early Plaquemine culture.

The presence of shell tempered pottery and several decorated sherds are markers of the latest aboriginal manifestation in northeast Louisiana. At Book Shepard the LMS shovel tests yielded several unclassified incised sherds on Mississippi Plain. The paste and texture of the plain pottery is similar to that in the upper levels of the Jordan site, which would suggest a protohistoric or early historic date. The decorated pottery only points to a late date, it cannot be used to substantiate a Jordan phase component. However, surface collected data strongly points to such an occupation. The evidence is unclear as to the nature of the protohistoric occupation. It is probable, but not proven, that the site represents a hamlet. It seems unlikely, given the quantity and distribution of the shell tempered ceramics, that they represent impacted burials in an earlier site.

Other artifacts from Book Shepard shovel tests are less diagnostic. No tools or points were recovered in shovel tests. Flakes were the most common lithic artifacts, followed by shatter, a flake core, and a few flake core fragments. A small amount of sandstone and a few unmodified local pebbles were also recovered. Although the LMS located a large Gary point on novaculite in 1983, we only recovered two novaculite flakes in the LMS shovel tests. The range of lithic sources represented at Book Shepard is fairly great, possibly indicating that the site participated in a far-flung trade network which characterized the Poverty Point culture. However, such data should be viewed with caution for the moment.

Other artifacts recovered in 1985 included unclassified fragments of bone, often calcined or burned. Historic artifacts were present in shovel tests at the northern end of the site. A clay plantation marble was the only typeable historic artifact. A tenant house was located at the north end of the site up until the late 1960s, and this is no doubt the point of origin for the historic artifacts.

Conclusions

Shovel test data from the Book Shepard site indicates that the site was occupied a number of times beginning in the Poverty Point period. During the Neo-Indian era the site witnessed occupation by Tchefuncte, Troyville, early Plaquemine and protohistoric Mississippian cultures. Evidence indicates that the Poverty Point through Plaquemine occupations were relatively brief in duration, probably reflecting the use of the site as a seasonal resource extraction camp. The LMS hypothesizes that during the protohistoric period the site served as a hamlet or farmstead related to the Jordan site to the north. At present no data is available which would challenge such an hypothesis.

The LMS conducted 78 shovel tests at Book Shepard during the summer of 1985. Analysis of the LMS shovel tests suggests that little or no intact subsurface deposits exist at the site. Although the site is important for local culture history, the lack of intact deposits casts doubt as to its eligibility for inclusion in the National Register of Historic Places. The LMS does not feel that further research at the site is warranted.

CHAPTER FIVE

STEVENSON (16RI14 [22-J-2])

Tristram R. Kidder and Diane M. Ring

Introduction

The Stevenson site consists of a massive scatter of artifacts located at the confluence of Hegwood Bayou and Boeuf River in Richland Parish (Map 1). The site has yielded evidence for most aboriginal cultures known to have inhabited the central Boeuf Basin, from Poverty Point through the early Historic period. During 1981 and 1983 the LMS gathered large surface collections from the site. Analysis of surface collections has demonstrated the importance of the site in terms of local culture history. The site was first tested in 1983 with 14 shovel tests which indicated that large amounts of intact midden existed at the site. In 1985 the Stevenson site was slated for testing because it was felt that here we could obtain a stratigraphic sequence which could possibly span a large sequence of time. The LMS excavated 14 shovel tests in 1983 and five test excavation units in 1985. Results of the LMS research indicates that the site is exceptionally important and should be nominated to the National Register of Historic Places.

Despite the lengthy culture history represented in the Stevenson site collections the 1985 excavations did not yield an unbroken stratigraphic sequence. Rather, our data suggest that the major periods of site occupation occurred during the Poverty Point period (Niemeyer-Dare phase)(Kidder 1986 a); the Late Marksville period (Hegwood Bayou phase)(ibid.; Ring 1986); and also the Troyville culture of the Baytown period (both Priestly and Silk phases)(Kidder n.d. a). The bulk of the excavated sample and the majority of the large surface collection date to the Hegwood Bayou phase (Ring 1986). Excavations indicated that Poverty Point deposits formed the initial occupation, with minimal Tchefuncte and possibly some early Marksville materials represented as well. Physically the site seemed to reach its greatest extent in the late Marksville period, although the nature of the Troyville components is unknown. Coles Creek, Plaquemine, Mississippian and early Historic remains were only found in surface collections or in the plowzone.

The Site and its Setting

Stevenson is located on the remnant of a Qtb4 terrace which is cut through by Boeuf River and Hegwood Bayou. The site consists of two low mounds and a large shell midden, with a plaza formed by the angle of the confluence of the Boeuf and Hegwood Bayou (Map 5). The two mounds are low and conical, although mound B has been graded for the construction of a modern house. The shell midden lies at the confluence of the two streams, although a large portion has apparently eroded into Boeuf River. Mound A is located in an historic cemetery at the northern end of the site, while mound B anchors the eastern end of the site. The southern boundary of the site is formed by Boeuf River. The artifact scatter is distributed across the site, but is concentrated around the shell midden and along the southern end of the site, particularly just west of mound B. A third mound which may have been associated with the Stevenson site was located roughly 1.5 kilometers northeast of the site on the west bank of Gum Bayou (Spencer 1982: 59). This mound was leveled in the 1960's and LMS collections from the area are non-diagnostic (Kidder n.d. a; Ring 1986: 67, table 5).

Site Description. Today a large portion of the Stevenson site is cleared for agriculture. As noted above the site consists of two mounds, a shell midden, and a plaza. Modern additions include a concrete house, a metal barn, several roads, and an historic cemetery (Map 4). Mound A, now located in the Stevenson cemetery, is a low, conical structure that stands only .83 meters above the surrounding terrain. The mound is located on the banks of the relict levee of the Number 5 channel of the Arkansas River. Immediately west of the mound is the channel of Hegwood Bayou. North and east of the mound are cleared fields which are virtually devoid of surface remains. South of the mound is the shell midden and plaza. Mound B is located diagonally across the plaza from mound A. Mound B is a low, shapeless dirt mound which has been partly leveled for house construction. A cinderblock house sits on the top of Mound B. Today mound B is only .45 m above the surrounding fields (Plate 5). In the past it may have been a meter higher, although that is just an estimation. West of mound B, and south of mound A, lies the shell midden, which forms the angle of the confluence of Boeuf River and Hegwood Bayou. The shell midden is slightly elevated above the fields to the east, although in the past it was roughly .50 m higher. The shell midden forms an elongated oval of some 40 meters long by 20 meters wide. Recent agricultural activities have severely distorted the outlines of the shell midden. Soil from the shell midden was used to fill low spots east of the plaza around the metal barn. West and south of the shell midden the terrain slopes off sharply into either Boeuf River or Hegwood Bayou. The banks of both streams are steep and badly eroded. Just west and south of the fence which marks the edge of the cultivated field is a low, linear depression. This was an historic wagon road which led from a ford just north of the site on Boeuf River. Historically the area was the location of several fords, including one which shows up on an 1855 plat of the area (General Land Office plat 1855 c).

Physical Environment. The location of the site at the confluence of Boeuf River and Hegwood Bayou provided the Stevenson site occupants with a strategic location. Hegwood Bayou is a mere trickle today, but at one point it certainly carried all, or part of the No. 5 channel of the Arkansas River. Both Boeuf River and Hegwood Bayou have incised themselves into the Qtb4 terrace of Macon Ridge. The site plaza lies on a level expanse of the braided stream terrace, while mound A is built on the levee of the Arkansas River/Hegwood Bayou course. Mound B, now partly leveled, lies on the Qtb4 terrace edge adjacent to Boeuf River. The meander belt of the No. 5 channel of the Arkansas River created a levee which was elevated above the surrounding terrain. The levee is elongated north to south, and is drained by the remnant of Hegwood

Bayou. East of the site the elevation decreases into the overflow swamp of Gum Bayou and Hurricane Bayou. An 1855 plat shows the area east of the site to be "overflow" land, subject to at least annual inundation. The Stevenson site locale is shown on the same plat as being "high ground", presumably less subject to flooding (General Land Office Plat 1855 c). Local informants indicated that the site area had not flooded within recent memory.

Evidence from local informants and from excavated contexts suggests that Boeuf River today is a shadow of its former self. In the past the river was clear and shallow, with numerous sand bars, and apparently contained a large quantity of freshwater shell. Today, as a result of dredging upriver, the Boeuf River at the Stevenson site is a dirty ditch. Stevenson is not too far south of the junction of Bayou Bonne Idee and Boeuf River and also the point where the Bayou Lafourche overflow swamp branches to the west. Thus, the site was well situated to exploit a variety of diverse ecological zones. Furthermore, the site is located on the Qtb4 terrace, with higher terrace levels off to the east. The fact that the site was occupied by almost every known cultural group in the Boeuf Basin is an indication of the rich environment in the Stevenson vicinity.

The present course of Hegwood Bayou is essentially due north from its juncture with Boeuf River. In the past, it is likely that the course of this stream was more sinuous, and certainly further west than it is today. The headwaters of what is now Gum Bayou also appear to have begun in the drainage of Hegwood Bayou

(General Land Office Plat 1855 c). While the 1855 plat can only be taken as an approximation of the past environment, it is probably significant that Hegwood Bayou was in the past a more active stream. The local forest environment was comprised primarily of hardwood trees, although these may have been limited to the river margin. East of the site was a vast backswamp of canebrakes and standing swamps. The swamps were probably dominated by Cypress and Tupelo, although Water Oak and Sweetgum were also present. Faunal resources were abundant and concentrated in the river. As was noted above, prior to dredging in recent years, Boeuf River supported a large population of freshwater shellfish and slack water fish. Gar, Drumfish, and Catfish were common until the past 20 years. All these species are easy to catch, particularly in the summer. To the east lay the vast backswamp which included large stands of cane and cypress swamp. North and west lay the levee of Bayou Bonne Idee, which was relatively high and dry, and which would have provided an adequate corridor for movement throughout the Boeuf Basin.

<u>History of Research</u>

Despite its size, and as we shall see, its importance, the Stevenson site had not been investigated by professional archaeologists until the past several years. The site area was apparently visited by James A. Ford in the early 1930s, but no record of work at the Stevenson site has been uncovered. Ford did, however, record the low mound located on Gum Bayou northeast of the site. This mound was apparently given the name "Stevenson

Place" site (16RI2) (Spencer 1982: 59). A notation on the quad map used by Ford, and on file at the LMS, reveals that he knew of the site which we are now calling Stevenson (16RI14). No collections predating the 1980s have been located from either site.

LMS Investigations. Following Ford no work was conducted until 1981. At that time the site was visited by Stephen Williams and John Belmont of the LMS. The 1981 reconnaissance was limited in its objectives but did manage to make a large and significant surface collection (Table 9)(Kidder n.d. a; Williams 1986). The results of the 1981 surface collections were outlined by Belmont (1985), who noted that the Stevenson site dated primarily to the late Marksville period. Belmont further noted that the site had significant Poverty Point and Troyville occupations as well (ibid.; Ring 1986; Webb 1982: 6). Belmont's most important contribution was the recognition that the site had an important late Marksville component, despite the fact that the majority of the ceramics were plain and undiagnostic. The recognition of the plainware complexes at Stevenson have made regional culture history much more intelligible.

Surface collections. As a result of the 1981 surface collections the Stevenson site became an important goal in the 1983 survey season. During 1983 the government was paying farmers not to plant cash crops on their land so the site area was not cultivated. The landowner cultivated the site specifically for us and by good luck it rained soon after the fields were turned. The LMS spent five days at the site in 1983. The site area was first gridded off into 25 meter square collection areas (Map 4). We contemplated smaller collection units, but to use anything smaller would have occupied too much of our time. Because the site limits were highly irregular, the 25 meter square collection units were expanded to include irregular collection units along the margins of the site, or outside of the controlled grid (Map 4). Each grid was designated by the location of its northeast corner stake relative to datum. Thus, grid unit N25 E25 had its northeast stake 25 meters north and 25 meters east of datum. Irregular grids were partitioned into logical units rather than arbitrary ones. In this manner, the entire bankline of Hegwood bayou formed a separate collection unit. A total of 26 provenience specific collections were made in 1983 (Table 9). In total there were 34 separate surface collections from the site as of the end of 1985 (Appendix A).

The controlled collection grids were collected in as complete a manner as possible. All artifacts, regardless of type or kind, were collected. In the lab the artifacts were sorted by collection area and kept separate. As analysis proceeded it became apparent that the controlled surface collections were going to be marginally useful for the production of detailed horizontal provenience maps. The fault lay in the size of the grid which was too large. However, not all was lost in our exercise. The controlled collection does allow us to make some sound generalizations about the cultural distributions at the site (Table 9). A primary finding was that the site plaza was largely devoid of significant surface deposits. Intensive occupation debris was found around the plaza on the line which connects the two mounds and the shell midden. Occupation was most intensive around the shell midden and mound B. Almost no material was found around mound A, although several sherds were found north of the cemetery.

The 1983 surface collection also revealed that the majority of the site occupation occurred around the shell midden. This fact holds true for all cultures with the possible exception of the late Marksville occupation. Poverty Point materials were located in the shell midden and between the midden and mound B. Several Tchefuncte sherds and several possible early Marksville sherds were recovered from the shell midden. Late Marksville material was found across the site, but was concentrated around the shell midden and mound B. Late Marksville artifacts were found along the bank of Hegwood Bayou, and one was even located north of mound A. Troyville sherds were also found on the shell midden, but we also recovered several from near mound B. Coles Creek, Plaquemine, Mississippian and early Historic materials were almost exclusively found around the shell midden.

Several artifact concentrations north of mound B and near the metal barn (Map 4) were revealed to have been low areas filled in with dirt from the shell midden. North and west of mound B we recovered large amounts of late 19th century historic debris. These areas apparently supported the initial historic structures for the Stevenson farm. When mound B was leveled the fill was mostly pushed to the east. Despite this fact very few artifacts were found east of the mound. Mound B was in grass so no surface collections were made on the mound. Just west of mound B, around a large Pecan tree, we recovered a large surface collection. A search of the Boeuf River bankline revealed that artifacts were eroding down the bank from the plaza above.

In 1986 several general collections were made (Table 9). One was from the shell midden area, and another from a discrete area slightly north and west of mound B. The latter collection was significant because it revealed a large number of Poverty Point diagnostics. A large collection made in 1984 was also without specific provenience. Thus, after four years of sporadic research at the site we had an immense surface collection with which to analyse. The total surface ceramic collection numbered over 29000 sherds (Table 9), and the total collection included over 34000 artifacts. Comments about the culture historical significance of the collections will be made below.

Shovel Tests. Datum was established in the southwestern corner of the site near the shell midden. Because no permanent benchmark was locally available datum was established as an abitrary plus five meters (Map 4). A shovel test line (A-A′) was extended due east to the site edge. The shovel tests were spaced either ten or 20 meters apart. Tests near the shell midden were placed 10 meters apart, while from 80 meters and further east the spacing was 20 meters. Two shovel tests were placed on a north-south axis extending south from N00 E100. These shovel tests indicated some intact midden was to be found on a line connecting mound B and the shell midden (Map 4). The Soil Conservation Service performed four core tests along Boeuf River and just west of the site on an eroded portion extending toward Hegwood Bayou. The four tests included a core taken on mound B, and three cores taken along either the Boeuf River or Hegwood Bayou bankline. The latter core tests were conducted to measure erosion outside of the cultivated field. Stratigraphy of the shovel tests and core tests was somewhat complex, but the non-culturally deposited sequence is easily interpreted.

Subsoil consisted of a dark red clayey silt. Toward the edge of the Boeuf River bankline subsoil was just below surface, a reflection of recent erosion. Above subsoil there was a level of lighter red to reddish-orange clayey silt loam. This level, like subsoil, was sterile. Our interpretation of this level is that it represents the upper, leached part of the original ground surface. Above this level the stratigraphy is variable depending on where the shovel test was located.

The shovel tests within 50 meters of the shell midden yielded good evidence of stratified midden (Table 10). Soil color was a range of medium to dark browns, and the midden was rich in artifacts and organic material. A single shovel test in the crest of the shell midden extended to 89 cm before hitting subsoil. This shovel test revealed stratified deposits underlying the plowzone. Further east the midden tapered off noticeably until it disappeared by 80 meters from datum. Midden was replaced by mixed plowzone and recent historic construction debris. South of the A-A′ line shovel tests revealed midden in shallower deposits. Near Boeuf River the midden was obviously eroded and very shallow.

No shovel tests were conducted near mounds A or B. Mound A is in a modern cemetery and thus not available for testing. Mound B is graded and has a house on it. The slopes of mound B were covered with grass in 1983 and 1985. A soil core excavated by the S.C.S. into mound B revealed a continuous midden deposit to below a meter. Numerous flecks of freshwater shell were noted in the core test. No definite mound construction stages were visible in the core test. The landowner excavated a pit near the house on mound B and reported midden to at least a half meter below ground surface. Surface collected artifacts suggested an artifact concentration west of mound B.

Results of the 1983 testing and surface collections suggested that the major artifact concentrations were centered around the shell midden, and west of mound B, near Boeuf River. The Hegwood Bayou levee was not apparently an occupation locality. In fact, artifacts dropped off quickly to the north of the shell midden and are virtually absent around mound A. The plaza has a large artifact scatter, but analysis of surface collections suggests that the scatter is not intensive, and may well have been derived from the shell midden by modern agricultural practices. The plaza area, particularly to the northeast, was the locus of several historic structures, and historic debris is common here.

<u>1985 Test Excavations</u>

The LMS conducted 14 shovel tests and six soil cores in 1983. Based on the data gathered in 1983 the LMS excavated five test excavation units in 1985 (Tables 11-17, Figures 1-10). The LMS spent three weeks excavating at Stevenson in 1985. The primary goal of testing at the Stevenson site was to obtain a deep stratigraphic profile for the central Boeuf Basin. We also wanted to gather data on local cultures which could be compared to known contemporary complexes to determine if the local cultures were indigenous, or derived from the east. Furthermore, excavations at Stevenson would give us more data on the relationship of sites to active watercourses of the Arkansas River. We could expect occupation debris to be stratified with Arkansas River deposits if the site was occupied while the Number Five meander was active.

The Stevenson site was being cultivated for cotton and garden crops in 1985. The landowner, Mr. Henry E. Stevenson, kindly consented to our investigations, and with his brother, Robert E. Stevenson, made available a host of resources for our use. The Stevensons had not cultivated the crest of the shell midden, nor was the area around mound B being cultivated. As a result of the LMS testing, and mindful of the Stevensons' crop, the LMS elected to excavate five test units at Stevenson. Test Unit One was located two meters east of datum on the shell midden, and consisted of a 1x2 meter trench. The bulk of the testing was on and around around mound B. A 16-meter-long trench was staked out just north of the house on the crest of mound B, oriented east to west. Three 1x2 meter trenches were excavated at two meter intervals, for a total of three test units on mound B (Plate 6). Tests on mound B were numbered from east to west, begining with two and ending at nine. Test units Two, Four, and Six were actually excavated. A final test pit was placed west, and just south of the house on mound B. This was designated Test Unit Ten, and consisted of a 1x2 meter trench, oriented east to west (Map 4).

Stratigraphy at Stevenson was generally complex and quite variable. The five test excavations revealed that there are three separate stratigraphic histories present. Test units One and Ten have a stratigraphic history that is unique to their locations. Test units Two, Four, and Six, however, can be considered as a single entity although there is some variability among these units. Because of the stratigraphic differences represented in the five test units at Stevenson it is not reasonably possible to integrate all of the units into comparable analysis units. Stratigraphy will be described from bottom to the top. Soils will be grouped into strata based on vertical soil stratigraphy and general artifact content. Each stratum will be an independant unit for the entire site. therefore, stratum numbers will be assigned only once. Only the plow zone (stratum I) and the subsoil (stratum V) occur over the entire site, and thus these units will be repeated.

Test Unit One (K1500, Table 11, Figure 2)

Sterile subsoil (stratum V), a red-brown silty clay loam, was reached at 57-77 cm below datum. In the southwest corner of the unit, a stain of dark grey and red silt loam with beige and grey mottling lay in the subsoil at 57 cm below datum. This sterile stain, not very different from the subsoil, was also visible in the south and west wall profiles. The subsoil was overlaid by a red-brown silty clay loam with beige and grey mottling (stratum IV). The mottled red-brown layer appeared in the southern and eastern half of the unit, at a depth of 39-42 cm below datum. By 45-50 cm, the mottled layer, which averaged 20-30 cm thick, covered the entire test unit. Above stratum (IV) the stratigraphic situation became much more complex, varying considerably in three dimensions.

In the western, northern and northeastern portions of the unit a dark brown-grey silt loam shell midden (feature 3, stratum II) overlay stratum IV. The shell midden was vaguely apparent on the surface, but became distinct from the plow zone 17-19 cm below datum (Plate 7), and sloped down towards the north from the southwestern corner. In the southern and eastern portion of the unit a soil layer (stratum III) of varied color (red-brown silt loam, brown and biege mottled silt loam, and medium brown silt loam) covered stratum IV. The soils in stratum III are grouped together based on the following observations: (1) absence of features among these soils, and (2) absence of distinctions based on artifact content among the soils. Above stratum II and III lay the medium grey brown silt loam plow zone (stratum I) which extended to 17-22 cm below datum. Unlike mound B, the plow zone in the shell midden of the Stevenson site was quite clear and distinct due to its location in an agricultural field.

The shell midden layer in Test Unit One seems to have been a prehistoric trash pit. While the midden extends south along the west profile, it is likely that plowing has horizontally spread this level beyond its original location and shape. The shell midden was identified as feature 3 at 32 cm below datum (Plate 7), and excavated to a depth of 47-52 cm. However three pieces of information all suggest that the shell midden feature began by at least 17-19 cm below datum. First, the plow zone contained a good deal of shell which suggests that the feature originated above or at present ground surface. Second, the west and north wall profile indicated the shell midden beginning right below stratum I (the medium grey-brown plow zone). Third, the two radiocarbon dates taken from Test Unit One level C, and feature 3 (below level 3) matched exactly (Table 18). Clearly then, the shell midden (feature 3) extended above its initial identification in the field.

In profile, the feature 3 was divided tentatively into two levels of the same soil-- one marked by a dense concentration of shell, the other by sparse amount of shell (Figure 2). The soil division occurred at 5-8 cm from the bottom of feature 3. The decreasing amount of shell in the feature was recorded in the excavation notes. There really does not seem to be a strong culture material basis for maintaining the soil separation. While fired clay lumps from feature 3 came particularly from the bottom of the feature, two points discourage a strong cultural interpretation of the division of the shell midden. First, the fired clay lumps also appeared in levels D, E, F, and G; and second, field notes indicate that feature 3 was resting on and intruding into a nearly sterile brown silty clay level containing lumps of fired clay. We would suggest that the stratigraphic division of the shell midden is not actually one of cultural occupation, but rather the mixing between the shell midden deposit and the deposit of fired clay lumps.

The fired clay lumps in Test Unit One appear to be part of a Poverty Point deposit. This conclusion is based on several observations. The baked clay found at the base of feature 3, and in levels D, E, F, and G were distinctly larger (2.5-7.5 cm in diameter) than the typical fired clay found throughout the other test units (which was invariably no larger that 2.5 cm). Most of the fired clay were amorphous or fragmentary. However, two shaped objects were recovered from feature 3: (1) a melon-shaped end-grooved fragment, and (2) a biscuit shaped fragment without biconical grooves (Plate 11 j, k)(Webb et al. n.d.: fig.2). All of the feature 3 baked clay fragments are tannish-orange in color and have a friable powdery surface. Levels D, E, F and G of Test Unit One each contained between nine and fourteen amorphous Poverty Point baked clay objects (for a total of 47)-- most of which were the same in color and texture as in feature 3 (a few were of a greyer less homogeneous material). On the whole the baked clay fragments from the lower levels of Test Unit One were indistinguishable from the fragments in feature 3. Given the stratigraphic relation of the shell midden and the Poverty Point baked clay fragments it appears that the midden was deposited on top of and perhaps intruding into a Poverty Point occupation.

Using the above information on Test Unit One, a correlation of excavation levels with stratigraphic analysis units is as follows: level A--stratum I; level B--strata I, II, III; level C--strata II, III; feature 3--stratum II; level D--stratum III; level E--strata III, IV; level F--stratum IV; levels G, H--strata IV, V.

<u>Mound B stratigraphy</u>.

Integration of stratigraphic information from test units Two, Four and Six permits a generalized discussion of mound B stratigraphy. Formal presentation of each test unit will follow this overview of mound B stratigraphy.

Sterile subsoil (stratum V) lay at approximately 75-80 cm below the surface, and was 15-40 cm thick. Shovel tests dug at the base of the mound B test units indicated that the subsoil continued down as far as the shovel could reach (120-166 cm below the surface). The subsoil ranged in color and texture from a tan-beige silt loam with red mottling to a red-beige clayey silt loam with brown mottling. Subsoil was overlaid by a tan to light brown silt loam (stratum VII) found at 55-75 cm below the surface.

Stratum VII ranged in thickness from 15-20 cm, and though not sterile, had decreasing culture material as the depth increased.

A midden soil level (stratum VI) was identified above stratum VII, beginning between 25-55 cm below the surface. The midden generally consisted of a medium brown silt loam layer, which was characterized as "primary" midden in the profile drawings. Above the "primary" midden, at 8-25 cm below the surface was a medium brown silt loam described in field profiles as "disturbed" midden. Review of the soil descriptions from the various test units' levels corresponding to the "disturbed" and "primary" midden revealed no significant differences. However, in profile, a distinction between the "disturbed" and "primary" middens was evident and fairly consistent across the three mound B test units. Analysis of the artifact distribution does not suggest a correspondence between this stratigraphic observation and culture material distribution. While there is historic disturbance to a depth of about 20 cm below the surface, such evidence does not account for the characterization of "disturbed" midden to a depth of 55 cm. Therefore these two stratigraphic levels ("disturbed" and "primary" midden) isolated in profile will henceforth be combined under the description of medium brown silt loam midden (stratum VI).

A grey brown silt loam including grass root mat (stratum I) was encountered at the surface to a depth of 8-12 cm and contained evidence of disturbance. Mound B, the site of a modern house, has not been plowed and lacks a clear indication of significant historic disturbance to a specific depth (with the exception of feature 2, the historic trash pit in Test Unit Ten).

Test Unit Two (K1536, Table 12, Figure 3). Located on the eastern edge of mound B, Test Unit Two sloped off to the east more sharply than the other two units. Test Unit Two's stratigraphy, although reconcilable with test units Four and Six, was clearly different. In fact the north and south profiles from Test Unit Two reveal greater three dimensional soil changes than test units Four and Six (Plate 8). Sterile subsoil (stratum V) in the western and southeastern portion of Test Unit Two was reached roughly 49-59 cm below datum. The subsoil was overlain by a medium brown mottled and tan silt loam level (stratum VII) beginning 34-44 cm below datum. In the notes and profiles, stratum VII was cautiously separated as two layers based on their profile appearance (an indication of the difficulty in ascertaining their independence). Given the artifact distribution among the arbitrary levels in Test Unit Two, we will group the homogeneous tan silt loam with the medium brown mottled silt loam, as stratum VII. There is no significant culture material reason to distinguish between the two. The brown mottled silt loam extended to the base of the test unit in the northeast corner.

"Primary" midden (stratum VI), which consisted of a medium brown silt loam, was found throughout Test Unit Two at 1-14 cm below datum. What was considered "disturbed" midden (stratum VI) in Test Unit Two, was itself divided into a light brown, a medium brown, and a brown biege red mottled silt loam beginning about 16-21 cm above datum. However, field excavation notes on soil and artifacts give no evidence to support such separations. So not only will the three "disturbed" midden soils be grouped together, but the total "disturbed" midden level will be viewed as one with the "primary" midden, using the same information and logic as stated in the general mound B stratigraphy. Thus in the final analysis we have one midden layer (stratum VI) (50-60 cm thick) of varied soil colors and types appearing 16-21 cm above datum. A grey-brown silt loam root mat (stratum I) covered the entire test unit to a depth of 10-15 cm, and was deeper in the northern half. While the stratigraphy of Test Unit Two may seem complex at first, the combining of tenuously separated soil levels that have no strong stratigraphic or cultural basis for their division assists in realistically integrating Test Unit Two into the overall mound B stratigraphy.

Test Unit Two was excavated by arbitrary 10 cm levels down to level I. At about 86 cm (stratum VII and V) below the northeast corner of the test unit (55 cm below datum), a feature (number 4) was encountered; since it was centered in the middle of the unit a precise vertical location of its origin was not possible. The feature, identified by a darkened medium to dark browm stain on a temporary floor of level I, consisted of an irregular basin-shaped pit which reached to a depth of 1.02 m below the northeast corner. Feature 4 contained ash, and many large pieces of fired clay. Once excavated the feature actually extended farther east than the stain on the temporary floor suggested. Some large pieces of fired clay were retrieved from the feature area before it had been identified. However, the feature only could have reached to between 84-80 cm below the northeast corner (53-49 cm below datum) because it did not appear on the floor of level H.

The large pieces of fired clay (2.5-4.5 cm in diameter) from feature 4 were essentially indistinguishable from the Poverty Point object fragments in Test Unit One. The only differences are that feature 4 has more fragments that are slightly smoother (but still powdery) and oranger than the fragments in Test Unit One. However, this is really only a difference of median color and texture, we could not reliably distinguish fragments from Test Unit One and Test Unit Two (feature 4). Only one fragment from feature 4 was not amorphous. This object was biscuit-shaped with cog-wheel grooving (Plate 11 l)(Webb 1982: 37-40; Webb et al. n.d.: fig.2w). The biscuit shaped baked clay object was just a bit less orange and powdery than the majority of fragments from feature 4. Besides the evidence of the baked clay objects themselves, the location of feature 4 (below the ceramic occupation levels) points to the feature's identification as a Poverty Point pit. The shell and ceramics from Test Unit Two, level J, came from a depth above the feature (which was dug into sterile soil). It is also important to remember that the Test Unit Two strata were sloping down to the east, thus depth measurements of the feature (the middle of the test unit) and level J do not have a correspondence in terms of their depth measured from the northeast corner, and their depositional sequence.

A basic correlation of the arbitrary levels in Test Unit Two with the five basic stratigraphic layers of mound B is as follows: level A-- stratum I; levels B-F--stratum VI; level G--strata VI,VII; level H--stratum VII; levels I-K--stratum V.

<u>Test Unit Four</u> (K1501, Table 13, Figure 4)

Located on the highest point of mound B that was traversed by the staked trench, Test Unit Four has a fairly straightforward stratigraphy (Plate 9). Sterile subsoil (stratum V) (a red brown clayey silt loam to tan beige silt loam with some red mottling) lay at 35-40 cm below datum. In the northeast corner of the unit, sterile soil was a mottled medium brown silt loam, similar to the sterile level found in the northeast corner of Test Unit Two.

Above the subsoil lay a light brown silt loam with some tan mottling (stratum VII) that had a significant artifact content. Stratum VII was thicker in the western half of the unit, appearing about 5-10 cm below datum, and covering the entire unit by about 30 cm. Throughout the test unit this layer ended at 35-40 cm below datum. Medium brown silt loam midden (stratum VI) appeared at 25-30 cm above datum, and was between 40-65 cm thick. The midden sloped down slightly to the northeast, lasting to a greater depth in the northeast corner. Stratum VI was covered by a grey silt loam root mat (stratum I) which extended down to about 10-15 cm.

Test Unit Four was excavated entirely in 10 cm arbitrary levels, to a depth of 65 cm below datum in the northeast corner.

The correlation of the arbitrary levels in Test Unit Four with the generalized stratigraphy of mound B is as follows: level A--stratum I; level B--strata I, VI; levels C-F--stratum VI; levels G, H--strata VI, VII; levels I-K--stratum V.

<u>Test Unit Six</u> (K1502, Table 14, Figure 5)

The stratigraphy of Test Unit Six was not only internally consistent among its own profiles, but clearly corresponded to the stratigraphy of Test Unit Four. Sterile subsoil (stratum V) (which consisted of a red beige clayey silt loam with brown mottling and a tan beige silt loam with red mottling) was reached 28-38 cm below datum. Subsoil was overlain at a depth of 13-18 cm by a layer of light brown silt loam with tan mottling (stratum VII), 20-25 cm thick that had a decreasing number of artifacts with increasing depth. Above stratum VII the medium brown midden (stratum VI) appeared at 8-12 cm below the surface. The midden was 45-55 cm thick, and, in the west-central portion of the unit, contained a lens of dark grey-brown silt loam with a shell and charcoal concentration. This lens, oriented southwest/northeast, was 10-15 cm thick, and first appeared in the base of level E. The midden was covered by a grey-brown silt loam root mat (stratum I) which extended to a depth of 8-12 cm below the surface.

Test Unit Six was excavated in arbitrary 10 cm levels to 48 cm below datum At the base of level I (stratum V), a semi-circular dark brown stain was noted along the east wall and was designated feature 1. The stain, a dark brown clayey silt loam, showed in the profile from below at least 38 cm to 73 cm below datum. The feature, a fairly regular semi-circular shaped pit with a tapered round bottom, was excavated for a depth of 25 cm. Feature 1 contained several pieces of fired clay and one piece of bone. The profile of the east wall showed the light brown silt loam with tan mottling (stratum VII) dipping down in the center of the profile to the final base of the unit to 73 cm below datum in the the northeast corner.

The levels of Test Unit Six correspond to mound B stratigraphy in the following manner: level A--stratum I; levels C-E--stratum VI; level F--strata VI, VII; levels G, H--stratum VII; levels I-K--stratum V.

Test Unit Ten (K1521, Table 15, Figure 6)

Test Unit Ten was located west, and just south of mound B. The unit was excavated near an old pit dug by the landowners. We had hoped to use the Test Unit Ten excavations to link up the mound B stratigraphy with the plaza deposits noted in the 1983 shovel tests. Unfortunately, Test Unit Ten turned out to be dominated by a large recent trash pit dated to 1949. This feature (feature 2) extended diagonally across the test pit, and had been excavated into the subsoil. As a result of the recent disturbance the cultural stratigraphy was a hopeless tangle. Historic and recent artifacts were common throughout the test unit, even extending beyond the limits of the feature. Prehistoric artifacts were also common, although not in the quantities found in the other four test units. Furthermore, in no case were we able to identify any intact, or in situ aboriginal deposits. It is clear that feature 2 impacted the entire stratigraphic profile of Test Unit Ten. Even so, the stratigraphy was relatively simple, albeit badly disturbed.

Subsoil (stratum V) lay between 20-50 cm below datum. Subsoil was redder and more clayey than in other test units, but this may be due to Test Unit Ten's proximity to Boeuf River. The surface of stratum V was highly irregular and undulating. It is quite possible that the subsoil was also modified in historic or recent times. Above stratum V was a level of tan-beige silt loam (stratum VIII) which was over 50 cm thick in places. This level contained some aboriginal and historic artifacts, and feature 2 had been excavated into this stratum. Clearly there was significant disturbance in the area before the digging of feature 2. Overlying stratum VIII was a thick level of medium brown silt loam (stratum IX). Stratum IX was full of historic, recent, and aboriginal artifacts, and it was apparent that feature 2 had been dug through this stratum. Feature 2 (stratum X) cut diagonally across the test unit, beginning in the north wall and continuing up to, but not into the south wall. The feature only shows up on the north wall profile, although mottled soils which probably are related to the feature could be seen in the east wall profile. Feature 2 was also full of recent and historic artifacts. A small amount of aboriginal debris was also included in the feature fill. The plowzone (stratum I) was 10-15 cm thick, and consisted of a grey silty loam which was easy to distinguish from the underlying fill.

The arbitrary levels correlated with the natural stratigraphy are as follows: level A--stratum I; level B--stratum I, IX, X; levels C-F--stratum VIII, IX, X; level G--Strata V, VIII, IX, X; level H--strata V, VIII, X; level I--strata V, VIII

Stratigraphic Analysis

A point must be made clear before discussing the correlation of the vertical soil stratigraphy and the cultural remains from excavated levels and features. The decorated sample from Stevenson is very small in proportion to the plainware collection. This ratio observation holds true for surface collections (1983 field season) and excavated test units One, Two, Four, Six, and Ten. It is important to indicate that the minimal decorated ceramic content from the excavated levels (and units) means that the following discussion and analysis focuses extensively, though not exclusively, on a small percentage of the ceramic data. However, the variety of data sources (surface collections, excavations on mound B and the shell midden) suggest that the low percentage of decorated pottery is not a creation of insufficient sampling. Of the over 29,000 sherds surface collected in 1983, fewer than 800 (2.5%) were decorated (Table 9)(Kidder n.d. a).

Test Unit One's vertical soil stratigraphy correlates fairly well with the cultural stratigraphy from the arbitrary and naturally excavated levels and features. Test Unit One was historically mixed to a depth of 20 cm below the northeast corner (four historic artifacts were found in level C) (Table 11). The vertical location of the historic artifacts corresponds to soil stratigraphy of plow zone (stratum I). Stratum I is also the level with the concentration of post-Marksville Neo-Indian ceramics (a total of six sherds from 0-20 cm below the northeast corner). The concentration of Late Marksville decorated ceramics falls in excavated level C, and feature 3. But profile analysis indicates that level C (both vertically and horizontally) was part of feature 3. It must be noted that Late Marksville period decorated ceramics also apppear in levels A and B, though the high frequency of post-Marksville and historic artifacts suggests the considerable disturbance of the plow zone.

As discussed above, the Poverty Point occupation (excavated levels D, E, F, and G and the bottom of feature 3) corresponds with the stratigraphic levels of red-brown silt loam, brown and beige mottled silt loam, medium brown silt loam, and red-brown mottled clayey silt loam (roughly part of strata VI and VII). The lower stratigraphic levels of Test Unit One (levels D, E, F, G) along with the Poverty Point occupation, indicate that the correlation between natural and cultural stratigraphy is weak. This problem should not really be a surprise given three factors: (1) absences of any distinguishable features or natural levels below feature 3, (2) tremendous three dimensional soil variation in the unit, and (3) the general difficulty in isolating viable stratigraphic levels in Lower Valley alluvial soils (Phillips, Ford and Griffin 1951: 240-241; Phillips 1970: 573-574).

Two radiocarbon dates from Test Unit One (Table 18), obtained during the 1985 season, support the combining of level C and feature 3 to form one analysis unit. The profiles of Test Unit One indicate that the shell midden began by at least 19 cm below datum and was essentially undisturbed by 22 cm. Thus level C represents part of the shell midden deposit. The radiocarbon dates parallel the line of evidence from the profiles. One carbon sample was an aggregate of loose wood charcoal from level C, the other came from feature 3, and consisted of a similar type of sample. The two samples were submitted to Beta Analytical, Coral Gables, Florida. Both dates are initially listed below in years before present (B.P.) (1950 standard) and are uncorrected. Corrected ages based on calibrations found in Stuiver (1982), and Ralph et al. (1973) are also presented. Furthermore, corrected age spans based on tables provided by Klein et al. (1982) are also shown. The two dates show a remarkable coincidence, both falling at A.D. 380 (+/- 60, +/- 80 years) (uncorrected). The corrected dates, depending on which correlation is used, make the dates younger by at least 70 years (Table 18). The age spans, we feel, are probably a better representation of the data. An expanded discussion of the two radiocarbon dates and their precise implication for the Late Marksville period at Stevenson, will be presented later. For the moment, the two dates serve to indicate by their coincidence the cultural/depositional unity of level C and feature 3.

Conclusions for Test Unit One's midden, identified by Late Marksville period Issaquena phase decorated ware, were, as stated earlier, based on the stratigraphically isolated context of a significant portion of the key decorated types. Obviously, this sequence of logic rests on identification of the decorated ceramic types that are associated with the Late Marksville period. While the stratigraphy and two radiocarbon dates provide a good basis for the grouping of the ceramic types (Churupa Punctated, var. Churupa; Marksville Incised, var. Steele Bayou; Marksville Stamped, vars. Manny, and Newsome), further evidence for these types' identification with the Late Marksville period comes from excavations at the Manny (22-M-6) (Greengo 1964; Phillips 1970: 616-753) and Johnson (16EC1 [22-M-7]) (Kidder 1986 a) sites.

Mound B vertical stratigraphy does not correspond very strongly with the cultural stratigraphy from the arbitrary and naturally excavated levels and features; nor does it correlate stratigraphically with the excavation in the shell midden. Historic disturbance on mound B (which has not been plowed in recent memory) is not clearly visible in the vertical soil stratigraphy. Stratum I does not completely define the historically disturbed zone. Rather, the arbitrary excavated levels indicate historic disturbance to a depth of 20 cm below the surface (levels A and B in each mound B test unit). Below level B, the excavated material is all Neo-Indian.

As discussed earlier, stratum II is a rather thick brown midden level which has no clear evidence for subdivision. Overall review of artifact stratigraphy from excavated levels reveals that changes in artifact density or nature in mound B do not correspond to the originally suggested subdivisions of the midden (Figures 7-10). The only possible exception to this artifact/soil stratigraphy generalization occurs in Test Unit Six. Level C in Test Unit Six showed a significant drop in artifact density compared to levels B and D (Figure 10). Also, level C vertically fell on the suggested subdivision line between "disturbed" and "primary" midden. However, given (1) the absence of this correlation in test units Two and Four, and (2) the continuity in soil stratigraphy between Test Unit Six and Four, we would suggest that the seeming relation between "change" in midden soil and level C artifact content does not represent any significant depositional reality. Since there is no correlation between soil stratigraphy (stratum II) and cultural stratigraphy, we should consider what significant stratigraphic information can be gleaned from the cultural stratigraphy alone.

Within stratum II and part of stratum III (from levels B-G) the ceramic evidence indicates some degree of mixing. The total amount of decorated pottery from mound B is small; at least 28% of which is unclassified. Of the classified ceramics, 12% fall under either Marksville Incised, or Marksville Stamped, var. Unspecified, a category offering some information which will be discussed later. Thus over 36% of the mound B decorated ceramics cannot offer any clear temporal information. Given the total number of decorated sherds from mound B, the level by level counts are small, on the average 0-4 sherds.

Almost all of the decorated ceramics below level B are Late Marksville or earlier. However, there are individual post-Marksville decorated sherds scattered to 70 cm below the surface. Determination of post-Marksville decorated types is based primarily on Phillips (1970: 37-238).

Test Unit Two had one post-Marksville decorated sherd in levels C and G (French Fork Incised, var. Unspecified), and two in level F (French Fork Incised, var. Unspecified and an unclassified red on buff painted sherd which might be classified as Landon Red on Buff, var. Unspecified). Test Unit Four had one post-Marksville decorated sherd in level E. Test Unit Six had five Larto Red, var. Unspecified sherds (probably from the same vessel) in level F. While Larto Red is generally accepted to be a post-Marksville type, there is some reason to believe it might appear earlier (Phillips 1970: 98-100; Toth 1979 b: table 3; Belmont and Williams 1982: 23). However, for the purposes of this presentation Larto Red will be considered a post-Marksville type for two reasons: (1) the bulk of evidence at the moment points to a Troyville or later date (ibid.), and (2) the absence of a stratigraphically isolated, mound B Issaquena phase level prevents any new comments on the Larto Red issue to be taken from Stevenson data. Test Unit Six also had one Salomon Brushed, var. Unspecified sherd, but field notes describe the origins of this sherd as unknown (it was found on a temporary floor of level I).

The remaining identifiable decorated sherds in mound B below level B were Late Marksville ceramics (a total of 43, not including any var. Unspecified that by their type alone could possibly be Late Marksville period ceramics). Thus the artifact differences within the stratum II and III level appear to be quantitative not qualitative.

In each test unit, increases and decreases in bone, shell and ceramic content of the levels correspond to each other (Figures 7-10). Although the artifact content graphs of the mound B test units do not have exactly the same pattern, there is a vertical depth correspondence among the highest artifact content peaks of each test unit around levels F-G. Test Unit Two's highest artifact content peak appears slightly deeper, at level H (Figure 7). However, the explanation for this difference is the same one used to explain the shell found in Test Unit Two level J. The explanation is suggested by the greater slope on the eastern side of mound B which caused an artifact from a given deposition level to appear deeper in Test Unit Two, than in Test Unit Four or Six.

Taking into consideration the lack of relationship between the soil stratigraphy and cultural stratigraphy, and qualitative homogeneity of the midden artifact content, a basic comment on the occupational nature of mound B can still be presented. The midden level, below the historic disturbance is clearly dominated by Late Marksville decorated types. However no identifiable qualitative differences can be discerned within the mound B midden. The low number of decorated ceramics makes such an attempt at isolating difference statistically questionable. It should also be noted that no discernible changes could be seen in any other ceramic artifact category (i.e. rim and vessel forms, or in plainware types). Nonetheless, on the quantitative side there appears to be variation in how the midden was deposited, even taking into consideration the impact of arbitrary levels on the graphs. The processes which could have caused such variability are unknown, but may have to do with different depositional time spans, or differing amounts of material being deposited. A more precise explanation in terms of associating any qualitative changes with the depositional changes is unfounded at present.

The foregoing discussion has served to highlight the fact that mound B does not appear to have been purposefully constructed. No evidence of mound construction activities could be discerned, although in Test Unit Four we did locate an in situ charcoal and ash deposit. Thus, the mound is best characterized as an accretionary structure, or "midden mound".

The stratigraphy in Test Unit Ten is hopelessly confused due to historic and recent modifications (Figure 6). It is probable that the disturbance extends into the subsoil (stratum I) as it is unusually uneven, unlike the other test units. The other strata above all contained evidence of disturbance, and in fact it is apparent to us that they represent redeposited soils. Thus, no coherent stratigraphic data from Test Unit Ten can be utilized in strengthening the Stevenson site chronology. However, it is worth noting that the artifacts from Test Unit Ten were not unlike those found in the other test units. One conspicuous differrence is the absence in Test Unit Ten of significant faunal deposits (Table 15).

A new plainware type and specific rims modes have been identified at the Stevenson site in association with the Late Marksville period Hegwood Bayou phase midden and occupational levels. A more detailed discussion of these characteristic rim modes and the plainware type will be presented below. It must be noted, however, that the creation of plainware ceramic markers as identifying characteristics of the Late Marksville period does not rest solely on the stratigraphic data presented here, but also on ceramic analysis from other excavated sites in northeast Louisiana (Kidder 1986 a).

The shell midden provides the backbone of evidence at Stevenson for the identification and association of the Late Marksville Issaquena phase decorated types. Test Unit One's unified soil and cultural stratigraphy, in concert with comparative evidence from other excavated sites in the Lower Mississippi Valley (Phillips 1970), allows us to identify a Late Marksville occupation at both the shell midden, and also mound B. While mound B lacks a clearly isolated soil level to correspond to the cultural stratigraphy, it does have a midden that can ceramically be labelled Late Marksville, with the assistance of data from the shell midden. Admittedly, there is some mixing of later ceramic types in the mound B midden. However, the use of information from other Marksville sites, including Manny (22-M-6) and Johnson (16EC1 [22-K-6]), permits us to distinguish Late Marksville period ceramics that can logically be assigned to the local Hegwood Bayou phase at Stevenson (Kidder 1986 a).

Artifacts

Ceramics

The bulk of the non-faunal artifacts from Stevenson consist of ceramics: pottery, a clay pipe fragment, baked clay objects, and fired clay. The pottery has been subjected to the type-variety system of classification. Largely the existing nomenclature has been sufficient for our needs, but in several cases we have been forced by local circumstances to create our own types and varieties. New types and/or varieties will be discussed in some detail, however, existing types will only be noted since the reader can look up the data himself. Only ceramics from the 1985 excavations are discussed below. The 1983 material was classified into already existing categories, and have been discussed elsewhere (Kidder n.d. a). Poverty Point objects and object fragments have been classified according to the nomenclature set forth by Webb and his associates (Webb 1968, 1977, 1982; Webb et al. n.d.). Often the baked clay is indistinguishable from fired clay which is common in all test units. In these cases the clay was weighed and no attempt was made to sort out deliberately shaped fragments. Thus, the fired clay category listed in the tables (Tables 11-15) probably includes material which once came from Poverty Point objects. Needless to say the fired clay will not be discussed beyond what was noted above. Lithics were not common in the excavation units. Lithics have been sorted by form and material class. All lithics were made on locally available stream gravel chert, unless otherwise noted. All artifacts are listed by test unit in Tables 11-15, and the ceramics and lithics are summarized in Tables 16 and 17.

Alligator Incised, var. Oxbow (N= 2)

Same as noted in references, but these sherds may actually be less haphazard examples of a new type we are proposing, Macon Textured (see below). The plain pottery at Stevenson is often poorly made, and poorly finished. In many instances the lack of finish is so extreme that it has given us cause to sort such material as a class of deliberately textured ceramics. However, in at least two cases, the surface treatment was so purposeful that we had to exempt it from the Macon Textured category. Thus, we sort these sherds into Oxbow almost by default. Chronologically these sherds could date to either the Late Marksville or Baytown periods, and at Stevenson the stratigraphy is of no use in determining the placement of this meagre sample. Based on the ware and paste they probably date to the Hegwood Bayou phase. (References: Phillips 1970: 39-40; Phillips, Ford and Griffin 1951: 97-98; Williams and Brain 1983: 118)

Baytown Plain, var. Fitler (N= 3)

Same as noted in reference. These sherds were sorted because they represented the finest examples of the Late Marksville plain ceramics at Stevenson. The three sherds in our collection are all rims, and exhibit an incurved bowl shape with a thin, somewhat tapered and rounded lip. (Reference: Phillips 1970: 49-50)

Baytown Plain, var. Johnson (N= 1104)(Plate 12 a-i)

Description: New variety.

Background: The exact point of origin for variety Johnson is unknown. The name was used informally as early as the 1960s by members of the LMS Tensas Survey, in reference to plainwares from the Late Marksville levels at the Johnson site (16EC1 [22-K-6]). The variety, however, was never formally defined, and it never got into print, even in Phillips' discussion of the Johnson phase (1970: 895). The first published reference to the variety was an oblique comment by Belmont in a discussion of the plain ceramics from three sites in the Boeuf Basin in northeast Louisiana which were collected by the LMS in 1981 (Belmont 1985: 274). Belmont used the concept of variety Johnson (but not the name as one of the defining characteristics of the Late Marksville Hegwood Bayou phase (ibid.; Kidder 1986 a; Ring 1986). As Belmont's comments on the plainwares from the 1981 LMS reconnaissance formed the first basis for the definition of var. Johnson, they are worth quoting, if only for their historical interest. "There were three sites [Stevenson, 16RI14 (22-J-2), Flynn, 16MO112 (22-J-40), and Harp, 16MO2 (21-J-1)] which yielded large surface collections consisting almost entirely of plain, rather coarse ware..." (1985: 274).

After this cursory description, Belmont went on to note the affinity of this plainware to the Johnson phase in the Tensas Basin; he also noted connections to the north in Arkansas, and to the west in the Red River valley in Louisiana (ibid.). Thus, although the variety was formally recognized in the central Boeuf Basin, its conceptual genesis came from data acquired earlier in the Tensas Basin.

In the original sorting sheets for the Johnson site (16EC1 [22-K-6]), the plainwares from the lowest levels were sorted as Baytown Plain, var. Marksville. However, it was obvious that the decorated minority was not of an early Marksville date, and thus the use of Baytown Plain, var. Marksville was inappropriate. Upon reanalysis of the Johnson site collection (Kidder 1986 a), it was found that the majority of the plainware was very similar to those found in the central Boeuf Basin, and thus the variety descriptions from both areas should be similar. The name var. Johnson was suggested by John Belmont, who as indicated earlier, had been using it to describe Late Marksville plain ceramics from northeast Louisiana for some time.

In 1983, the LMS, building on the work of the 1981 reconnaissance, conducted an intensive survey of the central Boeuf Basin (Kidder n.d. a; Kidder and Williams 1984; Williams 1983, 1986). The three sites noted by Belmont were revisited and recollected, and in the case of Stevenson, limited testing was conducted. In the field, and in later analysis, we noted that late Marksville decorated ceramics were always found in association with a coarse, relatively thick and crude plainware. Although we were aware of the var. Johnson concept from discussions with Belmont, we had no stratigraphic basis for establishing a variety, and we were ignorant of the Tensas stratigraphy. Therefore, we took a conservative route and classified all plain ceramics as var. Unspecified. Perhaps this was too extreme (in retrospect, of course), but we had little confidence then in identifying a specific plainware complex in multicomponent sites. However, in 1985, the LMS conducted excavations at the Stevenson site, which provided unequivocal stratigraphic data which now allows us to shoulder the burden of describing var. Johnson (Ring 1986).

Sorting criteria: Var. Johnson is a coarse, thick pottery with large amounts of grit and grog as temper. The description used by Belmont which included "sandy" as a criteria is perhaps invalid, although it does indicate the gritty nature of the pottery. Variety Johnson tends to be relatively hard, but when rubbed will often leave a film of grit and fine clay on the fingertips. The surface is usually uneven and somewhat bumpy, with pieces of grit occasionally showing on the surface. Surfaces are never polished. Colors range from light tan to brownish black, but a tan-orange seems most common. Not unlike var. Reed, Johnson is a rather sorry variety in feel, texture, and execution.

Rims are usually unmodified with round or round-flattened lips, ocasionally with a slight exterior rim fold as a result of careless flattening of the lip (Plate 12 a, f-i). The latter rim form is most common, and for convenience sake has been labled the "Hegwood Rim" (Plate 12 f-i). Other rims noted for var. Johnson include simple round rims, thin tapered rims, and an occasional interior beveled rim (Plate 12 d-e), including the "Arcadia" rim

(Plate 12 d-e)(Phillips 1970: 790-793). Bases are flat, with a gentle curve where the base meets the vessel wall. The latter form is diagnostic of var. Johnson. Vessel shapes are relatively simple, being largely confined to deep bowls and possibly beakers.

Variety Johnson can be sorted from its contemporary counterpart, var. Satartia, primarily by feel, thickness, and surface treatment. Variety Johnson is thick and gritty, and tends to leave a film when rubbed; var. Satartia exhibits none of these features. Variety Johnson, as noted above, is never polished, although it is often smoothed and can exhibit a hardness which could allow for polishing. Some Johnson grades toward Satartia, and vice versa. In this situation we have opted to classify borderline sherds as var. Unspecified, a saving grace of the type-variety system (ibid.: 47-48, 52).

Distribution: The center of distribution for var. Johnson appears to be the northern portions of the Boeuf and Tensas basins in northeast Louisiana. Limited data suggests that the variety extends into southeastern Arkansas, possibly as a resident type in the Alligator Point phase (Rolingson 1982; Jeter 1982: 96-97). There is also some type of generalized similarity between var. Johnson ceramics, and those defined for contemporary Fourche Maline groups in southwestern Arkansas. Specifically, Johnson is quite similar to Williams Plain, the most common Fourche Maline ceramic type (Schambach 1970: 92-102, 294-298, 1982: 160-163). In a similar fashion, Johnson shares traits with plain ceramics defined for the Bellvue focus in northwest Louisiana (Webb 1984:

258-261, 268). The variety is not apparently common south of the Lake Lafourche diversion canal in the Boeuf Basin (Fuller 1985: 23-25), and it does not appear below Tallulah in the Tensas. To date no examples of Johnson have been noted east of the Mississippi River.

Chronological position: Johnson ceramics are only known for the Late Marksville period in the central and northern Boeuf and Tensas basins, and are diagnostic of the Hegwood Bayou and Johnson phases (Kidder 1986 a; Ring 1986).

Diagnostic modes: Coarse, mixed grit and grog tempered plain pottery. Simple bowls and possibly beakers are the most common vessel forms. Rims are usually unmodified, with simple flat, round-flattened, and round rims predominating. Bases are flat and have a gentle curve where the base meets the wall.

References: None.

Baytown Plain, var. Marksville (N= 1)

Same as noted in references. This one sherd was sorted into var. Marksville based on paste and texture, as well as the fact that it may have had a podal support. The sherd in question came from Test Unit Ten, and thus has no stratigraphic value. (References: ord and Willey 1940: 59-65; Phillips 1970: 50-51; Toth 1977: 493-494)

Baytown Plain, var. Reed (N= 24)

Same as in references. At Stevenson the Reed ceramics are always a dark brown to black color, and while the surface is generally well finished, the tempering is exceedingly coarse. The rims are usually rounded, and vessel forms include simple and incurved bowls. It is presumed that the Reed at Stevenson belongs with the Troyville component; however, it is possibly contemporary with the Johnson ceramics. (References: Ford 1951: 67-68; Phillips 1970: 52-53; Williams and Brain 1983: 92)

Baytown Plain, var. Satartia (N= 186)
Same as in references. At Stevenson the Satartia is easily sorted from the bulk of the course plainwares by its finer paste and better surface treatment, its grey color, and its tendency to be relatively thin. Rim modes are similar to those described for var. Johnson, and vessel modes include a range of bowl forms. The decorated late Marksville ceramics are all found on a Satartia paste. Satartia is notable for its flat, square base, which has a very sharp angle where the base meets the wall (Plate 12 j-k). (References: Greengo 1964: 23-35; Phillips 1970: 53-54; Williams and Brain 1983: 92)

Baytown Plain, var. Unspecified (N= 4928)
This category includes all sherds which were too small, damaged, or otherwise unsortable. The bulk of the plain ceramics tend to fall into several categories. One category is too poorly made to even qualify for Reed, while the largest category falls between Johnson and Satartia. Variety Unspecified is the largest single ceramic "variety" and has been deliberatly utilized to minimize the variability among and between relatively similar plainware groups.

Churupa Punctated, var. Churupa (N= 3)(Plate -)

Same as in references. Like all the late Marksville period decorated ceramics the Churupa is on a Satartia paste. The decoration is very well executed, and in all cases the punctations were made with either a hollow cane or a small bird bone (Plate 10 c). (References: Ford 1951: 52-53; Phillips, Ford and Griffin 1951: 95-96; Ford, Phillips and Haag 1955: 85-86; Phillips 1970: 67-68; Williams and Brain 1983: 144)

Churupa Punctated, var. Unspecified (N= 4)

Two of these sherds are simply too small for variety identification, although they do not look to be the classic variety. The other two sherds are different from any known Churupa variety. They consist of thin, narrow and shallow rectilinear lines with relatively large oval punctations (Plate 11 f). The paste is not typical for any late Marksville decorated or undecorated pottery. John Belmont (personal communication 1986) informs me that these sherds are a variety which he calls Cummins, which is a Baytown period marker. Variety Cummins is a punctated counterpart to Marksville Incised, var. Vick (see below).

Coles Creek Incised, var. Unspecified (N= 1)

This single sherd came from a disturbed context in Test Unit Ten. Other than the associations that the type name implies we cannot assign it to any specific chronological position.

Evansville Punctated, var. Unspecified (N= 1)

It is entirely possible that this sherd represents a Churupa Punctated, var. Unspecified sherd which does not exhibit the incisions because the piece is too small. Otherwise the sherd is undistinguished, except that its paste appears to post-date the Marksville period.

French Fork Incised, var. Unspecified (N= 4)
This group is a catchall for a small number of clearly post-Marksville sherds which exhibit punctation and rectilinear and curvilinear incision (Plate 11 g-h). None of the sherds are otherwise alike. One sherd with very fine, scratchy incisions is very similar to some sherds found in Bayland phase contexts in mound C at the Lake George site (Plate 11 g)(Williams and Brain 1983: 160, fig. 5.17 d, f, h). None of these sherds are similar to any classic form of French Fork incised.

Grace Brushed, var. Unspecified (N= 1)
The single sherd of Grace Brushed came from the plow zone of Test Unit One. This area was the locus for the Mississippian component at Stevenson and it is thus not surprising that we found several Mississippian sherds here. From other survey and excavation data it is almost certain that this sherd dates to the Jordan phase, which is entirely protohistoric or early historic.

Hudson Engraved, var. Unspecified (N= 1)
Like the Grace Brushed sherd this sherd also belongs to the Mississippian Jordan phase component at the site. This sherd exhibits a relatively fine crosshatching which is very typical of the type.

Landon Red on Buff, var. Unspecified (?) (N= 1)
This is a completely unique sherd which is classified to this type in order to provide a starting point for discussion. The sherd is

painted on the exterior of the vessel which thus violates the type description (Phillips 1970: 98). The design which can be seen consists of rectilinear bands or panels of dark red or reddish brown on a buff surface (Plate 11 c). The paste is hard and fine and is otherwise unique as well. Unlike the type description, the paint is quite bold and it is possible that the sherd was negative painted. Stratigraphically the sherd was located in the late Marksville midden in Test Unit Two; however, it is much more likely that it dates to the Baytown period Troyville I Priestly phase (Belmont and Williams 1981: 27; Kidder n.d. a).

Larto Red, var. Larto (N= 2)

Same as in references. The Larto sherds at Stevenson were sorted to the variety based on paste criteria which suggests a post-Marksville time line (Plate 11 d). Stratigraphically it is entirely possible that they date to the Hegwood Bayou phase. It has already been suggested that Larto could date to the Marksville period (Belmont and Williams 1981: 23) but we lack diagnostic rims which would aid in making a chronological assessment. Personally we would not be uncomfortable with the Larto dating to the Hegwood Bayou phase. (References: Ford 1951: 59-61; Phillips 1970: 99; Williams and Brain 1983: 169)

Larto Red, var. Unspecified (N= 7)

These sherds were not sorted to the variety because they were too eroded to determine paste characteristics; however, their stratigraphic position suggests a Hegwood Bayou time frame. No diagnostic rims exist in the Stevenson site collections so we really cannot do too much with this type or any of its varieties.

Mabin Stamped, var. Unspecified (N= 1)
This single sherd exhibits all the characteristics of Mabin Stamped (Plate 10 d)(Phillips 1970: 122-123; Toth 1977: appendix), except it was in a late Marksville stratigraphic context. We have reason to believe that an early Marksville component is located on the site, and consequently it is possible that this sherd dates to that period. However, the paste is unlike that which is described for Mabin Stamped (and the other two Mabin sherds at Stevenson) and it is similar to the Satartia paste on which the Hegwood Bayou decorated ceramics were made. Thus, it is possible that Mabin as a type is not totally exclusive to the Early Marksville period.

Macon Textured

It is with some fear and trepidation that we are proposing the creation of this new type. The type was originally provisionally defined in the early 1960s based on excavations conducted by the LMS at the Johnson site (16EC1 [22-K-6]). At that time the type was known as Bruton Textured (Williams, Kean, and Toth 1966: fig. 2). The type description, however, was never formalized, and the concept languished in obscurity until more recent work was conducted in the central Boeuf Basin in 1981, 1983, and 1985 (Williams 1983, 1986; Kidder and Williams 1984; Kidder 1986 a, n.d. a). In the intervening years, the orthographically similar name Broutin was preempted by Jeffrey

Brain as a variety of Winterville Incised (Brain n.d.), and thus Bruton was no longer available for use. The type was originally defined on the basis of a surface treatment which included roughening, texturing, and occasionally haphazard brushing and/or incising. The type was exclusively found in late Marksville contexts, and thus formed a hallmark for the Johnson phase of the late Marksville period in the Tensas Basin (Phillips 1970: 895; Kidder 1986 a).

When the initial Stevenson site collections were being sorted we were relatively ignorant of the Tensas stratigraphy and typology, and thus had no model of what late Marksville material from northeast Louisiana should look like. However, as sorting progressed, a large amount of what was otherwise plain pottery was being sorted into a "unclassified decorated or brushed" category, based on a surface treatment which was hard to define, but included roughening, brushing, and haphazard incision. Some of the more notable brushed pottery was tentatively assigned to the type Salomon Brushed, while some of the haphazardly incised material was thrown under Alligator Incised, var. Oxbow. However, this failed to account for the bulk of the "unclassified decorated or brushed" material, and also there was no cultural context in which the two established types could be accommodated.

In 1985, after excavating at Stevenson, we ran into a similar problem with the excavated sample. At this time, however, we had the benefit of talking with John Belmont, and also examining the Tensas collections. After being apprised of the Bruton Textured concept, and having seen the Johnson site collections, we became certain that we were dealing with a similar phenomenon. The connections between Bruton Textured at Johnson and "unclassified decorated or brushed" at Stevenson were striking; both shared a similar decorative pattern, which included roughening on both the interior and exterior (a trait which makes the type distinctive from Oxbow or Salomon Brushed), as well as the fact that the type occurred on the same plainware. Thus, as a result of the close comparison, it was decided to reestablish the concept of Bruton Textured, but with a new name. The name Macon was chosen because of the association of late Marksville sites in the Tensas Basin with Macon Ridge (Kidder 1986 a). Furthermore, the Stevenson site was located on a low terrace of the western edge of Macon Ridge.

Macon Textured, variety Macon (N= 68)

Description: New variety.

Background: As noted in the discussion of the type, var. Macon was first recognized in the lower levels of the Johnson site (16EC1 [22-K-6]) in the Tensas Basin. At the Johnson site the lower levels were almost exclusively of late Marksville age (Kidder 1986 a), and thus the type (and variety) were recognized to be diagnostic of the late Marksville occupation in northeast Louisiana. At Johnson, var. Macon was always associated with a coarse, rather gritty plainware defined as Baytown Plain, var. Johnson. Excavations at the Stevenson site in 1985 gave independant confirmation that var. Macon existed as a viable type. Variety Macon was defined in concept (but not in name) at

Stevenson before we knew of the existence of the Johnson site material. Thus, when the two collections were viewed together, it was quite obvious that we needed a new nomenclature to integrate the two samples. As noted above, the term Macon was chosen after the initial name, Bruton, was preempted for another variety of a different type. Variety Macon is the established variety, and has been defined on the basis of large surface collections from the Stevenson site, as well as excavations at both Stevenson, and the Johnson site.

Sorting Criteria: Variety Macon has a roughened, textured surface caused by haphazard brushing, incising, and smoothing (Plate 10 j-l). Although there is no decorative intent in the pattern of the texturing, the overall effect is a vessel which exhibits surface alteration sufficient to remove it from any plainware category. The most common form of texturing is either vertical or horizontal lines which usually appear to have been made by brushing with a coarse instrument, possibly as simple as a bundle of grass. Usually the lines are thin and shallow, although occasionally they are fairly deep, but rarely exceed 2-3 mm in width. Lines made in this fashion show no patterning, and usually trend in different directions on the same sherd. Occasionally the surface was further textured after being brushed by the application of haphazard incisions in an apparently random fashion. Most texturing occurs on the vessel exterior, but a number of sherds show similar surface treatment on the vessel interior. Some sherds of Macon are textured with broad, shallow lines which may be tool marks, or finger smoothing marks. At times Macon looks as if the potter began to smooth the vessel, but gave up and left whatever marks that were on the vessel stay. Several sherds show texturing with what may be some form of cordage, but these sherds do not approach cordmarking in any sense of the word. Very rarely the texturing of Macon consists of sloppy, haphazard incision, which approaches the definition of Alligator Incised, var. Oxbow. Sherds which show either other forms of texturing, or interior texturing, were sorted as var. Macon, while those that do not have these defining features were classified as Unspecified. Several sherds in the Stevenson collection were actually sorted as Salomon Brushed, var. Unspecified, because the brushing/texturing was too patterned for the basic definition of var. Macon. It is likely that these sherds are simply better made Macon, however, they cannot be sorted to the type.

At present Macon is only found on a Baytown Plain, var. Johnson paste. Several sherds at Stevenson approach var. Reed in paste, but it is likely that they are poorly fired variants of Johnson. Vessel shapes and rims for Macon are, not surprisingly, similar to those defined for Johnson. The common vessel shape is a simple bowl, although beakers may also be noted. Rims include a variety of unmodified forms, including simple round, simple flat, and round-flattened rims. No bases exhibiting Macon texturing are known, which may suggest that the variety is limited to rim and upper body treatments.

Distribution: To date Macon Textured, and its established variety are only known from northeast Louisiana. Macon Textured is not found east of the Mississippi River, nor does it appear south of Tallulah, Louisiana. In the Boeuf Basin the type is found only in the central part of the basin, generally north of the Lake Lafourche diversion canal. At present nothing similar to Macon is known from southeast Arkansas or the Felsenthal region just to the west.

Chronological position: Macon Textured, var. Macon is a diagnostic of the Hegwood Bayou and Johnson phases of the late Marksville period.

Diagnostic modes: Unpatterned brushing, incising, or surface roughening on either the interior or exterior of vessels such as to give an overall effect of texturing on a coarse grit-grog tempered plainware defined as Baytown Plain, var. Johnson. Rims are usually unmodified, and the most common form is a round-flattened rim from a simple bowl.

References: Williams, Kean and Toth 1966: fig. 2, listed as Bruton Textured.

Marksville Incised, var. Steele Bayou (N= 3)

Same as in reference. The Steele Bayou at Stevenson is made on a fine Satartia paste and the execution of the decoration is very good. The color is a dark brown to black and the surfaces are slightly polished (Plate 10 b). Two of the three sherds came from feature 3 and level C (which we feel is part of the feature) in Test Unit One. (Reference: Phillips 1970: 115-117)

Marksville Incised, var. Vick (N= 10)

Description: New variety.

Background: This type is being set forth in order to separate out late Marksville and Troyville period variants of Marksville Incised pottery. Variety Vick is a variety with a lengthy "underground" history--which is to say that it has been long recognized, but never defined in print. The appearance of Vick, in small quantities, at the Stevenson site has necessitated our discussion. Variety Vick was first identified by John Belmont based on his reanalysis of the Greenhouse site (16AV2 [28-H-2]) collections in the mid-1960s (Belmont 1967). The variety was set off from Yokena Incised, where it had been lumped by Ford (1951: 50-52). Although Ford had defined Yokena Incised as having "broad lines, semicircular in section, varying from 2 to 4 mm. in width" (ibid.: 50), he also lumped some sherds into Yokena Incised which had narrow, shallow lines incised with a flat instrument (LMS collections, Peabody Museum). These latter forms were separated from Yokena Incised by Belmont, and placed into var. Vick. Belmont noted that in the post-Issaquena (i.e. post late Marksville) Black River phase "standard" Marksville U-shaped lines give way to sharp, wet paste incised lines (Belmont 1967: 30). Although Belmont never formally defined Vick, it is clear that the variety was established to account for just this phenomenon. Belmont's resorting of the Greenhouse collection then, suggested that Vick was a terminal manifestation of the Marksville Incised concept.

Unfortunately, no stratigraphic data was presented by Belmont to support such an assumption.

In 1983 the LMS made a large surface collection at the Reno Brake site (16TE93 [25-K-22]) in the Tensas Basin, which is largely a Troyville site with the bulk of the collection dating to the Troyville I Indian Bayou phase (Belmont 1984: fig. 3; Williams, Kean and Toth 1966: fig. 2). What is significant about the Reno Brake site is that it does not have an earlier late Marksville occupation. At Reno Brake we recognized a large sample of Vick, which, although we have no stratigraphy, can be placed in the Indian Bayou phase, based on context and decorative elements. In the context at Reno Brake, it is quite evident that Vick indeed does represent a terminal manifestation of the Marksville Incised concept.

In sorting the Stevenson excavated sample we noted that a small number of sherds which normally would be sorted as Marksville Incised, var. Unspecified, would fit into the definition of Vick as was explained to us by Belmont. The number of sherds was too small to form a stratigraphic evaluation of Vick, but it is worth noting that of ten sherds defined as Vick, five came from the upper 20 cm of their respective test units (Ring 1986). Thus, we began to use Vick in the same sense as had Belmont, that is, we felt Vick represented an early Troyville variant of the long Marksville Incised tradition.

Sorting criteria: Thin, shallow lines incised into vessels of mixed grit-grog tempering while the clay was still plastic (Plate

11 a). Lines were incised with a blunt, usually flat instrument, which leaves a line which is more square than round in cross section. Occasionally the lines are round, but they are never as deep, nor as well executed, as in earlier late Marksville incised varieties. Designs are mainly curvilinear, and seem to represent degenerated forms of classic late Marksville patterns. Lines occasionally terminate with a punctation or deep impression, a phenomenon which seems to foreshadow similar patterns in Alligator Incised, and French Fork Incised.

Rims with Vick designs are rare, so generalizations are difficult. In the small sample available the majority of rims are unmodified with either a round, or round-flattened lip. Several rims are thickened and flat, and one has a deep incision in the lip. A single shallow line encircling the vessel just below the rim seems characteristic, and indicates the continuity from the late Marksville period. Vessel shapes are largely unknown, although one sherd represents a beaker with a node pinched up well below the rim and decorated with Vick lines. The ware on which Vick is found is a relatively well made grit-grog tempered pottery with smooth surfaces. Most likely this represents some form of Baytown Plain, var. Troyville.

Distribution: Vick is currently known to extend from the Red River mouth area north to the Arkansas-Louisiana border. It occurs in the Tensas and Boeuf basins, and is also known to occur at the Jaketown site (20-O-1) in Mississippi. It is possible, but not proven that the variety extends into southeastern Arkansas.

Variety Vick is unknown along the Ouachita, and nothing like it has been reported in the Felsenthal, or southwest Arkansas.

Chronological position: Vick is a diagnostic of the Troyville I Black River, Indian Bayou, Goldmine, and Priestly phases in the Lower Red, Tensas, and Boeuf regions. It is possible that Vick is found in late Marksville contexts, but it is worth noting that no Vick was found at the Johnson site (16EC1 [22-K-6]), which has a late Marksville component, but no early Troyville occupation (Kidder 1986 a). Whether Vick extends into later times is not known.

Diagnostic modes: Narrow, flat or round, shallow wet paste incisions on a well made grit-grog tempered pottery. Decoration is usually curvilinear, and seems to be derived from earlier late Marksville patterns. Lines sometimes end with an emphasis which is typical of later French Fork designs. Rims are either unmodified with simple flat or round lips, or they are thickened and flat, possibly with a line in the lip. Vessel shapes probably consist of bowls and beakers, although only the former is certainly associated with the variety.

References: None.

Marksville Incised, var. Yokena (N= 1)

Same as noted in references. One of the biggest surprises of the Stevenson excavations was the very small number of Marksville Incised sherds, most particularly Yokena. It is possible that some Yokena was subsumed in the Unspecified category, but still only one sherd is unusual, especially as we have a moderate representation of Yokena in the surface collections (Table 9). Needless to say Yokena was apparently not a popular ceramic variety, and in fact Marksville Incised as a type was not hugely popular, although in total it does outnumber any other previously defined Marksville type. (References: Ford 1951: 50-52; Ford, Phillips and Haag 1955: 83-85; Phillips 1970: 117-119; Williams and Brain 1983: 181)

Marksville Incised, var. Unspecified (N= 16)

In many cases the sherds from the excavations were too small to sort to the variety level and thus had to be classified as Unspecified. As was noted above this may have been the fate of some of the Yokena. In general the Marksville Incised, var. Unspecified is found on a good Satartia paste. Few, if any of the sherds, are really poorly made. There is no hint in the excavated sample of the Spanish Fort class of sloppy Marksville Incised. Both the surface collections and the excavated sample suggest that Marksville Incised was generally more popular than Marksville Stamped, but it is clear that neither group ever achieved the kind of popularity seen in the Yazoo (Phillips 1970: tables 7, 15).

Marksville Stamped, var. Bayou Rouge (N= 1)

Same as in references except where noted below. Bayou Rouge is a variety with an ambiguous status (Phillips 1970: 121). It was established to post-date the Troyville variety, but it was difficult to sort from that variety. Phillips (ibid.) noted that one characteristic of Bayou Rouge was its sloppy execution and the narrowness of the lines. Above we established Vick as a separate type, and noted that there was a companion variety (var. Cummins) for Churupa Punctated. Thus, Bayou Rouge falls into a contemporary position with Vick and Cummins. Furthermore, there is another variety called Watson by John Belmont which is the dentate (as opposed to rocker) stamped companion to the above mentioned varieties (Plate 11 b).

Our single sherd of Bayou Rouge is on a paste which is harder and finer than the standard late Marksville pottery, although the design and execution is considerably degenerated from late Marksville cannons (Plate 11 e). In our single sherd the rocker stamping is close spaced and does not have a "wide swing" (Phillips 1970: 121). However, all other criteria (particularly execution and the incised lines) point to the fact that this sherd could not be classified as var. Troyville. (References: Ford 1951: 49-50; Phillips 1970: 121)

Marksville Stamped, var. Manny (N= 2)

Same as in references. Not unlike the absence of Yokena the lack of Manny was a surprise. We knew from the surface collections that Manny was not well represented at Stevenson. However, we did not know just how under-represented. Furthermore, there is some ambiguity in sorting Manny from Newsome (Phillips 1970). Based on an admittedly subjective assessment of the degree of "fineness" we sorted the small sample of dentate stamped ceramics (Plate 10 e). The numbers for both groups are small, and when viewed in stratigraphic relation there are no differences between the two. We have maintained the two as separate varieties for the present, in the hope that future researchers may perhaps be able to extract some internal chronology from the midden levels. Further justification can be found in the surface collections where the two varieties have greater differences. (References: Greengo 1964: 35-47; Phillips 1970: 123-125; Williams and Brain 1983: 182)

Marksville Stamped, var. Newsome (N= 5)

Same as noted in reference. The Newsome from the Stevenson excavations is the finest pottery on the site. Both in terms of paste and decorative characteristics, what we are calling Newsome is a beautiful variety (Plate 10 g-i). In all cases the paste is a hard, very fine dark grit-grog ware which tends to dark browns and blacks. Like all the decorated ceramics outside of var. Macon, the Newsome paste appears to be a very fine kind of Satartia. The lack of stratigraphic separability between Newsome and Manny emphasizes Phillips warning that the Yazoo chronology is not necessarily applicable to other areas (1970: 125). There is no evidence that the Newsome at Stevenson is any earlier in the late Marksville sequence than any other late Marksville type. (Reference: Phillips 1970: 125)

Marksville Stamped, var. Unspecified (N= 7)

The Unclassified group consists of those sherds that were too small or eroded for identification. It is interesting to note that even with this variety added, the stamped ceramics in the Stevenson excavations are a minority of the decorated sample. This same pattern holds up in the surface collections. However, at the Johnson site (16EC1 [22-K-6]) in a contemporary context (Kidder

1986 a; Ring 1986), stamping slightly outnumbers incising, in both typed, and unspecified categories (Kidder 1986 a: tables 2-5). Thus, it is evident that regional ceramic patterns can be differentiated in spatially proximate areas (ibid.).

Mazique Incised, _var. Unspecified_ (N= 1)

It is hardly worth mentioning this sherd as it is very small and worn. It appears to be well executed and the lines are narrow and sharp. Possibly it represents a _Kings Point_-like sherd. The context was the disturbed plow zone in Test Unit One.

Mississippi Plain, _var. Unspecified_ (N= 39)

The bulk of these sherds came from the plow zone in Test Unit One, although one sherd was found in the upper part of the feature in Test Unit One. The latter sherd is no doubt intrusive. These sherds are all small and consequently cannot be adequately sorted; however, based on the other Mississippian decorated pottery at Stevenson, and the feel of these sherds, it is highly likely, if not certain, that these sherds date to the Jordan phase. As such, they should be sorted as _variety Morehouse_. However, because we have not yet presented our definition of _Morehouse_ (and we do not chose to do so at this moment) we will continue to classify these sherds as _Unspecified_. Regardless of their final name, these sherds certainly date to the protohistoric period.

Officer Punctated, _var. Unspecified_ (N= 1)

The concept of Officer Punctated arose from the work conducted by Rolingson and her colleagues at the Toltec site (Stewart-Abernathy 1982: 47). As defined the type represents rim and lip modifications that would otherwise be classified as modes. In our opinion the type does not necessarily have any greater validity than modes, except it allows one to give names to modes, and discuss them across state lines. Our use of the Officer Punctated type is based more on mnemonics than anything else. In the single instance at Stevenson the sherd exhibits a row of fingernail punctations placed horizontally below the lip. We have less conviction in the type when we observe that a similar phenomenon is common to Alligator Incised, var. Alligator, as well as some variants of Mulberry Creek Cordmarked (Phillips 1970: 39).

Salomon Brushed, var. Unspecified (N= 1)

This is an altogether unimportant sherd which was unfortunately found on the temporary floor of Test Unit Four after a light rain. We do not know its stratigaphic context. The sherd has been bounced between variety Macon, unclassified brushed, Salomon Brushed, and several other categories in between. The sherd cannot be called Macon as it is too deliberate and carefully executed, but it is not really Salomon in the sense of the definition (Phillips 1970: 158-159). Thus, to prevent its orphanage, we have opted for the present convention of calling it Salomon Brushed, var. Unspecified. From its paste characteristics we would suggest that this sherd probably post-dates the Hegwood Bayou phase.

Tchefuncte Incised, var. Unspecified (N= 1)

A single sherd from Test Unit Four was poorly fired and appeared to be temperless, and had what we believe to be a jab-and-drag incision, thus qualifying it for tentative admission to the

Tchefuncte _U_ category. As the reader can probably gather the sherd was badly eroded and has no other significant detail. We have several Tchefuncte Plain sherds from our surface collections (Table 9) so it is not improbable that we should recover at least one Tchefuncte sherd in our excavations.

Ceramic elbow pipe fragment

In Test Unit Two, level five, we recovered a fragment of what appears to be a ceramic elbow pipe (Plate 11 i). The object in question is made of a grit-grog tempered pottery which can be classified as _var. Johnson_. The pipe is broken, and all we have is one half of the object where the bowl section turns up from the body. The bowl and stem are missing, as is the left half of the pipe. On the inside, where the pipe split in half it is possible to observe the tube which is expanding towards the hypothetical bowl. The tube curves down from the bowl section and runs parallel with the body of the pipe. There is no evidence of heating or charring on the inside of the tube or where it expands. The exterior sides and the top are flat and squared off, as is the front. The base is slightly convex, however.

At present there is no other pipe like this known from late Marksville contexts in the Lower Mississippi Valley. While this pipe vaguely resembles Mississippian elbow pipes it is clearly not of that affiliation. The pipe from Stevenson does not resemble any of the pipes from Manny (Greengo 1964: 77-79; Phillips 1970: 750). Even so, given the paste and context of the pipe fragment, we must conclude that it is highly likely that the fragment dates to the late Marksville Hegwood Bayou phase.

Poverty Point Objects (N= 3, plus 382 fragments)

The LMS excavations recovered one intact Poverty Point object and several typable object fragments. Furthermore, we have a great deal of large amorphous fired clay fragments which are almost certainly broken and eroded Poverty Point objects. The single intact object is classified as biscuit-shaped with cog-wheel-grooving (Plate 11 l)(Webb 1982: 37-40, Webb et al. n.d.: fig. 2 w). This object was recovered from the feature in test unit two along with a large quantity of amorphous fired clay. It is certain that this feature represents a Poverty Point hearth, although it contained fewer shaped objects than in any other reported hearth (Webb 1982: 12). The two other typable fragments were a melon-shaped with end grooves and a biscuit shaped object (Plate 11 j-k)(ibid.: fig. 2). All of the Poverty Point objects and fragments came from either Test Unit One, or Test Unit Two. In the former they were found throughout the unit, but were most numerous toward the base of feature 3. In Test Unit Two they were almost exclusively found in feature 4, or the surrounding matrix.

Lithics

Considering the quantity of ceramics recovered in the LMS excavations it was somewhat surprising to recover so few lithic objects (Table 17). The quantity of finished lithic material is very low, and indeed there are only three typable lithic objects in the entire collection. The bulk of the collection consists of flakes and debitage (shatter). For our purposes we have separated all lithic categories into two exclusive units based on resource proximity. We are using local and non-local chert to reflect different source areas. Local chert is available within a 40 km radius of the site, while non-local chert is presumed to have been imported from farther away. Of course such generalized categories are bound to be somewhat subjective, but our familiarity with local sources enables us to sort this category with confidence. It is possible that some of the non-local chert was introduced as stream gravel. Stream gravel was no doubt the source of the local chert and there is a great variablity within such a source. However, at Stevenson a good deal of the non-local chert is a consistently similar grey or reddish brown coarse material which we have never found in any stream gravel sources. It is apparent that there was no specific preference for local chert as non-local chert occurs in slightly larger numbers. Interestingly, although we have novaculite in surface collections, none was recovered from an excavated context.

It is also probabaly significant that so few cores and tool producing implements were found. Cores are common in surface collected contexts, and it is likely that we did not excavate in an area where intensive lithic working was being conducted. The lithics are also much less chronologicaly revealing than we would desire. The intact point is suggestive, but as a single piece it has limited value. The two largest excavated samples are from test units One and Ten. Unfortunately, much of what was in Test Unit

One was found in the plow zone, while Test Unit Ten has no original context. Nonetheless it is apparent that the Hegwood Bayou phase occupants were not producing lithic tools in great quantities where we excavated, and that they had a minor preference for non-local lithic sources, particularly ones which yielded coarse grey and coarse reddish-brown cherts.

Gary Stemmed, var. Maybon (N= 1)

Only one typable projectile point was recovered during the Stevenson excavations. Fortunately it is a beautiful example of the Maybon variety of Gary Stemmed made on local tan pebble chert (Plate 10 a). To the east in the Yazoo Basin the Maybon point is dated to the late Marksville and Baytown periods (Williams and Brain 1983: 233, fig. 7.10). In Arkansas small variants of Gary Stemmed are found associated with Marksville period Alligator Point phase sites (Jeter 1982: 96; Rolingson 1982: SE 14-SE 17). These data suggest then, that the Maybon found at Stevenson should date to the Hegwood Bayou phase, or slightly later. Indeed, the point from Stevenson was recovered from the Hegwood Bayou midden in Test Unit Four. Based on the growing body of data from the Lower Mississippi Valley, we would suggest that the Maybon point be considered a diagnostic trait for the late Marksville period.

Projectile point fragments (N= 2)

Two unclassified projectile point fragments were also recovered from Stevenson. One is the medial portion of an arrow point recovered in Test Unit Ten, while the other is a stem from what would probably have been a medium sized dart point. The latter fragment consists of a straight to slightly expanding stem, with an irregular slightly convex base which has been thinned. It is made of a non-local greyish green fine grained chert. Such a fragment could date from the Poverty Point period or later, although it is doubtful that it dates as late as the Hegwood Bayou phase. The arrow point fragment could belong to any number of small arrow types known for the late Baytown through Mississippi periods. The context was in Test Unit Ten, which suggests that it is not in an original deposit.

<u>Flake core fragments</u> (N= 3)

As we noted above it was somewhat surprising not to recover more flake cores in the excavated sample as they were not rare in the surface collections. However, we only found three fragments of flake cores. Two of the flake cores were local chert pebbles, while the third may well have been made of a non-local chert which had to be imported. The pattern of flaking is amorphous, and appears to have been executed free-hand. One other possible flake core will be described below as an unclassified modified object. This consists of small chert nodules embedded in a limestone matrix. It is possible that this object originated as a core, and was subsequently utilized. Unfortunately we cannot be certain if the object was ever used as a core.

<u>Unifacially retouched flake</u> (N= 1)

A single unifacially retouched flake was recovered from Test Unit Ten. The retouching is deliberate, but confined to a small portion of a relatively small decortification flake. Perhaps this was a heavily utilized expedient flake which was quickly retouched and later discarded.

Unclassified modified lithic object (N= 1)

As the name implies this is an enigmatic piece. It consists of an ovate chunk of limestone with dark grey nodules of chert imbedded within. The object has been subject to bidirectional flaking at both ends, and the edges show some abrasion. As was noted above it is possible that this was introduced to the site as a core with matrix, and later the matrix was utilized. It is also possible that the abrasion and utilization are fortuitous. The chert in the matrix resembles the coarse grey chert common at the site. The object was recovered from the Hegwood Bayou midden in Test Unit Four.

Utilized flakes (N= 35)

These are flakes which show evidence of utilization, usually along one face. Most of the utilization is very moderate, suggesting their use as expedient tools. No pattern of repeated action is visible in our sample. Local and non-local cherts were used at essentially the same ratio.

Unutilized flakes (N= 196)

The unutilized flakes were apparently discarded in the process of lithic manufacturing and/or rejuvenation. The excavated sample suggests that non-local cherts were slightly more preferred than local sources. The evidence from the sample indicates that decortification was occurring elsewhere than where we were excavating. Conversely, though, we also did not recover many retouch flakes, suggesting that rejuvenation was also not ongoing where we excavated. It is important to stress that our sample is limited, and that surface collected data shows that all stages of lithic manufacturing and utilization were ongoing at Stevenson. Also, in our limited sample there was no data to suggest any kind of specialization within the lithic industry. Technologically there is no evidence that lithics were heat-treated to enhance their chipping properties.

Fire-cracked rock (N= 9)

The small quantity of fire-cracked rock at Stevenson is somewhat surprising, in part because it was well represented in the surface collections. The absence of a heat-treating lithic technology may also help to account for the lack of fire-cracked rock.

Shatter (N= 42)

Shatter is our name for debitage. That is, shatter does not exhibit a bulb of percussion, nor does it have a prepared striking platform. Interestingly, in the excavated sample we found more local than non-local chert shatter; perhaps this is a reflection of the need to conserve non-local cherts. Just as likely it represents sampling bias. We should stress that the ratio is not so unbalanced that it is peculiar.

Chipped chert pebbles (N= 21)

This is a category which includes pebbles too small to have been cores but which have been modified, and in several cases larger pebbles which have a single "test" flake removed. Apparently the knappers would check their material before processing it and some pebbles clearly were rejected as unsuitable. The smaller pebbles may have been brought in with loads of local chert pebbles (Bass 1982).

Sandstone fragments (N= 2)

These are chunks of sandstone which have no known function. They have no clear evidence of modification.

Unmodified chert pebbles (N= 82)

These were almost inevitably found near the surface and probably have been derived from the gravel driveway leading up to the white house on mound B.

Bone

Only one bone tool was recovered in 1985. This was a well made and polished pin or awl with both distal and proximal ends broken, recovered from feature 3 in Test Unit One. The context is pure Hegwood Bayou phase, so we would tentatively suggest that bone pins be considered part of the phase.

Fauna

As we have discussed, bone and shell were very common. Detailed faunal analysis has not been undertaken at present, but a few comments can be offered. The shell are all freshwater mussel species. From preliminary examination it is evident that at least five to seven different species are present. Shell was most common in Test Unit One, but was also found in test units Two, Four, and Six (Tables 7-10). No shell was recovered from Test Unit Ten. Bone is also common, and very well preserved. The bulk of the bone comes from three classes of animals, mammal (largely deer), fish (only slackwater species have been identified to date), and amphibian (only snake and turtle have been identified). The aquatic/riverine faunal complement is dominant. No quantifiable data exists to substantiate this. However, the impression is that the river was the focus of resource exploitation. It has been suggested that the pattern of fauna observed at Stevenson may indicate a summer seasonal preference (Ed Jackson, personal communication 1986), but we simply cannot prove this at the moment.

Historic/Recent artifacts

The LMS has recovered a large amount of Historic/Recent material from Stevenson, particularly from Test Unit Ten. This material most properly belongs in the recent category, as we cannot identify any artifacts that could predate the 1870s. The oral history of the Stevenson family indicates that the initial historic occupation was relatively late, at least later than 1855 (General Land Office plat 1855 c), and more likely in the 1890s. A single turquois glass trade bead dating to the 19th century may be an indication of an occupation before the middle of the 19th century, however, these specific beads are not exclusive horizon markers (J.P. Brain personal communication 1986). The family indicated that the area around Test Unit Ten had been the locus for the early and middle 20th century farm. At the base of feature 1 in Test Unit Ten we recovered a U.S. penny dating to 1947. The artifacts include metal nails (all machine made), metal farm impliment fragments, whiteware, glass, and plastic.

Culture History

An examination of Table 9 shows that the Stevenson site has components of the Poverty Point, Tchefuncte, Marksville, Troyville, Coles Creek, Plaquemine and Late Mississippian cultures. There is also a single sherd which hints at a Choctaw component. Because of its lengthy culture history the Stevenson site has been the focus of a number of surveys by the LMS (Kidder n.d. a). Prior to research in 1985 the LMS had amassed a survey collection which exceeded 30,000 artifacts. In addition, the LMS has analyzed and photographed the Barham collection from Stevenson. And, as detailed above, the 1985 excavations produced a large quantity of data for research. Thus, what follows is a brief synthesis drawing on data from the 1981 reconnaissance, 1983 and 1984 surface collections, and the 1985 excavations.

Poverty Point period

The initial occupation at Stevenson seems to date to the Poverty Point period. The Barham collection includes a large Motley point, two Delhi points, a magnetite plummet, and a large cube of worked galena. The LMS collection includes Poverty Point objects (biconical, biconical grooved, and melon shaped) and object fragments, a hemetite plummet, a steatite vessel sherd, and a small amount of novaculite. Several large untyped corner-notched points also probably belong to the Poverty Point occupation. The evidence from both test units One and Two suggests that the Poverty Point occupation was oriented along the edge of the Boeuf River bankline. It is apparent that the occupation occurred after the Arkansas River had become inactive since we did not find any such sediments interbedded with the cultural deposits.

The cultural remains found on the surface and in the excavations have been grouped together with the other Poverty Point period sites in the central Boeuf Basin to form the Neimeyer-Dare phase (Kidder 1986 b). The Neimeyer-Dare phase is found clustered along Bayou Bonne Idee and Boeuf River south of its confluence with the Bonne Idee. The regional center for the phase is the Neimeyer-Dare site (Kidder n.d. a, 1986 b; Webb 1968, 1982). Stevenson appears to have been one of the southernmost sites of the Neimeyer-Dare phase cluster. Although it was far removed from the regional center the Stevenson site apparently functioned as a second line village center. Nonetheless, we are premature in positively assigning function to the Stevenson Poverty Point component. We do not, at present, have enough data to suggest the function of the Stevenson site within the Poverty Point cultural sphere in the central Boeuf Basin.

Tchefuncte and Early Marksville periods

There is a small amount of evidence for a Tchefuncte culture occupation. The data consist of several plain sherds in the LMS collection and what may be a Lake Borgne sherd in the Barham collection. Also we recovered what is thought to be a sherd of Tchefuncte Incised, var. Unspecified from Test Unit Four. Given the size of the LMS collections it is clear that the Tchefuncte component was minor, and probably ephemeral. The Tchefuncte component at Stevenson is similar to other contemporary situations in the central Boeuf Basin. The Tchefuncte culture, it would seem, avoided the study area, at least as a place to settle.

What may be a small early Marksville component is represented by two sherds from the 1983 collection and two sherds from the 1985 excavations. Three of the sherds are classed as Mabin Stamped, var. Unspecified, however, one has a red slip over the stamping which suggests that it may be var. Point Lake (Toth 1977: 507-509, 1979 a: table 25.2, fig. 25.2). One basal sherd is classified as Baytown Plain, var. Marksville and appears to have the remnant of a podal support. All three of the Mabin sherds came from the shell midden area. One, which has a red film, came from shovel test 1, which was placed adjacent to datum and excavated in 1983, while another came from the 1983 surface collections around the shell midden. In 1985 we recovered a single Mabin sherd from Test Unit One in level C (Hegwood Bayou context). The Marksville sherd came from Test Unit Ten and is thus without context. It is possible that these sherds could date to the Hegwood Bayou phase but conventional wisdom places them in the early Marksville period. Until disproven we will maintain the possibility that these sherds do represent an early Marksville component. However, with such a small sample it is unwise to make too much of these sherds, even though their presence at Stevenson could be an important marker in the Boeuf Basin.

Late Marksville period

The largest component at the Stevenson site dates to the late Marksville period. The LMS has defined the Hegwood Bayou phase as the late Marksville manifestation in the central Boeuf Basin (Belmont 1985; Kidder 1986 a, n.d. a; Ring 1986). Defining criteria for the formulation of this phase have been derived from surface collections and excavations, as well as close comparison to nearby manifestations (Kidder 1986 a; Ring 1986). The Hegwood Bayou phase is apparently contemporary with Issaquena I and II phases in the Yazoo Basin, although it manifests only a few of the traits of that phase. Hegwood Bayou phase is defined by the presence of trace amounts of Issaquena decorated pottery in an otherwise plainware assemblage. Furthermore, the phase manifests a unique set of modal distinctions which enable it to be separated out of large plainware collections. The plain pottery is distinct and has been called Baytown Plain, var. Johnson. Johnson ceramics are coarse and thick, and often exhibit considerable amounts of smoothing and roughening. Rims are usually unmodified and have a tendency to have a slight fold where the rim was smoothed. Bases are square and flat, and are similar to those found in Issaquena contexts. The Hegwood Bayou phase is seen as one of a number of "plainware" complexes roughly coeval with Issaquena. Similar phases include the Johnson phase in the Tensas Basin, and Paxton and Porter Bayou phases in the Yazoo (Belmont 1985: fig. 2). The only known lithic diagnostic is the Maybon point (Williams and Brain 1983: 233, fig. 7.10).

The diagnostic decorated ceramics for the Hegwood Bayou phase consist of Issaquena types. Marksville Incised, var. Steele Bayou, and Yokena are present in trace amounts, as are Marksville

Stamped, _vars. Manny_, _Newsome_, and _Troyville_ (the latter has only been found in surface collected contexts (Plate 10 f)). Although a wide range of decorated types and varieties are present, they appear in very small numbers. The very low frequency of decorated pottery is one hallmark of the Hegwood Bayou phase ceramic assemblage.

At Stevenson, it is quite apparent that the Hegwood Bayou phase occupation is the largest and most intense. In every pit, including Test Unit Ten, Hegwood Bayou material is dominant. In the surface colections it is also the most prevalent. The physical data shows that the Hegwood Bayou occupation is found everywhere on the site. Our tests on mound B demonstrate that the mound itself accumulated during the Hegwood Bayou phase. Apparently the deposition of midden during the Hegwood Bayou phase was concentrated around mound B such that the mound itself gradually accumulated. In no test were we able to show any signs of purposeful construction of the mound. Likewise, it appears as if the shell midden area was a favored deposition spot for the Hegwood Bayou occupation. However, in this case, it seems that rather than accumulation, the purpose of feature 3 was to bury trash. We do not know when mound A was constructed, but it too may have been a result of the Hegwood Bayou occupation.

Baytown period

The Troyville culture is represented at Stevenson by the presence of Alligator Incised, Churupa Punctated, _var. Cummins_, French Fork Incised, Larto Red, Landon Red-on-Buff, Mulberry Creek Cordmarked, Marksville Incised, var. Liest ("Indian Pass-like" treatment (Phillips 1970: 113-114)), Marksville Incised, var. Vick, Marksville Stamped var. Bayou Rouge, an undefined Marksville Stamped variety called Watson, and several rim modes. Within these ceramics it is possible to tentatively draw out two components, one corresponding to Belmont's Baytown I, and the other to the Baytown II period (Belmont 1984: fig. 3; Belmont and Williams 1981: table 1). We should stress at this point that the separation of the Troyville manifestation is based not on internal stratigraphy but on a sequence extrapolated from surrounding areas (Belmont 1967, 1980, 1984, 1985; Gibson 1984; House 1982; Stewart-Abernathy 1982).

The Baytown I component is the better represented of the two. Markers at Stevenson include the Cummins, Larto, Landon, Liest, Vick, Bayou Rouge, and Watson ceramics. These ceramics seem to hold together as a group, and in fact some have already been amalgamated into the Quafalorma horizon (Belmont and Williams 1981). The evidence from Stevenson suggests that this occupation continued that initiated by the Hegwood Bayou peoples. In the central Boeuf we have labeled this early Baytown material the Priestly phase (Kidder n.d. a). Priestly phase material has been found over most of the site, and appears to concentrate around the shell midden and mound B. The 1985 excavations turned up a small number of Priestly phase markers but none of the succeeding Silk phase (Baytown II). Continuities are present between Hegwood Bayou and Priestly phases, particularly in decorated ceramics. The succession of _Churupa_, _Steele Bayou_, _Yokena_, _Manny_, and _Newsome_ by their later, but clearly related counterparts, _Cummins_, _Vick_, and _Watson_, is striking. It also makes it quite clear that the Marksville to Troyville "transition" is indigenous and probably the result of shifts in internal and external interaction as well as changing subsistence patterns. It should be added that while the Priestly phase ceramics are "degenerate" variants of earlier ceramics it should not be taken to imply a concomitant cultural decline. Clearly, in one sense, the Hegwood Bayou and Priestly phases each represent one section of the same continuum. We can point to strong material similarities across the Marksville-Baytown "cultural" boundary, but at present we really have no appreciation of what the basic social and economic connections would have been.

There is limited evidence for a Baytown phase which succeeds the Priestly phase. We have named this the Silk phase, based on collections from a site of the same name nearby on Boeuf River (Kidder n.d. a). The Silk phase represents the latter Baytown period when the introduction of "Woodland" traits makes its way into the Boeuf Basin. The primary markers for the Silk phase are Alligator Incised, _var. Alligator_, French Fork Incised, Mulberry Creek Cordmarked, and several rim modes. Several of the rim modes are important. Among these are what we refer to as the "Silk" mode, and which is called Officer Punctated in Arkansas (Stewart-Abernathy 1982). The "Silk" mode consists of a single, or occasionally double row of fingernail punctations placed immediately below the lip in a band around the rim of mixed grit-grog tempered ceramics. To date we have been able to identify the mode with a number of late Baytown ceramics, including Alligator Incised, var. Alligator, Salomon Brushed, var. Salomon, Baytown Plain, var. Reed, and Mulberry Creek Cordmarked, vars. Edwards and Eudora (Phillips 1970: 39, fig. 4 a, g, fig. 61 a, e, fig 121 a, fig. 137 g, fig. 139 c, fig. 174 f, fig. 161 g; House 1982: fig. 22 d, e, fig. 31 c, f, g). The "Silk" mode is present on several sherds from Stevenson, including an Alligator rim. At Silk the mode is present on at least five sherds (Kidder n.d. a). Further rim modes include single lines around the rims (Coles Creek Incised, var. Phillips), and lines around the interior rim of shallow bowls (not unike the "six-mile" mode, but without the punctations). Furthermore, we have Salomon var. Unspecified, Reed, and Mulberry Creek Cordmarked, var. Unspecified (possibly Eudora (House 1982: 47-48)). Clearly then, the component is present, but we have no excavated context. Possibly it was centered around the shell midden and had subsequently been destroyed. It is interesting to note that this component does not look indigenous, nor does it show many continuities with the preceeding Priestly phase.

Coles Creek period

A small amount of Coles Creek material was also found at Stevenson. A late Coles Creek component is represented by several sherds of Coles Creek Incised, var. Mott, and a small number of Mazique Incised sherds. A small amount of unclassified Coles Creek pottery probably dates to this period. The Alba and Scallorn points found in surface collections certainly date to some part of the Coles Creek period. The inescapable conclusion is that the Stevenson locality was not important during the Coles Creek period.

Mississippi period

A Plaquemine component is also present at Stevenson. Diagnostic of this occupation are Carter Engraved, Coles Creek Incised, var. Hardy, L'eau Noir Incised, Mazique Incised, var. Manchac, and Plaquemine Brushed. Furthermore there is a small amount of Addis plain pottery at the site. There is not enough data to suggest if the Plaquemine component is early or late, although the absence of Fitzhue phase markers from the Tensas Basin argues for an early occupation. The Stevenson Plaquemine component suggests that the site was used as a minor hamlet, or possibly a temporary camp. The entire central Boeuf demonstrates a dispersed settlement pattern during this time and Stevenson was apparently not exempt.

Following the Plaquemine occupation there was a brief hiatus until the protohistoric period. The Mississippian component is marked by Barton Incised, Grace Brushed, var. Grand Gulf, Hudson Engraved, Leland Incised, Owens Punctated, var. Menard and Winterville Incised, and a fair quantity of Mississippi Palin. A single Maud point found at Stevenson may well belong in this component. The evidence from Stevenson suggests that the site was a hamlet or farmstead related to the Jordan phase at the Jordan site. Although the numbers are not large, the Stevenson protohistoric occupation is the largest known outside of the Jordan site (Kidder n.d. a). A single sherd of Chickachae Combed might be taken to indicate a Choctaw component.

Thus, the Stevenson site can be seen to have had an occupation of each culture in the Neo-Indian era in the central Boeuf Basin. The repeated reoccupation of the site is a testimony to the importance of the local environment and unique site conditions. However, the nature of reoccupation has greatly affected the subsurface deposits, as has modern agriculture and dredging Boeuf River. It is interesting to note how the site function appears to have fluctuated through time. During the Poverty Point, late Marksville, Troyville, and possibly late Mississippian occupations the site seems to have been a village, while at other times it was only sparsely occupied. Given the size of the LMS collections it is hard to argue for a bias due to collection size.

<u>Conclusions</u>

Testing and surface collections conducted by the LMS in 1983 and 1985 indicate that Stevenson is one of the most important sites in the Boeuf Basin. The size and richness of the artifact collection is one indication of the significance of Stevenson, as is its lengthy culture history. Although the site has occupations of most Neo-Indian cultures in northern Louisiana, the main occupation occurred during the late Marksville period, and possibly just after. Testing indicated that mound B began to accumulate in late Marksville times, and all test excavations yielded some evidence of late Marksville occupation. A well represented Troyville component is also present, but it is not as ubiquitous as the Marksville occupation.

Research by the LMS has demonstrated the subsurface integrity and wealth of the deposits at the Stevenson site. Based on the nature of the subsurface conditions and known culture history the LMS strongly recommends that the Stevenson site be placed on the National Register of Historic Places. Further research should be conducted at the site in the near future. Bankline erosion and instability seriously threaten the southern and western portions of the site. Continued agricultural practices will also result in further damage to the plaza and shell midden. The site should be regularly monitored to insure that no features or deposits are destroyed. The landowners will most likely be receptive to future research efforts at the site.

CHAPTER SIX

MATHENY (16MO3 [21-I-2])

Introduction

Matheny is a mound site located on the east bank of Bayou Bartholomew at a point where the bayou cuts through the Bastrop Gap (Map 1). West and north of the site are the Qtd terraces of the Bastrop Hills and terrace uplands, and to the east and south lie a series of brakes and swamps formed by relict Arkansas River channels (Maps 2, 6 a). The Matheny site has a long history of investigation, dating to a report submitted by Benjamine Brodnax in 1879 (Brodnax 1880). Later the site was visited by Clarence B. Moore (1909), and after that James A. Ford. The LMS visited the site in 1981, and again in 1983. As a result of our surveys I had reason to believe that the site supported a major Coles Creek period occupation. Furthermore, we suspected that the site also had an important Plaquemine component, and a protohistoric or early historic occupation as well. Results of the LMS testing in 1985 indicate that the site is eligible for inclusion in the National Register of Historic Places.

The Site and its Setting

The Matheny site today consists of two mounds, separated by a large plaza (Map 5). Mound A is seven meters tall and sits at the southern end of the site (Plate 13). The flanks and base of mound A are badly eroded and pitted. The general shape today is round, but at the top the rectangular summit is still evident. In 1855 the mound was reported to be 30 feet tall, and even then the base was circular (General Land Office plat 1855 b). Moore reported that the mound was 22 feet tall with a square summit (1909: 166). Today the mound is seven meters tall, or just about the same height reported by Moore. Given that the summit is still rectangular and flat, it is unlikely that the mound has lost much height over the years. In fact I would suspect the initial description which has the mound being 30 feet high. I believe that its vertical height is essentially unchanged since the early historic period. The base of the mound has been eroded and removed for fill resulting in the irregular shape seen today (Map 5).

In 1985 mound B was a low, shapeless mound, less than a meter high. Mound B was destroyed in early 1986. Brodnax shows mound B to have been the smallest on the site (Map 6 b)(1880: diagram II). Moore reported that the mound consisted of a "ridge ending in an eminence about seven feet in height, which evidently has been greatly spread by continued cultivation" (1909: 167). Our map of the site confirms that the mound was an elongated ridge trending east to west. However, by 1985 no sign of any "eminence" was visible. Testing by the LMS demonstrated that the "ridge" was a made earth structure (see below). In 1879 when Brodnax sent his report to the Smithsonian Institution (Brodnax 1880) the site had a third mound (mound C) located to the north and east of mound A (Map 6 b). There is no surface representation of this mound today, and it was not reported by Moore in 1909. The LMS was not able to locate this mound, although we suspect that we may have located its general vicinity. Between the two extant mounds lies a large plaza which is virtually devoid of artifacts. The western edge of the site was marked by a tree line and a ditch which separates the site from the gravel road immediately to the west.

West of the plaza is a gravel road and west of that is Bayou Bartholomew. The site occupies the levee of the No. 6 Arkansas River channel now occupied by Bayou Bartholomew. To the west and southwest are the lower slopes of the Qtd terrace of the Bastrop Hills. To the northeast, east, and south of the site there were a series of brakes and ephemeral streams which were formed by a combination of No. 2 and No. 3 Arkansas River channels, and a crevasse feature of the No. 5 channel (Maps 3, 6 a)(Brodnax 1880: Diagram I; General Land Office plat 1855 b). The brakes were low swampy depressions adjacent to either the Qtd terrace or the levee backslope. Before modern clearing these brakes were dominated by cypress-tupelo forests. Brodnax (1880: Diagram II) has a note that the mounds were located on "level ground 20 feet above low water in bayou; 2 feet above cypress brake," so it is evident that the site area was relatively high and dry. He further notes that Bayou Bartholomew "seems to have gradually encroached on the bluff..." (ibid.: 388) demonstrating that erosion has modified at least part of the western margin of the site. The coincidence of the bayou, the terrace uplands, and the lowland swamps would have afforded the Matheny site occupants a strategic location from which to exploit local resources. Moreover, the site commands Bayou Bartholomew, and would be situated to control movement along that stream and its levee. The soils near the site are quite fertile (Reynolds et al. 1985) and the site has been cultivated since at least 1855 (Brodnax 1880: 388; General Land Office plat 1855 b).

History of Research

The first record of the Matheny site is contained on the 1855 plat of the site area (General Land Office plat 1855 b). The plat shows the largest of the mounds at the site, mound A, and has the accompanying description in the margin which I have quoted verbatim: "Concerning the ancient Mound represented on the line between sections 8 + 17 the Surveyor remarks that it is approved the work of former inhabitants of the country [county?]. is 100 feet in diameter at the base and 48 at the top. level surface + about 30 feet high of a circular form and supposed to be a former grave yard..."

Following this survey the site was visited in the late 1870s by Benjamine Brodnax for the Smithsonian Institution (Brodnax 1880). Brodnax described the site in a letter, entitled "Mounds in Morehouse Parish, Louisiana", to the Smithsonian which was published in the annual report in 1880 (Neuman 1984: 20-21).

Brodnax described both the mounds and what he found in them, and also provided several maps, one showing the site area, and the other the mounds relative to each other (Maps 6 a, b)(ibid.: Diagrams I and II). These maps and their accompanying text are invaluable. The site has been cultivated since the middle of the 19th century and consequently the effect on the site has been considerable. Today there is absolutely no trace of mound C, yet it is clearly visible in the Brodnax map (Map 6 b). The map of the mounds shows their sizes relative to each other. The largest mound today, mound A, was the largest then as well. Mound A was shown roughly 150 yards east of Bayou Bartholomew, and some 100 yards south and west of mound C. Mound C was shown as the second largest mound on the site. Although the mounds are illustrated to show relative heights (and size?) among the three mounds, no dimensions were given, either in the map or the text. But it is evident that mound C was perhaps only half as large as mound A. Mound B was 150 yards north of mound C, and probably considerably smaller than mound C.

Brodnax' description of the artifacts is cursory and of limited value. He reported human bones, a ceramic vessel tempered with shell, and also a "round ball of lead-colored mica, 3 inches in diameter" (ibid.: 387) in mound B (mound 1 in Diagram II of the original report). Brodnax also noted that in the other two mounds he had only found "rough arrow-heads" and an "ax or tomahawk" (ibid.: 388). Brodnax also observed that the mounds had never been excavated, and that the site must have supported a village as there was shell in the fields and also in the mounds. Further, he noted that there was a considerable population of sites scattered south along the edges of the cypress brakes and the sloughs connecting them. Brodnax concluded that the mounds must "have been the center of civilization, as the villages seem to be more scattered as you leave them" (ibid.).

Following Brodnax the Matheny site was not reported in the literature until it was visited by C.B. Moore in the winter of 1908 (Moore 1909). Moore's report is included among his work on the <u>Antiquities of the Ouachita Valley</u> under the title "Mound and Cemetery on the Mound Place, Morehouse Parish, Louisiana" (1909: 166-169). Moore described both mounds A and B, but failed to note mound C. Mound A was described as 22 feet tall and about 140 feet square, with a "summit-plateau" 50 feet square (ibid.: 166). Moore excavated 11 trial holes on the summit of mound A which yielded "neither bone nor artifact (ibid.: 167). Interestingly, Moore noted that roughly 75 yards east of mound A there was a small pond or pool of water which he hypothesized to be the barrow pit for mound construction. Brodnax does not mention this feature, nor is it evident today.

Moore described mound B as "a ridge ending in an eminence about 7 feet in height, which has been greatly spread by continued cultivation" (ibid.). He further noted that mound B was littered with pottery (including two pipe fragments), stone tools and debitage (including 17 small arrowheads) and other occupation debris. According to Moore, "A considerable number of trial-holes in this ridge were without return" (ibid.). He stated that "much digging was done by us in other parts of the field surrounding the mound [presumably mound A, as he never identifies mound B as a mound in his text] but without success except in one instance" (ibid.).

Moore found a burial area roughly 100 yards north and west of mound A, east of the road and inside the fenceline. The entire cemetery area was apparently excavated. Moore recovered a minimum of 43 burials ("13 burials" plus "fourteen and sixteen crania" (ibid.)), plus an unknown number of other skeletons in fragments or as isolated crania. Three kinds of burials can be identified from Moore's description. Thirteen skeletons were buried on their backs and in an extended position. No specific burial orientation was noted. At least one "bunched" (bundle?) burial was also noted. The bulk of the skeletal material was recovered as "layers" of bones. Two layers were noted, each containing 14 and 16 crania, respectively. Additionally, Moore noted that there were disarticulated crania not associated with any other bone. Several of these crania were too deeply buried to have been disturbed by the plow. Two or three of the isolated crania were associated with ceramic vessels. Moore explicitly stated that all the burials had "seemingly" been interred in pits, the deepest of which was 46 inches (ibid.). All of the bone was in poor condition and none was saved.

The artifacts recovered by Moore did not apparently excite much interest in him. Moore recorded that 14 ceramic vessels were recovered along with a small amount of lithic material. In one burial (No. 11) he found a collection of pebbles, flakes, and sherds next to the skull. Moore also found an arrowhead not apparently associated with any burial. The vessels were all found adjacent to the skull, save one found near the knee. Only one of the 14 vessels was shell tempered, and none were decorated with pigment (ibid.: 168). Two of the vessels were bottles. Only three vessels are described, and one illustrated (ibid.: fig. 184). One vessel (No. 1) was a bottle with the neck broken by the plow. It had a rude five-pointed star modeled in relief as decoration. The illustrated vessel (No. 7) was a unusual compound bottle with interlocking incised arches which must have been made on a wet paste and then smoothed over. There are no known materials with which to compare this vessel. Perhaps it represents some form of Keno Trailed incision on an unusual vessel form. The third vessel described (No. 3) was a pot 7.2 inches in diameter. Although it is impossible to be certain, from the description it may well represent a variant of protohistoric pottery characteristic of sites along Bayou Bartholomew. The description seems to imply a band of incision or punctation "having somewhat the effect of cord-marking" (dentate stamping?) around the neck of a vessel which has eight festooned lines and triangles (ibid.: 169). Although it is not specifically mentioned, from the description this may have been the shell tempered vessel. Similar vessels are known from Keno, Glendora, and Seven Pines Landing (Peabody Museum Collections, Harvard University). It is also possible that this represents a Sinner Linear Punctated vessel which has further modifications below the neck. As we shall see, while the two types of pottery are very different, either would fit in the context of the archaeology.

One vessel in the Peabody Museum collection is important to the Matheny site discussion. The vessel in question comes from Moore's excavation at the site and has a label which indicates that it is vessel No. 9. The vessel is an example of a Sinner Linear Punctated jar, with a slightly flaring neck and somewhat globular body. The upper neck portion has 12 vertical bands filled with alternating pattern of thin rectilinear hatching at an oblique angle to the rim. The body has 14 parallel rows of linear punctated incision encircling the body and parallel to the rim. The base is flat, and the vessel is apparently tempered with grit or grog.

Following Moore the next professional to visit Matheny was James A. Ford who saw the site in the early 1930's. Ford's visit was brief but included a surface collection now at Louisiana State University (LMS field notes 1956, book II). Ford reported the main mound to be 25 feet tall, and also stated that little refuse was found around the mound (Ford n.d.). Following Ford there was no published record of any research conducted at the site until 1981 when the LMS first surveyed the site (Kidder n.d. a). In 1983 the site was visited several times in an effort to gather a representative artifact sample. Due to poor collecting conditions the site collection for two years was rather meagre (Table 19). Collections were made on both mounds A and B, as well as in the plaza between the two mounds. No evidence for Brodnax' mound C could be discerned. In the winter of 1985 the author made a small colection from mound A.

The LMS collections from 1981 and 1983 revealed that the site was an important Coles Creek and Plaquemine mound center (Table 19). At least three components were recognized, one being a Coles Creek period occupation, one a Plaquemine occupation, and one dating to the protohistoric or early historic period. The mound B area yielded the greatest quantity of ceramics, but the collection was still small. Artifacts were located around and on mound A. In the winter of 1985 the author observed both shell and grit-grog tempered ceramics eroding out of the south and west flank of mound A.

Subsurface testing

The LMS conducted 27 shovel tests, five test excavations, and made a number of surface collections over a one month period in the summer of 1985 (Tables 19-28). Shovel tests were designed to sample areas between mounds A and B, while test excavations were placed in both of the mounds (Map 5). Our excavation strategy was influenced by the landowner's plans to level mound B in the winter of 1985/1986. Excavations in mound B were conducted with a goal of salvaging data from the structure before it was destroyed. Three 2x2 m test units were excavated on mound B, and two 1x2 m trenches were excavated on the north flank of mound A.

Shovel tests

Datum was established along the fence row separating the site from the gravel road and Bayou Bartholomew (Map 5). The closest benchmark could not be relocated so I established an arbitrary datum of plus five meters.

Datum was established along the fence row separating the site from the gravel road and Bayou Bonne Idee (Map 5). The closest benchmark could not be relocated so I established an arbitrary vertical datum of plus five meters. Unfortunately, at some point after the site was excavated the datum stake was destroyed by farm machinery. Four shovel test lines were laid out at Matheny (Map 5). Line A-A′ ran east to west from datum at 20 meter intervals for a total distance of 200 meters. The A-A′ line was designed to test the plaza and to bisect the area where we believed mound C to be located. A second line was established perpendicular to the A-A′ line at 160 meters east of datum. This line, B-B′, was placed to cover the supposed mound C area and extended for 80 meters. A third line (C-C′) was extended from the A-A′ line north to the mound B area and was 140 meters long. The final line, D-D′, extended south from A-A′, and ran to the toe of mound A for a total of 80 meters.

In most cases the stratigraphy was relatively simple and consisted of four stages. Subsoil was a reddish-brown clayey silt which represented the Arkansas River levee. Above this was a level of tan clayey silt with brown to brownish-red mottles. Both subsoil and this level were sterile. Cultural deposits were found in the next level, a medium brown-grey silt loam with occasional mottling. Although this level yielded artifacts, in most cases the quantity was quite low, and it does not seem to represent intact midden. This level was usually found about 30-50 cm below ground surface, and had a variable thickness of between 20-60 cm. In shovel test ten, at the presumed location of mound C, this level was quite deep and yielded a fair amount of artifacts. At this one shovel test the soil could be described as true midden. Near mound B, on the C-C′ line artifact density increased, and it is probable that intact midden was being reflected; however, our shovel tests were not adequate to determine the nature of the deposits. The upper level consisted of loose grey-brown disturbed topsoil with few artifacts.

The general impression from the shovel tests was that the plaza area between mounds A and B was essentially sterile, while midden was to be found around mound B and where mound C is presumed to have been (Table 20). No real "midden" was located around mound A, although test excavations proved that some was to be found only meters from our last shovel test on the D-D′ line. The area around mound B yielded the most intact-looking midden soils, although several tests in the mound C area also contained good midden. Due to the exigencies of salvage work at mound B, the mound C area was not further tested. It should be noted that I am presuming that our tests in line A-A′ reflect the location of mound C. The only map which shows mound C is Brodnax′, and it coincides closely with the LMS location.

1985 test excavations

As a result of testing, and because we anticipated the destruction of mound B, test excavations were begun on mound B. The leasors of the property, Mr. Benoit Kinnaird and his brother Thomas, graciously allowed us to excavate in the midst of their cotton field where mound B was located. A six meter square area was marked out, and after consulting with the Kinnairds, three 2x2 meter test pits were excavated. Each block in the six-meter square was numbered begining with number four and consequently the numbers for the excavated units were five, seven, and nine. We opted for block style exposure because we hoped to locate features within the presumed mound structure. Two of the three 2x2 m units (numbers Seven and Nine) were completely excavated and profiled. The third unit (number Five) was partially excavated but was destroyed when 4 inches of rain fell on the unit in 40 minutes. The walls collapsed or slumped so badly that salvage was impossible. After this our focus shifted to mound A where two 1x2 m units were excavated.

In the following discussion the stratigraphy will be described from the bottom to the top. Soils will be grouped together based on vertical stratigraphy and content. Arbitrary levels used in excavations will be integrated into the physical stratigraphy to produce strata which will in turn form the physical and cultural units of further study. Strata defined for an individual unit need not be applicable across the site, therefore strata designations will not necessarily be repeated in each test unit.

<u>Mound A excavations</u>

Mound A is a seven meter high flat-topped mound. Erosion has eaten away at the sides of the mound so that the original dimensions are unknown, exept at the summit where the square platform is still evident (Map 5). The north face of the mound was the least eroded, and the LMS tested here. Three test excavation units were staked out at mound A. Test Unit One was never dug, and was located four meters north of the edge of the mound. Test Unit Two was located at the mound toe, while Test Unit Three was placed on the mound on a flat area between two erosion faces two meters to the south. Tests at mound A were designed to reveal the history of mound building, and to expose early deposits at the site. Excavation at mound A was affected by a dense clay mound fill which made excavation and screening very difficult. Test Unit Three at Matheny was over two meters deep when it was completed.

Test Unit Two (K1609, Figure 12, Table 21)

Test Unit Two was a 1x2 m trench oriented north to south located at the base, or toe, of mound A. Test Unit Two reached a depth of 83 cm below datum, although a shovel test in the base of the unit was extended to 136 cm below ground. Sterile subsoil (Stratum IX) was found at a depth of between 33 and 43 cm below datum. Stratum IX consisted of a relatively hard packed reddish-brown silty clay which was overlain by a lighter reddish brown level which was also sterile. In plan view the subsoil was spotted with root molds and animal burrow remnants. The darker reddish-brown and its lighter counterpart above were separated in the field, but are being recombined at this time. Our logic for this is as follows: first, both levels were sterile, and thus there was no need to maintain them as separate; and also it was apparent in profile that the lighter zone of stratum IX gradually merged in with the lower level, and therefore there was no physical reason to keep them apart. The lighter upper zone no doubt represented the original ground surface at the time the mound A area was first occupied.

Overlying stratum IX was a midden level (stratum VIII) which was between 12 and 15 cm thick and covered the entire unit. Stratum VIII consisted of a mottled grey-brown silty loam with sparse artifact content and a good deal of fine charcoal throughout. The upper 2-4 cm of stratum VIII had a greater amount of larger fragments of charcoal than the rest of the midden. Viewed in profile, stratum VIII sloped upward from the south toward the north. The slope was not significant, but it clearly indicated that the stratum was not part of the mound itself. Stratum VIII was excavated as a natural level except for the north end of the unit where it was cut into during excavations of the overlying levels. Stratum VIII had very few artifacts of any kind. A radiocarbon sample was laboriously extracted but was found to be too small for conventional dating procedures.

Above the midden which comprises stratum VIII was a level of tan to tannish-white fine silt loam and reddish brown clayey silts (stratum II) which sloped down from the south and had become only several cm thick in the north end of the unit. At the south end of the test unit stratum II was roughly 35 cm thick. In the south end of the unit it was evident that this level was deposited as a series of finely bedded and watersorted erosion strata. The colors often alternated but it was clear that they had all been redeposited by the action of water. Stratum II contained very few artifacts. Taken together it is likely that the deposits in stratum II represent undisturbed slope wash from mound A. The absence of Mississippian ceramics in this stratum suggests that it was deposited prior to the construction of the bulk of the mound. I believe that stratum II probably related to the mound construction stages which immediately preceeded the Mississippian deposits in mound A.

From the top of stratum II to the surface there was a moderately thick layer of redeposited and disturbed slope wash mixed with plow zone debris (Stratum I). As with stratum II, stratum I was thicker to the south and thined out toward the north end of the unit. There were two levels vaguely apparent in stratum I. The upper 10-15 cm had recent signs of plow disturbance, while the lower 10-25 cm had no recent artifacts but still showed evidence of significant disturbance. Water sorting was evident in both layers of stratum I, but it was more visible in the lower portion.

Given the data presented above it is possible to correlate the arbitrary excavation stratigraphy with the natural strata as follows: Level A--stratum I; levels B-D--strata I, II; levels E, F--stratum VIII; level G--strata VIII-IX; levels H-K--stratum IX.

<u>Test Unit Three</u> (K1610, Figure 13a, 13b, Table 22)
Test Unit Three was a 1x2 meter trench placed on the north slope of mound A and oriented north to south. The unit was placed less than half way up the slope of the mound so it could not be expected to yield an entire history of the construction of mound

A. The unit was excavated on a relatively level plateau on the slope of the mound. I presume the plateau was formed when surrounding areas eroded away. Nonetheless, Test Unit Three had its northeast corner at 1.69 m above datum, while the southeast corner was at an elevation of 2.27 m above datum. Thus, our horizontal arbitrary levels tended to cut through the mound slope consistently. Still, given the dimensions of the excavation unit it would have been impossible to excavate in natural levels as many sloped too steeply to the north.

Sterile subsoil in Test Unit Three was the same as in Test Unit Two (stratum IX), consisting of a moderately hard reddish-brown silty clay overlain by a lighter more tan-colored silty clay. Stratum IX was encountered at a depth of roughly 55 cm below datum, which is about 8 cm lower than it was in Test Unit Two (see appendix A for depth measurements below datum). A shovel test in the base of stratum IX revealed a similar soil to 105 cm below datum.

Lying immediately above stratum IX was a thin level of rich midden (Stratum VIII) consisting of medium brown and grey silt loam with pottery, bone, and shell. Stratum VIII was between 6-10 cm thick, and sloped gradually upwards toward the north. Stratum VIII in Test Unit Three was encountered roughly 3-5 cm deeper below datum than it was in Test Unit Two. A sample of charcoal from this midden was submitted for dating and will be discussed below.

Above stratum VIII lay a very thick red clay mantle (stratum VII) which forms the first mound stage in mound A. At the base of stratum VII we found a very thin layer of clay, no more than a few mm thick, which covered the entire unit, and "peeled" away from the underlying stratum VIII deposits. I am uncertain if this was a purposeful deposit; more likely it represents natural deposits which formed in the interval between the deposition of stratum VIII and the construction of stage 1 of the mound. Stratum VII, not surprisingly, sloped down from the south. In the south wall it attained a maximum height of just under a meter, while at the north end of Test Unit Three it was just over 15 cm thick. Stratum VII had two separate physical stages, but I could not differentiate the cultural episodes which may have constructed them. Therefore, stratum VII consisted of two substages of the initial process of the construction of mound A. At the top and base of the inner mantle of stratum VII there were small patches of beige silt (Figure 13b). It is quite possible that these patches represented individual basket loads of dirt. This might be particularly true of the beige silt on the upper part of the inner mantle. It may be that this silt represents some attempt to prepare the surface of the inner mantle. No such effort was expended on the surface of the outer mantle of stratum VII.

Stratum VII was built with a very dense, plastic red clay. The clay was amazingly pure, and no doubt came from a nearby source on one of the Arkansas River relict channels. We found vast quantities of calcium carbonate (Ca Co3) concretions throughout the clay. These were not a natural inclusion in the clay, but formed by precipitation of minerals from above. In many cases the Ca Co3 had precipitated in cracks in the clay mantle, suggesting that the mound surface was exposed to the elements for some time. However, I should note that we could not find any evidence that the top of the mound (either mantle) was ever used. Stage 1 of mound A was virtually devoid of artifacts. Despite having expended the labor to screen all the soils in the unit we were not rewarded with enough material to directly and confidently date the structure. However, as we will see below there is some reason to suggest that stage 1 was built in the early Coles Creek period.

Above stratum VII the strata were much less clearly defined. A relatively thick level of medium brown to tannish-orange soil (stratum VI) was deposited over stratum VII. Two physical episodes of construction were tentatively noted, but there was no reason to suppose that these were not directed towards the same goal, the building of the second stage of mound A. Stratum VI followed the contours of stage 1 (stratum VII), but is not as thick overall. At the north end of the unit stratum VI was roughly 40 cm thick, while at the south end it was only 25 cm. Almost no artifacts were recovered from stratum VI, and like stage 1 below, there was no evidence that the surface was ever utilized for any purpose.

Unfortunately, the stratigraphic picture only gets more confusing in the succeeding strata. Judging from the lack of oxidization or weathering on the top of stratum VI, it seems that soon after it was completed another mantle was thrown up to cover it. This third mantle of mound A consisted of a moderately thick layer of medium brown to tan silt loam mixed with orange clayey silt and mottled with some red clay (stratum Va). Unlike the underlying levels, stratum Va was thinner in the south and thicker to the north. It is apparent that the mound builders wanted to level out the slope of the mound, which in the preceeding two stages had been quite sharp. Stratum Va effected the leveling by adding almost 50 cm of fill to the north end of the unit, while putting only 10-15 cm on the south end. Stratum Va was also almost devoid of artifacts.

Above stratum Va were a confused series of thin layers of mostly beige and white mottled silty clay. Some orange clayey silt with red clay mottles was also present. Collectively these layers form strata Vb. Although the layers were independant and laid down separately, I can find no reason to maintain them separately. Physically they seem to relate to the same phenomenon, namely the preparation of a relatively level surface, presumably for occupation. Moreover, we cannot find any cultural reason to suppose that this stratum does not relate to the stratum below. Thus, we have grouped them into the same strata, but assigned letters to each to maintain their physical differences.

It appears that once stratum Va was constructed the next step was to continue the process of leveling the surface of the mound by adding successive strata to the north end of the mound. Thus, the initial layers of stratum Vb were placed on stratum Va roughly in the middle of the unit (Figure 13b). Following this a moderately thin layer of tan-brown clayey silt with orange mottling was placed across the whole unit (stratum Vc), but it was sloped slightly to the north. Ultimately, the effect of stratum Vc was that its upper surface only had about 15 cm of variability from the south end to the north.

On the upper level of the relatively level surface provided by stratum Vc was a Mississippian midden level designated stratum IV. Interestingly, stratum IV was thicker in the south, and thinned out considerably to the north. Despite this, it is clear that the midden also included an occupation episode as we found the remains of a hearth (feature 2) in the approximate midpoint of the test unit in the upper third of the midden. The hearth appeared to be a shallow basin-shaped pit filed with ash and charcoal. A charcoal sample was extracted for radiocarbon dating and will be discussed below. A second radiocarbon sample was extracted from loose charcoal in the midden. This too will be considered below. The midden consisted of a moderate amount of artifacts in a dark brown to greyish-black matrix with charcoal common throughout. At the south wall the midden was approximately 30-35 cm thick, but 50 cm further north the midden had thinned to between 5-10 cm. In the north wall the midden increased in thickness to 15-20 cm. Essentially, however, the surface of the midden was on a horizontal plane.

Overlying the midden were two levels of hard packed tan to white silt loam interspersed with some brown mottles. These two levels were separable only in profile, and contained essentially the same artifacts. These two levels have been combined and designated stratum III. The lower part of stratum III may have once been an in situ mantle which has subsequently been disturbed, but the upper portion is all redeposited slope wash from the upper part of mound A. Stratum III is very thick, being 85 cm at the south end and 55 cm at the north end. Artifacts show a mixture of Mississippian and earlier aboriginal material, combined with a small amount of recent trash.

The arbitrary excavation stratigraphy matches up with the natural strata in the following manner: Levels A, B--stratum III; levels C-E-- strata III, IV; level F--stratum IV; level G--strata IV, Vc; levels H, I--stratum Vc, Vb; levels J, L, M--strata Vb, Va, VI; levels N-R--strata Va, VI, VII; levels S-U--strata VI, VII; level V--stratum VII; level X--strata VII, VIII; level Y--stratum VIII; level Z--stratum IX.

Mound B excavations

Three test units were excavated in the remnant of mound B. Mound B was a very low, rather irregular mound located almost due north of mound A (Map 5). In recent years the upper part of the mound was removed with dirt buckets and used to fill a low area roughly a kilometer to the southeast near the Kinnaird Farm shop. Mound B had always been the locus of the major ceramic concentration at the Matheny site and therefore it was assumed to be significant to the site's history. Furthermore, the mound was scheduled to be leveled in the winter of 1985/1986. Excavations in mound B were hampered by the effects of modern agriculture, most notably subsoiling and deep soil turning. In all three of our test units there were large subsoiler scars visible from the surface to a maximum of 67 cm below ground surface (Plates 14, 15). In many cases the subsoilers had penetrated into the midden level at the base of the mound. In all cases the subsoilers had rendered the stratigraphy a mess, and they made excavation and recording difficult. Fortunately, the mound B stratigraphy was not unsalvagable.

Test Unit Five (K1608, Table 23)

Test Unit Five consisted of a 2x2 meter square on the west side of excavation block B (Map 5). Test Unit Five was never completed because rain destroyed the pit before we could excavate the final level or make a profile. The base of the unit when the excavation was halted due to rain was the extreme bottom of a dark midden band located between 10 cm and 34 cm below datum. Below the midden at the base of level F (35 cm below datum) the lighter reddish-tan subsoil was appearing as light patches. Sterile soil though, was never reached for certain. The midden level is designated stratum X. The midden in Test Unit Five was thicker than in the other test units on mound B. A deer mandible was located in the wall of the unit, in the midden, at roughly 30 cm below datum, but it could not be recovered when the pits were flooded.

Above stratum X the stratigraphy was highly varied and complex, but physically and culturally it appears to have been the same stratum (stratum XI). Two factors account for the variation in the soil stratigraphy. First, the soils in stratum XI consisted of mixed basket loaded mound soils, and second, the subsoilers had mixed the soils even further. The principle soils in stratum XI are medium brown silt loams, light beige-tan silt loams, and reddish-orange (and orangish-red) clayey silts and silty clays. These soils were mixed and presented a "calico"- colored appearance when viewed in plan or profile. Basket loads of tan and orange-red soil were noted in the walls of Test Unit Five. Subsoiler scars penetrated diagonally across the unit, from the base of the plow zone into the midden at roughly 25 cm below datum. As was true of the other units on mound B, stratum XI was virtually without any artifacts.

The upper 15-23 cm of Test Unit Five was comprised of a loose, grey silty loam plowzone (stratum I). The plowzone was clearly marked and easily differentiated from the underlying "calico" mound fill. The plowzone exhibited crop row marks, as well as the pattern of recent plowing and turning. The plowzone truncated the tops of the subsoiler scars. Surprisingly, the plow zone contained few artifacts. Although mound B was a prime collecting location there were very few artifacts found throughout, and particularly few in the plowzone.

The arbitrary levels correspond to the natural stratification as follows: level A--stratum I; level B--strata I, XI; levels C, D--stratum XI; levels E, F--stratum X.

<u>Test Unit Seven</u> (K1606, Figure 14, Table 24)
Test Unit Seven formed the northernmost excavated unit in mound B (Map 5). Unit Seven was a 2x2 meter square diagonally adjacent to

Test Unit Five and two meters north of Test Unit Nine. The stratification of Test Unit Seven was very similar to Test Unit Five, although here we have a complete profile.

Subsoil (stratum IX) consisted of a moderately hard reddish-orange clayey silt with root and animal burrow disturbances. Stratum IX seemed to get slightly redder and more clayey with depth. A shovel test at the base of the unit encountered similar soils to 84 cm below datum. Subsoil was encountered at roughly 34 cm below datum. Stratum IX was approximately 9 cm higher at mound B than in Test Unit Two in mound A. Stratum IX was relatively level and regular, but showed no evidence that it was leveled or prepared.

Stratum X, which overlay subsoil, consisted of the same midden deposit noted in Test Unit Five. Stratum X averaged about ten cm in thickness across the unit. The top of the midden was located at approximately 24 cm below datum and had been impacted by the subsoilers (Plate 15). Stratum X consisted of a dark brown to greyish-black soil mixed with pottery and some stone and bone. Bone was not recovered because the acidic soil caused it to crumble on contact.

From the top of stratum X to 6 cm above datum comprised stratum XI. As in Test Unit Five, stratum XI was noted for its variegated loaded soils which we have referred to as "calico"-colored. Individual basket loads were visible in the north and east walls (Plate 15). Subsoiler damage extended across the pit (Plate 16). The subsoiler though, was not responsible for the creation of the "calico" soil. The "calico" soil was the result of differential sources of fill being placed together in the mound structure. The upper 20 cm of Test Unit Seven consisted of stratum I, the plow zone. As in Test Unit Five, the plowzone was made up of loose grey-brown silty loam with very few artifacts.

The arbitrary stratigraphy of Test Unit Seven corresponds to the natural strata in the follwing manner: levels A, B--stratum I; levels C-E--stratum XI; level F--stratum X; level G--stratum IX.

<u>Test Unit Nine (K1607, Figure 15, Table 25)</u>

Test Unit Nine is essentially a duplicate of test units Seven and Five. The greatest difference lay in the fact that the "calico" soils above stratum X were not as varied as those in the other two units (Plate 14). Subsoil (stratum IX) was encountered at approximately 33 cm below datum. The midden (stratum X) was roughly 10-15 cm thick, and relatively level. Above the midden the "calico" soils (stratum XI) were encountered, but they contained far more dark brown and grey soils than in the other test units. These "calico" soils were thought perhaps to mark midden, but there were no artifacts to support such an assumption. Rather, it appeared as if a different soil source was used for the fill in Test Unit Nine. No basket loads were visible in the profiles. Subsoiler scars had penetrated into the midden and cut through the entire unit. Stratum I, as was usual, contained almost no artifacts. As a whole Test Unit Nine was generally without any significant artifact content.

The stratification in Test Unit Nine corresponds to the arbitrary excavation levels in the following manner: level A--stratum I; level B--strata I, XI; levels C-E--stratum XI; level F--stratum X; level G--stratum IX.

Stratigraphic Analysis

Clearly, the stratification at Matheny must be dealt with as two separate units corresponding to mounds A and B. The only stratigraphic unit that is common to both mounds is the sterile subsoil (stratum IX). Stratum IX underlies the entire site and represents the levee of the No. 6 channel of the Arkansas River. The evidence from all of the pits suggests that the levee was mature and had not been subject to significant overbank flooding since before the site was occupied. Subsoil was very gradually sloping upwards toward the north. This was expectable given the general slope of the land and the location of the bayou which would have been depositing soil southward from a position north and west of the site.

Under mound A, subsoil was overlain by a moderate midden (stratum VIII) of roughly 15 cm thickness. The top of stratum VIII in Test Unit Three lay at approximately 51 cm below datum, although the north end of the unit was slightly higher (47 cm below datum). The artifact content of stratum VIII suggests a Bayland-like phase. The single radiocarbon date from stratum VIII strongly supports such an assignment (see below). In Test Unit Two stratum VIII was found between 33 and 41 cm below datum, or slightly higher than in Test Unit Three. Like Test Unit Three, stratum VIII in Test Unit Two sloped upward toward the north. Although the artifact content in Test Unit Two was very meagre, it is possible to correlate the midden contents, and physical location with Test Unit Three to suggest that they both form the same midden.

Above the midden in mound A there are two histories depending on which test unit one examines. In Test Unit Three the midden was immediately overlain by a thin coating of clay which "peeled" off the midden and appeared to be water deposited. Above this lay stratum VII, the red clay mound. In profile stratum VII clearly represented a flat-topped mound with sharply angled slopes. Two episodes of mound construction were represented. Both the inner and outer mantles were comprised of thick red clay. The inner mantle, however, had evidence of basket loads of tan silt, particularly on its upper part. I have already suggested that this might have been caused by special activities related to the use of the mound. However, no evidence was found that the mound was used for any special activities. Nonetheless, soon after the inner mantle was built the outer one was placed over it. No soil formation or significant erosion occurred on the inner mantle. The outer mantle of the stage 1 mound (stratum VII) was larger and taller than the inner version, although it was built of the same material. At this time the mound was expanding both vertically and horizontally, although the evidence from Test Unit Two, two meters to the north, suggests that in its final form the stage 1 mound never covered that area. A small amount of Coles Creek-related pottery and a single point were recovered from the surface of the outer mantle. The presence of Ca Co3 concretions within cracks in the mound surface suggest that the mound was exposed long enough for the sun to dry it to the point where the clay cracked. In the hot Louisiana sun, though, this might not take too long. Otherwise there was no evidence that the surface was exposed for enough time for erosion or soil development to occur.

Probably soon after the completion of the stage 1 outer mantle the mound was given another mantle (stratum VI). Although composed of a different soil than the stratum VII mantle, this deposition unit followed the same contours of the earlier mound. No diagnostic artifacts were found in this stratum which precludes our dating its construction. However, its position between the Coles Creek and Mississippian mound stages gives a relative date. Furthermore, I believe this mantle to be the source for stratum II in Test Unit Two. Stratum II consisted of a series of bedded waterlain erosion deposits. The soils in stratum II are largely also found in stratum VI. Moreover, stratum II had no Mississippian artifacts, which suggests that it was largely, if not wholly, deposited before the stratum VI midden was in place. It is difficult to believe that stratum II could have resulted from the erosion of stratum VI as stratum VI is lower in absolute elevation than stratum II. Finally, we recovered a single Coles Creek Incised sherds from stratum II. The sherd has been typed as Stoner, and has a single line in the lip.

Although there was no evidence of erosion, slope wash, or soil formation on the top of stratum VI, I believe that some time must have elapsed between its construction and the Mississippian stages just above. This would be even more true if we date stratum VI to the Coles Creek period (and the date would be early in that period). Regardless, at some point, and I believe it to be in the late Mississippi period, the stratum VI deposits were added onto and modified to provide a nearly level surface (strata Va, Vb and Vc). Upon this surface the Mississippian midden formed. The Mississippian midden (stratum IV) appears to have been a habitation or occupation level. This marked the first instance where we could identify a non-structural cultural deposit. Apparently prior to this time the mounds were not lived on, or the occupants were fastidiously clean. Judging from the ceramics in the Mississippian midden the deposition was relatively short-lived, although enough time elapsed for the southern end of the midden to accumulate to a depth of almost 30 cm. Occupation of the Mississippian level is suggested by the presence of the hearth located in the upper part of stratum IV. The Mississippian midden in Test Unit Three also contained a small amount of both Coles Creek and Plaquemine material. Given the context of this material it is most certainly redeposited from an earlier midden.

Above stratum IV the mound construction stages were blurred by erosion and recent disturbances. Two levels of disturbed soil were identified above the Mississippian midden (both stratum III). The lower of the two disturbed levels appeared to be the remanant of a mound stage overlying stratum IV, while the upper level consisted of redeposited slope wash from the upper portion of the mound. It may be that the lower level of the disturbed stratum was also redeposited from above, but the data were equivocal. The presence of Coles Creek and Plaquemine artifacts in stratum III suggests that the upper part of the mound beyond stratum IV also consisted of redeposited midden fill from earlier deposits. Historic artifacts were found only in the upper portion of stratum III. An important fact to bear in mind is that stratum IV was encountered only a meter or so up the flank of the mound (measured from ground surface at Test Unit Two). Thus, nearly six meters of mound overlies stratum IV. Obviously this implies that the bulk of the mound post-dates the Mississippian midden. At present I would be inclined to date the Mississippian occupation in stratum IV to the 15th century, or possibly a little later. These data clearly indicate that mound building was a trait which extended well into the 15th century in the Boeuf Basin. Unfortunately we do not know when mound construction was terminated.

In Test Unit Two there is some correspondance with the sequence given for Test Unit Three. As discussed above, subsoil and the submound midden in Test Unit Two duplicated the sequence beneath mound A. The midden in Test Unit Two was thinner and sparser, but I have no doubt that it was the same physical stratum as in Test Unit Three, and the meagre artifact content suggests that it too dated to a period contemporary with the Bayland phase in the Yazoo Basin (Williams and Brain 1983). Above the midden lay a fairly thick level of redeposited slope wash (stratum II). In profile it was possible to observe a series of bedded strata of white and red silt loams. The strata were very thin, suggesting repeated episodes of deposition. The presence of at least one sherd classified as Stoner coupled with the absence of Mississippian sherds, can be taken as an indication that stratum II was deposited prior to the construction of strata V and IV. I believe that stratum II was eroded from stratum VI, although it is possible that stratum Va contributed to the fill observed in Test Unit Two. If indeed the stratum II deposits eroded from stratum VI, that would add some support to my belief that there was a significant interval between the stratum VI mound (stage 2) and the Mississippian constructions above (stage 3). Unfortunately, the data are too ambiguous to allow a firm conclusion.

The upper 20-25 cm of Test Unit Two were clearly disturbed. A single large modern nail was found at roughly 18 cm below the surface. The upper 10 to 18 cm were part of what can be considered plow zone. Below that there was evidence in the form of bedded strata that the plow had not recently disturbed the slope wash. This wash most certainly originated from the upper levels of mound A. Mississippian artifacts in the fill were testimony to this. The evidence from Test Unit Two suggest that mound A never extended horizontally across the test unit. The inner mantles of stratum VII and VI most certainly never extended beyond a meter or so north of Test Unit Three. It is possible, if not probable, that the upper Mississippian stages may have extended as far as Test

Unit Two, but if so the evidence has been destroyed by recent activities. Damage to the edges of the mound have obscured its horizontal extent. Early figures provided by Moore suggest that it had a greater extent than today. The current tenants have stated that they had continually cut away at the edges of the mound for a number of years. However, it should be noted that the north face where we excavated was the least eroded portion of mound A.

Three radiocarbon samples from mound A at Matheny were collected by the LMS, and dated by Beta Analytical of Coral Gables, Florida. Sample Beta-14047 came from the submound midden in mound A (stratum VIII), while samples Beta-14045 and 14046 were from the Mississippian midden between 50-60 cm below the northeast corner of the unit (Stratum IV). The samples will be given as an uncorrected calender date, with two corrected dates and a corrected date span (Kidder n.d. b) (Table 18). Because the three dates are not a large sample we would prefer to use the corrected date span to bracket the radiocarbon dates. Sample Beta-14047 had a date of A.D. 650 +/- 80 (corrected span, A.D. 580-895). Sample Beta-14045, from level five, Test Unit Three had a date of A.D. 1270 +/- 60 (corrected span, A.D. 1240-1385), while sample Beta-14046 from level 6 had a date of A.D. 970 +/- 70 (corrected span A.D. 900-1210).

Sample Beta-14047 is considered correct for the associated material assemblage, even if the single date is corrected and used (Table 18)(Kidder n.d. b). The corrected age span suggests a bracketed date of A.D. 600-750. The material assemblage has no decorated pottery, but on paste and rim form would date to the terminal Baytown or early Coles Creek periods. The date would be acceptable given current dating in the Lower Mississippi Valley (Phillips 1970: 955-961, table 18; Williams and Brain 1983: 342-346, table 10.3, fig. 10.16). This date and its material assemblage suggest a Bayland-like phase. At Matheny and in the central Boeuf Basin we have assigned this period to the Matheny phase.

The dates for the Mississippian midden at Matheny are not acceptable given the archaeological associations. Even using the corrected age span the dates are incorrect (Kidder n.d. b). The material assemblage is clearly Mississippian, and is affiliated with the Transylvania and Lake George phases. We do not have an explanation for the discrepancy between the dates and the material assemblage, but we would reject the dates based on a large suite of radiocarbon determinations from the Yazoo Basin (ibid.). Based on the material assemblage from stratum III in Test Unit Three I would argue that a more correct date would be the early-to-middle 15th century. Such a date would be compatible with the known dates for the related and presumably contemporary Lake George II phase, and also would logically fit into the local sequence.

The mound B stratigraphy is only slightly less complex than that in mound A. In all three test units there was a basic four part stratification. First was the sterile subsoil, which in both completed units was found between 33 and 34 cm below datum. Although Test Unit Five was never excavated through the sterile subsoil I believe that we did get to the base of the midden which was at 35 cm below datum. Above the sterile subsoil was a roughly 20 cm band of midden which was encountered at 13 to 15 cm below datum (Plates 14, 15). The midden was sparse in Test Unit Nine, but in test units Five and Seven the bulk of the recovered artifacts were found in the midden. Physically it is impossible to link the midden under mound A with that below mound B. Culturally there are also some differences. In mound A the midden appeared to be a pure component dating to what we have designated as the Matheny phase. At mound B the submound midden has a slightly later early Coles Creek period assemblage (Aden phase equivalent). However, in mound B there were also a few sherds which may date as early as the Matheny phase. This is particularly true of the sherd of Hunt, and several of the sherds of Coles Creek Incised, var. Unspecified (see below). Largely, though, the midden below mound B belonged to a different, slightly later component than what lies beneath mound A.

Above the midden in mound B there was a thick band of partly disturbed basket loaded soil which was nearly devoid of artifacts (stratum XI). The artifacts that were present indicated that the mound fill was coming from a Coles Creek midden of some kind. Soils in this level were extremely mixed by plow action, but it was possible to discern episodes of basket loading both in plan and profile (Plate 16). Stratum XI was designated in the notes as the "calico" level. This designation was used to denote the presence of orange, tan to tan-yellow, and brown soils mixed together. None of the soils in stratum XI, however, were derived from the same soil as was found in the sterile subsoil. That is, plow action had not impacted the sterile soil and brought it up into stratum XI. I am certain that stratum XI represented an episode of mound construction. Unfortunately, plowing through the centuries, and land leveling recently, has truncated the mound surface so we do not know when, or by whom, the mound was built. Clearly the mound overlies the stratum X submound midden, but the fill contains only early Coles Creek diagnostics.

Given the presence of a moderate, but significant Plaquemine component from the surface of mound B, and the fact that so much of the mound was leveled and removed prior to our excavations, it is entirely possible that stratum XI related to a Plaquemine culture mound stage. Furthermore, there were also a small number of Mississippian sherds recovered from the mound B surface. It is again possible that part of the mound dates to this later component. The topmost stratum, stratum I, consists of plow zone disturbance. Few artifacts were recovered from stratum I, but those that were suggested an early Coles Creek, and possibly a Plaquemine component as well. Thus, mound B itself appears to date to either the Coles Creek or Plaquemine periods. The submound midden dates to the early Coles Creek period, but also contains a few earlier sherds dating to the late Baytown period.

To conclude this section, it can be seen that the Matheny stratigraphy reveals three certain components in the two mounds. Surface collected artifacts can be used to expand on the culture history, and to help isolate the stratigraphically defined components. The earliest culture dates to the Baytown period and has been named the Matheny phase. Evidence for the Matheny phase occupation has been located in the submound midden in mound A, and also in small amounts in and on mound B. At mound B a slightly later early Coles Creek submound midden was deposited, while in mound A a contemporary flat-topped, square-sided, clay mound was also constructed. This mound surface was largely kept clean of artifacts, and it is possible that much of the debris was swept away from the plaza-facing north side of the mound. Such a circumstance was noted at Greenhouse (16AV2 [28-H-2]) in the early Coles Creek construction (Belmont 1967: 29, 33). At Matheny we have assembled the early Coles Creek material in mounds A and B into the Plantersville phase. In mound A several more mound stages of indeterminate culture origin were added and the surface leveled until finally a Mississippian occupation was deposited. The Mississippian midden on mound A contains trace amounts of both Coles Creek and Plaquemine culture elements. The midden is, however, overwhelmingly Mississippian in cultural affiliation. I believe that the Mississippian occupation represented a single component dating to the 15th century, and is in part contemporary with the Transylvania and Wilmot phases in the Tensas Basin, and the Lake George phase in the Yazoo Basin. I am assigning the Mississippian component to the Kinnaird phase. A Plaquemine culture occupation is barely represented in mounds A and B. In mound A a small handful of sherds from the upper levels and the

Mississippian midden can be dated to this time frame. At mound B sherds from the surface can be assigned to the Plaquemine culture, but only one or two sherds from the excavated plow zone can be dated to this interval. A very small and probably ephemeral early historic occupation can be noted. I believe that this was restricted to the top of mound A.

Artifacts

Despite the excavation of five test units and a number of shovel tests the LMS collections from 1985 are rather small. Ceramics make up the bulk of the artifacts, but finished tools and lithic flakes are not unknown. With the exception of the submound midden beneath mound A, no significant fauna were recovered. From the submound midden beneath mound A a moderate collection of bone and shell was found. Despite the size of the ceramic assemblage, diagnostic artifacts were rare. Decorated pottery was very scarce in mound B, and only slightly better represented in mound A. The submound midden in mound A contained no decorated pottery. Diagnostic lithics were also scarce. Diagnostic lithic artifacts include a small number of arrow points, many associated with mound B contexts. Artifacts from Matheny are presented in Tables 19-25, and the ceramics and lithics are summarized in Tables 26 and 27.

Ceramics

Only those sherds which were excavated in 1985 will be commented on below. Table 19 lists the ceramics from the surface collections in 1981, 1983, and 1985. The ceramics from Matheny can be divided into three gross analytical units. One group represents the pottery from mound B, another the ceramics from the submound midden in mound A, and one the Mississippian ceramics from mound A. The first two groups represent grit-grog tempered ceramics from either late Baytown or Coles Creek components, while the latter represents the shell tempered pottery from the upper levels of mound A. A small amount of Coles Creek and Plaquemine pottery from mound A will also be discussed.

Addis Plain, var. Feliciana (N= 2)

Same as noted in reference. Feliciana is a type established by Jeffrey Brain for mixed bone and organic tempered ceramics from early historic contexts east of the Mississippi River (Brain n.d.). The variety clearly was derived within the Addis tradition, but it also appears to have assimilated a more "western" prediliction for the inclusion of crushed bone in the temper. Although Brain lists the type as being exclusively historic east of the Mississippi, it is probable that the concept of bone tempering as an additional agent was slowly moving from west to east (ibid.). At Matheny the variety is only represented by two sherds from the Mississippian midden in Test Unit Three. Both sherds also included some shell in the temper. I can find no reason to doubt that Feliciana is not a resident minority type in the late prehistoric Kinnaird phase. In the subsequent protohistoric Jordan phase Feliciana is better represented. (Reference: Brain n.d.)

Addis Plain, var. Ratcliffe (N= 2)

Same as in references. Ratcliffe is another Addis type established on the basis of excavations conducted by the LMS in the Natchez Bluffs region of Mississippi (Brain et al. n.d.). The variety is considered to date to the early historic period. At Matheny we found two sherds and some sherd fragments (all from the same vessel) in the upper part of the Mississippian midden in Test Unit Three. It is entirely possible that these sherds were derived from the overlying slope wash. There is a tiny early historic component in the mound A area and if our chronology is correct then the Ratcliffe sherds probably date to this period. However, it may be necessary to slightly revise our chronology and accept that the variety has a slightly earlier starting date west of the Mississippi. The absence of Ratcliffe in contemporary Mississippian contexts in the Yazoo and Tensas (Hally 1972; Phillips 1970), combined with its known date in the Natchez region leads me to suspect that the sherds were somehow intrusive into the midden, and should date to the early historic period.
(Reference: Brown 1985: 288; Brain et al. n.d.)

Addis Plain, var. Unspecified (N= 6)

These sherds are all relatively close to the definition of Addis (Phillips 1970: 48-49; Williams and Brain 1983: 92; Brain et al. n.d.), but our sample is too small for certainty. All have mixed grog and heterogeneous organic temper, with brown to black smooth surfaces. One sherd is a fine, tapered rim from a beaker, while another appears to be a portion of the neck of a bottle. The other sherds are relatively small and have no distinctive properties.

All the Addis U sherds came from the base of the Mississippian midden in Test Unit Three on mound A. Given the single rim and the bottle form it is possible to suggest that these sherds represent part of a Plaquemine occupation on or around the mound. I suspect that part of the mound may have been constructed by Plaquemine culture folk, but other than these sherds and a few others in mound fill contexts we cannot presently identify a Plaquemine mound stage with any confidence.

Avoyeles Punctated, var. Dupree (N= 1)

Same as noted in references. The one sherd in our excavated sample came from the Mississippian midden in mound A, while the another was found in a surface collection on mound B. Both sherds have an Addis paste, and both exhibit the sloppy combination of incision and punctation. The sherd from the surface collection appears to have been from a bowl or beaker with a flaring rim, while the other sherd is too small to determine what kind of vessel it came from. The presence of Dupree in the Mississippian midden further strengthens my belief that part of mound A was constructed by Plaquemine culture peoples. Likewise, the sherd from mound B makes it more evident that it was occupied, if not constructed at the same time. (References: Phillips 1970: 42; Williams and Brain 1983: 121; Brain et al. n.d.)

Barton Incised, var. Midnight (N= 2)

Same as in reference. Midnight is a new variety based on excavations conducted at the Lake George site in the lower Yazoo Basin (Williams and Brain 1983). The variety was established to account for rectilinear incised shell tempered pottery which occurred on very small, thin walled vessels with the decoration on the rim and neck rather than the vessel shoulder. Importantly, Brain notes that Midnight reflects a process whereby the standard Barton Incised, var. Arcola, was miniaturized and made neater and finer. The two sherds in the Matheny collection came from the Mississippian midden in Test Unit Three on mound A. One sherd is small and otherwise unimportant, but the other manifests the classic pattern of hatching on a very thin, rather sandy shell tempered ware (Plate 18 b). From this sherd it appears that the hatched design was divided into vertical panels. However, we should note that this may only be a local design pattern; nothing similar has been noted in the Lake George sample (ibid.: 132). The presence of Midnight at Matheny serves as a solid chronological marker. At Lake George Midnight is assigned to the Yazoo 4 set, placing it in the Lake George phase, which can be confidently assigned a 15th century date (ibid.: fig. 9.4, fig. 11.4). As we shall see, other Mississippian ceramics bear out such a chronological assessment. (Reference: Williams and Brain 1983: 132)

Barton Incised, var. Unspecified (N= 11)

This group of ceramics represents a truly motley assemblage of tiny, weathered sherds (Plate 18 a). Barton is easy to sort to type, however, which is why we have such a relatively large sample. Not surprisingly all of the Barton U came from the Mississippian midden in Test Unit Three. One sherd deserves brief comment, however. This is a rim sherd from a jar with a short, flaring rim . There is an incision parallel with the rim and then the Barton design runs down the neck below the parallel line. If the sherd were larger I would probably sort it as <u>var. Midnight</u>.

Baytown Plain, <u>var. Reed</u> (N= 21)

Same as in references. The <u>Reed</u> at Matheny primarily came from the submound midden in mound A. In the northwest corner of the midden in Test Unit Three we recovered several large sherds of a <u>Reed</u> beaker (Plate 17 l). We also found a few sherds of <u>Reed</u> in the midden in mound B. The <u>Reed</u> at Matheny conforms closely to the published descriptions. Colors range from tan to dark black, and surfaces are usually burnished or polished. The paste is very coarse and "chunky", with large pieces of grit and grog visible. The only vessel shape that I can identify is the beaker. No <u>Reed</u> rims were recovered in 1985. Given the submound context in Test Unit Three and its very small showing in mound B I feel certain that <u>Reed</u> is one marker for the Matheny phase. (References: Phillips 1970: 52-53; Williams and Brain 1983: 92.)

Baytown Plain, <u>var. Sharfit</u> (N= 21)

Same as noted in reference. All the <u>Sharfit</u> save for two sherds was found in the submound midden at Matheny. When we sorted the submound midden sherds (which were exlusively plain) we noted two forms of plainware. One was relatively thick and crude, with course grit-grog inclusions. The other was harder, thinner, and more polished. The former we have called <u>Reed</u>, while the latter is now sorted as <u>Sharfit</u>. <u>Sharfit</u> was first noted for Bayland phase deposits at the Lake George site, but certainly has an application at Matheny. Compared to Reed the Sharfit is a better made variety, but it is hardly the apex of pottery making. Surfaces are well polished but not really smooth. The temper is less coarse than Reed, and as noted it tends to be slightly thinner and harder. Two simple bowl rims were recovered from the submound midden in Test Unit Three (Plate 17 k). The rims were unmodified with tapered, slightly incurving lips. These rims duplicate examples from the Lake George site (Williams and Brain 1983: fig. 5.14 a, d). At Matheny Sharfit dates to the Matheny phase, which is considered to be essentially contemporary with the Bayland phase of the Yazoo. (Reference: Williams and Brain 1983: 92, 103)

Baytown Plain, var. Unspecified (N= 460)

The bulk of the grit-grog tempered ceramics from Matheny were not classified to a specific variety. Two treatments could be distinguished in the sample, however. One was a moderately well made, relatively thin ware with polished surfaces and fine to medium grit-grog inclusions. The other was well made, and slightly thicker, with a dull, matte surface finish. The temper was slightly coarser than the first treatment, but not as coarse as either Reed or Sharfit. The former resembles Baytown Plain, var. Little River, while the latter approaches Baytown Plain, var. Valley Park. I have not used these names, however, as there was no stratigraphic basis for separating the two treatments. Furthermore, I did not feel comfortable with the creation of a new variety which I could not isolate stratigraphically. All rims were unmodified. Rims on Baytown Plain, var. Unspecified were evenly split between thin and tapered (but not so fine as to be included in the "Vicksburg" rim mode category) and slightly thicker with a flat lip (Plate17). Both rim types occur on each treatment. Bases are flat and slightly thickened towards the middle. There are not enough sherds to determine if bases are square or round, but both kinds may be represented. Vessel shapes seem confined to beakers and simple bowls. Most of the Unspecified came from mound B contexts, both in the midden and as fill. In mound A we found a moderate quantity of Unspecified in the fill and mixed in with the Missisippian ceramics in the midden. A few sherds from the submound midden were sorted as Unspecified, but this was mostly because they were too small or eroded for us to sort with confidence. I am certain that the bulk of the Unspecified dates to the Coles Creek period, and most probably belongs in the Plantersville phase. Future excavation may shed more light on the problem at Matheny.

Coles Creek Incised, var. Coles Creek (N= 3)

Same as in references. Prior to excavating Matheny in 1985 I had hypothesized that the site supported a "classic" (Aden phase equivalent) Coles Creek occupation based on several badly weathered sherds which we had classified as var. Coles Creek (Kidder n.d. a). Our small excavated sample was therefore gratifying as it helped to securely identify such a component. The sherds are not what could be described as "classic" examples, but they most certainly belong to the variety. Two of the three sherds were rims, and they both had an unmodified rim with a flat lip (Plate 17 a, b). The decoration began just below the lip and consisted of a minimum of three lines. One sherd had significantly overhanging lines (Plate 17 a), while the other had lines which were somewhat smoothed over after the incision was made (Plate 17 b). In both cases the lines were closely spaced. The third sherd was a body sherd with wide spaced overhanging lines. All three sherds were made on a coarse mixed grit-grog tempered ware which might have been classified as Baytown Plain, Valley Park. However, as I noted above, I have little confidence in sorting Coles Creek period plain pottery to variety. The context of the three sherds was interesting. The body sherd came from slope wash on mound A. One rim came from the top of the stage 1 red clay mantle and admittedly forms one basis for our tentatively assigning that stage to the early Coles Creek Plantersville phase. The other rim was found in the midden level of Test Unit Five. Because of this sherd and others, I feel confident in assigning the midden in mound B to the Plantersville phase. (References: Ford 1936: 180-182, 1951: 74-76; Phillips 1970:70; Williams and Brain 1983: 146; Brain et al. n.d.)

Coles Creek Incised, var. Hunt (N= 1)

Same as noted in references. This one sherd was recovered from the midden in mound B (Plate 17 d). The dating of Hunt is earlier than I am advocating for the midden as a whole, but it is possible that this sherd belongs to an earlier component which has "contaminated" the midden in mound B. Below we will note several other sherds from the mound B midden which typologically belong to an earlier component. Unfortunately, the Hunt sherd could predate the hypothesized Matheny phase occupation in the mound B area. However, given its paste characteristics I believe that it is possible to confidently place this Hunt sherd in the Matheny phase. In many ways this sherd is typologically intermediate to variety Coles Creek, although it surely predates that variety. (References: Phillips 1970: 74-75; Williams and Brain 1983: 151)

Coles Creek Incised, var. Stoner (N= 1)

Same as in references. This sherd was recovered from stratum II in Test Unit Two. Stratum II has been assessed to be the slope wash from the stage 2 mound in mound A. Because it is in a clearly disturbed context the Stoner sherd is not necessarily significant. Unfortunately it could have been included in the fill in an early stage of mound A, and thus not date any specific part of the mound. Tentatively, though, it allows us to suggest that the stage 2 mound was constructed at a date roughly contemporary with the sherd. Such data, I must admit, are sketchy and liable to different interpretations. A Stoner sherd was found in the surface collections from the mound B area. Both sherds have a single line incised in the lip of an otherwise unmodified rim. The sherd from the excavation had a slightly tapered, flat lip (Plate 17 c), while the surface collected sherd had a square, flat lip. Similar sherds labeled var. Scott were recovered from early Coles Creek Dortch Bend phase contexts at the Toltec site in Arkansas (Stewart-Abernathy 1982: 49). Despite the small sample I am confident that Stoner is a good marker for the Plantersville phase. (References: Phillips 1970: 76; Williams and Brain 1983: 156)

Coles Creek Incised, var. Unspecified (N= 12) As can be expected, this is a catchall category used to subsume those sherds which are too small or incomplete to adequately identify. Three or possibly four sherds in the group are very much like var. Stoner (Plate 17 g, h), but they are missing too much of the body to be certain they are not another variety such as Greenhouse. All four sherds are rims, and two probably came from the same vessel. Three of the four rims have a single line incised on the flat lip of a slightly tapered rim. All four have at least one line incised between 6 and 13 mm below the lip. Three of these four sherds came from the midden in mound B, while the fourth was found in the plow zone of mound B.

Three other sherds in the Unspecified category deserve mention. One is the upper part of a rim sherd with very close spaced parallel lines which was recovered in the slope wash in Test Unit Three. Although the sherd is too small for classification it may be part of a Coles Creek Incised, var. Mott sherd. If so, it represents one of the only pieces of evidence for a late Coles Creek occupation on the site. Another sherd is a rim fragment of a bowl or beaker which was found in the fill of the stage 1 mound in Test Unit Three. The decoration consists of two sets of two parallel lines located just below the rim (Plate 17 f). The lip is flat, and the paste is relatively fine but has some large inclusions. The decoration most closely resembles that expected on Coles Creek Incised, var. Hardy. The context, however, would seem to preclude any assignation to the Hardy variety. According to John Belmont this sherd probably dates to the Matheny phase of the Baytown period. Several similar sherds have been located in the Sundown site (16TE35 [25-K-9]) collection (John Belmont, personal communication 1986). The last notable sherd has a single broad, flat line with upside down teardrop-shaped punctations immediately below (Plate 17 e). The vessel shape is unique, and appears to be a bowl or beaker with a wide, flaring orifice. This sherd was recovered in the midden in mound B, but probably dates earlier than the Plantersville phase. It appears that the sherd reflects the movement of the Officer Punctated concept down from the rim and onto the body. Furthermore, such a mode seems to foreshadow the "classic" mode which is later seen on var. Coles Creek. I would tentatively place the sherd in the Matheny phase, based on similar sherds from the Sundown (16TE35 [25-K-9]) and Compton Lake (16MA117 [23-L-9]) sites in the Tensas Basin.

Evansville Punctated, var. Unspecified (N= 2)

Both of the Evansville sherds recovered at Matheny have a similar linear punctated treatment and are on the same kind of paste. The paste is fine and hard, and is chiefly comprised of grit and grog. It appears that some organic material was included in the temper, leading us to suspect a Plquemine affiliation. No extant variety has been described which would include these two sherds, but

Rolingson does note that she found similar sherds which she categorized as Evansville Punctated, _var. Beech Creek_ (Rolingson 1976: 115). Rolingson points out the affiliation of _Beech Creek_ to Sinner Linear Punctated (Suhm and Jelks 1962: 143), a type represented at Matheny by at least one whole vessel and a sherd from the surface collection. The context reported by Rolingson is the Bartholomew phase of the Plaquemine culture. I feel that it is likely that the sherds from Matheny date to this period. The sherds at Matheny came from slope wash in test units Two and Three and are thus without context.

French Fork Incised, _var. Unspecified_ (N= 1)
This is a tiny sherd from the slope wash at the top of Test Unit Three. All that is visible are two curvilinear lines with two rectilinear lines extending down from them.

Leland Incised, _var. Unspecified_ (N= 2)
Two sherds found in the Mississippian midden in Test Unit Three were classified as Leland Incised. The decoration was too small to allow us to assign a variety to the sherds. The decoration consists of trailed curvilinear incisions on a thin shell tempered ware classified as _var. Bonita_ (see below). The closest variety which would be applicable would be _var. Williams_ (Williams and Brain 1983: 179). The sherds from Matheny however, do not have the right sort of incision to be _Williams_. The presence of Leland Incised sherds in the Mississippian midden is not at all unusual. In fact I was surprised that we had not recovered more during the excavations.

Mazique Incised, var. Kings Point (N= 1)

Same as noted in references. The presence of a Kings Point sherd from the upper level of slope wash in Test Unit Three presents us with the most unequivocal data to suggest the presence of a late Coles Creek component. However, it is possible that the sherd really dates to the early Plaquemine occupation. Quite conceivably this sherd could be sorted as var. Preston, which suggests a very late Coles Creek or early Plaquemine time frame (Hally 1972: 310-311). The decoration runs right up to the lip, which is unmodified and round. The lines do not have the typical fine, evenly spaced incisions as are expected of Kings Point. However, as Preston is a variety which has some chronological uncertainty (Hally 1972: 157, 177, tables 19, 20), it is best to maintain the Kings Point classification. One fact that allows us to sort this sherd as Kings Point is the fact that we recovered a "classic" example of the variety from the mound B surface. No matter how the sherd is classified it will not contribute much to the total site analysis. (References: Phillips 1970: 129; Williams and Brain 1983: 184-186)

Mazique Incised, var. Manchac (N= 1)

Same as in references. A single sherd of Manchac was recovered near the base of the Mississippian midden in Test Unit Three. The paste is moderate to fine, and includes enough organic material to classify as Addis Plain. The design appears to consist of several oblique lines pending from a horizontal line which I think was just below the rim. At least five more Manchac sherds were recovered from surface contexts on mound B. The <u>Manchac</u> at Matheny is further testimony to the presence and strength of the Plaquemine component which we could never isolate in our excavations. (References: Phillips 1970: 129-130; Williams and Brain 1983: 186)

Mississippi Plain, <u>var. Bonita</u> (N= 272)

Description: New variety.

<u>Background</u>: When the LMS conducted research in the Boeuf Basin in 1983 we surveyed and recored the Matheny site. At that time we recovered a small amount of Mississippi Plain pottery. The only decorated types associated with the Mississippian shel tempered pottery were very late, probably dating to the early historic period. I thus naturally assumed that the plainware was contemporary and related to the material from the Jordan site. However, subsequent excavation at Matheny revealed that the site supported an earlier, entirely prehistoric, Mississippian component. The plainware associated with the Mississippian levels in mound A was found to be very thin, with distinct paste and vessel features, and thus was elevated to varietal status. The variety is named for the town of Bonita, located near Bayou Bartholomew in Morehouse Parish.

<u>Sorting Criteria</u>: <u>Variety Bonita</u> is a shell tempered plainware which is distinctive for its relative thinness. The average thickness of a sample of 75 sherds was only 4.81 mm. This is not as thin as <u>var. Coker</u>, which had an average thickness of only 2.8 mm (Phillips 1970: 132; Williams and Brain 1983: 108). The shell

inclusions in Bonita are well crushed, and relatively fine. The ware is nonetheless somewhat coarse, and tends to erode, particularly on the interior. Many sherds show only the holes where the shell leached out. Surfaces are never polished, although burnishing is evident on some of the better made sherds. Colors tend to range from dark brown (almost black) to deep orange, with light browns and tans most predominant. As a consequence of the vessel thinness, and the leaching of the shell tempering, Bonita sherds are very light, and fragile.

There are few rims in the collection of Bonita from Matheny, but those that are found indicate that jars and bowls occurred in roughly equal numbers. Jars seem to be relatively small, with short, usually sharply flaring rims, and round or tapered lips. Bowls appear to be rather deep, with unmodified rims, some of which have a slight exterior flare. Existing sherds are insufficient for the determination of vessel sizes or dimensions. No bases are known, which suggests that round bottoms were standard.

Distribution: At present var. Bonita is only recognized at the Matheny site. Further analysis of surface collected Mississippian plainwares would no doubt increase its distribution to include at least other parts of the central Boeuf Basin. Bonita is not known from presumably contemporary ocupations at the Transylvania site in the Tensas Basin, nor is it known from Lake George, or the lower Yazoo Basin. The circumscribed spatial distribution of Bonita enhances its value as a local variety.

Chronological Position: Variety Bonita is a diagnostic marker for the Kinnaird phase of the late Mississippian culture in the northern Boeuf Basin in Louisiana. Current estimates indicate the the Kinnaird phase roughly spans the period between A.D. 1450-1550. Associated decorated ceramics suggest that the Kinnaird phase is contemporary with the Lake George phase in the lower Yazoo, the Transylvania phase in the Tensas Basin in Louisiana, and the Wilmot phase in the upper Tensas Basin in Arkansas.
Diagnostic Modes: Thin shell tempered plainware with relatively fine shell inclusions which are often leached out, leaving a friable paste. Vessel shapes are split between jars and bowls. Jars usually have short, flaring rims. Bowls are often deep, with unmodified rims. No appendages are known for var. Bonita.
References: None.

Morris Plain, var. Unspecified (N= 3)

The practice of bone tempering has an extensive history on the west bank of the Mississippi River and further west in the Trans-Mississippi south (Hemmings 1985). I have already alluded to the diffusion of this trait to the eastern side of the Mississippi by historic times. However, it appears that there was an earlier spread of the trait through the Late Marksville and Baytown periods and continuing into the Coles Creek period. Bone tempered pottery always remained a minority, but it appears to have been a significant one, particularly in the Arkansas River Valley (ibid.: table 12; Stewart-Abernathy 1982: 50, table 2, fig. 35). In the Boeuf Basin I cannot identify any bone or bone-grog tempered ceramics until the Baytown period at the earliest. At Matheny we have three sherds from excavated contexts in mound A, and one sherd from the mound B surface collections. The excavated sherds are tiny and came from either mound fill, or in one case the Mississippian midden in Test Unit Three. While the context is not definitive, the paste qualities set these sherds apart from Addis Plain, var. Feliciana. At present I must conclude that these sherds could date to either the Matheny or Planterville phases, but I would lean towards a Coles Creek date based on the proportions observed at Toltec and the Alexander site. While I have opted for the use of the Unspecified category, it is worth noting that the Morris Plain at Matheny has significantly more bone in the paste than is reported for the Alexander site (Hemmings 1985: 41). Perhaps these differences can eventually be used to establish temporal and spatial boundaries for the type and its asociated varieties.

Owens Punctated, var. Widow Creek (N= 1)

Same as in reference. The single sherd of Widow Creek at Matheny seems to be a counterpart to the Midnight sherd discussed above. That is, it is finer, and thinner than what would normally be expected of the variety (LMS colections, Peabody Museum). It may be that the mound context has a role in the quality of a given sherd. I am assuming that the mound occupants would have had higher status and thus access to better made goods. The sherd in question is unfortunately small, but shows the typical features of the variety. In this case the decoration was placed just below the rim of a small jar with what must have been a sharply flaring rim. (Reference: Williams and Brain 1983: 195-196)

Parkin Punctated, var. Transylvania (N= 24)

Same as in references. With Transylvania we finally have a decorated variety which is represented in enough quantity to discuss with some certainty. One thing that can be stated from the outset is that the variety is the most numerous of any recovered from the LMS excavations. By definition Transylvania consists of linear punctation on shell tempered paste. The definition, however, does not account for the degrees of variability within the type. At Matheny I can recognize three treatments of linear punctation. First, there is a fine (or superfine) category which consists of fine, very close spaced linear punctations so well executed it is often difficult to discern the linear punctations (Plate 18 c-e). Further, the fine category is made on an amazingly thin shell tempered paste. In one case a complete uneroded sherd was only 3 mm thick. Several apparently uneroded sherds are even thinner, but I must confess to being uncomfortable with a decorated sherd less than 3 mm thick. Perhaps these are eroded, or possibly they were not vessel sherds. In one case the fine treatment was continued down toward the base of a jar (Plate 18 e). Linear punctation on the fine treatment is both curvilinear and rectilinear, and is found in discrete bands and as fields. No evidence of zoning has been noted in the Matheny sample.

The second treatment is well executed though by no means as delicate as the fine treatment. This "medium" treatment consists of moderately close spaced linear bands of punctations on Mississippi Plain, var. Bonita. Decoration consists of rectilinear and possibly curvilinear punctations arranged on the neck and upper body of jars (Plate 18 f-h). In one case the punctations were set at an oblique angle to the rim and formed a Barton Incised-like design (Plate 18 h). One sherd was a tall necked jar with a thin, delicate rim which had a small, but sharply angled flare (Plate 18 f). Below the lip were two bands of linear punctation parallel to the rim. At present there is no stratigraphic evidence that the treatments are chronologically or culturally significant. All of the Transylvania from Matheny came from the Mississippian midden in Test Unit Three.

The last treatment noted at Matheny can best be described as coarse (Plate 18 i). This is the least common treatment, appearing on only two sherds. Although the design is coarse compared with the other Transylvania sherds it is still relatively well made. Punctations are wider spaced between linear arrangements and they are also further apart from each other. As best I can tell this treatment is confined only to body sherds. Because our sherd size is generally small it is possible that two or more of these treatments could be found on a single vessel. The bulk of the Transylvania is unclassifiable to treatment because the sherds are too small or eroded.

An interesting fact about Transylvania is that it is almost non-existent in the Transylvania site (16EC8 [22-L-3]) collections (Hally 1972: 398, 517). Only 11 sherds were located in the Tensas

Basin, and eight were found in Fitzhugh phase contexts at Transylvania (ibid.: 398). Hally assigns the type to the Fitzhugh phase, although several sherds were found in mixed Fitzhugh/Transylvania phase contexts. At Lake George the variety is assigned to the Yazoo 3 set, which spans the Winterville II and Lake George I phases (Williams and Brain 1983: fig. 9.4). In the Felsenthal Schambach has established a similar variety called Boeuf Brake which he has dated to the Caney Bayou phase (1981: 168, 193). At Matheny I feel that the variety dates later than in the Tensas because we lack the Plaquemine diagnostics one would expect for a Fitzhugh phase assemblage. Of course it is always possible that the sherds found in Fitzhugh phase contexts were intrusive and thus the variety could be a Transylvania phase marker. I feel that this would be more logical given the situation in the Boeuf and the Yazoo. However, I do not feel that the Transylvania at Matheny dates as late as the Caney Bayou phase. The context at Matheny and also Lake George suggest that the variety should date to the period between Fitzhugh and Caney Bayou. (References: Phillips 1970: 152; Williams and Brain 1983: 196)

Parkin Punctated, var. Unspecified (N= 4)

It is likely that these represent Transylvania sherds which are too small and eroded to sort. The visible punctations on these sherds are relatively sloppy, and do not appear to be in a linear arrangement. The sherds are, however, quite small.

Plaquemine Brushed, var. Plaquemine (N= 1)

Same as noted in references. A single Plaquemine Brushed sherd was recovered from the plow zone of mound B. It is very small and eroded, but fits the type. The brushing is zoned on the top by a line perpendicular to the brushing. The paste is very hard and compact but does not appear to be an Addis ware. Two additional Plaquemine Brushed sherds were found on the mound B surface. Once again, although the physical context is apparently destroyed, it is evident that an important Plaquemine culture component exists at Matheny (References: Phillips 1970: 152-153; Hally 1972: 279-280; Williams and Brain 1983: 196, 200; Brain et al. n.d.)

Winterville Incised, var. Belzoni (N= 6)

Same as in references. The presence of Belzoni at Matheny was quite expectable given the total Mississippian assemblage. The variety, of course, has a broad temporal and spatial distribution, particularly along the Mississippi River. In the Tensas it exists in both the Fitzhugh and Transylvania phases, while in the Yazoo it dates to the Lake George phase. The Matheny examples all came from the Mississippian midden in Test Unit Three, and were stratigraphically associated with the Transylvania and Midnight sherds. All of the sherds at Matheny have similar characteristics of moderately deep, trailed curvilinear incision on Mississippi Plain, var. Bonita (Plate 18 j-k). Sherd size is too small to determine design elements or vessel shapes. (References: Phillips 1970: 173-174; Hally 1972: 402-415; Williams and Brain 1983: 208)

Winterville Incised, var. Tunica (N= 1)

Same as in references. This one sherd came from the uppermost level of slope wash in Test Unit Three on mound A. Although the variety is a marker for the latest protohistoric and early historic aboriginal occupation in the central Boeuf Basin (and elsewhere) it was not really a surprise at Matheny. Previously in 1983 we found a sherd of Fatherland Incised, var. Snyders Bluff, which is a historic period marker in the Natchez Bluffs region (Brown 1985: 9, 294; Brain et al. n.d.). Thus, finding another sherd which may well have been contemporary was almost expected. The sherd is relatively small, but exhibits typical narrow, sloppy close spaced curvilinear incisions on a thick, coarse shell tempered paste equivalent to Mississippi Plain, var. Morehouse (see below). Both Snyders Bluff and Tunica, and perhaps Wailes (to be discussed below) are indicators of an early historic occupation, possibly on the top of mound A. Similar mound top historic occupations are known for the Caney Bayou phase in the Felsenthal (Jeter 1982: 108-109; Rolingson and Schambach 1981: 193-198). (Reference: Brain 1979: 234-237, n.d.)

Winterville Incised, var. Wailes (N= 1)

Same as in reference. This is a new variety defined by Brain based on excavations on the east bank of the Mississippi River in Tunica and Tunican-related sites. Wailes is related in design to Belzoni, but is separable based on line depth and width, and also paste. Lines on Wailes are usually so deep that they push up the clay on the interior of the vessel. Also the lines are wider, and are set further apart than in Belzoni, and they tend to be more square than round or trailed (Plate 18 1). The paste on this sherd is rather thin, and could be classified as either Bonita or Morehouse. The variety is well represented in the Jordan II phase, which post-dates the Kinnaird phase occupation. It is thus possible that the Wailes at Matheny is antecedent to that found at the Jordan site, and belongs in the Kinnaird phase. The context of the sherd, which was in the slope wash of mound A in Test Unit Three, might be taken as an indication that it really post-dates both the Kinnaird and Jordan phases, and belongs in the historic period Prairie Jefferson phase along with the Snyders Bluff and Tunica sherds. At present the data are too equivocal for me to make a certain determination. (Reference: Brain n.d.)

Winterville Incised, var. Unspecified (N= 4)

As is so often the case these sherds are too small for adequate identification, except in one case. This is an unusual sherd which has characteristics of both Belzoni and Tunica. The sherd has one set of Tunica-like curvilinear incisions above a wide line Belzoni-like incision. The design is found just below the body/neck junction of a shell tempered jar with a Bonita paste. The context was the Mississippian midden in Test Unit Three. Except for this sherd the others are undistinguished and small. Their context was the Mississippian midden.

Unclassified Brown/Orange Slipped on Baytown Plain, var. Unspecified (N= 4)

Although unclassified categories are largely without value other than to "pigeonhole" sherds into some class, we find it necessary to address this particular group of sherds. While sorting through the 1983 survey collections I had noted that at several sites which had some early Coles Creek diagnostics there were also a tiny minority of Baytown Plain sherds which had a brown or orange-brown slip. In some cases the slip was thin and fugitive, while other times it was thick and quite prominent. Colors were rarely consistent, even at the same site. At no time was the sample larger than 14 sherds. In discussing these sherds with Jeff Brain and Ian Brown they noted that a similar phenomenon had been encountered in the Natchez Bluffs region, but they could never pin it down in time. Both suspected an early Coles Creek context, however (J.P. Brain personal communication 1983, 1986).

When I was sorting the Matheny excavated sample in 1985 I again noted the same slip on Baytown Plain pottery. One sherd was tentatively sorted as Larto Red, <u>var. Unspecified</u> because the slip was reddish, but it became clear that this was not an adequate means of classifying these sherds. Thus, they were again sorted into the unclassified category in which they are now reported. Two of the sherds came from the upper level of mounds A and B, respectively. Two sherds, however, were found in Test Unit Three on mound A in a context which we suspect to be early Coles Creek. One large sherd, in particular, was found in the fill of the stage 2 mound. Just below this on the top of the stage 1 mound we recovered a <u>Coles Creek</u> sherd. I still cannot be certain that the slipped sherds date to the early Coles Creek period. My suspicion, confirmed in part by survey data and the Natchez Bluffs excavations, is that crude, thick slipped pottery on Baytown Plain represents a minority type in the early Coles Creek period. Nothing similar has been recorded in the Tensas, or in southeastern Arkansas, but it may have been overlooked or counted as Baytown Plain.

Shell Tempered Pottery Coil

A single fragment of a shell tempered pottery coil was recovered from the Mississippian midden in Test Unit Three. The tempering is typical of var. Bonita.

Lithics

The lithic assemblage from Matheny is rather meagre given the amount of earth that was excavated. A total of 13 tools were excavated plus a relatively small amount of flakes and debitage. As a generalization it seems that lithic reduction and processing were not important activities, at least where we excavated. Cores were relatively rare, and finished tools not common. The pattern of flake removal suggests on site processing, both in mounds A and B. Thermal alteration of cherts was practiced, but was not dominant. Local cherts were slightly better represented than non-local cherts, but the latter were not uncommon. A single ground stone tool was recovered in 1985, but as a class they were almost unrepresented in the survey collections. Surprisingly mound A was the locus for the largest excavated lithic collection at Matheny. Lithics as a class are summarized in Table 27. Metrical data for all chipped stone tools is provided in Table 28.

Alba Stemmed, _var. Scallorn_ (N= 4)

Same as in references. Only one of these points is a "classic" example of the variety, but nonethless they all fit into the variety as described. Unfortunately the classic example came from the plow zone in mound B (Plate 19 d). Two came from the midden in mound B, while one came from the surface of the stage 1 mound in Test Unit Three (Plate 19 c-e). The chronology for the _Scallorn_ variety is imprecise, but it is generally agreed to be a Coles Creek type. East of the Mississippi River _Scallorn_ points do not become common until the late Coles Creek Kings Crossing phase. However, on the west side of the river, where the variety seemed to have developed, it appears as if they are somewhat earlier. Webb (1981) is explicit in his statement that _Scallorn_ may be one of the earliest arrow points in Louisiana. At Matheny I feel that Webb's hypothesis is confirmed. The three points in context give us further confidence that both the midden and the stage 1 mound date to the early Coles Creek Plantersville phase.

Two of the _Scallorn_ points were made on local tan chert, while a third appears to be made on a heat treated local chert. This specimen does not have a high gloss, nor is particularly discolored. However, it has a pink sheen which is not seen in local cherts, nor am I familiar with any non-local cherts of this color. The fourth _Scallorn_ is made on a very fine grained white chert. This chert is most certainly non-local. (References: Bell 1960: 84; Suhm and Jelks 1962: 285; Webb 1981; Williams and Brain 1983: 222)

Unclassified arrow points (N= 4)

This group constitutes an assortment of untypable arrow points, two of which are broken at the tip. Two of the four points are related morphologically to the Alba tradition, while the other two have no counterparts. The two Alba-related points are both made on local tan chert. One is made on a flake which was barely chipped to form the base and presumably the tip (Plate 19 b). Cortex is visible on the dorsal surface of this point, and its tip is missing. The stem was outlined by faint corner-notching, and is slightly bulbous with a flat base. The other is better made, but smaller. The blade is triangular with slightly convex edges. The stem is small and the barbs are not prominent; the tip, however, was well crafted (Plate 19 a). Both points came from disturbed plow zone contexts in mound B.

The other two points are long and slender and are both made of local chert. One has a long, slender blade with its tip missing. This point has prominent, though short, barbs, with a bulbous stem and convex base (Plate 19 h). This point was recovered from slope wash in Test Unit Three on mound A. A similar unclassified point was found in disturbed contexts in mound C at Lake George (Williams and Brain 1983: 238-239, fig. 7.16 e (the text and figures for Figure 7.16 are not in correct order. Fig. 7.16 e is described in the text as fig. 7.16 c)). The context at Lake George suggested either a late Baytown or early Coles Creek age. The second point was made on a long, fairly well made flake. The blade is triangular and slightly concave, and there are almost no barbs. The stem is slightly expanding and the base is flat (Plate 19 g). This point was found in the mound fill of mound B.

Unclassified large arrow/small dart point (N= 1) This is a pentagonal shaped point with a slightly contracting broken stem (Plate 19 i). It is made on a dull fine grained grey chert. It was recovered from the midden in mound B. It is large enough to possibly be a dart point, but also light enough to haft on an arrow. The blade is triangular and the shoulders prominent, but not barbed. Although the stem is broken it may have been as long as the blade. In form it resembles a very small Carrollton point, or more likely a variant of the Gary Stemmed, var. Maybon tradition. My first inclination was to disregard this point as a part of the Neo-Indian occupation at Matheny. However, upon further study I would not be so certain. Contextually it was in the early Coles Creek midden. We also know that there are a few slightly earlier ceramic markers in the midden. Furthermore, we know that through time the Gary tradition was getting smaller, and we do have a Late Marksville antecedent at Stevenson. Thus, I would tentatively conclude that this point may represent a transitional form between arrow points and darts in Louisiana. The dating therefore would most logically be the Baytown period, and presumably the Matheny phase component.

Unclassified reworked arrow point/chisel (N= 1) This is an unusual corner-notched arrow point fragment which was reworked on its distal end into what may have been a tiny chisel. The tip is flat, and thinned to present a small but sharp surface.

The stem is straight and the base thinned and flat. At some point, possibly during use, the point split longitudinally down the middle. The tool was made on a fine grained white chert which is similar to one of the Scallorn points described above. It was found in the disturbed upper level of Test Unit Two.

Drill (N= 1)

This is an expanding base drill made on a mottled grey and white fine grained chert (Plate 19 f). It was recovered from the slope wash on mound A. These drill forms are not chronologically or culturally diagnostic, and thus the drill has little to tell us (Williams and Brain 1983: 251). Even so, it may be informative that a utilitarian form would be found on what might be presumed to be in part a ceremonial structure.

Biface preform/failure (N= 1)

As the name implies I am uncertain if this was just a preform, or possibly a discarded preform failure. It is a crudely oval bifacially chipped pebble which seems to have been abandoned due to material defects. It is made on a coarse local chert with a median ridge which deflected some of the chipping and created an uneven outline. Still, it does not appear to be unsalvageable, and thus my uncertainty as to its ultimately intended function. It came from the top 10 cm of Test Unit Two.

Flake Core fragments (N= 12)

No complete flake cores were found in the 1985 excavations. Those that we recovered were fragmentary and exhausted. Flake core fragments could be differentiated from shatter by the presence of either negative bulbs of percussion or prepared striking platforms. Flake cores were largely made of local chert, but just under half were thermally altered. From the available fragments it appears as if the process of flake removal was by hard-hammer free-hand flaking. There is no evidence of bipolar flake removal. Fifty percent of the flake core fragments were found in mound A.

Utilized flakes (N= 10)

Very few flakes at Matheny showed traces of utilization. Those that did exhibited a unifacial pattern of tiny flake scars along one face. It appears that these flakes were briefly utilized and quickly discarded. Both local and non-local chert sources were utilized.

Unutilized flakes (N= 175)

Unutilized flakes made up the bulk of the lithic collection. Local sources were most common, but 33 % were non-local cherts. Just under 15 % had been thermally altered. It appears that thermal alteration was utilized primarily for local cherts. Flake patterns suggested that all forms of reduction occurred on the site. That is primary, secondary, and biface retouch flakes are represented in the collection. The mound A excavations had the greatest quantity of unutilized flakes.

Shatter (N= 62)

Shatter represents those pieces of lithic material which have neither a bulb of percussion nor a striking platform. The bulk of the shatter was produced on local lithics, but some were non-local. Twenty nine percent had been thermally altered. Once again, it seems that thermal alteration was confined to local lithic sources. As for all non-tool lithics, the bulk came from mound A.

Fire-cracked rock (N= 4)

Four pieces of fire-cracked rock were recovered from Test Unit Three in mound A. It seems likely that these were thermally altered lithics which were overexposed to fire. All the fragments were small, and do not seem to represent debris from a hearth.

Groundstone abraider/hammerstone (N= 1)

A badly battered chunk of well consolidated fine grained white sandstone was found in the midden in Test Unit Five on mound B. It is cracked, and the ends are battered and abraided. The outer surfaces are smooth, and in one case show signs of wear. One of the battered ends is blackened and may have been exposed to fire.

Sandstone fragments (N= 8)

Small fractured chunks of well consolidated sandstone were found in all test units except number two. All the sandstone had a pink hue, suggesting exposure to fire. None of the chunks showed signs of modification.

Ochre (N= 1)

A single small piece of loosely consolidated ochre was found in the midden of Test Unit Nine on mound B. It may have been utilized for pigment. The piece has no sign of modification.

Unmodified chert pebbles (N= 31)

Small unmodified chert pebbles were found in all the test units. None of these would qualify as a source for lithic reduction because they are too small. They may have been brought to the site with loads of local gravel from nearby streams.

Fauna

Little fauna was preserved at the Matheny site, probably due to highly acidic soils. The only significant faunal remains were recovered from the submound midden beneath mound A. Preservation in this case was aided by the presence of freshwater mussel shells which no doubt neutralized some of the acidity. Because of the lack of time and sufficient experience and expertise the fauna was only classified in the most general manner. Very little fauna was recovered from mound B. Several deer tooth fragmments were found, and in Test Unit Five we exposed a deer mandible. Unfortunately the mandible was not recovered when the pit flooded. Otherwise all that was found were bone fragments and splinters. The tables for each test unit list the recovered fauna by weight. The vast majority of all the fauna was highly fragmented and unidentifiable.

The submound midden in mound A contained a moderate sized and well preserved faunal assemblage. Shell and deer bone predominated, but there were a small amount of fish bones as well. The fish are listed as unidentified, but I believe that I can identify the fragments of a drum fish jaw. A type collection was not available, however, so I have remained conservative in my assessment. The sample is very small despite its preservation, and therefore generalizations are difficult. It is interesting to note the parallel with the Lake George Baytown (Bayland phase) period deposits in mound C (Belmont 1983: 464-469). It is apparent that at Lake George the late Baytown period subsistence pattern was focused on the procurement and exploition of three different food sources: deer, fish, and shellfish. Matheny duplicated the pattern, albeit with smaller numbers. Later deposits in mound A and B did not apparently have a similar shell content, or the shell has disintegrated by now. Brodnax mentioned that shell was found in the mounds and surrounding fields, so it is possible that the acidic soils have changed our view of the subsistence possibilities in the early Coles Creek period. However, Belmont (ibid.: 468-469) suggests that between late Baytown and late Coles Creek there was a shift in subsistence emphasis from aquatic exploitation to more terrestrial hunting. Without much confidence I would suggest that the negative data from Matheny lend some confirmation to such a hypothesis.

Flora

A few grams of unidentified carbonized nutshell fragments were recovered in various contexts at Matheny. The data only indicate the presence of nut shells. I do not think much else can be said with the data at hand.

Historic artifacts

Despite the fact that the Matheny site area has been cultivated since at least 1855 it was a surprise that we recovered almost no historic material. In fact, it would be best to say all that we found were recent artifacts which certainly did not predate the early 20th century. In Test Unit Three on mound A we found a nail in the uppermost disturbed strata, while a similar artifact was found in the same location in Test Unit Two. No historic artifacts were found on or in mound B.

Culture History

Test excavations at the Matheny site in 1985 provided us with an excellent view of the site's culture history. The physical context at Matheny indicates three primary occupations, with two others suggested by surface finds. Three phases can be defined based on the Matheny data, the Baytown period Matheny phase, the early Coles Creek Plantersville phase, and lastly the late Mississippian Kinnaird phase. A Plaquemine occupation is most certainly present, but has no context other than disturbed or surface finds. A small handfull of sherds seem to date to the early historic period as well.

Baytown period

The submound midden in mound A provided the only glimpse of this component. Physically it lay directly on the natural levee and was probably the first major occupation in the area. Test excavations and shovel tests indicated that it was primarily confined to the mound A area, although some Matheny phase material was found in the midden under mound B. Surface collections from mound B also suggest that the area was at least being utilized at this period. Markers for the Matheny phase are Coles Creek Incised, var. Hunt, and from surface collections vars. Campbellsville and Keo (Stewart-Abernathy 1982: 44-47). Further markers include Baytown

Plain, vars. Reed and Sharfit, and several unclassified sherds from mound B (see Coles Creek Incised, var. Unclassified above). No red painted pottery is known from Matheny. Vessels seem to be confined to simple bowls and beakers, and rims are unmodified and slightly tapered, or square. Lips are usually flat, and occasionally have a line in them. Lithics are not documented for this phase at Matheny, but I think that it is during this phase that the arrow becomes introduced into the central Boeuf Basin.

As we have repeatedly noted the Matheny phase has very close ties to the Bayland phase at the Lake George site in the Yazoo Basin. Other external ties include the Dooley Bend phase at the Toltec site (Stewart-Abernathy 1982), and possibly elements of the Sundown phase in the Tensas Basin. A general date for the Matheny phase, based partly on ceramic correlations to other areas, and one radiocarbon date from the submound midden, would be around A.D. 600 +/- 50 years. Culturally the phase is grouped with the late Baytown culture, but it is clearly manifesting Coles Creek culture elements in the material culture. Mound building was not apparently practiced at Matheny, Toltec, or Lake George at this time. However, in all three sites the late Baytown deposits were immediately overlain by early Coles Creek period mound structures. I have noted the possibility that there was a shift in subsistence practices between the late Baytown and early Coles Creek periods, but cannot confirm this at present. The absence of Deasonville phase Baytown period material at Matheny suggests that the Matheny phase occupants were recent arrivals into at least the site area.

Coles Creek period

Very soon after the Matheny phase midden ceased to be deposited an early Coles Creek mound was built where mound A stands. At the same time an occupation was started where mound B would later rise. The material elements argue for an early Coles Creek date contemporary with the Aden phase in the Yazoo. At Matheny we call this component the Plantersville phase, named for an abandoned town nearby. Elements of the Plantersville phase have been found all across the site and seem to be one of the more prominent occupations at Matheny. Markers of the Plantersville phase include Coles Creek Incised, vars. Coles Creek, and Stoner, possibly Morris Plain, var. Unspecified, and probably the unclassified brown/orange slipped pottery. Also the phase is marked by the Scallorn point. Baytown Plain with both polished and matte surfaces is probably common, but cannot be exclusively assigned to the phase. Vessels consist of simple bowls and beakers, with unmodified rims and generally flat lips.

Physically, the Plantersville phase at Matheny was marked by the construction of at least two stages of a red clay mound in mound A. A third mantle over the red clay mound may also be contemporary. Mound surfaces were kept exceedingly clean, and their specific function is unknown. The midden beneath mound B was formed at this time, and it is possible that part of mound B was actually built during the Plantersville phase. Culturally the Plantersville phase is related to, but not the same as the Aden phase in the Yazoo Basin. Closer to home the Plantersville phase is related to the Ballina phase in the Tensas, and the Dortch Bend phase at Toltec. Settlement at this time seemed to be focused around small, probably independent mound centers with a supporting population scattered around the countryside. Subsistence patterns at Matheny are unknown for this phase, but may be more dependent on terrestrial resources.

At Matheny there are almost no data available which indicate a post-Plantersville phase Coles Creek occupation. Several Unspecified sherds of Coles Creek and French Fork incised, and two sherds of Mazique Incised, var. Kings Point are all that we can point to to uphold a late Coles Creek component. Why such a well located site should be ignored during a time when populations were clearly expanding in the Boeuf Basin is unknown.

Mississippi period

Although we have no physical context for the Plaquemine component we have no doubt as to its presence. I have not discussed the bulk of the Plaquemine ceramics in this report as they came from surface collections made in 1981 and 1983. Table 19 lists all the surface collected ceramics from Matheny, and from that it is easy to appreciate the Plaquemine occupation. The surface data suggests that the bulk of the Plaquemine component was focused around mound B. Moore excavated a Sinner Linear Punctated vessel from the cemetery west of the mounds, which suggests that this area supported some Plaquemine burials. In mound A a scattering of Plaquemine artifacts were found in the Mississippian midden. No context could be established, but I wonder if one of the stages just below the Mississippian midden might not have been built at this time.

Markers for the Plaquemine component at Matheny include Addis Plain, var. Addis, Avoyelles Punctated, var. Dupree, Coles Creek Incised, var. Hardy, Evansville Punctated, var. Unspecified (Beech Creek ?), Harrison Bayou Incised, var. Harrison Bayou, Maddox Engraved, var. Emerald, Mazique Incised, var. Manchac, Plaquemine Brushed, var. Plaquemine, and Sinner Linear Punctated, var. Unspecified. Thus, in terms of ceramic markers, the Plaquemine period is the best represented of any component on the site. The affiliation of the Plaquemine component is relatively clear. Temporally it is early in the Plaquemine sequence, and seems contemporary with the Routh phase in the Tensas Basin (Hally 1972), the Winterville phase in the Yazoo Basin (Williams and Brain 1983), and the Anna phase in the Natchez Bluffs region (Brown 1985: table 1; Brain et al. n.d.). In terms of a phase designation the Plaquemine at Matheny seems to belong in the Bartholomew phase defined by Rolingson (1976). Interestingly this phase does not share any affiliation with the somewhat contemporary Grand Marias phase in the Felsenthal region of Arkansas.

In the central Boeuf Basin we have not been able to account for a late Plaquemine culture occupation contemporary with the Fitzhugh phase in the Tensas, or the Winterville phase in the lower Yazoo. At Matheny it is possible that we have accounted for our culture historical gap with the Mississippian Kinnaird phase component. Rolingson has noted the intrusive nature of the early Plaquemine culture Bartholomew phase (1976: 100, 119), and Hally (1972) and Rolingson (1971a) have documented the process of the "Mississippianization" of the upper Tensas Basin between the 15th and 17th centuries. In the central and northern Boeuf Basin there are no late Plaquemine culture occupations (Jeter 1982 107; Kidder n.d. a), but chronologically the Kinnaird phase is contemporary with both the Fitzhugh and Transylvania phase occupations to the east. If the culture historical development east of Macon Ridge is a general pattern for Lower Valley cultures then the more northern groups would have been directly affected by Mississippian culture at a slightly earlier date than further south. Thus, while in the Tensas there was a development from Fitzhugh to Transylvania, in the Boeuf we may have skipped the late Plaquemine culture influence and the area may have been Mississippianized by a more direct process. Certainly the Plaquemine culture in the Boeuf was less well established than its counterparts on the Mississippi River. Therefore, I am proposing that late Plaquemine culture never developed in the northern and central Boeuf Basin because it had been "Mississippianized" before the Plaquemine culture could become entrenched.

One difficulty with the scenario outlined above is that there is no evidence of any "transition" in the area from Plaquemine to Mississipian culture. The Bartholomew and Kinnaird phase assemblages are very different, and show no overlap. Furthermore there are no transitional types or forms in the Mississippian midden at Matheny. The Kinnaird phase assemblage is exclusively shell tempered, whereas the Bartholomew assemblage has no shell tempering, or late Plaquemine types.

It is possible that the Kinnaird phase represented an intrusion of an already "Mississippianized" culture which developed along the Mississippi River, or nearby. One, or possibly two sources could be cited as the "parent" group. The most logical possibility is that the Wilmot/Transylvania phase peoples expanded into the upper Boeuf Basin area and then slowly moved south. Thus, these groups would be contemporary with late Plaquemine culture further south, but would not have any direct roots in that society. In this scenario the "transition" would never be evident in the Boeuf. It is also possible that the stimulus for the Mississippian culture was from further east in the lower Yazoo. However, it is more likely that the Yazoo groups acted on their closer neighbors along the Mississippi River, who in turn moved south and west into the Boeuf Basin. The evidence seems to favor this scenario, although the precise source group cannot be designated with certainty.

Regardless of the origins of the Kinnaird phase I have no difficulty in proposing it as a culture historical entity. The Kinnaird phase at Matheny is marked by the presence of a shell tempered assemblage with decorated ceramics which suggest a late 15th or early 16th century date. Barton Incised, <u>var. Midnight</u> and <u>Unspecified</u>, Mississippi Plain, <u>var. Bonita</u>, Parkin Punctated, <u>var. Transylvania</u>, Owens Punctated, <u>var. Widow Creek</u>, and

Winterville Incised, var. Belzoni are all markers of the phase. No lithic diagnostics are known at Matheny. Culturally the assemblage is closely related to both the Wilmot and Transylvania phases in the Tensas Basin, and more distantly it is similar to the Lake George phase in the Yazoo Basin.

The Kinnaird phase at the Matheny site is limited in distribution to mound A and a small representation around mound B. In mound A the midden in Test Unit Three indicates that at least one mound stage can be attributed to the phase. It is apparent that the Kinnaird phase occupants added mantles to the Coles Creek or possibly Plaquemine stages to level the surface to create an occupation zone. A hearth at the base of the midden demonstrates that the mound functioned as a living surface at least for part of the time. The midden is important because it conclusively demonstrates that mound building was an activity which carried on into, and proabably through the late Mississippian period. I do not know how many Kinnaird phase mound stages there were, but I would suggest that the bulk of the mound was built during this period. The absence of protohistoric Jordan phase material argues that the mound stages were added prior to that phase, which is dated from 1550 to 1750. Around mound B the Kinnaird phase is almost non-existent, but some surface remains have been found. It is possible that some of the burials recovered by Moore date to this phase, but we cannot be certain from his description.

Early historic period

Following the Kinnaird phase the site seems not to have been occupied until the early historic period. As I have noted the site has no manifestations of a Jordan phase component. However, I should hasten to add that prior to excavations in 1985 I had no suspicion that the site supported a late Mississippian occupation which predated the early historic period. Thus, it is possible, that in the five or so meters of mound above the Kinnaird phase midden there is a Jordan phase occupation. It is true, however, that no hint of such a component has been recovered to date.

An early historic component is represented around mound A at Matheny. The markers are Addis Plain, var. Ratcliffe, Fatherland Incised, var. Snyders Bluff, Winterville Incised, var. Tunica, and probably var. Wailes. Although the markers are not common, their presence and chronology is hardly in question. From the distribution in and around mound A it seems likely that the occupation was confined to the mound crest. Similar types of historic occupation are known for the protohistoric and early historic period further west in the Felsenthal region (Rolingson and Schambach 1981: 201; Weinstein and Kelley 1984: 45, 422, 441). Chronologically the early historic period has been designated the Prairie Jefferson phase, however, culturally it is likely that the site was occupied by remnant groups whose identity will never be known.

Conclusion

Test excavations at the Matheny site in 1985 have revealed an important amount of new data pertaining to Neo-Indian exploitation of the central Boeuf Basin. Furthermore, our research at the site has suggested new alternatives for the interpretation of local culture history. Research has shown that the initial occupation occurred on the top of a mature levee of the Arkansas River. The river was apparently inactive, or at least it never deposited any major sediments during the occupation of the site. The first occupants who left a visible record belong to the late Baytown culture. This occupation was marked only by midden deposits. Following this a Coles Creek culture group moved into the site area. Mound building and midden deposition occurred during the early Coles Creek period. After this the site was apparently abandoned, or little used until the early Mississippi period when a Plaquemine culture group moved in. At present the data suggest that this group was intrusive into the area, and probably came from the Mississippi River corridor to the east. Later, another intrusive group moved in during the late Mississippi period. This group too is thought to have come from the east. The bulk of mound A was built during this occupation. The last aboriginal occupation dated to the early historic period and may have been confined to living on the top of mound A.

As a result of test excavations conducted by the Lower Mississippi Survey in 1985 I would very strongly recommend the site for inclusion in the National Register of Historic Places. Culturally the site records a unique series of Neo-Indian occupations which have important implications for local and regional culture history. Physically the site contains information on some of the earliest and latest episodes of mound contruction in the Boeuf Basin, as well as the means and manner in which mound building was achieved. Furthermore, the site has the potential to contribute further to our understanding of how man adapted to his local environment. It may be possible in the future to utilize the Matheny site as a laboratory for the study of changing subsistence and settlement patterns in the Lower Mississippi Valley. Lastly, the site is physically unique, but threatened by the activities of modern agriculture. In the year since the LMS excavated at the site mound B has been completely leveled to the height of the ground surface, and continued deep plowing and subsoiling cannot but have an adverse effect on the cultural deposits. Mound A is not going to be leveled soon, but erosion and continued cultivation at its base will take a toll on the mound. Research is immediately recommended in order to mitigate the damage caused by the destruction of mound B and the damage to mound A. The site should be regularly monitored to insure that deposits are not destroyed without being recorded. The landowner and leaseholder would most likely be receptive to efforts to mitigate damages provided that their basic activities were not restricted. Matheny is a unique cultural resource and deserves all of the protection that can officially be afforded.

CHAPTER SEVEN

JORDAN (16MO1 [22-I-1])

Introduction

The Jordan site is a large multimound site located near the town of Oak Ridge, in Morehouse Parish (Map 1). The site consists of seven mounds and an associated scatter of artifacts. The site is located over three kilometers west of the nearest source of flowing water, and there is some evidence of aboriginal earthmoving to create permanent water sources. Jordan is the largest site in the central and northern Boeuf River Basin, and is one of the largest sites in Louisiana west of Macon Ridge. Jordan was first visited and described in 1845 by Caleb G. Forshey (Forshey 1845; Neuman 1984: 11, plate 1). Subsequently the site was visited by James A. Ford, and later by the LMS in 1983 and 1985. In 1985 the LMS conducted four weeks of research at the site which resulted in the excavation of 116 shovel tests and seven test units. As a result of our research the LMS would suggest that the site be nominated to the National Register of Historic Places. However, we must warn, it is highly unlikely that the present landowner would allow the nomination to be entered.

The Site and its Setting

Jordan is located 1.9 kilometers north of the town of Oak Ridge on a stretch of land which was historically known as Prairie Jefferson (Forshey 1845; Swanson 1978) (Map 7). The site consists of seven mounds arranged in a rough circle around a large plaza

(Map 8) and an associated village area. The site is situated in a unique location which is not known to have been duplicated by any other aboriginal group in the southeastern United States. Jordan is located on the historic prairie over three kilometers from a flowing source of water. The site occupies the crest and channel of an abandoned slough which was formed as a result of crevassing of the No. 5 Arkansas River channel some 3000-5000 years ago. The slough has not carried water for some time, although it probably held some water during spring and fall floods. Excavations by the LMS in 1985 indicated that several of the mounds were actually constructed in the channel of the abandoned slough.

Site description. Outside of the mound group there are discrete artifact scatters which probably mark former occupation areas. Village debris was found along the crest of the crevasse to the north and east of the mound group. West and south of the mounds there were a number of artifact scatters which seem to mark trash pits and other refuse features. When the site was first mapped in 1845 there were two low "mounds" located on the levee of the crevasse; one was just to the north, and the other just to the south of the mound group (Maps 9-11)(Forshey 1845). Neither mound is extant today, although their former locations are marked by extensive artifact scatters (Kidder n.d. a).

The village area outside of the present day mound group consists of an open field with a linear slough trending from northeast to the southwest cutting through the mound group (Plate 20). At the far northeast corner of the site are the remnants of three ponds (Maps 9-11, 13 b). The channel of the crevasse passes through the northernmost pond (Map 7). The banks are between three and eight feet above the bottom of the channel, but become shallower to the south. To the east and west of the channel bank the ground elevation decreases. This is most notable in the southeast corner of the site where water tends to pool naturally. The channel north of the site is considerably deeper and more noticeable than where it exits the mound group to the south.

As I noted above, the site is not located on an active stream channel, and thus potable water would have been an important concern. The native response to the lack of readily available water sources was to engineer a water system utilizing natural drainages and features (Kidder 1985). The Forshey maps (Maps 9-11) show a series of earthworks located to the east and northeast of the mound group. The earthworks consisted of a series of linear ditches and embankments, as well as ponds and sloughs. The earthworks were situated to contain and channel water to create permanent water sources. The existing topography was modified to direct runoff from the abandoned channel towards the south where artificially enlarged ponds would trap it for future use. The only other potable water would have come from a large barrow pit on the southeast side of the mound group (Map 8). This barrow pit, however, could not have supplied the entire site with drinking water.

Outside of the mound group artifacts were found scattered lightly across the surrounding fields. Along the crevasse levee, however, the artifacts were clustered in discrete locales. These clusters were always at the crest of the levee, often on slightly elevated knolls. The artifacts indicate that these locales were probably the location of houses or activity areas. Most of the "house" scatters were located north and east of the mound group, although some were found east and west of the mounds. Immediately south and west of the mounds there were a number of trash pits and other features. Many features were exposed during agricultural clearing in the early 1970s. Several individuals collected charred corn cobs from these features (Neuman 1984: 11; Kidder 1985). However, the LMS did not excavate outside of the mound group in 1985.

There are seven mounds extant at Jordan today. Two more low mounds were reported by Forshey in 1845 but these were destroyed by agriculture. It is evident from Forshey's description of these mounds that they were probably "house" mounds; LMS surface collections confirm such a hypothesis (Kidder n.d. a). The seven extant mounds are in relatively good condition today. The mounds have never been plowed, nor has any serious looting occurred. Mound B was the locus for several 19th century houses, but even then the damage seems limited and superficial. The plaza area was cultivated in the 19th century, but has never been disturbed by modern farm machinery. In the 20th century the site was cleared and mules were penned in the mound group. The mules and other animals damaged the mounds by creating gullies, although the damage was not too severe. In recent years the site has been allowed to grow back to the point that it is almost an impenetrable jungle. The LMS has designated the mounds as A-G, with mound A, on the west side, being the largest, and all others lettered in a clockwise manner.

Mound A is 13.11 meters, or 43 feet high today. Two 19th century estimates place its height between 50 and 60 feet (Forshey 1845; General Land Office Plat 1855 a). Mound A is flat topped, and once had square sides. A ramp is clearly visible on the east face of the mound. Today the mound is a steep-sided conical structure, but it maintains its level summit. Forshey noted several layers of burned daub in mound A, and the LMS has found similar deposits (Kidder n.d. a). It is possible that these levels represent periodic burning of public buildings. Few artifacts have been recovered from mound A, although the LMS has recovered a flake, two shell tempered sherds, and several large lumps of burned daub.

North of mound A is mound B, a long, low, flat-topped mound, which once was the location for two 19th century homes (both burned after being struck by lightning). Mounds C-F are located in an arc to the east and south of mound B (Map 8). Mound B is the lowest mound at just under six feet in height. In 1855 mound B was described as having a "flat surface...about 90 yards long by 45 wide" (General Land Office plat 1855 a). The other mounds range from seven (mound D) to 15 feet (mound G) high. Mound G is located at the southern end of the mound group, and may once have been connected to mounds F and A by long causeways. Mounds C-G are somewhat shapeless rounded structures today. In the past mounds E-G may have had two terraces (Forshey 1845), but even in 1845 mounds C and D were rounded with no square angles. The 1985 LMS map of the mounds shows them all connected by a 92′ contour. We had suspected that this may have been a deliberate part of the site plan. Testing in 1985 revealed the contour to be the result of erosion and midden deposition, not purposeful construction.

Physical Environment

As I have noted previously, Jordan was located at the southern end of a historic prairie. This was one of many historically known prairies in the region (Anonymous n.d.; Swanson 1978: 17; Trudeau 1797). Although we have no physical description of the prairie on which the site was situated, we do have other descriptions from the area which indicate that the prairies supported a grassy cover with few, if any trees (Rowland 1930: 225-226). Some evidence can be cited to suggest that the aborigines had a hand in maintaining the prairies through the use of fire (ibid.). At present I cannot suggest any natural reason why a prairie would form and maintain itself. The fact that the site has reverted in recent years to a dense forest-like condition suggests that some factor would have to cause the prairie to stay open. As early as the late 19th century observers cited aboriginal disturbance as a factor in maintaining the many prairies east of the Ouachita (Rickey 1937: 479).

Although the site was situated on or near a prairie there was also some forest nearby. In 1845 Forshey noted that a gum forest was situated along the eastern side of the site where the drainage was poor. The 1855 plat (General Land Office plat 1855 a)(Map 12) of the area shows the site relatively clear, but the bearing tree survey makes note of a variety of Oaks (burr, pin, post, red, and white oak), as well as black gum, red elm, hickory, ash, dogwood, sassafrass, and cypress (Bearing Tree Survey, T19N, R7E, District North of Red River). The area is generally devoid of swamp vegetation, and cane stands were only noted in the southwest corner of the township. To both the east and west of the site the ground slopes downward, although the land is not really that low. The Jordan site occupies the crest of the crevasse which puts it on one of the highest spots in the area.

<u>Geology</u> (by Roger Saucier)

Geologically, the Jordan site is interesting to possibly unique in at least two respects. First, while its general location is highly logical and predictable, its specific location is anomalous in terms of physiographic setting. Second, the specific location is illogical in terms of sources of potable water.

The Jordan site consists of seven mounds and a village area of several tens of acres in extent. It tentatively is interpreted as representing the permanent habitation site for roughly a century and a half of a population of at least several hundred persons that may have moved en masse to this location at one time. Why this general location? In terms of physiography, it is along the crest of the natural levee ridges of the Oak Ridge distributary system. Thus situated, it was essentially immune to major seasonal backwater flooding but within easy access to backswamp areas with their abundant aquatic resources. In terms of soils, the sandy loams of the natural levees of the distributary system are described as being among the most productive in northeastern Louisiana (Reynolds et al. 1985: tables 5, 7, 19). Regarding these factors, therefore, the site is ideally situated. However, the relationship of the specific site location to the relict distributary system channel is enigmatic. In the mound group proper, the relict channel is not topographically apparent. Immediately beyond the mounds to the north and south, the channel is a conspicuous linear topographic depression about five feet deep and several hundred feet wide that is continuously traceable for miles (Plate 20, Map 7). Projecting the trend of the channel into the site area, it appears that it would have extended through the northwestern portion of the mound complex. It is not logical that permanent habitation would have occurred (at least in part) in a depression, and as will be discussed later, there is no evidence that the depression in the site area was artificially filled prior to or during occupation. Similarly, there is no discernable geomorphic or geologic process that would have resulted in the complete natural filling of the channel in the site area.

It is completely logical to assume that a permanent village of several hundred persons would have been located close to a permanent source of potable water as they almost always are in the Lower Mississippi area. However, in the Jordan site area, the only possible natural source of water within at least a half mile would have been precipitation that accumulated in the relict distributary system channel, or in one of several ponds nearby. It is highly doubtful that, because of its limited size, shallow depth, and sandy soils, the channel would have held any water during time of summer/fall dry periods and droughts. At the time the site was occupied, the Arkansas River meander belt from which the distributary system formed had long been abandoned and inactive, hence there would have been no regional discharge of water through the channel. Thus, what and where was the drinking water supply?

As part of the archaeological excavations at the site an 8.5-ft (2.6 m) deep pit (Test Unit One) and several shallower excavations were made in the mound site area. On July 31, 1985, Dr. Lawson Smith and I visited the site and examined the sequence of sediments exposed in the excavation. The most diagnostic sequence was in Test Unit One. This sequence is described in figure 17a (Plate 21). The deepest exposed sediments were fine sands and silty sands initially interpreted as being laid down ahead of an advancing distributary channel. These are overlain by very light colored, stratified, clean fine sands that were initially interpreted as sheet sands deposited during discrete flood events quite near the mouth of an advancing distributary before a fixed channel position became established. In turn, these were overlain by oxidized silty and sandy loams that were interpreted as natural levee deposits that formed after a fixed channel position was established. Above this zone was the culturally influenced or midden horizon consisting of artifacts and sandy loam soils. Thus, this sequence seemed to affirm the tentative hypothesis that the relict channel curved in an arc around the periphery of the mound complex rather than trending straight through it. However, this hypothesis did not contribute to resolving the matter of a dependable water supply.

On August 21, 1985, I had the opportunity to direct and observe the drilling of four core holes (1- to 2- inch punch cores with a split-spoon type auger) by a pick up truck-mounted hydraulic rig operated by Mr. Thuman Allen of the U.S. Soil Conservation Service. Initially, three cores were taken to a depth of 14 to 20 feet along an east-west line crossing the relict distributary channel about one-half mile north of the mound complex. The intent of the cores was to develop recognition criteria for the natural levee and channel fill deposits and to determine the depth to and nature of the underlying land surface on which the distributary system formed. Two holes, Nos. 1 and 2, were located about 300 feet apart near the crest of the western natural levee ridge and one hole (No. 3) was near the center of the relict channel. The logs of the holes are contained in Table 42.

Core Holes 1 and 2 indicate the natural levees of the distributary system are about 15 feet (4.6 m) thick and directly overlie a weathered horizon of hard clay that probably represents a thin layer of Arkansas River backswamp deposits that formed adjacent to the Bayou Bonne Idee meander belt (No. A5, Map 2). In turn, this layer overlies the braided stream deposits of the Qtb4 level of Macon Ridge; however, these deposits were not encountered in the core holes.

Core Hole 3 indicates the channel fill of the relict distributary system is predominantly sand. This suggests that the abandonment of the system was rapid, with a sand wedge being deposited in the channel downstream from the Bayou Bonne Idee meander belt during a relatively short period of time. The virtual absence of clays and especially organic matter indicates that the channel was never a swampy stagnant depression for any significant period of time; hence, further evidence that it would not have been a dependable source of water.

The sand in the channel fill as encountered in Core Hole 3 is identical to that observed in the 8.5-ft deep pit at the Jordan site, thus the latter appears to be channel fill rather than material laid down ahead of an advancing distributary as was originally believed. This fact, plus observations of the nature of the deposits encountered in other parts of the site described below, are strong evidence that the relict channel indeed did trend through the mound complex rather than around it. However, as noted below, Mr. Kidder believes strongly that the deposits lying between the sand fill in the channel and the midden or village site cultural accumulations are natural and not emplaced by man. Observations I made in the 8.5-ft deep pit affirm this opinion. Thus the enigma remains--how did the segment of the channel beneath the mound complex become filled?

Further verification that the very light colored clean fine sand is indeed channel fill was obtained by drilling a fourth core hole in the center of the same relict channel at a point about 1.5 miles south of Oak Ridge and immediately east of La. Hwy. 133. Material of the type described above was encountered at a depth of only 1 foot (Core Hole 4, Tabl 42) and continued to the base of the core hole at 12 feet (3.7 m). Cores could not be obtained from a greater depth because of the density and dryness of the sand.

In addition to the two enigmas described above, there is a third and possibly related one with regard to the source of material used in mound construction. Although the mounds have not been cored or excavated, they do not appear to be composed of sandy material such as channel fill which would have been a convenient nearby source. It is illogical that soil would have been stripped from the natural levee surfaces in the village site area since this would have lowered the land surface and thus would not have contributed to ideal living conditions. Moreover, had this been done, some evidence of it would probably be discernable today. The barrow pit located east of mounds E and F probably represents such an activity, although it is not possible to have built all seven mounds from the volume of dirt which could possibly have been removed from this pit.

Two possibilities, however remote, exist that could explain the source of fill for the mounds and conceivably could also relate to the matter of a water supply. One is the suspicious presence of pits or ponds near the site as recorded on mid-ninteenth century surveys (Forshey 1845) (Maps 9-11). The other is the presence of a shallow swampy depression of about 50 acres extent located about 0.5 mile southeast of the mound group (Map 7). Situated between two arms of the distributary system, the depression seems unquestionably natural in origin, but it is somewhat deeper and better developed than any others in this region. I believe the slight possibility exists that it was artificially modified, perhaps as a result of borrowing for fill. It is interesting to note that on the first draft of Forshey's map (1845) this area is indicated as a "Lake of 20 acres". It is possible that this "lake" could have been at least a supplemental water supply for use when there was no water available in the distributary channel.

That a large population of people in the protohistoric period could have used their earth-moving skills to develop sources of water seems quite reasonable. It seems incongruous that they would not have capitalized by simple "prehistoric hydraulic engineering" on what potential existed as demonstrated by nature each time water accumulated in a natural or artificial depression.

<u>History of research</u>

The Jordan site has been reported in the literature since 1845 when a map of the site was published by Caleb G. Forshey (Forshey 1845; Neuman 1984: 11). Following Forshey the site was recorded in several local maps and land survey plats, but no professional visited the site until James A. Ford in 1933. After Ford the site was surveyed briefly by Robert Neuman in the late 1960s, and then in 1983 the LMS made a surface collection from outside of the mounds. Thus, although the site is clearly significant, it has a very brief history of archaeological research.

Caleb G. Forshey was the first to visit and record the site. Importantly, Forshey made and published a very accurate and detailed map of the site (Map 9). Furthermore, we have been able to recover two unpublished drafts of the site map (Maps 10, 11), which confirm the published site map, but also show that the published version is slightly distorted. Forshey's visit was in early January of 1845, so it is apparent that he had good visibility and was not affected by summer overgrowth. Also it should be noted that Forshey had training as a surveyor (Neuman 1984: 10-11; Humphreys and Abbot 1861: 19-20). Forshey's map and accompanying drafts and text are exciting documents. Much of the site has been changed since his visit, particularly the features to the east of the site. Also Forshey recorded two additional mounds which have been destroyed by agriculture. Furthermore, Forshey was a keen observer, and it was he who first proposed that the features east of the site might have functioned as water control structures (1845: 39; Kidder 1985). The LMS has been able to confirm the outline and much of the detail shown in the Forshey map. The accuracy of these documents greatly enhances our confidence in using them to study the site. The Forshey map of 1845 was also used by Squier and Davis in 1848 (1848: 113-114, plate XXXVIII).

After Forshey the site was recorded several times in local maps. The survey plat for the township shows four of the mounds and has a note concerning two of them (mounds A and B) which stated that mound A was 60 feet tall and conical, while mound B was 90 yards long by 45 yards wide, and had a flat surface (General Land Office plat 1855 a) (Map 12). A slightly earlier 1849 private survey recorded both the mound group (one of the two plats shows a total of six mounds, while the other shows seven), and the pond in the northeast corner (U.S. Senate, second session, document four, 1852: 166, 198) (Maps 13a, 13b). The site was mentioned in passing by Brodnax in 1879 (Brodnax 1880: 388), and again by J.M. Sharp (1880: 444). Cyrus Thomas also listed the site in his famous survey of aborignial works east of the Rocky Mountains (1891: 103). Besides these brief notes, the site was otherwise unrecorded until visited by James A. Ford in 1933 (Ford n.d.). Ford's visit was apparently brief and is only recorded in a typscript of his research notes (ibid.). Ford made a sketch map and noted that Mound A was 30 feet high and very steep. He also recorded a strata of daub eight feet below the top of mound A. In 1969 Robert Neuman visited the site and made a small collection. Three charred cobs of eight and ten row corn were recovered from a fire pit at that time (Neuman 1984: 11).

Although the site was recorded by the LMS in the 1950s based on Ford's data, we did not visit until 1983. In 1981 John Belmont and Stephen Williams examined collections from the site and noted that it was a relatively unique assemblage which most closely approximated that from the Transylvania site in the Tensas Basin. They also noted that the site had yielded a large number of Coles Creek period arrow points (Belmont 1985: 280-281). During 1981 the LMS examined several collections from the site which contained an occasional Poverty Point period diagnostic. Based on this data we hypothesized at least two components, one Poverty Point, and one Mississippian. The arrow heads in local collections further suggested a Coles Creek component as well.

In 1983 the LMS spent two days collecting and making a sketch map at Jordan. Surface collections were made in the fields around the mound group, but not from within the mound group. Collecting was done in discrete localities and collections were kept separate. Most of the collections came from the crest of the crevasse levee, either north of the mound group or just south of the mounds. Results of the 1983 surface collection indicated that the site occupation was overwhelmingly late or protohistoric Mississippian (Table 29). Almost no earlier material was recovered in 1983. In the spring of 1985 the mound group was mapped by a professional surveyor under contract with the LMS (Map 8).

Subsurface Testing

In order to make sense of the Jordan data it was clear that excavation was necessary. A number of research questions were formulated and later tested at Jordan. First amongst these was to unravel the history of site occupation. When was the site first occupied, and when were the mounds constructed? Second, what was the chronological ordering of the late period occupation? Was there more than one component, or did Jordan reflect a short term occupation? Also, did the Jordan material assemblage indicate usage by multiple ethnic groups? As a correlate to the last question, who were the ethnic groups, and how could they be identified? Also we were interested in interpreting the role that

Jordan played in regional culture history. Lastly, we needed to determine what was the relationship between the site, the earthworks, and the abandoned slough.

The LMS excavated 116 shovel tests and seven test units in 1985. Mapping and subsurface testing was confined to the mound group. Testing was conducted under an agreement with the landowners which stipulated that no mounds be disturbed. The LMS spent four weeks working at Jordan, not including the time spent mapping the site.

Shovel Tests

The site was mapped in the late spring of 1985 (Map 8). A local professional surveyor was contracted to make a contour map of the mound group. The site was mapped in English Standard units (feet and inches), while the LMS excavations were conducted in metric units. The LMS map of the site utilizes a superimposed 50 m grid to provide standard metric reference. Three permanent benchmarks were set in the site, and elevations were taken from a U.S.G.S. benchmark in Oak Ridge. The center benchmark, located just east of mound A, was used as site datum. Vertical datum at Jordan is 27.90 m (92.45 feet) above mean sea level.

As was noted above, the site had grown up in recent years to the point where the plaza was a vast jungle. The mapping party cut a number of transects through the undergrowth which provided the only visibility within the mound complex. The LMS shovel tests were placed along the already cut transects at five or ten meter intervals (Map 8). In this sense the shovel tests were randomly placed within the site (the LMS had no hand in aligning or cutting the transects). A central north-south transect which linked up the three benchmarks provided the main base line for the LMS shovel tests. The north-south transect was labeled line A-A′. The LMS then turned three east-west transects off the A-A′ line. At the north end of the site line B-B′ was tested, while line C-C′ ran in the same direction in the approximate midpoint of the site. Line D-D′ was placed near the southern end of the site, and it too went east-west.

Based on previous experience with large sites in the Lower Mississippi Valley, the LMS expected to find the largest intact deposits located between the mounds. Because the shovel test lines were placed in already cut transects, they often did not cross between mound areas where we wished to test. To remedy this a number of extra shovel tests were placed between mounds along specially cut transects. The supplementary lines were run perpendicular to one of the main shovel test lines, and thus all were plotted in on the master map.

Shovel test line A-A′ extended north-south along the western half of the site. A-A′ ran from just south of mound B to mound G, and passed within 20 m of mound A. Line B-B′ ran from the western margin of the mounds to the east, and actually crossed mound D. No testing was conducted on mound D. Line C-C′ ran from mound A east to the site edge. Line D-D′ extended from the western edge of the mound group to the east where it crossed mound E, and the northern end of the barrow pit. Extra shovel tests were placed between mounds B and C, E and F, and F and G. A single shovel test was used to explore the "causeway" between mounds F and G.

Before I detail the results of the shovel tests several generalizations are in order. As a rule the plaza was almost devoid of significant deposits. The word "sterile" would not really apply, but it is evident that the plaza was kept relatively clean. The deepest and richest deposits were located around mound A, although midden was found between all of the mounds. Testing has indicated that Jordan II phase deposits exist across the site, but Jordan I phase deposits seem confined to the area around mound A. The average thickness of cultural material is roughly 50 cm, but deposits up to 1.2 m thick were located. In the following discussion the results of the shovel tests will be interpreted in a general sense. A great deal of variability was present in the shovel tests, as would be expected of a site the size of Jordan. In order to minimize descriptive terminology much of the subsurface variability will be generalized, with exceptions being particularly noted.

Shovel tests at Jordan were spaced either five or ten meters apart, depending on their location within the mound complex. Ten-m spacing was used in the plaza and in areas where cultural deposits were not expected. Five-m spacing was used whenever a shovel test line approached a mound, or crossed an area between two mounds. Shovel tests were extended to the edge of the mound area to a point where the landowners had bulldozed a levee around the site. The levee around the site formed the boundary of the mound group.

As a generalization the stratigraphy at Jordan consisted of four individual strata. From the bottom to top these strata were: 1) sterile subsoil, 2) a stained "boundary" level which probably represents original ground surface, 3) a midden level or levels, and 4) topsoil and/or humus. Because the subsurface topography at Jordan is highly variable, not all strata were represented in all shovel tests. Sterile subsoil was encountered most frequently in the plaza areas, while around mound A subsoil lay below the reach of our shovel tests.

The subsoil at Jordan consisted of a light white-tan to beige-orange sandy silt or silty sand. The amount of sand increased with depth, and the average grain size was larger in lower depths. The sterile subsoil was usually penetrated by root stains and other forms of disturbance. Test excavations also revealed animal burrows located up to 1.4 m below the ground surface and in the sterile soil. Immediately above the subsoil was a level of stained, usually bioturbated, silts and silt loams. The color of this soil was redder than the lower levels, and in the notes the term "peach" is used to describe the color. This level was generally sterile, but an occasional artifact was found, probably as a result of some form of intrusion from above. The "peach" soil was often stained from overlying cultural deposits, and was not always clearly separable from the midden. The "peach" level is considered to represent the original ground surface at Jordan prior to occupation. The surface of the "peach" level was found at different elevations across the site. In general, though, it was relatively level but sloped upward gently toward the east.

Above the "peach" zone there was usually some form of culturally modified soil. In the plaza area the midden soils were very thin, and quite shallow, while around mound A, and elsewhere, the midden was over a meter thick. Midden existed in two forms, in situ, and clearly redeposited. In at least one shovel test (number 8), midden was found in both forms. Redeposited midden was common around all of the mounds where shovel testing was initiated. In situ midden was rare, at least in the shovel tests, and was found mostly around mound A.

The midden zone consisted of a medium to dark brown to brownish-grey silt mixed with pottery, bone, and stone. Artifact density in the midden seemed to be relatively high. Many shovel tests had over 30 artifacts, including large sherds and complete bone pieces (Table 30). The deepest midden was located just east, and south of mound A. Here, midden was over a meter deep. In one shovel test two superimposed midden levels were located. Around the other mounds the midden averaged only 30-50 cm deep, and in several cases it was not even that deep. A handful of shovel tests did not yield any midden at all. These tests were located near the barrow pit, or the very western edge of test line B-B'. These test revealed a clay stratum just below the surface. I suspect that these areas indicate parts of the site which were flooded or alluviated during the site occupation. It is also possible that much of the midden that might have been present was removed to use for fill.

The top soil at Jordan was very shallow, usually less than 15 cm thick. Because the site had not been cultivated since the 19th century, the top level was a mixture of historic debris and humus. Historic material rarely penetrated below 20 cm, and even that was unusual. A historic wagon road bisects the site from northeast to southwest, as does a drainage ditch. These two historic disturbances only marginally effected the subsurface deposits. Historic construction around mound B was evident in the shovel tests, but again the subsurface deposits were hardly touched.

<u>Test Excavations</u>

Test excavations at Jordan were situated in response to the shovel test data. Testing was designed to accomplish two primary goals, vertical stratigraphy, and horizontal sampling. Both goals were guided by shovel test data. We opted not to expend our limited resources testing the plaza, but concentrated around the mounds. Decisions as to where to excavate were made by the field director in consultation with the principal investigator and crew chiefs. Several locations were slated for testing on the basis of the shovel tests. Other test units were placed with regard to horizontally sampling a large part of the site, while also recovering suitable artifact remains.

In all, seven test units were excavated by the LMS in 1985. Two units were 2x2 m squares, one was a 1x4 m trench, and four were 1x2 m trenches. Test Unit One, a 2x2 m square, was located south of mound A, within 50 m of the current mound edge. Test Unit Two was located east, and slightly north of mound A. Test Unit Two was begun as a 1x2 m unit, but later it was expanded to a 2x2 m square. Test Unit Three was a 1x4 m trench placed just south of mound C, and was oriented east to west. Test Unit Four was located between mounds B and C, and was a 1x2 m trench oriented north to south. Test Unit Five was placed north and slightly west of mound A, and it too was a 1x2 m trench, but it was oriented east to west. Test Unit Six was placed on the "causeway" between mound A and G, and was a 1x2 m trench oriented north to south. The final test unit, number Seven, was located at the southeast corner of mound E, just north of the end of the barrow pit. Test Unit Seven was a 1x2 m trench oriented east to west.

All test units were excavated by similar procedures as outlined in Chapter Three. However, at Jordan several important aspects of the excavation must be described. Because one goal was to determine when the site was first occupied the LMS excavated all test units to a minimum of 2.5 m below ground surface. Once subsoil was encountered, a 1x1 m square was excavated to at least 2.5 m. In two cases the 1x1 square was excavated deeper, and in Test Unit One the final level was reached at 4.05 m below ground surface (which in this case was also the same elevation as datum). In Test Unit One the 1x1 square was discontinued at 3.40 m, and a combination of shovel testing and augering was used to reach 4.05 m below the surface. The "deep tests" as we called them, served two purposes; they gave us the confidence that we were not missing any deeply buried deposits, and also they provided our geomorphologists with an accurate subsurface profile.

The subsurface geomorphology at Jordan is very complex and difficult to interpret, particularly as we have such limited data. In the following discussions the emphasis will be on cultural stratigraphy, although geomorphic analysis will not be totally ignored. In the conclusion a tentative analysis of the geomophology will be offered based on the data from the test excavations. Stratigraphy will be described from the bottom up.

Arbitrary stratigraphic units utilized for excavation purposes will be correlated with the physical strata to create units for cultural analyses. Because the cultural stratification is essentially simple much of the stratigraphic detail can be omitted as it has no bearing on the cultural deposits.

<u>Test Unit One</u> (K1927, Table 31, Figure 17a, 17b)
Test Unit One was located south of mound A, within 50 m of the mound flank. Shovel tests along line D-D′ had indicated a large deposit of midden lay south of mound A. Test Unit One was a 2x2 m square which ultimately reached a depth of 4.05 m below the ground surface. The stratigraphy in Test Unit One was relatively simple, consisting of four strata (Plate 21). The lowest strata (stratum VI) consisted of clean white to beige-orange sands which exhibited characteristic ripple marks of water sorting. Some of the ripple marks had a black organic stain along the upper part of the deposit. The sands are interpreted as having been deposited in the channel of the crevasse formed by the Arkansas River. In profile stratum VI was separated into three levels which reflected color and texture change. The stratum got progressively lighter and sandier with depth. Stratum VI was first encountered at a depth of roughly 2 meters below datum and continued down as far as we could test.

Above the sands there was a thick level of peach-colored silt (stratum V). The peach strata showed extensive evidence of bioturbation in the form of root stains, worm casts, and animal burrows. The peach level was largely sterile, although an occasional artifact was located within it. The above mentioned bioturbation probably accounts for artifacts located in the peach strata. The peach strata is interpreted as being a levee which formed as the result of the crevasse of the No. 5 Arkansas River. The peach levee soils were approximately 1.20 m thick, although the actual depth of the deposit varied due to cultural intrusions. In the north wall profile it was evident that the stratum V surface had been modified and excavated. Otherwise the surface was relatively level and undisturbed. The top of stratum V was located at approximately 80 cm below datum.

Above the peach-colored levee was a thick deposit of midden (stratum II) which reached from just below the ground surface to stratum V, for a thickness of roughly 1.20 m. The midden was divisible into five zones, but culturally it represented a single component. The lower portion of the midden was very sparse and may have been a mixture of the stratum V material and soils from the midden. The artifacts were largely concentrated in the upper 50 cm of the unit, but they were also found at the top of stratum V. The midden was characterized throughout by mottled grey to grey-brown silts. Black organic stains were visible in the midden at several points, but the soils were not evidently watersorted. Below 20 cm the midden was undisturbed, but clearly redeposited. Sherds and other artifacts were often found vertically imbedded in the midden, and the entire midden appears to have been created by outwash, probably from mound A. The nature of the midden soils suggests that the redeposition was episodic, but occurred over a relatively brief time span. Artifacts from Test Unit One were exclusively late types, and indicate a Jordan II phase affiliation. The upper 20 cm of the unit comprised the plow zone (stratum I). Although the site area had only been plowed in the late 19th century there was enough disturbance across the surface of the site to cause damage to the upper 20 cm. Sherd size was very small in stratum I, and historic artifacts were recovered as well.

The natural stratification in Test Unit One can be correlated with the stratigraphy as follows: Levels A, B--stratum I; levels C-F--stratum II; level G--strata II, V; levels H, I--stratum V; levels J-L--stratum VI.

<u>Test Unit Two</u> (K1929, K1930, Tables 32, 33, Figure 18a, 18b) Test Unit Two at Jordan was the most complex stratigraphic unit at the site. Test Unit Two was located east, and slightly north of mound A. Test Unit Two was begun as a 1x2 m test trench, but was later expanded to a 2x2 m square (test units Two and Two west). The expansion was undertaken because the original test suggested several superimposed stratigraphic deposits existed which could possibly indicate chronological relationships within the site. Test Unit Two was excavated to 1.10 m below datum, with a 1x1 m unit extended to 3.40 m. Data from Test Unit Two suggests that the two distinct in situ midden deposits encountered represent the range of chronological variation at Jordan.

The deposits below the cultural level in Test Unit Two were almost exactly the same as described for Test Unit One (Plate 22). Clean, white to beige-orange, bedded sands (stratum VI) form the lowest levels, and were in turn, overlain by peach-colored levee soils (stratum V). The levee was the same thickness as in Test

Unit One, and was found at approximately the same elevation. The sand and overlying levee soils were sterile, except for several artifacts recovered from an animal burrow in the levee.

The cultural deposits in Test Unit Two were very different from Test Unit One (Plate 22). Above the levee soils was a deposit of what is referred to in the notes as the "ash midden" (stratum IVa, IVb). The "ash midden" consisted of a roughly 20-25 cm thick deposit of fine, yellow-grey ash, mixed with very small amounts of sand and silt. The "ash midden" had two zones, one at the base consisting of more burned ash (stratum (IVa), while the upper 2/3rds consisted of a lighter, less visibly burned ash (IVb). The "ash midden" was thin at the south and east part of the 2x2 m unit, while it was thicker and denser to the north and west. Five post holes were found at the top of the "ash midden" (Plate 23), and are believed to be contemporary with the "ash" deposits. The post holes averaged 20 cm in diameter, which suggests a large structure, or at least major supports for a smaller structure. The post holes form what may be two parallel lines, extending out from the northwest corner of Test Unit Two, and separated by roughly 25 cm. These post holes may represent the entrance to a structure located immediately to the northeast of the test unit. Quantities of daub found in the fill of Test Unit Two may be attributed to this hypothesized structure.

The artifacts from the "ash midden" in Test Unit Two are very different from those above the "ash midden", or elsewhere on the site. The ceramics are made on a finer, more polished paste than elsewhere at Jordan, and the designs are usually different. No lithics were recovered, but a substantial quantity of burned bone was found. The majority of the faunal sample was from either small mammals, birds, or fish. This contrasts strongly with the next level in Test Unit Two, which had a faunal sample which was unburned, and was dominated by larger mammals. A small amount of burned freshwater shell was also found; most was crushed, but several large, whole valves were recovered. Very little daub was recovered from the "ash midden", but a large amount was found in the levels above. The cultural deposits in the "ash midden" in Test Unit Two form the basis for the definition of the Jordan I phase, the earliest recognized occupation at the site. The ash midden surface was encountered at 60 cm below datum in the northeast corner of the unit.

Above the "ash midden" was another 15-25 cm midden deposit (stratum III). This level was designated the "brown midden' in the notes because it had a rich medium brown hue (Plate 22). The color was a contrast to the lighter ash below, and the greyer midden above. The "brown midden" consisted of a medium brown fine silt, mixed with charcoal and cultural material. Unlike the ash below, the "brown midden" was uniformly distributed across the pit. The upper surface of stratum III was found at roughly 53 cm below datum. Stratum III clearly represented an in situ midden deposit which was chronologically, and stratigraphically later than the underlying ash deposits. The "brown midden", however, appears to have been contemporary with the other Jordan II phase deposits at the Jordan site.

Above the "brown midden" lay a thick band of redeposited grey-brown midden (stratum II) which continued almost to the surface. Unlike the stratum II deposits in Test Unit One, the redeposited midden in Test Unit Two contained fewer artifacts and there was no particular concentration of cultural material. Daub was very common throughout stratum II, and may be related to a structure located in shovel tests to the north and west. It is quite likely that the grey-brown redeposited midden represented an accumulation of material washing down from mound A. The stratum II midden contained Jordan II phase artifacts. The top 10 cm (stratum I) were disturbed with historic debris.

A single radiocarbon date was obtained from a sample of charcoal recovered from the 90-100 cm level in Test Unit Two and its expansion (stratum IVb). The sample represented an amalgamation of two samples which were excavated on different days, but from exactly the same deposit. The sample was small, and required extended counting. The sample date is given in years B.P., and is uncorrected. Two corrected dates and a corrected age span are also indicated (based on Klein et al. 1982)(Table 18). Sample Beta-14049 gave an age of 680 +/- 60 B.P., and an age span of A.D. 1240-1385 (Kidder n.d. b). The age of sample Beta-14049 is clearly at odds with the cultural remains, which suggest a date of 1550, or later. I cannot explain why the date is so anomalous, but I must reject the sample date as clearly in error.

The stratigraphy in Test Unit Two corresponds to the arbitrary excavation levels as outlined: level A--stratum I; levels B-E--stratum II; level F--strata II, III; levels G, H;

stratum III; level I--strata IVb; levels J-L--stratum IVa, IVb; levels M-O--stratum V.

Test Unit Three (K1928, Table 34, Figure 19a, 19b) Test Unit Three was located just south of mound C and consisted of a 1x4 m trench oriented east to west. Test Unit Three was excavated to determine if the mounds were located on an artificial terrace which showed as a 92 foot contour on which all the mounds were situated. Results of testing indicated that the elevation noted on the map was not artificial but rather the effect of gradual midden accumulation. Test Unit Three was also situated to test the edge of mound C. Although we could not test on the mounds, we hoped to determine mound construction chronology by testing close to the present mound edge. Unfortunately, tests near mound C failed to uncover evidence of mound construction stages. This "negative" evidence, does, however, suggest that the mounds were constructed over a relatively brief period of time, and in few stages.

Unlike test units One and Two, the stratigraphy of Test Unit Three does not demonstrate a similar sequence below cultural deposits. Instead, the lower levels of Test Unit Three suggest a different depositional environment probably related to backswamp deposits along the margin of the levee of the crevasse. Test Unit Three reached a depth of 1.77 m below datum, although the last 50 cm were tested through soil augering.

The lowest levels of Test Unit Three exhibited a series of alternating lenses of clay and silty sands (stratum VII), all of which were quite oxidized. Several of the lenses showed clear evidence of water sorting, while others were deposited in a very low energy environment. The nature of the deposits suggests that they were a result of backswamp flooding and subsequent settling of clay-sized deposits along the edge of the levee of the crevasse. Similar deposits were located in test units Six and Seven, all located along the eastern margin of the mound group. Apparently the crevasse formed a levee through what is now the center, and western edge of the mound group, and subsequent flooding caused backswamp deposits to form along the edge of the levee. Data from Test Unit Five, located north of mound A, near the western edge of the mound group suggests that a similar process was occurring on the other side of the crevasse levee. Stratum VII was found at 72 cm below datum and continued to the base of our auger test.

Above the backswamp deposits in the lower portion of Test Unit Three there was a band of peach-colored levee soil (stratum V). Like test units one and two, the peach levee soil in Test Unit Three was extensively bioturbated, and generally sterile. The peach levee is ubiquitous across the site, and apparently represents a terminal stage of crevasse and crevasse levee formation. In Test Unit Three the levee was first encountered at a depth of 2-4 cm below datum. Here, the levee is at a higher elevation than in test units One and Two. The elevation suggests that mound C was built on the crest of the levee, which clearly slopes up to the east. It is possible that the peach levee represents some form of artificial construction to provide a terrace for mound construction, but its sterile nature, and evidence of long-term bioturbation seem to rule out such a possibility. Furthermore, as we shall see, there is solid evidence that at least mound A, and probably mound B, were built in the channel of the crevasse, and not on any raised platform. Also the slope of the levee makes it difficult to imagine that it was purposefully engineered.

Above the peach levee soil were three levels of midden deposition none of which could be sorted out on cultural grounds (stratum II). The midden was a grey-brown silty loam with sparse artifact content. The upper 20-25 cm had evidence of historic disturbance, but the midden was largely intact. Evidence in the form of vertically deposited artifacts suggests that the midden was redeposited from the slopes of mound C. At the base of the midden, just above, or possibly in, the peach soil, a small lenticular hearth was located (feature 6) (Plate 24). The contents of the hearth indicated a Jordan II phase component. Other than the small feature, Test Unit Three was not a great success. We were able to indicate that the 92′ contour was not purposeful. However, we did not shed any light on mound construction techniques. No evidence of basket loading or other construction techniques were noted. The presence of the feature just above sterile soil strongly indicated that the mound could not have been constructed prior to the deposition of the hearth. It should be noted, however, that we could not positively associate the feature with the mound, although it is likely that the feature predates, or actually dates the construction of mound C.

A single radiocarbon date was obtained from charcoal located in feasture 6 in Test Unit Three. The date is given in uncorrected years B.P., with two corrected dates and a corrected age span based on Klien et al. (1982) (Table 18). Sample Beta-14048 gave a date of 480 +/- 80 B.P., which has a corrected age span of A.D. 1320-1605. The uncorrected date would be A.D. 1470. Sample Beta-14048 came from the sealed feature context. As noted above, the feature was just above or in sterile subsoil. The date of A.D. 1470 (uncorrected), or the corrected age span, would form a nice fit with my hypothesis as to the dating of the Jordan phase occupation. The date would appear to be slightly earlier than I would like for a Jordan II phase component, but the corrected age span does allow some interpretive leeway. At present I would tentatively accept the date from feature 6, and would use the corrected age span to bracket the occupation. The data from sample Beta-14048 does little to contradict my guess span for occupation between 1550 and 1700.

The stratigraphy in Test Unit Three can be correlated with the arbitrary levels in the following manner: Level A--stratum I; level B--strata I, II; levels C-G--stratum II; levels H-K--stratum V.

<u>Test Unit Four</u> (K1931, Table 35, Figure 20)

Test Unit Four was located between mounds B and C, in an area where shovel tests had revealed intact midden. Test Unit Four was a 1x2 m trench, oriented north to south, and was excavated to 2.94 m below datum, although cultural deposits were only found to 1.16 m. Excavation in Test Unit Four was designed to sample the midden located in shovel tests, and to give us a larger spatial sample. Excavations in Test Unit Four revealed a sparse midden underlain by peach levee soils which were in turn underlain by a series of massively bedded sands.

The lowest levels of Test Unit Four were very similar to deposits in test units One and Two. Clean, white to beige-orange, bedded sands (stratum VI) comprised the lowest part of the unit, with a thick lens of peach-colored levee soil (stratum V) above the sand. Both the sand and the levee were sterile, except where animal burrows intruded into the levee. The sands in Test Unit Four showed evidence of cyclical episodes of deposition with little time for exposure and oxidization. The levee soils above were badly bioturbated and showed no evidence of cyclical deposition. The levee soil was between 60-70 cm thick, and showed extensive evidence of staining from the overlying midden. Stratum V was located at an approximate depth of 99 cm below datum.

The midden was comprised of a mottled greyish brown silt (stratum II). Throughout the midden there were a number of thin, wavy black lines horizontally bedded in the profiles. These black lines are interpreted as staining caused by fluctuations in the local water table. The midden contained sparse amounts of cultural debris, although the soil was characteristically "middeny." The cultural material from Test Unit Four indicates a Jordan II phase occupation, although several Caddoan ceramic markers were also found. The upper 20 cm were disturbed (stratum I), as a result of a wagon road which was once located near Test Unit Four.

The natural stratigraphy can be correlated with the arbitrary excavation levels as follows: levels A, B--stratum I; levels C-G--stratum II; level H--Strata II, V; level I--stratum V.

Test Unit Five (K1932, Table 36, Figure 21)

Test Unit Five was located only 15-20 m north of mound A, and consisted of a 1x2 m trench oriented east to west. Test Unit Five was excavated in an area where shovel testing had indicated deeply buried midden deposits. Unfortunately, Test Unit Five illustrated the difficulty in interpreting limited shovel test data. Although the shovel tests had revealed midden up to almost one meter in depth, it turned out upon excavtion that the midden was only 40-50 cm deep, and that animal burrows had carried artifacts to over a meter below ground surface. For this reason our shovel tests could not differentiate between disturbed and undisturbed midden. Such data offer a caveat for the interpretation of shovel test information.

Test Unit Five was excavated to a depth of 2.79 m below datum, although the last 2 meters were largely sterile. The basal deposits in Test Unit Five indicate a complex geomorphic history related to the formation of the crevasse system which bisects the site. The lowest level consists of white to beige-orange waterlain sands (stratum VI) which were deposited in the channel of the crevasse system. Above the sand is a 15-20 cm thick band of red-brown sandy clay (stratum VII) which slopes down towards the west and north. The clay seems to represent backswamp deposits along the edge of the initial levee of the crevasse. The clay was clearly deposited in a low energy environment, and duplicates similar types of deposits in test units Three, Six, and Seven. Above the clay level is a 50-75 cm thick deposit of beige to white silty sand (stratum VI), which was overlain by peach-colored levee soils.

The peach-colored levee (stratum V) was generally sterile. However, rodent burrows were very common in the upper part of the levee. In Test Unit Five stratum V was found at a depth of roughly 89 cm below datum. The animal burrows were marked in plan view by circular grey stains which contrasted with the surrounding peach-colored soil. In profile the burrows appeared as curved grey streaks with a "pocket" at their lowest end. These "pockets" were often found to contain numerous small artifacts, many which showed evidence of rodent gnawing. Above the levee were two bands of midden which combined were less than a meter deep. The lowest midden band was not really that at all. Rather, it was a culturally stained, and badly bioturbated portion of the upper levee surface. In the field it was interpreted as redeposited midden, but in retrospect it is clearly midden reworked from immediately above, probably by rodents. The upper 60 cm consitituted the actual midden (stratum II), which was a grey-brown silt loam with some brown and black mottling. The midden was relatively sparse, and appeared to be the result of redeposited slope wash from mound A. It is difficult to assess why the south side of mound A should have such thick midden deposits (as in Test Unit One), while Test Unit Five has such a thin, sparse midden. All that I can suggest at this point is that the midden formation was the result of differential erosion on mound

A. The top 20 cm (Stratum I) had historic artifacts and other signs of recent disturbance.

The arbitrary excavation levels in Test Unit Five correlate with the natural stratigraphy as follows: levels A, B--stratum I; levels C, D--stratum II; levels E-I--stratum V.

<u>Test Unit Six</u> (K1933, Table 37, Figure 22)
Test Unit Six was placed on a raised area slightly north and west of mound G. On the LMS contour map the raised area appears to be a part of one of two "causeways" which extend out from mound G. One "causeway" is clearly visible extending from mound G to mound F (Maps 8, 9, 11), and the raised area excavated as Test Unit Six seems to be a duplicate structure reaching toward mound A (Map 8). The "causeway" to mound F shows in the Forshey map of 1845, but the one to mound A does not. A wagon road which exits from the site between mounds A and G may account for the absence of such a structure between the two mounds.

Test Unit Six was situated on the crest of the "causeway" at a point where shovel test data suggested deeply buried and rich midden deposits. Again, like Test Unit Five, the shovel tests gave somewhat misleading data (or, it was misinterpreted). The shovel tests revealed a band of dark brown soil continuing unbroken for as deep as the shovel test could reach. Artifact content was fairly high, and the area seemed promising. Unfortunately, the shovel test penetrated from in situ midden into a layer of dark brown but culturally sterile soil. It is likely that the dark brown sterile soil represented fill for the "causeway". Test Unit Six was excavated to a depth of .99 m below datum, with an auger core extending the test to 1.49 m below datum. Test Unit Six was a 1x2 m trench oriented north to south and transected the "causeway".

The lowest levels of Test Unit Six were very similar to those in Test Unit Three, and as we shall see, Test Unit Seven. From roughly .59 m to the bottom of the test pit, and evidently continuing below that, the soils exhibited a series of waterlain deposits of red-brown clay, and oxidized silty sands (stratum VII). Thin bands of waterlain silty sands were separated by clay deposits which reflected low energy depositional environments. Above the alternating strata was a relatively thin band of peach-colored levee soil (stratum V), which was in turn overlain by a 30-40 cm thick level of compact dark to medium brown silt (stratum VIII). The upper three cm of the compact dark silt was more compact, and slightly darker than the underlying deposit. I would suggest that this represents weathering of the "causeway" surface prior to the deposition of the overlying midden. The dark, compact soil was sterile, with a few intrusive exceptions. After the unit was excavated it was noted that two straight-sided, round-bottomed pits penetrated from the midden through the dark compact layer into the levee in the west wall. No artifacts were noted at the base or in the fill of these pits.

The midden in Test Unit Six was relatively thin, and fairly sparse. Also, because of the location of the unit, root penetration of the profiles was excessive and made interpretation difficult. The midden consisted of a medium brown silt loam (stratum II) which was only slightly lighter than the underlying dark brown level. The midden did not contain a large amount of artifacts, but it was clear that the artifacts present were in an in situ deposit, and had not been redeposited from mound G (that is, not redeposited by wash or natural forces). A concentration of large mammal bone was noted for the midden between 71 and 51 cm above datum. The artifacts were more common in the upper 50 cm than below. The upper 10-15 cm was disturbed (stratum I), but historic artifacts were uncommon.

The natural stratigraphy matches with the arbitrary levels in the following manner: level A--stratum I; levels B-E--stratum II; level F--strata II, VIII; levels G-I--stratum VIII; levels J-K--stratum V; level L--stratum VI.

Test Unit Seven (K1934, Table 38, Figure 23)

Test Unit Seven was located at the southeast flank of mound E, just north of the end of the barrow pit. Test Unit Seven was excavated because shovel tests had given us reason to believe that an in situ midden lay directly on sterile soil. Furthermore, by testing near the flank of the mound we hoped to get stratigraphic detail on mound construction stages. Test Unit Seven was a 1x2 m trench oriented east to west.

The location of Test Unit Seven at the northern end of the barrow pit caused a number of problems for excavation and interpretation. First, the test unit area had evidently been repeatedly flooded throughout the site occupation. All artifacts in the unit were thickly encrusted with an FeO_2 precipitate, which in some cases replaced the shell matrix in shell tempered pottery. Bone and pottery were the most affected, but even lithics and historic artifacts were encrusted. Also, the repeated flooding of the location caused the soil to be tough and very difficult to excavate and screen. Moreover, for reasons which escape us, root disturbance was very heavy. Lastly, probably as a result of the flooding, the soil conditions above the sterile soils were very different.

The very lowest levels in Test Unit Seven virtually mirror those found in test units Three and Six. A series of waterlain sandy silts alternated with bands of red-brown "plastic" clay (stratum VII). All of the waterlain deposits were heavily oxidized, and the clay was apparently deposited in a low energy environment. Unlike any test unit at Jordan, Test Unit Seven did not have a level of peach-colored levee soil. However, a similarly textured deposit was present, but it had been badly stained and altered by the repeated flooding. The peach-colored levee was replaced by a "rusty" orange, slightly sandy silt loam (Stratum IX). The "rusty" levee was extensively bioturbated and penetrated by numerous roots and root casts. The bright red color of this deposit indicated that it had been exposed and oxidized for some time. However, because of the soil color differences between the "rusty" levee and the overlying midden deposits, the demarcation between sterile and midden was relatively easy. The top of stratum IX was located at an elevation of between 1.21 and 1.41 m below datum. It was evident that stratum IX represented the ground surface at the time the site was first occupied.

Above the "rusty" midden was a thick band of grey to grey-brown coarse silts with extensive mottling and FeO2 staining (stratum X). Artifacts were quite sparse, except for a thin layer lying directly on the "rusty" levee. The thin midden layer is believed to represent submound midden beneath mound E. We could not physically separate the midden from the rest of the stratum X, however, Table 38 clearly shows an increase in artifact density in levels H and I. The grey to grey-brown deposit probably represented mound fill, although no basket loading or constuction stages could be seen. The grey-brown deposit slopes downward to the east. The upper 30 cm of Test Unit Seven represented disturbed slope wash from mound E (stratum I). Historic artifacts were quite common in the upper levels of Test Unit Seven, even though no historic structure is known from the area. Large quanities of daub in the upper levels probably came from a structure located on mound E.

The artifacts from Test Unit Seven are of limited value because of their encrusted state. Decorated ceramics were rare in the unit, and artifacts were sparse on the whole. Bone, while present, is unanalyzable at the moment due to the precipitate encrustation. Much of the bone consists of fragments encased in an FeO2 concretion. At times the precipitate has actually replaced the carbonate structure of the bone, forming what amounts to an FeO2 "cast" of the artifact. The same is occasionally true for shell tempered ceramics. Lithics and historic artifacts were also encrusted, but because of their nature they were easier to clean.

The arbitrary excavation levels are correlated with the natural level as follows: levels A, B--stratum I; levels C, D--strata I, X; levels E-H--stratum X; levels I, J--strata X, IX.

Stratigraphic Analysis

In summary, then, the LMS excavated 116 shovel tests and seven test excavation units in the summer of 1985. Shovel test data suggested that the entire mound group was covered by a thin veneer of midden, but that the deepest, and most intact deposits were to be found at the edge of the mound group, between and around the mounds. The largest and deepest midden deposits were located around mound A. Test excavations confirmed the latter observation. Midden was found to have an average thickness of between 40-60 cm. However, thicker and thinner deposits were also noted. Generally sterile subsoil was indicated by peach-colored or beige slightly sandy silts which are interpreted as the result of levee building by the crevasse which bisects the site. In all the tests it was suggested that this stratum represented the initial ground surface on which the site was built.

The test excavation data from Jordan generally confirmed our outline noted from the shovel tests. Two separate, but sequential cultural deposits have been identified, and are being used to define the Jordan I and II components of the Jordan phase. The Jordan I occupation was only located in Test Unit Two, near mound A. There exists a distinct possibility that the Jordan I deposits in Test Unit Two represent functionally different, but contemporary artifacts with Jordan II material. The Jordan II occupation is ubiquitous across the tested portion of the site and also in the surrounding fields. Excavations in 1985 failed to locate any deposits or individual artifacts which predated the 16th century. Deep test excavations preclude the possibility of missing any early deposits so I feel confident that the possibility for a non-Mississippian occupation is very slim.

Test excavation data suggests that the site geomorphology is exceedingly complex. The site does not appear to be built on an artificial terrace, but we are far from understanding what the site really was built on. Test units One, Two, Four, and Five reveal a similar pattern of geomorphic development, while test units Three, Six, and Seven are also similar, but different from the other four. The pattern revealed in the deep tests suggests that the crevasse channel flowed through the northern and western portion of where the mound group would eventually be located. Geomorphic testing north and south of the Jordan site area revealed that the pattern noted in test units One, Two, Four, and Five is characteristic of the channel of the crevasse, while the deposits in test units Three, Six, and Seven represented backswamp environments along the slope of the levee of the crevasse. Such data strongly suggest that all, or at least part of mound A, and parts of mound B, were constructed in the channel of the crevasse. How, and why such a phenomenon should occur is a mystery at present. The other mounds appear to have been built on the levee or its backslope. I am uncertain as to why the levee was found at only 2 cm below datum in Test Unit Three. It is possible that some of the levee soil was built up to provide a foundation for mound C. However, we could not find any evidence that the area had been modified prior to the deposition of feature 6, which I feel lay in or on the levee soils.

Although the LMS did not excavate in any of the mounds, test units Three and Seven were placed on the slopes of mounds C and E, respectively. The data for these pits were not totally conclusive, but do suggest possibilities for the interpretation of mound building at Jordan. Excavations in Test Unit Three were important because we recovered a sealed feature below the midden and lying on what I presume to be the initial ground surface. Above the feature the soils show no evidence of loading or construction. The fill was a medium brown to brownish-grey silt loam. No clay lenses or stages were noted. In fact no separable stages were visible in the profile. It appears that after the deposition of feature 6 the mound was rapidly thrown up. The loose, silty fill may have compacted and consolidated the soil which has obscured any stages of construction. The use of silty loams for construction fill is unusual, and indicates a lack of sophisticated understanding of mound building skills. Test Unit Three never yielded a large quantity of daub, which might mean that a structure was not located on mound C, or that the top of the mound was swept clean in a different direction.

In Test Unit Seven we have much more unequivocal data on mound building. Here, we can see that the top of the levee was cleared of vegetation and possibly leveled. A thick, apparently single stage mantle of mottled grey-brown silty clay was then erected. Above this we do not know the history of construction, but from the quantity of daub present in the slope wash it is evident that a wattle and daub structure once occupied the summit. The slope wash consisted of loose silty loams, so it is possible that a mantle of similar soil once covered the mound. The evidence from Test Unit Seven, like that in Test Unit Three, shows that the mounds were probably built very rapidly, and out of readily available soil. Little care went into the building of mounds C and E. I get the impression that the builders really were not certain how to make a mound. The data from Test Unit Three positively demonstrates that mound construction occurred during the Jordan II phase. In Test Unit Seven we probably have a contemporary mound, but the artifacts were not conclusive. I would guess, nonetheless, that mound E was also built during the Jordan II phase.

In Test Unit Six we seem to be dealing with another Jordan II phase construction. I cannot positively discern the presence of a "causeway" in the Test Unit Six excavations. I can, however, point to the prepared surface at the top of stratum VIII. The soils of stratum VIII were sterile, but appeared to be a darker color than the overlying midden. Two pits were excavated into stratum VIII. Stratum VIII appears to have been constructed to add height and make a level surface for the "causeway". Once completed the surface of stratum VIII was exposed long enough to cause it to become compact, harder, and darker than the deposits above or below. Still, midden was deposited on the "causeway". probably soon after its construction. The midden in Test Unit Six seemed to be in its original place of deposition, and it has not been redeposited by slope wash. The midden represents a pure Jordan II phase component. No material was found in stratum VIII which would allow us to date the deposit, but it was placed on the original ground surface. I would suspect that the construction noted in Test Unit Six dates to the Jordan II phase.

Unfortunately, I could not link most of the test units together in a cultural stratigraphy. Above the peach-colored levee (stratum V) the cultural deposits vary from unit to unit. In most units there was some kind of midden, most often within 60 cm of the surface (test units One, Three, Four, Five, and Six). However, only in test units Two and Six, and possibly Seven, did we find midden in an undisturbed context. In Test Unit Two the superimposed middens gave us a critical stratigraphic basis for separating the Jordan I and II components. In test units Six and Seven, however, the in situ middens appear to date only to the Jordan II phase. In the other units the midden levels appear to have been redeposited. In most cases it is evident that the source for the midden was one of the mounds. In test units One, Two, and Five mound A certainly deposited most of the midden in the upper levels. In Test Unit Three mound C was responsible. In Test Unit Four it was probably mound B. Test Unit Seven had some deposition from mound E, but also may have had an in situ midden lying directly on the levee. Only Test Unit Six, probably because it was elevated above ground surface, did not have any redeposited midden. Thus, while all of the test units had evidence of a Jordan II component, none of the contemporary material was derived from the same strata (except the plow zone).

Artifacts

Artifacts at Jordan can be best analyzed within three gross categories; ceramics, lithics, and organics. Late historic artifacts were also recovered, but comprise a small portion of the total inventory. The ceramic category is the largest and most diagnostic. Lithic artifacts were relatively scarce in the mound group, although several important specimens were recovered. Organic artifacts were relatively abundant, but remain largely unanalyzed at present. Nonetheless, a few preliminary statements can be made concerning basic subsistence patterns at Jordan. Artifacts are listed by test unit in Tables 31-38, and the diagnostic ceramic and lithic traits are summarized in Tables 39 and 40)

Ceramics

The ceramics at Jordan can be divided into four categories based on temper. Shell tempering is overwhelmingly predominant, and consists of two categories, polished and unpolished. The other two ceramic categories are "foreign" to the region, and come from either the Natchez or the Caddoan areas. The Natchez-like ceramics are on some form of an Addis paste, while the Caddoan pottery is usually tempered with fine grit, or appears to have no temper at all. In the following discussion only the ceramics excavated by the LMS in 1985 will be discussed. Due to the uniquness of the Jordan artifact assemblage a number of new varieies are set forth below. The new varieties will be discussed in some detail, while established varieties will be commented on in the local context only. Further, I will only comment on the classified sherds. Unclassified incised or decorated ceramics will only be discussed if they are unusual or otherwise significant.

Addis Plain, var. Addis (N= 4)

Same as in references. These four sherds are characterized by a heterogeneous organic temper which does not contain any shell. The color is light to medium brown, and surfaces are well made. All four sherds came from the midden in Test Unit Three. (References: Phillips 1970: 48-49; Williams and Brain 1983: 92; Brown 1985: 288; Brain et al. n.d.)

Addis Plain, var. Feliciana (N= 61)

Same as in reference. The presence of large quantities of Feliciana at Jordan was no particular surprise. The type was initially defined by Brain for early historic pottery tempered with bone and mixed organics. Bone is the overriding sorting criteria for this variety. At Jordan I can recognize two separate treatments of Feliciana. One treatment consists of crushed bone and organics, while the other contains bone and shell as temper. The latter treatment is uncommon at Jordan and has not been noted elsewhere. The crushed bone includes large chunks which were mixed into a coarse shell tempered plain paste. Surfaces are smooth, and the only vessel shape known is a jar. The bone/shell tempered pottery was almost exclusively found in feature 6 of Test Unit Three. Decorated pottery also found in the feature included Grace Brushed, var. Duvall, and unclassified incised on Mississippi Plain. Since this treatment came mostly from one feature it is probably safe to assume that it is local or regional expression at best. If the treatment is found to have broader spatial or temporal dimensions it would do well as a separate variety.

The bulk of the Feliciana is finer and better made than the treatment just discussed. The ware is thin and fine, with well crushed bone particles. Colors range from tan-orange to dark brown, but a buff hue predominates. Both bowl and jar vessel shapes are known for the variety. (Reference: Brain n.d.)

Addis Plain, var. Junkin (N= 1)

Same as noted in references. This sherd requires a bit of explanation. The variety was established to account for pottery that "certainly represents the highest development of ceramic technology in the Lower Mississippi Valley" (Brain et al. n.d.). Being that it was so fine, and so unusual, Brain and his colleagues were able to confine it to a very limited temporal horizon. The variety was dated to the early Foster phase in the Natchez Bluffs (Brown 1985: table 1), which is several hundred years earlier than we would expect in a Jordan phase context. All I can suggest is that the sherd represented a curio or heirloom. The sherd in question is small and amazingly well made. The surface is extremely well polished and almost flawless. The sherd was recovered in a shovel test just west of Test Unit One, which suggests both a possible elite context, and probably a Jordan II phase time frame. (References: Brown 1985: 288; Brain et al. n.d.)

Addis Plain, var. Ratcliffe (N= 4)

Same as in references. These four sherds have a coarse mixed organic and grit tempered paste with a generally reddish surface color. The temper particles are generally large and often either black or white. A single bowl rim with a slightly interior beveled lip is represented in the sample. Ratcliffe is generally dated to the early historic period in the Natchez Bluffs region, and at Jordan it was recovered in Jordan II phase contexts. The presence of Ratcliffe at Jordan perhaps is indicative that the occupation lasted until the early 18th century. Regardless of the precise chronology, Ratcliffe is a probable marker for the Jordan II phase. (References: Brown 1985: 288; Brain et al. n.d.)

Addis Plain, var. St. Catherine (N= 1)

Same as in references. This one sherd is a jar rim with a short, flaring lip. The exterior surface is slightly eroded, but the interior is well polished, but not as fine as in var. Junkin. The paste is a finely crushed mixture of shell and unidentified organic particles, and there are holes in the surface where shell has leached out. The sherd came from feature 6 in Test Unit Three. (References: Phillips 1970: 61; Brown 1985: 288; Brain et al. n.d.)

Addis Plain, var. Unspecified (N= 35)

This is a class of Addis Plain which cannot be sorted to variety because they were too small or undistinguished. Several sherds have a paste which approaches, but is not fine enough for St. Catherine, while the bulk seems to fall between Addis, and Ratcliffe. A single delicate bowl rim with fine circular punctations in the lip and at least one line incised below the rim was found in Test Unit Three. The only other rim came from a jar with a flat lip. Some Addis Plain was found in every test unit, but units One and Three had the greatest quantity.

Barton Incised, var. Davion (N= 1)

The Barton Incised type is not always easy to sort to variety, and for this reason I am tempted to jump at any occasion to do so. In this case the sherd can be sorted by the presence of a band of oblique lines on the neck of a jar. Unlike in the Yazoo Basin where the variety was defined as occurring on Mississippi Plain, var. Yazoo, in the Boeuf it is found on the contemporary equivalent, Mississippi Plain, var. Morehouse. In the Yazoo Basin Davion marks the protohistoric and historic periods and there is no reason to doubt this chronology at Jordan. (References: Brown 1979: 609-611; Brain n.d.)

Barton Incised, var. Galion (N= 26)

Description: New variety.

Background: When we were sorting the Jordan collection in the field we noted that the majority of the Barton Incised did not conform to any known variety description. Further, we recorded a distinction between the Barton in the "ash" midden in Test Unit Two, and that from the "brown" midden level above. Initially these two groups were sorted as var. Unspecified, but soon it was clear that the two groups were both physically and temporally dissimilar, and thus they were christened with new variety names. I should hasten to point out that like so many Barton Incised varieties, the Jordan sample probably represents a localized spatial and temporal expression and will probably not be found elsewhere. This is, however, one of the values of the use of the type-variety system. The variety was named for Bayou Galion, which flows down the western side of the study area.

Sorting Criteria: Variety Galion is distinguished by the placement of close-spaced rectilinear lines in oblique or hatched patterns on the necks and upper bodies of vessels made on Mississippi Plain, var. Oak Ridge. The paste characteristics are very important in sorting this variety, at least at the Jordan site. Galion can further be sorted by the incised lines which are generally broad and deep (Plate 25 f-i). The lines on Galion are never scratchy or very thin. Occasionally they will be shallow, but broad (Plate 25 h). Most often the lines were incised while the paste was still wet and the lines are burred but rarely smoothed. The variety is occasionally marked by a single line encircling the vessel at the neck. The most common design is a set of oblique lines on the neck and shoulder of a jar. Hatched patterns are also present in the sample. Only one jar rim with a Galion design was found in 1985. The design begins roughly six mm below the lip where the neck of the vessel joins the rim (Plate 25 g).

Distribution: At present Galion is only known from the Jordan site in Morehouse Parish. In some respects Galion is similar to Barton Incised, var. Atherton defined by Hally for the Transylvania phase (1972: 485-490). However, Galion differs in design treatment and placement, as well as in basic paste characteristics. Naturally, like most Barton varieties, Galion grades somewhere between Arcola and Estill, although it is more like the latter than the former.

Chronological position: Galion was only found in the "ash" midden in Test Unit Two. The context is the Jordan I phase component. Currently I would tentatively date the Jordan I phase to the period between 1550-1600 or 1650. The variety is unknown in Jordan II phase contexts.

Diagnostic modes: Rectilinear incision in either oblique or hatched patterns on a well made, hard shell tempered paste equivalent to Mississippi Plain, _var. Oak Ridge_. Designs were placed on the neck and shoulder of jars, and were incised with a moderately broad stylus on a slightly wet paste.

References: None.

Barton Incised, _var. Mer Rouge_ (N= 15)

Description: New variety.

Background: The bulk of the Barton Incised at Jordan was and still is sorted as _var. Unspecified_. However, two groups of Barton Incised suggested themselves based on context and physical qualities. These two groups were quickly sorted out on the premise that their distinct context would allow us to use them as chronological and spatial markers. One group was sorted as _var. Galion_ and came from the "ash" midden in Test Unit Two. From the "brown" midden directly above the "ash" midden we recovered a distinctive Barton Incised variety which we have named _var. Mer Rouge_ for the nearby town of the same name.

Sorting criteria: _Variety Mer Rouge_ is notable for having thin, sharp, very wet paste rectilinear incisions on Mississippi Plain, _var. Morehouse_ (Plate 25 j-l). Designs seem to consist of bands of opposed oblique hatching on the shoulders and possibly necks of large jars and in at least one case a locally unique bowl. One instance of vertically incised hatching has also been noted (Plate 25 j). One large sherd seems to have come from a modified "German Helmet"-type bowl (Hoffman 1977: 18) with the incision beginning at the point where the neck joins the body and probably continuing up to the rim (Plate 25 l). The hatching does not appear to be zoned either at the top or the bottom. The incisions are narrow and fairly deep, and usually sloppy. In all cases the incision was made on a wet paste and rarely were the incisions smoothed over.

Distribution: So far, Mer Rouge is only known from the Jordan site. A closely related variety is Atherton defined for the Transylvania and later phases in the Tensas Basin and further west (Hally 1972: 489). The contemporary variety Stowers, also defined by Hally (ibid.: 490-497), has some similarities as well. However, both Atherton and Stowers differ in design placement, execution, and chronological context. Atherton has been noted for protohistoric and early historic sites along Bayou Bartholomew (ibid.: 485) which suggests that Mer Rouge is a very localized variety.

Chronological position: Variety Mer Rouge is an excellent marker of the Jordan II phase at the Jordan site. Stratigraphically it post-dates Galion, and personally, I would be inclined to believe that it represents one of the terminal manifestations of the Barton Incised tradition. Mer Rouge is contemporary to or slightly later than Atherton at the Transylvania site (16EC8 [22-L-3]).

Diagnostic modes: Thin, sharp lines incised on a wet paste coarse shell tempered pottery equivalent to Mississippi Plain, var. Morehouse. Designs consist of bands of oblique or occasionally vertical hatching on the shoulders and necks jars or bowls.

References: None.

Barton Incised, var. Midnight (N= 1)

Same as in reference. A single sherd was classified as Midnight despite my discomfort at the chronological implications the sherd manifested. The sherd has fine, close spaced incision on a dry paste forming small line filled triangles. The design and execution are small and very fine. The paste, however, is typical of Mississippi Plain, _var. Morehouse_, and is not as thin or fine as the Matheny samples. The context at Jordan was the Jordan II phase midden in Test Unit Six. Given both the paste and context of this sherd I would argue that it belongs in the Jordan II phase, and should not imply a Kinnaird phase component at Jordan. (Reference: Williams and Brain 1983: 132)

Barton Incised, _var. Unspecified_ (N= 85)
This is the catchall category for otherwise unidentified rectilinear incised sherds. Most sherds could not be sorted to variety as they were too small or eroded. Some sherds simply did not fit any established variety. Some could probably be sorted as _Mer Rouge_, but I wanted to keep that variety as "pure" as possible. The few rim sherds present suggest that jars were the most common vessel. Decoration seems to run up the neck but never onto the rim. Treatments are widely varied, and include hatching (oblique and vertical), line filled triangles, and oblique lines alternating with open panels (similar to _var. Portland_ (Brown 1979: 613-616)). The paste and context of the _Unspecified_ Barton sherds suggests a Jordan II phase date. One sherd was made on an Addis Plain, _var. Feliciana_ paste.

Belcher Ridged, _var. Belcher Ridged_ (N= 4)
Same as in references. Two large sherds and two smaller ones comprise the _Belcher Ridged_ sample (Plate 25 d-e). Three of the four sherds have a fine grit temper, while the fourth appears to be on an Addis Plain, _var. Ratcliffe_ paste. I have used the

established variety (Schambach and Miller 1984: 120) because there are no characteristics which would allow me to separate it into any other variety. The design and vessel shape are classic for the type and variety. Chronologically I do not feel that the type is out of place. At Belcher (16CD13) it was very long lived, but carried into the Belcher IV component (Webb 1959: 136-139). At the Cedar Grove site (3LA97) it was assigned to a pre-Chakanina (i.e. fully historic) phase. A single Belcher Ridged vessel was found at the Keno site (16MO31 [22-H-5]) by C.B. Moore (Peabody Museum catalogue number 74740). Thus, it is evident that the type extended into the protohistoric period, at least in northeast Louisiana. Therefore, I have no difficulty in assigning the variety to the Jordan II phase. The context of the sherds were exclusively Jordan II deposits. (References: Webb 1959: 136-139; Suhm and Jelks 1962: 11; Schambach and Miller 1984: 120)

Cracker Road Incised, var. Cracker Road (N= 16)

Same as in references. This type and variety were established by Ian Brown based on his excavations in the lower Yazoo Basin and Yazoo Bluffs regions of Mississippi. Brown sorted the type from Fatherland Incised based on paste differences. Cracker Road Incised was considered to consist of Fatherland Incised decorations placed on a Mississippi Plain paste equivilent to var. Yazoo. Later the variety was encountered in some quantity on the Louisiana coast at the Salt Mine Valley site (16IB23 [33-I-5]). Brown recognized the similarity of Cracker Road to Leland Incised, var. Williams, although he also noted some important differences. At Jordan the Cracker Road was sorted to the variety based on sherds which had both thin, poorly executed curvilinear incision as well as Fatherland Incised design motifs such as the "sunburst". Unlike the sample from coastal Louisiana (Brown and Lambert-Brown 1978: 7), one sherd of Cracker Road at Jordan came from a jar. The Cracker Road sherds which had the "sunburst" design were all recovered from Test Unit One. The relatively small amount of Cracker Road at Jordan suggests that it is not a truly indigenous variety. Brown (1979: 651) believes the type to have its origins in the Yazoo Bluffs region. (References: Brown 1979: 645-651, 1983; Brown and Lambert-Brown 1978: 4-7; Brain n.d.)

Cracker Road Incised, var. Unspecified (N= 12)
These sherds were sorted to this type based on their narrow curvilinear incisions on Mississippi Plain, var. Morehouse. They are not large enough to show designs, but none appear to have any "sunburst" motifs. Two or three narrow lines seem common. From their paste I would assign these sherds to the Jordan II phase. One sherd in particular should be described (Plate 25 c). It has been sorted to the type based more on convenience rather than conviction. It consists of a body sherd from an unusual shaped vessel with a swollen body and short, cylindrical neck. The design consists of two sets of two lines each pending from a line at the top of the sherd. The lines are finely executed, almost engraved, and form what appear to be the swirls at the end of a "sunburst" motif. The ware contains finely crushed bone and shell, and the surface has a high polish. The design appears to mimic typical Natchez patterns, but the ware and vessel shape are distinctively

non-Natchezian. It may be a local copy of a non-local ceramic design idea.

Fatherland Incised, var. Bayou Goula (N= 1)
Same as in references. This one sherd has five neatly executed, dry paste curvilinear incisions on an Addis paste (Plate 25 a). A second design below the five lines has at least three lines showing. The sherd is too small to determine if the design would have formed a scroll. The context at Jordan was in Test Unit One. Comparative dating from the Natchez Bluffs region help us confirm that at Jordan this sherd dates to the Jordan II phase. (References: Phillips 1970: 104-105; Brown 1985: 294; Brain et al. n.d.)

Fatherland Incised, var. Fatherland (N= 1)
Same as noted in references. This is a very well made sherd which came from Test Unit One at Jordan. The paste is hard and seems to conform to the St. Catherines variety of Addis Plain. The design consists of a "sunburst" with three lines radiating outward from the central circle (Plate 25 b). Although Fatherland can date as early as the Emerald phase in the Natchez Bluffs, this sherd no doubt belongs in the Jordan II component. It is possible that the sherd in question actually was made prior to the protohistoric period (Ian Brown feels that it is too fine to have been made into the late protohistoric or early historic periods (personal communication 1986)). The context for Test Unit One is admittedly disturbed, but contains no Jordan I markers. Therefore, it either actually dates to the Jordan II phase, or it was a curio which was

finally broken and discarded during that period. (References: Phillips 1970: 106-107; Brown 1985: 294; Brain et al. n.d.)

Grace Brushed, var. Duvall (N= 322)

Description: New variety.

Background: While we were sorting the 1983 Jordan site surface collection I noted that brushed designs on shell tempered wares were common. Brushing was both rectilinear and curvilinear, but the former was slightly more common. At that time all of the brushed pottery was sorted into one of two varieties, Grace, for the rectilinear treatment, and Grand Gulf for the curvilinear variety. Both varieties had been established in the Yazoo Basin and Bluffs, and in those regions were assumed to have chronological significance. Grace was established to account for what amounted to Plaquemine Brushed on a shell tempered paste. Grace was assumed to have directly evolved from Plaquemine Brushed, and was dated just later (Phillips 1970: 153; Williams and Brain 1983: 163-165; Hally 1972: 401). Grand Gulf, on the other hand, was seen as a protohistoric and early historic development probably stemming from the Grace tradition (Brain n.d.). At Jordan, then, the Grace and Grand Gulf were used to propose two separate components, one late prehistoric, and the other protohistoric or early historic.

Some difficulties, however, intruded into the neat chronology I had derived from the Grace Brushed type. First, and foremost, I recognized a small minority of brushed sherds with both rectilinear and curvilinear brushing. Most notably, a large vessel fragment in a local collection had a curvilinear brushed body with a rectilinear brushed neck and rim. Also, I could not identify any ceramics at Jordan that would have been contemporary with Grace as it was chronologically known in the Yazoo and Tensas basins. Thus, I had some difficult options. First, I could ignore the sherds with both rectilinear and curvilinear brushing and continue to use the Yazoo chronology as my guide. Second, I could establish a local variety for all of the brushed pottery, and ignore the known chronology to the east. Or lastly, I could avoid the entire problem by sorting all of the brushed pottery as var. Unspecified, and acknowledge that I really did not know when and where the brushed pottery fit in the local sequence. Being conservative, I naturally opted for the last option.

Thus, when excavations began in 1985 I knew we could expect to find brushed pottery, but I was unsure how to classify it. I hoped that the stratification at Jordan would resolve the matter for me. In 1985 my expectations were fulfilled and exceeded in terms of brushed pottery. We recovered a large amount given the size of the site collections. Furthermore we found some stratigraphic logic for our sorting. However, initially, I sorted the excavated sample much like the surface collected sample, that is by treatment. Quickly, however, it was apparent that both curvilinear and rectilinear brushing were being found in similar contexts. The only stratigraphic division which seemed to hold up was based on paste characteristics and quality. I was again faced with the same options as I had in sorting the surface collection: maintain the Grace and Grand Gulf varieties; find a new variety; or essentially ignore the brushed pottery at a variety level.

Option one was untenable and would have only resulted in ambiguity and confusion. The last option was, if nothing else, inadequate. Thus the second option is being pursued. The differences noted in paste charateristics have been maintained on a variety level. Stratigraphically there is reason to separate brushed pottery on a hard, fine shell tempered paste from that found on a coarser ware. The stratigraphically earlier brushed pottery is being called var. Prairie Jefferson, while the later material being discussed here has been named var. Duvall.

Brushing is the most common design element in the Jordan site ceramic assemblage. Therefore it is critical to be able to accurately classify the collection. The use of var. Duvall is proposed because I feel that the variety has spatial and temporal significance, particularly west of the Mississippi River. The quantity of brushed pottery at Jordan and in the surrounding area is testimony to the fact that this is its homeland. The variety was named for the Duvall Plantation located just west of the site. Sorting criteria: Variety Duvall is characterized by rectilinear and curvilinear brushing on coarse shell tempered pottery equivalent to Mississippi Plain, var. Morehouse (Plate 26). Brushing occurs both as an all-over body design, and in descrete patterns such as swirls and festoons. The brushing is usually quite casual and sloppy, and rarely as deep and bold as in Prairie Jefferson. Brushing was accomplished by a number of instruments, but it is always close-spaced. Rectilinear brushing on the body was placed either parallel to the rim, or at an oblique angle (Plate 26 a, j-k). Body sherds are more likely to have curvilinear brushing, while necks most often were decorated with rectilinear brushed patterns, usually at an oblique angle to the rim. Jars seem to have been the exclusive vessel shape associated with Duvall. At Jordan the jars with Duvall brushing are usually large, with globular bodies and unmodified flaring rims (Plate 26 j-1). Smaller jars with short flaring rims and punctated or notched lips are also known. Rims usually have a line parallel to the rim between 3-7 cm below the lip.

Distribution: Duvall is common at Jordan and Jordan-related sites in the central Boeuf Basin, and has been noted further south in the Boeuf Basin. The variety does not seem common in the northern Boeuf Basin in Arkansas, but is apparently found in the Felsenthal and Calion regions further west (Hoffman 1977: 18; Rolingson and Schambach 1981; Weinstein and Kelley 1984). Specimens which appear to be very much like Duvall have been noted in the Haynes Bluff (22-M-5) site collections (LMS collections, Peabody Museum) (Brain n.d.), and have also been reported for other sites in the Yazoo Bluffs region (Brown 1979: 667-668) in early historic contexts. In the Tensas Basin the variety is unknown, and surprisingly the type is also almost unrepresented (Hally 1972: 401).

Chronological position: Variety Duvall is securely dated at Jordan to the Jordan II phase, which I believe to date between 1650 and 1750, although it may have started as early as 1600. The lack of the type and variety in the Tensas Basin sites suggests that these occupations were terminated by roughly 1500-1600. Also the type and its varieties are unknown in the Kinnaird phase in the Boeuf Basin. At Jordan, Duvall has a clear antecedent in Grace Brushed, var. Prairie Jefferson, which was isolated in exclusively Jordan I phase contexts. Furthermore, the context at Haynes Bluff (22-M-5) and elsewhere in the Yazoo Bluffs indicates that the type, and probably the variety, last into the early historic period. However, the variety is not common in early historic burial contexts in the Boeuf and Ouachita Basins, and thus may not last too late in the early historic period on the west side of the Mississippi River. The sum of the chronological data places the variety squarely in the late protohistoric and probably early historic periods. The variety (or a closely similar one) lasts into the early historic period on the east side of the Mississippi but it is uncertain if it dates so late at Jordan.

Diagnostic modes: Rectilinear and curvilinear brushing on coarse shell tempered pottery equivalent to Mississippi Plain, var. Morehouse. Brushing occurs on the neck and body of large and medium sized jars, and consists of either an all-over design or a specific pattern.

References: None.

Grace Brushed, var. Prairie Jefferson (N= 84)

Description: New variety.

Background: For an introduction see my comments under Grace Brushed, var. Duvall. The majority of the deposits at Jordan consisted of mixed or redeposited midden. The only "pure" stratigraphic context was found in Test Unit Two. Here, we found two undisturbed superimposed middens. Both middens contained shell tempered pottery, but the lower midden had a different ceramic assemblage than noted elsewhere on the site. Primarily, the "ash" midden assemblage was notable for being made on a hard, fine, well polished shell tempered ware now classified as Mississippi Plain, <u>var. Oak Ridge</u>. Also the decorated ceramics included types and varieties not seen in any other unit at the site. However, there was also a complement of brushed pottery which was similar to all the other brushed pottery, with two exceptions. First, as noted, the ware was different, and second, I could see that the "ash" midden brushed pottery included some different design patterns and was made on different jar forms than that found higher up in the "brown" midden. Further inspection convinced me that the brushed pottery in the "ash" midden was sufficiently different from the other brushed pottery at the site to make into its own variety. Additionally, we had the stratigraphic context to support two varieties. The variety takes its name from the former name of the town of Oak Ridge and the prairie on which the Jordan site is found.

<u>Sorting criteria</u>: <u>Variety Prairie Jefferson</u> is identified by curvilinear and rectilinear brushed designs on a very well made shell tempered ware designated Mississippi Plain, <u>var. Oak Ridge</u> (Plate 27). The brushing is generally deep and bold, and consists of rectilinear and curvilinear patterns on the upper body of large jars. Necks are decorated with a band of brushing arranged in a herringbone fashion placed at an oblique angle to the rim (Plate 27 c, e-f). <u>Prairie Jefferson</u> is found on a distinctive vessel form consisting of a large, deep jar with a wide orifice. The neck is almost vertical and relatively tall, and the lip is short with a sharp flare (Plate 27 f). A classic example of both this vessel

form and the variety is illustrated in Suhm and Jelks (1962: plate 80 e). Prairie Jefferson can be sorted from its slightly later counterpart, Duvall, based particularly on the paste. Furthermore, Prairie Jefferson is generally better made, more bold, and has the distictive herringbone neck pattern. Both varieties appear on jars, but Duvall has not been found on the particular high-necked vessel described above.

Distribution: Variety Prairie Jefferson has a very restricted distribution which is confined to the Jordan site. A single vessel, which conforms to the variety, was illustrated by Suhm and Jelks (ibid.) and came from Clark County, Arkansas. I cannot be certain, however, that this represents the variety, or a closely related but spatially separate one. No examples of Prairie Jefferson have been found at Jordan phase sites elsewhere in the central Boeuf Basin, nor is the variety known from the Tensas Basin or further east. At Jordan the type was originally thought to be confined to the one context in Test Unit Two. Subsequent examination of the Barham collection, however, reveals at least one other Prairie Jefferson jar came from the trash pits south of the site.

Chronological position: Stratigraphically Prairie Jefferson marks the earliest brushed pottery at the site. The ceramics from the "ash" midden have been grouped together to form the Jordan I phase, which I would date between 1550 and 1650. I suspect the phase may have been very short-lived, perhaps as short as fifty years.

Diagnostic modes: Rectilinear and curvilinear shell tempering executed in a relatively deep and bold style. The variety is distinctive for being made on a fine, hard shell tempered paste known at Jordan as Mississippi Plain, var. Oak Ridge. Prairie Jefferson is usually found on jars with globular bodies and tall necks with flaring rims.

References: None.

Grace Brushed, var. Warren (N= 3)

Same as in references. Warren is a variety of Grace Brushed established to account for ceramics with incision over brushing on shell tempered plainwares. The three sherds in the Jordan sample are not in good condition, nor are they very large. One sherd comes from a jar and has a line around the vessel below the lip with incised panels pending vertically from it. The panels are filled with coarse, rather faint brushing. The paste is eqivilent to Mississippi Plain, var. Morehouse. The other two sherds are nondescript and consist of body sherds with one or more haphazard incisions across brushing on Mississippi Plain, var. Morehouse. Both the physical context and the paste argue that Warren is a Jordan II phase variety. (References: Brown 1979: 668-669; Brain n.d.)

Grace Brushed, var. Unspecified (N= 3)

This is a small group of sherds which have Grace Brushing on Addis Plain, var. Feliciana. All three small sherds came from feature 6 in Test Unit Three. They are not classified to var. Duvall because of their paste. Otherwise, they are similar in all ways to Duvall.

Hudson Engraved, var. Hudson (N= 15)

Same as noted in references. Phillips was not the first to note that the definition of Hudson Engraved and Maddox Engraved suffered considerable confusion. Previously Suhm and Jelks had pointed out that Hudson was confused with Maddox, but also commented that Hudson was sortable based on primary paste differences (1962: 99). Phillips, however, felt that Hudson should be a variety of Maddox Engraved, despite the paste differences (1970: 108). I must disagree with Phillips based on several factors. First, Hudson Engraved has both distinctive paste and design features which set it apart from Maddox and its varieties; second, Hudson as a type generally post-dates Maddox and its varieties; and finally, Hudson has a different spatial distribution than any Maddox variety.

In paste and design Hudson is different from Maddox in that the paste of Hudson is always on a coarse shell tempered paste, and also the incised lines are never trailed. Maddox as currently defined now excludes shell tempering as a primary paste. All varieties of Maddox are either "clay tempered", or are on an Addis paste. The incisions in Maddox Engraved are noted to be Leland Incised-like trailed lines. In fact Maddox has been noted as a specialized variant of Leland Incised (Phillips 1970: 108-109; Hally 1972: 385-387; Williams and Brain 1983: 179). Hudson, on the other hand, has narrow, fine incised or engraved lines which frame the bands of hatching. Furthermore, according to Suhm and Jelks (1962: 81, 99), Hudson differs from Maddox in terms of vessel shapes and possibly design patterns. Chronologically Hudson is generally a later type than Maddox. Although both Maddox Engraved, vars. Emerald and Silver City are known at Jordan, they are minimally represented. Further, there are no known Maddox Engraved vessels from either Keno (16MO31 [22-H-5]) or Glendora (16OU18 [22-H-3]), while Hudson is a relatively common type in the central Boeuf Basin. Hudson is clearly derived from the Maddox Engraved tradition, but it is later in time. Also Hudson has a distinctive "western" distribution. West of the Mississippi and east of the Caddo region, Hudson is the dominant protohistoric and early historic crosshatched engraved type. Hudson is particularly well represented in the Ouachita River drainage at sites such as Keno and Glendora (Moore 1909: 35, 38, 75, 134, 135, 137, 147, 149) and further east in the Red River drainage (Suhm and Jelks 1962: 81). Although Maddox Engraved has a similar distribution on Red River (although not along the Ouachita), the two types rarely occur together at the same sites or in similar contexts. At present I feel that Hudson is a resident type in the Ouachita and Boeuf River drainages.

The sherds from Jordan fit the type description very well. I have chosen to use var. Hudson at Jordan because our sherds so closely resemble those chosen to illustrate the type. The sherds all manifest some relatively fine crosshatched engraving framed or bordered by a relatively narrow, often sharp incised line. The most common design is a crosshatched band of incision. The bands are both rectilinear and curvilinear, and in one case they were repeated at least three times. Vessel shapes appear to be jars, although one sherd came from a carinated bowl of some form. In all cases the paste was coarse and fits the description for

Mississippi Plain, var. Morehouse. (References: Suhm and Jelks 1962: 81; Phillips 1970: 107-108)

Kinlock Simple Stamped, var. Unspecified (N= 1) Same as in reference. When I showed the 1983 surface collection to Dr. James B. Griffin he pointed out that I had missorted dentate stamped ceramics into the Parkin Punctated class. Although Dr. Griffin's warning was taken to heart, only a single such sherd was recovered in 1983, and only one more in 1985. Surprisingly, when I was sorting the 1985 collection a relatively large collection of stamped shell tempered pottery was recovered. Much of this was initially sorted as Kinlock, but with little confidence. Later, as I became more familiar with the Jordan and other local ceramic collections, I noted that dentate stamping was a common mode on the rims and necks of shell tempered jars. Furthermore, at Jordan we recovered a sherd with a stamped neck and incised and brushed body. I soon realized that most of what I was sorting as Kinlock were rim sherds from vessels which have been defined as Cowhide Stamped. Thus, most of the dentate stamped rim sherds and fragments were placed into a new mode category, and I was forced to deal with the Cowhide Stamped type (see below under Mound Tract Incised and Brushed).

However, one sherd in the Kinlock drawer could not be removed from the type. The sherd in question appears to be a body sherd, and has multiple rows of close-spaced decoration separated by a plain band. The decoration was applied with some kind of tool which either had closely spaced prongs or possibly consisted of a cord-wrapped stick. The ware is equivalent to Mississippi Plain, *var. Morehouse*. Most likely this sherd dates to the Jordan II component. (Reference: Phillips 1970: 97)

Leland Incised, *var. Blanchard* (N= 7)

Same as noted in references. These sherds were sorted to variety based on design placement. Many sherds in the Jordan sample had an interior incision on the interior of the vessel, mostly either just below the rim, or further down where the body and neck met. However, a small minority of the sample had interior lines forming festoons a short distance below the rims of shallow bowls. The lines on the *Blanchard* in the Jordan sample are generally narrow and sharp, and do not have the "typical" trailed incisions expected for the Leland type. The paste is also different than is described in the references. In the Yazoo Basin the variety was first defined as occurring on some form of Bell Plain (Phillips 1970: 105), and later on a medium-textured, mixed shell tempered plainware (Williams and Brain 1983: 175). Still later the variety was described as being made on an Addis paste in the Natchez Bluffs region (Brain et al. n.d.). At the Haynes Bluff site (22-M-5) in Mississippi the variety was found on a relatively coarse shell tempered paste equivalent to Mississippi Plain, *var. Yazoo* (LMS collections, Peabody Museum; J.P. Brain personal commmunication 1986). At Jordan the paste is very coarse and friable, and is classified as Mississippi Plain, *var. Morehouse*. One rim in the Jordan collection is an excellent example of the "Haynes Bluff" mode, except that it is on a shell tempered paste. Another rim in the sample came from a moderately deep bowl with a flaring rim and flat lip. A third rim had a repair hole drilled roughly 2 cm below the lip. Almost all of the Blanchard came from Test Unit One which would place the variety in the Jordan II component. (References: Phillips 1970: 105; Williams and Brain 1983: 175; Brain n.d.; Brain et al. n.d.)

Leland Incised, var. Leland (N= 2)

Same as in references. The presence of these two sherds was somewhat of a surprise at Jordan. Both fit the variety description of open, curvilinear trailed incision on a medium-textured, mixed shell tempered ware. At Jordan the incisions were made on a leather hard paste, and are not smoothed over. Both sherds came from a Jordan II phase context, which is later than the conventional dating of the variety. However, the sherds could be out of context, or they could have been from curated vessels which were broken long after being made. In fact Culin illustrated a Leland Incised (probably var. Leland) jar from Morehouse Parish which I am positive came from the Jordan site (Culin 1900: plate 14). Thus, although the variety came from a Jordan II context I would be more comfortable with an earlier chronological placement. Therefore, I would suggest that the variety dates to the Jordan I component, or possibly slightly earlier. (References: Phillips 1970: 104; Williams and Brain 1983: 171-174; Brain et al. n.d.)

Leland Incised, var. Williams (N= 15)

Same as in reference. This variety recognizes a class of open curvilinear incised pottery on Mississippi Plain, var. Morehouse. Incisions are generally broad and somewhat trailed, although a narrow line treatment is also evident. Designs are very open and appear to be zoned either at the top and bottom, or perhaps both.

Williams clearly is a degraded version of the Leland Incised concept. Williams approaches Winterville Incised, var. Broutin, although the incisions and designs are slightly different. Interestingly, Williams is one of the only varieties represented in both the Jordan I and II components. Two sherds from the ash midden were sorted as Williams despite being made on an Oak Ridge paste. The bulk of the Williams at Jordan, however, was recovered from Jordan II contexts, and this is where I would generaly place the variety. (Reference: Williams and Brain 1983: 179)

Leland Incised, var. Unspecified (N= 7)

As is so often the case with the Unspecified category these are otherwise unsortable sherds which manifest relatively well made curvilinear trailed incisions. One sherd might fit the Leland variety, while one looks like a Blanchard design, but is on the exterior of a bowl. The paste on six of the sherds is Mississippi Plain, var. Morehouse, while the seventh sherd has an Oak Ridge paste, but came from a shovel test.

Maddox Engraved, var. Emerald (N= 3)

Same as in references. As I noted under the discussion of Hudson Engraved, there are sound reasons for maintaining a separation of shell tempered and mixed organic tempered crosshatched engraved ceramics. At Jordan the Emerald is on an Addis paste, although two of the sherds contain some shell. One sherd is a jar rim with a thickened lip and a broad band of crosshatching below the rim. The vessel appears to have been some form of Natchezian "pedestaled" jar. The other two sherds are too small for discussion. The rim sherd came from the midden at the base of Test Unit Seven, while the other two came from mixed contexts in Test Unit One. Both contexts suggest a Jordan II phase date. (References: Suhm and Jelks 1962: 99; Phillips 1970: 108-109; Brain et al. n.d.)

Maddox Engraved, var. Silver City (N= 2)

Same as noted in references. These two sherds manifest all of the requisite characteristics of the variety. The crosshatching is very fine and well executed, although the zoning lines are not really "trailed". The paste is equivilent to a fine Bell Plain, and one sherd has a polished surface. The largest of the two sherds appears to have been from a bottle. (References: Suhm and Jelks 1962: 99; Phillips 1970: 109; Williams and Brain 1983: 179-180; Brain et al. n.d.)

Mississippi Plain, var. Morehouse (N= 3064)

Description: New variety.

Background: In 1983 the LMS surveyed the Jordan site and recovered a large sample of Mississippi Plain ceramics. Additional survey in the central Boeuf Basin revealed that a number of sites had late components which were suggested by the presence of plain and decorated shell tempered ceramics. Because we lacked any stratigraphic data on which to base our sorting of the Mississippian ceramics, all of the plainwares were lumped together as Mississippi Plain, var. Unspecified. However, even in 1983 I realized that the Jordan ceramics were different from those found in the Tensas or lower Yazoo basins, which suggested that in time new varieties would be needed to encompass the range of variation noted in the shell tempered plainwares.

In 1985, as a result of excavations at the Jordan site, it was noted that there were two separate varieties present at the site. One variety, now known as Oak Ridge, had a hard, polished surface and a restricted spatial distribution. Another variety was noted which encompassed the majority of the Mississippian plainwares from the site. This relatively common ware was elevated to variety status and given the name Morehouse, which is the name of the parish in which Jordan, and many Mississippian sites were located.

Sorting Criteria: Moderately well made plain shell tempered pottery. Shell inclusions are usually fine and the shell is abundant within the pottery. Surfaces are never polished, and tend to have a dull matte finish which may in part be due to weathering (Plate 28). Colors range from black to light tan, but a medium brown to slightly orangish tan is most common. Fire clouding is evident on some sherds, and the interiors are occasionally lighter than the exteriors. Body sherds are moderately thick, averaging 5.40 mm (measured on 75 sherds), which is the thickest plain shell tempered pottery in the region. A number of sherds have unintentional inclusions within the paste, including hematite and chunks of clay. Variety Morehouse was presumably constructed using the coil technique; however, breaks along coil junctions are not too common. Appendages or handles are unknown for Morehouse.

Vessel shapes show a mixture of jars and bowls, with at least two bottles also falling within the variety. A hallmark of Morehouse, at least at the Jordan site, is the frequency of lip modification, in the form of notching, nicking, and punctating

(Plate 28 b-j). Furthermore, additional modification in the form of "peaks" and scalloped rims are also present (Plate 28 b). Punctation and notching are most common on undecorated bowl rims, while it is least common on undecorated jars. Lip modification is usually restricted to undecorated vessels, be they bowls or jars.

Bowls are the most common vessel form for Morehouse. Bowls vary in shape and dimension, but the most common form is a shallow, unmodified bowl, with either a round or flat lip. Simple, unmodified round rims form the largest category, followed by simple, unmodified flat rims. Modified round and flat rims are the next most common. Some bowl rims have flared rims with lips which are turned out and parallel to the vessel wall. Some bowls have short, turned out rims, while some are occasionally thickened, usually on the interior. Two rims exhibit features which suggest that they belong to plates, rather than bowls.

Jars are somewhat less common than bowls, but they are present in significant quantities. The average jar appears to be moderately large (but smaller than those noted to occur on var. Oak Ridge), with a globular body and flaring rim. Lip modification, usually in the form of punctation, is less common on jars than bowls. Only six out of forty-one jar lips were modified, compared to fifty-three modified bowl lips out of a total of one hundred and forty-three bowl rims. Most jar rims have a rounded lip, with a flaring or turned out rim (Plate 28 j-l). Some jar rims have a single line between the neck and body of the vessel. Several Mississippi Plain jars have an additional mode of circular punctations below the lip (Plate 28 j). Similar decoration elsewhere in the Lower Valley has been referred to as the "Tunica" mode, and examples on Morehouse may relate to the same phenomenon (Brain 1979: 234).

While the above description applies to the Jordan site excavated sample, similar comments would apply to Morehouse from other sites in the central Boeuf Basin. Jordan phase sites can be identified partly through rim modes, most notably that of modification of the lip. It is safe to suggest, in fact, that lip modification is a diagnostic mode for both the Jordan I and II subphases, although it is more prevalent in the Jordan II assemblage.

Distribution: Variety Morehouse is documented to have a distribution which includes all of the central Boeuf Basin, and most of the southern Boeuf Basin, at least to Columbia, Louisiana. Morehouse has been noted in collections from the Ouachita River, particularly at sites near the confluence of Bayou Bartholomew and the Ouachita. Sherds of what may be Morehouse were found in the upper levels of the Transylvania site (16EC8 [22-L-3]), but were subsumed under counts for Mississippi Plain, var. Pocahontas (Halley 1972). It is likely that Morehouse, or a close cognate, is present in southeast Arkansas and also in the Felsenthal (Rolingson and Schambach 1981: 145-176). Morehouse is certainly present at both Keno (16MO31 [22-H-5]) and Glendora (16OU18 [22-H-3]), as well as Seven Pines Landing (16MO10 [21-I-4]), Ward (16MO12 [21-I-5]), and probably Bray (16MO11 [21-I-3])(Moore 1909).

Vessels with shapes and rim modes similar to those noted for Morehouse are also known from farther afield than the Boeuf Basin. As was noted above, Morehouse appears to be present in the Felsenthal, and probably farther north in the Calion region (Weinstein and Kelley 1984). A shell tempered plainware associated with the Tillar-Hog Lake complex material from south-central Arkansas is similar to Morehouse, although few modified lips are known (Jeter et al. 1979). At the Kinkead-Mainard site (3PU2), in the Arkansas River Valley, a number of Mississippi Plain vessels exhibit lip modifications similar to those noted for var. Morehouse (Hoffman 1977: table 9). Vessel shapes and rim modes of Mississippi Plain vessels from the Menard site (17-K-1) show many similarities to Morehouse (Ford 1961: 161, fig. 5 h, figs. 11-12, plate 22 a, b, d). The above connections should not come as a surprise, as the Jordan phase is at least partly contemporaneous with the Quapaw phase. Surprisingly, to the east, Morehouse is unknown. At the Haynes Bluff site (22-M-5), plain shell tempered ceramics are subsumed under Mississippi Plain, var. Yazoo (Brain n.d.). An examination of LMS collections suggests that Mississippi Plain from east of the Mississippi River does not share in the frequency or type of lip modification which is so characteristic of Morehouse.

Chronological Position: Variety Morehouse is a diagnostic marker for the Jordan II subphase at the Jordan site. As such, it represents the late protohistoric plainware in the Boeuf Basin. Given that Morehouse is present at Keno and Glendora, it is probable that the variety extends into the early historic period as well. Morehouse, then, represents a terminal ceramic variety in the Lower Mississippi Valley and adjacent regions.

Diagnostic Modes: Medium textured shell tempered plain pottery. Surfaces are unpolished and often eroded. Rim and lip modification by the use of notching, nicking, and punctating is a characteristic of Morehouse. Bowls and globular jars are standard vessel shapes, with shallow bowls predominating.

References. None.

Mississippi Plain, var. Oak Ridge (N= 564) (Plate)

Description: New Variety.

Background: During excavations of Test Unit Two at the Jordan site it was noted that the ceramics associated with the lowest cultural level were quite distinct from the ceramics above, and from other excavated contexts. Therefore, Test Unit Two was expanded into a 2x2 m unit, with the specific goal of recovering more of the distinct shell tempered ceramics from the lowest level. Our goal was admirably accomplished (for a 2x2 m unit), and we were able to stratigraphically isolate the unique ceramics in a matrix of ash. Inspection in the lab indicated that the plainwares associated with the ash matrix in Test Unit Two were also unique, and easily sorted. Moreover, the ceramics in the ash matrix were not recovered from any other contexts, strongly suggesting that the plainwares, at least, needed a new and separate variety. The variety name is taken from the town of Oak Ridge, just south of the Jordan site.

Sorting Criteria: Variety Oak Ridge is a distinct shell tempered plainware notable for its fine finish and polished surfaces (Plate

29). The surface is often highly polished and the overall effect is remarkable for local plain shell tempered ceramics. The ware is hard, with relatively fine but abundant shell inclusions. Occasionally the temper will include chunks of hematite or other minerals, but these rarely affect the quality of the sherd. The exterior is usually polished or burnished, but the interior is rarely finished beyond smoothing. Surfaces are fine with few bumps or blemishes. Variety Oak Ridge is moderately thin, averaging 5.15 mm in thickness (measured on 75 sherds). Oak Ridge, then, falls between Mississippi Plain, vars. Bonita and Morehouse in thickness. Oak Ridge ranges in color from dark brown/black to light tan to tan orange. A light tan is most common, with fire clouding occurring on a small percentage. Vessels of Oak Ridge were constructed using a coil method, and sherds often break along coil lines (Plate 29 e-f).

Vessel shapes are divided between bowls and jars, with the former being dominant. Lip modification in the form of notching, nicking, and punctating is common on all vessel forms (Plate 29 (II) a-g)). Jars appear to be quite large, and exhibit rims which are usually flared (Plate 29 b-d). The necks of these jars tend to be rather tall, although the flare is relatively short. Five of nine jar lips have some form of notching, usually a stick or dowel impression forming a "scalloped" edge. Bowls are generally quite shallow, and often the lips will have some sort of modification, usually punctations placed on a flat lip. Flat and round rims are most common, and most are unmodified. Bowls often have one or more lines encircling the vessel interior (Plate 29 (II) b-d, g).

Several rims have thin lines just below the interior lip, while it is more common to have a wide line forming the vessel break, roughly 5-7 cm below the lip. Two flat, disc shaped bases were recovered at Jordan. These bases probably come from jars, as bowls appear to have rounded bottoms.

Distribution: Variety Oak Ridge is known only from the Jordan site, and from a limited context within the site. Some of the Mississippi Plain from the Haynes Bluff site (22-M-5) in Mississippi approached the paste and surface characteristics of Oak Ridge but cannot be sorted to the variety. As was noted above, the type was stratigraphically isolated in Test Unit Two in the lowest cultural levels. Oak Ridge was not found in any other test unit, but several sherds were noted in surface collections from outside of the mound group. It is highly likely that Oak Ridge is a specialty ceramic, possibly for elite usage. Its limited spatial distribution, combined with its stratigraphic position makes var. Oak Ridge an excellent marker for the initial protohistoric occupation in the central Boeuf Basin.

Chronological Position: Oak Ridge is a marker for the Jordan I subphase at the Jordan site. Suggested dates for Jordan I would be tentatively placed between 1550 and 1600. There is every reason to believe that Oak Ridge can serve as a horizon marker for the earliest protohistoric occupations in the Boeuf Basin.

Diagnostic Modes: Fine, well made and usually polished plain shell tempered pottery. Shell inclusions are fine, but abundant, and show on the surface. Vessel shapes include jars and bowls, although the latter are most common. Lips are often modified by the addition of punctations, notches, or nicks.

References: None.

Mississippi Plain, var. Unspecified (N= 2)

Surprisingly, only two plain sherds from Jordan could not be classified to variety. One sherd closely resembles Mississippi Plain, var. Yazoo, while the other sherd has no counterpart. Most of the pottery from Test Unit Seven was initially sorted as Unspecified because the mineral precipitate on the sherds made identification difficult. However, when I correlated the decorated sherds, and cleaned some of the plain sherds it was evident that they belonged in the Morehouse variety. Similarly, a small amount of plain pottery from the "ash" midden in Test Unit Two was eroded on one or both faces. Eventually I was able to sort these sherds to var. Oak Ridge, based on paste and context.

Mound Tract Incised and Brushed

I am not really comfortable with the establishment of this type. It has been created to subsume a class of pottery common at protohistoric sites in the Boeuf and Ouachita basins. Furthermore, I hope to use the type to bring some order to the overused and by now unusable type Cowhide Stamped. The primary definition of the type involves curvilinear incision and brushing on coarse shell tempered plain pottery. A secondary, but not always present mode is stamping around the neck. Also, to confuse the issue, incision is occasionally present without brushing.

In 1941 Webb and Dodd set forth the first description of what would be later known as Cowhide Stamped (1941: 97-98, plate 17, no. 5). In the first description the type was considered to be wholly shell tempered, and although the body designs varied, it was held together by a band of stamping or punctation just below the rim. Webb and Dodd further allowed the stamping to occur on the body as well (ibid.: 97). By the time the Belcher site report was written the type description had expanded to include a broader latitude of variation (Webb 1959: 128-131). The type was expanded to include non-shell tempered vessels, and the design variation was quite wide (ibid.: fig. 109). In all cases, however, there was a thread of continuity in the presence of neck stamping. Below the neck the type was highly varied, with curvilinear and rectilinear incision, punctation, and stamping all present. One important vessel has three joined jars, all with neck stamping. One jar has curvilinear incision, one curvilinear incision and brushing, and the third is not visible in the illustration (ibid.: fig. 109 l).

Later still, the type was expanded to include an even wider range of design and vessel variation (Suhm and Jelks 1962: 29, plate 15). At this point the temper lines were blurred, and vessel form and design also lost some cohesion. Neck stamping no longer held the type together, but now dentate stamping in any form was included (ibid.: plate 15 a, d, g, j, l). Two primary vessel shapes were noted, one being a globular jar, with a short neck and flaring rim. These vessels inevitably had a band of stamping below the neck, with some form of curvilinear incision on the body. A second vessel shape was recognized by both Webb (1959: plate 109 m, o), and Suhm and Jelks (1962: plate 15 a, d, g, j, l). These were vessels with a round body and a wide, very tall flaring neck. These latter vessels were decorated with curvilinear stamping or punctation on the neck. Thus, by the 1960s the type included vessels with different temper, different vessel shapes, and different designs and treatments. Furthermore, the type was assigned a pre-European age in the Caddo area and was estimated to last only until circa 1500 (ibid.: 29).

At the same time that the Suhm and Jelks definition was circulating the type was being recognized in potsherds from areas removed from the Caddo area proper. Ford (1961: plate 24 d-k) recognized an incised and brushed variety which he identified as Cowhide Stamped, despite the lack of neck stamping. While some of these sherds might be reclassified to Grace Brushed, some certainly had body designs reminiscent of Cowhide Stamped. Hally also identified a small sample in the Tensas Basin. Hally recognized 13 sherds from Transylvania phase contexts, and eight sherds from the Canebrake (16MA23 [24-J-9]) site which he classified as Cowhide (Hally 1972: 369-370, 499-502). Three of the sherds had zoned brushing, and ten had slashed punctations arranged in a herringbone pattern on jar necks. One of these ten had an incised pattern of thin lines in a probable guilloche below the herringbone punctations (ibid.: plate X c). Hally (1972: 499) cogently noted that "these sherds do not really qualify as Cowhide Stamped as defined by Suhm and Jelks (1962: 29-30)". Furthermore, in his discussion of Cowhide Stamped at Glendora phase sites on

Bayou Bartholomew, Hally pointed out that "Moore's vessels exhibit considerable variation in decoration but are homogenous (sic) in vessel shape and placement of decoration" (1972: 499).

An important development in the early 1980s was the development of a new sorting system for ceramics in the Ouachita Basin. First developed by Schambach (1981) for use on the Shallow Lake site pottery, this "collegiate" system has offered new perspectives into the often difficult to sort Ouachita ceramic assemblage (Brose 1985). To a large extent this system can avoid the difficulties inherent in classifying a type such as Cowhide Stamped, because it allows the rim and body to be treated as separate design fields (Schambach 1981: 106-120). Thus, rim stamping is covered as an idependant phenomenon, which may or may not be combined with different body patterns to form different varieties for each significant set of variation. Thus, Cowhide Stamped, in its original definition, consisted of a "Caldwell" rim, with any number of body design patterns ("Baker", "Drury", or "Drake"). However, a sample of whole vessels from the Hale cemetery near the Shallow Lake site yielded at least four jars classified by Schambach in the type-variety system as Cowhide Stamped (ibid. 1981: 156-157). One vessel was grog tempered, with a stamped rim and brushed body, two were similar but shell tempered (classified as Cowhide Stamped, var. Blackwell), and the fourth had no rim decoration but did have a set of concentric circles, which, according to Schambach "is a recognized Cowhide variant" (ibid.: 156). Thus, in a small sample of four vessels we have two temper types, two rim treatments, and at least two design variants. Also, although all four are jars, each has a different shape and rim.

Before I go on to make my point about Cowhide, it is perhaps best to present a brief summary of the type up to present. First, the definition now covers at least two temper types: shell and grog. A third temper type "fine clay-grit" (Suhm and Jelks 1962: 29) may also be represented. Vessel shapes come in two basic forms, globular with vertical neck and flaring rim, and round bodied with wide, tall flaring neck. Variations of the former shape include size and height of the neck, and the degree to which the lip is flared or modified. The globular jar is most commonly associated with a band of stamping below the rim and on the neck. Designs on Cowhide Stamped are allegedly held together by the presence of stamping, either on the neck, or less commonly on the body. The designs below the neck are widely dissimilar as a group, but similar treatments can be recognized. The most common seems to consist of a curvilinear zoned incision filled with light brushing (Webb 1959: fig 109 a, e-k, n; Suhm and Jelks 1962: plate 15 b, c, e, m). A variation of this pattern has the zoning lines filled with short incisions or stamps (Webb and Dodd 1941: plate 17, no. 5; Webb 1959: plate 109 b; Suhm and Jelks 1962: plate 15 f, h, i). Another common pattern is the concentric circle made of trailed incisions (Webb 1959: plate 109 c, d, l; Suhm and Jelks 1962: plate 15 h; Schambach 1981: fig. 36 a). A vessel from Keno (16MO31 [22-H-5]) has a series of concentric rectilinear patterns below the neck (Hally 1972: plate VIII n), and one vessel from Belcher (16CD13) also has a rectilinear pattern of incision (Webb 1959:

fig. 53 d). As a final note, it is also apparent that the stamping on the necks of jars is varied. Some stamping is vertical, some horizontal, some consist of small punctations, some form herringbone patterns, while others are more pinched than stamped.

The point of this lengthy discussion is that as a type Cowhide Stamped does not hold together in any form. By the criteria of temper, design, and vessel form, Cowhide really seems to be several types. More importantly, the variation recognized in Cowhide as it now stands seems to be a reflection of some cultural and historical reality. Thus, it appears to me that there are both spatial and temporal dimensions to the type which can not be explored so long as all the variation is arbitrarily lumped together. Moreover, the use of stamping as a type definition criteria removes it from the category of a rim mode, where I think it more appropriately belongs.

Therefore, it is my suggestion that the type Cowhide Stamped be revised in the following rough manner. Further research will be required before the type can be further utilized. First and foremost, the type needs to be restricted in its definition of decorative intent. I propose that only those vessels with stamped body designs be included in the type. This would remove a bulk of the type, but would leave a significant, and typologically coherent body of data. It is my belief that this group of pottery was generally earlier than the material called Cowhide Stamped which has brushing replaced by stamping (Webb 1959: 131). Since I am not really defining the type I can not address its specific characteristics, but I think that this group might also subsume the non-shell tempered Cowhide. Thus, as a type it would be temporally earlier, and I would suggest, spatially limited to the Red River Valley.

By tightening the definition of Cowhide Stamped I have achieved one factor which I feel is quite significant, and that is the elevation of rim stamping from a type criteria to a rim mode. An examination of vessel photographs and an inspection of the Keno (16MO 31 [22-H-5]) and Glendora (16OU18 [22-H-3]) site collections at Peabody Museum has convinced me that rim stamping is a mode that cuts across types and varieties. I have seen instances where neck stamping was the sole means of decoration on a Mississippi Plain jar, while in other cases I have seen brushing, stamping, punctating and incision combined with the stamped neck. Also, the neck stamping even crosscuts temper lines (Schambach 1981: fig. 36 b). Personally I can think of no better phenomenon to illustrate the concept of a mode (Rouse 1960: 313-315).

To continue, then, with my dismemberment of the type Cowhide Stamped. Having established rudimentary criteria for the establishemnet of the type Cowhide Stamped, I will proceed to order the material not included in the type. I again warn the reader that this is a tentative formulation, and further, that I am not necessarily in the best position to address the creation of individual types or varieties. I will concern myself for the present in the creation of one new type. Below I will present data on the one variety I can recognize at Jordan. Having decommissioned a large part of the Cowhide type by removing the neck stamping as defining characteristic we are left with the body designs upon which to reorder our typology. As I noted above, there are at least three body design treatments which had been recognized within the Cowhide Stamped type. One was zoned brushing, another curvilinear incision, while the last consisted of close spaced rectilinear incision. The first treatment is now recognized as Mound Tract Incised and Brushed; the second design either needs a new type, or probably can be subsumed within the Foster or Keno trailed categories (I would probably classify it as a Foster Trailed variant based on vessel shape and similarity of design (Schambach and Miller 1984: 121-122)). The last category or treatment is very rare and is only known from two vessels (Webb 1959: fig. 56 d; Hally 1972: plate VIII n). Possibly these vessels could be sorted into a new Barton Incised variety, or they could be elevated to a new type. Fortunately for me, at least for now, I do not have to classify the last two categories. My efforts will now focus on the definition of the type Mound Tract Incised and Brushed.

Due to the nature and form of the design the name of this type is rather cumbersome. As the name implies the type is noted for two decorative intents: incision and brushing. The incision is always curvilinear and is almost always filled with brushing. Lines are generally deep and bold, with round cross sections. At present I have only identified one variety at Jordan. However, I am sure that future work will allow for the definition of new varieties.

Mound Tract Incised and Brushed, <u>var. Mound Tract</u> (N= 18)

Description: New variety.

Background: This is a very tentative formulation which I fully expect to be modified before it can be used across regional boundaries. At present the variety has been established to encompass pottery from the Jordan site and from protohistoric and early historic sites on Bayou Bartholomew. When I first sorted the 1985 Jordan collection I noted that a small percentage of the brushed pottery had curvilinear zoning lines. At first I sorted these as a new variety of Grace Brushed, but upon inspection of Webb's Belcher site monograph (1959), and the Peabody Museum collections from Glendora and Keno, I changed my classification. These sherds were then thrown into Cowhide Stamped, and just as quickly removed from the type. It was apparent that these sherds could not reasonably be sorted to Cowhide and be expected to convey much cultural or chronological information. Therefore, my option was to commission a new type to subsume the curvilinear incised and brushed pottery. The type and variety have been given the old title for the Jordan site area which was once known as the "mound tract".

Sorting criteria: Variety Mound Tract is noted for having curvilinear incised lines which zone a brushed panel on a coarse shell tempered ware locally known as Mississippi Plain, var. Morehouse (Plate 30 g-i). In many instances the variety is accompanied by a band of stamping, incising, or punctation around the neck of globular jars with short necks and flaring rims (Plate 30 i). Vessel shapes are inevitably some form of the globular jar. Designs apparently consist of swirls or festoons on the vessel body, and are characteristically gracefully executed and symmetrical (usually occurring four times). Some vessels, however, were very poorly made. On rare occasions the curvilinear zoned lines are not filled with brushing, but are plain. In the future this may warrant variety status but is so rare as to be insignificant. Likewise, it is probable that there are patterns of brushing without accompanying zoning lines. By default, of course, these should be sorted to Grace Brushed, but in a number of cases have been sorted to Cowhide Stamped (what I would now call Mound Tract Incised and Brushed) (Ford 1961: plate 24; Schambach 1981: fig. 36; Weinstein and Kelley 1984: fig. 7.33). Primarily, though, Mound Tract should be recognized on the basis of curvilinear zoned incision.

Distribution: Mound Tract is only known from areas west of the Mississippi River. The primary center of the ditribution is the lower and middle Ouachita River Basin, but it is also found in large numbers on Bayou Bartholomew, and further east at the Jordan site. To the east the variety is noted at the Transylvania site (16EC8 [22-L-3])(Hally 1972), and to the north it was found at Menard (17-K-1)(Ford 1961: plate 24), and northwest of Menard at Old River Landing (16-K-1)(Moore 1908: fig. 37). The southern limit of its distribution appears to be south of Monroe, Louisiana, although a single vessel of the type was recovered at the Rymes site (16RI185 [23-I-5]) in Richland Parish (Jones 1985: figure 9, no. 12). It is common on the Ouachita up to at least Calion, if not considerably further (Weinstein and Kelley 1984). How far west the variety extends is unknown. Visually similar examples were common at Belcher (16CD13), but I am not sure that a local regional variety would not be called for here. For now the western boundary will be established at the Ouachita River.

Chronological position: At the Jordan site the variety is clearly associated with the Jordan II phase. On Bayou Bartholomew examples were found at both the Keno (16MO31 [22-H-5]) and Glendora (16OU18 [22-H-3]) sites, the latter of which has an early historic component. At both Menard and Old River Landing *Mound Tract* vessels were found in protohistoric or early historic contexts (Moore 1908; Ford 1961: fig. 12 c). At the Shallow Lake (3UN9/52) site to the north and west similar ceramics were placed in the protohistoric Caney Bayou phase (Rolingson and Schambach 1981: 193-198). At Belcher the type (but not necessarily the variety) seems to date from the Belcher III and IV periods (Webb 1959: fig. 124). However, a recent appraisal of the Belcher stratigraphy identifies the bulk of the "Cowhide Stamped" from Belcher with the Belcher III period (Schambach and Miller 1984: 164, 166). At Cedar Grove (3LA97) the type is virtually unknown, which to Schambach and Miller suggested that the type predated the early historic Chakanina phase (ibid.: 164). Overall, then, it is suggested that *variety Mound Tract* dates to the protohistoric and early historic periods in the Lower Mississippi Valley. To the west the type may be slightly earlier, but apparently not significantly so.

Diagnostic modes: Curvilinear zoned incision on coarse shell tempered paste locally equivalent to Mississippi Plain, *var. Morehouse*. Most of the *Mound Tract* has brushing within the zoned incision. A common mode is the addition of a band of stamping, incising, or punctation around the vessel neck. Vessel shapes are usually globular jars with short, vertical necks, and flaring, unmodified rims.

References: None.

Nodena Red and White, var. Unspecified (N= 1)

Same as in reference. This is a fragment from a bowl with both interior and exterior painting. The exterior has both red and white paint (Plate 30 a), while the inside has red paint with a dark unpainted band beneath. The paste is probably not local and appears to be similar to Mississippi Plain, var. Yazoo. The sherd is too small to accurately type, but it may be possible, based on vessel shape and both interior and exterior painting, to place it in the Ellison variety. Chronologically the use of Ellison would fit, and culturally it would be no surprise to find material imported from the Yazoo Basin region. Interestingly, this sherd represents the only painted or slipped sherd in the entire Jordan site collection which provides a contrast to Quapaw phase sites near the Arkansas River (Ford 1961; Hoffman 1983). (Reference: Phillips 1970: 143-144)

Owens Punctated, var. Menard (N= 1)

Same as noted in references. The very weak showing of Owens Punctated at Jordan was not expected. The type was common in protohistoric contexts to the east and north, but not apparently at Jordan. Furthermore the type is almost not represented on any sites on Bayou Bartholomew. The single sherd at Jordan conforms well to the variety description. The sherd was from a bowl with at least two lines below the rim. The lines are broad and shallow, and were executed with a flat stylus. A curvilinear zone of punctations pends from the bottom line beneath the rim. The punctations are well made and the design is generally neat. The sherd came from what I interpret as the submound midden in Test Unit Seven. The paste is coarse and stained with a mineral precipitate; nonetheless it is still possible to identify the ware as Mississippi Plain, var. Morehouse. Although we have classified this sherd as Manly, it closely resembles Owens Punctated, var. McIlhenny defined by Ian Brown on the Louisiana coast (Brown and Lambert-Brown 1978: 23-28). (References: Phillips 1970: 149-150; Williams and Brain 1983: 193-194)

Owens Punctated, var. Unspecified (N= 20)

These sherds consist of two groups, one group is made up of nine sherd fragments from a single vessel, while the other 11 sherds are all dissimilar. The nine sherds from the same vessel came from a bowl with a broad, u-shaped, curvilinear incision below the lip. Beneath the incision is a border of small, square punctations. The paste is Mississippi Plain, var. Morehouse, and the context was a shovel test near Test Unit Two. In design these sherds closely resemble Owens Punctated, var. Manly. Another Manly-like sherd was recovered from Test Unit Six. This too is a bowl with a broad curvilinear line below the lip. A second curvilinear line may be located beneath the first. Below the first line, and possibly zoned by the second line, is a curvilinear row of square punctations. This sherd was also found on a Morehouse paste. The other sherds are generally too small for discussion. One sherd, however, was on an Oak Ridge paste, and had a design of faint, scratchy rectilinear lines bordered on the inside by equally faint and scratchy punctations. Another sherd was from the body of a jar and had a zoned panel of punctations placed at an oblique angle to the rim. Two sherds were on an Addis paste, possibly _var. Ratcliffe_

Parkin Punctated, _var. Unspecified_ (N= 2)

The lack of Parkin Punctated sherds was not really a surprise at Jordan. The two sherds here are classified to the type because they lack zoning lines. One sherd is fairly small and may have had zoning lines. This sherd also has a unique design consisting of at least four rows of tiny punctations arranged in a vertical pattern on the body of a jar. The punctations may even have been applied with a dentate stamp, although they are not uniformly spaced. The second sherd has rows of prominent punctations executed with a hollow reed or bird bone. The paste of this sherd is more like _var. Yazoo_ than anything else.

Walls Engraved, _var. Unspecified_ (N= 1)

This sherd had a very faint and poorly executed design at the interior base of a shalow bowl. The design consists of a very irregular and misshapen pentagon surrounded by a rude circle. Jeffrey Brain feels that the inner design may be a scalp representation (personal communication 1986). The sherd was sorted to this type based on the interior engraved design. In this manner it is possible to see ties to Walls Engraved, _var. Hull_. The sherd is on a _Morehouse_ paste, and was found in a Jordan II phase context in Test Unit Two.

Winterville Incised, _var. Belzoni_ (N= 1)

Same as in references. At first I was reluctant to assign this sherd to var. Belzoni because I did not want to complicate my chronology. The variety is not generally a protohistoric marker, although it does extend through the Lake George II phase and into the Wasp Lake I phase in the Yazoo Basin (Williams and Brain 1983: fig. 9.4). The sherd in question, however, was a perfectly good example of the variety. It is on a Morehouse paste, and was recovered at the top of the levee in Test Unit Seven. The context argues that the sherds from this unit represent the earliest occupation of that portion of the site area. It is not inconcevable that this sherd represents the last vestiges of the Belzoni tradition. By context and paste we should date the variety to the Jordan II phase, but it is more likely a Jordan I marker. (References: Phillips 1970: 173-174; Hally 1972: 402-415; Williams and Brain 1983: 208; Brain n.d.)

Winterville Incised, var. Broutin (N= 17)

Same as in reference. This is a variety established by Jeffrey Brain based on his work on Tunica and Tunican-related sites on the east bank of the Mississippi River. The variety is intermediate between Winterville Incised, var. Belzoni, and Leland Incised, var. Williams in terms of design. The lines are all close-spaced and curvilinear, and incised with a moderately broad, flat stylus (Plate 30 b-c). As a result the incisions are generally shallow, but tend to impinge upon one another. Incision was usually made on a moderately leather hard paste. Interestingly at Jordan it is one of the few varieties to straddle both the Jordan I and II phases. Five of the sherds were recovered in the "ash" midden in Test Unit

Two and are on a Mississippi Plain, Oak Ridge paste. Because the paste was so much better these earlier variants have better defined incisions, and they are slightly deeper. In the Jordan II context the lines are shallower and sloppier. Designs appear to be placed on the bodies of vessels well below the rim. (Reference: Brain n.d.)

Winterville Incised, var. Forshey (N= 12)

Description: New variety.

Background: When we were sorting the Jordan collection in the field we found that a small but consistent minority of the ceramics from the "ash" midden in Test Unit Two were being classified as Winterville Incised, var. Unspecified ("two line combed treatment"). Similar ceramics were not recovered from any other context at the site. When it came time to finalize the typology these sherds were resorted several times but still ended up in their same box. By now I had increased the sample slightly, and could recognize at least four different vessels. Finally I gained the confidence to acknowledge that despite our small sample here was a group of pottery which needed its own variety designation. The variety is named for Caleb G. Forshey who was the first to map the site.

Sorting criteria: Variety Forshey consists of thin, shallow curvilinear incisions occurring as close spaced pairs separated by plain bands (Plate 30 j-l). Importantly, the variety is only known to occur on an Oak Ridge paste. The designs are consistently paired such that they give the appearance that they were made with a two prong comb. Lines are neatly executed and never impinge on any other incision. Incisions begin and end with an emphasis resulting in a deep impression where the lines were begun and finished. The variety appears to be found on large jars with a broad, deep line separating the neck from the body (Plate 30 k-l). The designs consist of interlocking swirls and possibly festoons. The design begins just below the line marking the neck/body junction, and in several instances there is an additional mode of a single row of punctations bordering the top combed line (Plate 30 k-l). In this manner the variety demonstrates a close modal tie to Belzoni, Winterville and Barton Incised, var. Arcola (Williams and Brain 1983: 208).

Distribution: Presently Forshey is known only at the Jordan site and is in an exclusive Jordan I context there. A closely related, but probably earlier variety is named Winterville Incised, var. Irwin at the Transylvania site (16EC8 [22-L-3]) in the Tensas Basin (Hally 1972: 525-528). Both Irwin and Forshey are notable for having a neatly executed "combed" designs. Both varieties occur on jars and both have incisions that begin or end with a depression. In both varieties the lines never impinge upon each other. Designs are also basically similar (ibid.: 527). However, there are some significant differences. In Forshey the incisions are always close-spaced and are never more than one or two mm apart. In Irwin the incisions are more variably spaced. Also, Irwin designs are occasionally made with three or four close-spaced lines, whereas Forshey is only known to have two line designs. Forshey, of course, is found on Mississippi Plain, var. Oak Ridge, while Irwin was found on Pocahontas. Finally, Irwin does not have an occasional mode of punctation above the design field. It is quite likely that _Forshey_ developed out of _Irwin_ or some closely related variety.

Chronological position: At Jordan _var. Forshey_ was found exclusively in the "ash" midden in Test Unit Two. The "ash" midden is the only context for the Jordan I phase occupation of the site. At present I would suggest that Jordan I dates to the early protohistoric period, ca. 1550-1650.

Diagnostic modes: Narrow, close-spaced curvilinear incision in pairs on the body of jars on Mississippi Plain, _var. Oak Ridge_. Incisions were executed by combing the vessel with a two prong stylus forming swirls and festoons. An additional mode is the presence of small punctations bordering the upper line of incision.

References: None.

Winterville Incised, _var. Tunica_ (N= 30)

Same as noted in references. From the 1983 surface collections we knew that _Tunica_ was an expected part of the Jordan phase ceramic assemblage. Following Brain we recorded two separate treatments (1979: 234), but in the end the sample had to be combined because there was no stratigraphic basis for keeping them separate. The two treatments noted included close-spaced incision and wide-spaced incision. At Jordan the wide spaced treatment was more common. Both treatments are held together by the type of incision, and the limited decorative intent. The variety is noted for having narrow, generally sloppy curvilinear incisions on a coarse shell tempered plainware locally known as Mississippi Plain, _var._

Morehouse. Designs seem to consist solely of whorls. Decoration was placed on the body of globular jars. No examples of the "Tunica" mode are known in the sample of var. Tunica from Jordan. At Jordan the variety was only found in Jordan II phase contexts. (References: Brain 1979: 234-237, n.d.)

Winterville Incised, var. Wailes (N= 20)

Same as in reference. This variety encompasses broad, very shallow curvilinear incised pottery on Mississippi Plain. The variety was first recognized by Brain at the Haynes Bluff site, where it was found in protohistoric contexts (Brain n.d.). The incisions on Wailes are very shallow and were cut with a flat stylus. Lines were generally sloppily executed, and are usually as far apart as they are wide (Plate 30 d-f). At Jordan the type occurs on both Mississippi Plain, vars. Morehouse and Oak Ridge. The few sherds made on Oak Ridge have shallower, flatter, and sloppier lines than those on Morehouse. Vessel shapes include both jars and bowls, although the former are more common. Jar rims tend to have short necks with both short and sharply flared rims (Plate 30 e-f). The fact that Wailes is found in both Jordan I and II contexts is actually not surprising. The Jordan I assemblage suggests a very short-lived occupation, so it should be no surprise that some varieties carry through both phases. (Reference: Brain n.d.)

Winterville Incised, var. Winterville (N= 11)

Same as in references. Winterville is noted for having close spaced curvilinear incision on a wet shell tempered paste. At Jordan the variety is only found on Mississippi Plain, var. Oak Ridge. The lines are generally sloppy but deeply incised. In the

Jordan sample the lines are more closely spaced than in other comparative site collections. Concentric circles and meandering swirls are the only designs noted. Also, the designs are found below, rather than on the neck of jars. One sherd has an added mode of a row of punctations at the top of the incised design. This mode points out the close association of Winterville with Belzoni and Forshey, as well as Barton Incised, var. Arcola. (References: Phillips 1970: 173; Hally 1972: 517-525; Williams and Brain 1983: 205-206)

Winterville Incised, var. Unspecified (N= 37)

This group includes all those sherds which could not be sorted to variety. Most were too small or eroded to sort. Some, however, were untypable in any present system. These sherds appear to fall somewhere between Broutin and Tunica in line width and execution. Several bowl rims exist in the Unspecified category.

Unclassified Decorated on Addis Plain (N= 19)

A small number of Addis Plain sherds were unclassified to any type. The most common unclassified group consists of unclassified incised on Addis Plain, var. Unspecified. Three incised sherds, one punctated sherd, and one brushed or incised sherd were sorted into Addis Plain, var. Feliciana. The punctated sherd on Feliciana has two rows of punctations on the neck and rim of a deep bowl with a flat lip.

Unclassified Decorated on Mississippi Plain, var. Morehouse (N= 406)

The majority of this group (N= 364) consists of unclassified incised sherds which cannot be sorted to any type. One engraved sherd fragment, several interior/exterior incised sherds, and an unclassified brushed and punctated sherd were also recovered. A small group of unclassified punctated sherds was also recovered. These were too small to tell if they would belong in an Owens, or Parkin class. Furthermore, they could have been from a punctated mode and therefore would not be classifiable in the type-variety system. Based on paste and context all of these sherds date to the Jordan II component. There are also two unclassified groups which need to be discussed even though they cannot be classified.

One group consists of several rim sherds which have a rectilinear design pending from a line just below the lip (Plate 31 k-l). These are significant because they hint at a class of protohistoric pottery common at both Keno and Glendora, and also in the Yazoo Bluffs. The ceramics encompass what would surely be its own type; however, our sample is too small to use for such a purpose. The design has been informally called the "step" motif, because the rectilinear lines form panels that "step" downward on the vessel body. At Keno and Glendora it is common for this type of vessel to have a crosshatched filler within the "stepped" panel (Hally 1972). Hally defined these vessels as L'eau Noir Incised, var. Paine (1972: 377-382), but added that their relationship to L'eau Noir was tentative (ibid.: 381-382). At O'Quinn the crosshatched pattern has not been noted (Brown 1985: 70-71, fig. 37 h, i, k). Until more research is conducted it is best to consider these sherds in the unclassified category.

The other group of unclassified sherds subsume an unusual assemblage of stamped pottery (Plate 31 g, i-j). These sherds have not been classified under Kinlock Simple Stamped because they form a modal group related to neck stamping in the "Cowhide" and Mound Tract Incised and Brushed classes. This mode of stamping is very important in understanding the culture dynamics of the protohistoric period. The mode ties together the western fringes of the Mississippi Valley with the Ouachita and Red River drainages. Furthermore, as a mode it is indicative of what types of body designs are contemporary. At Jordan the mode is not really that common. A "Rosetta" sherd found in a shovel test has a Mound Tract body with a stamped neck band just below the rim (Plate 30 i). Other than this example the other stamped sherds at Jordan were found on rim or neck fragments and we are thus without a clue to the body designs. Stamping was most frequently applied with a short, thin instrument which may have been the end of a cane. The means of stamping is highly varied and cannot be assumed to be uniform. Stamping was applied between one and three cm below the lip of the vessel. Most commonly it was placed on the neck of a jar (Plate 31 i-j). Stamping ranged from deep and bold to faint and very sloppy. In one instance the stamping was placed at an oblique angle to the rim and was zoned by narrow lines (Plate 31 g). This perhaps should have been classified into the Kinlock type. Two examples from the Jordan collection mimic the stamped mode with a different form of modification. In one instance the effect of stamping was accomplished by using short, slightly curvilinear incisions placed between two lines (Plate 31 h). The other sherd achieved the same pattern by the use of short incisions forming a herringbone design on the neck (Plate 31 f).

Elsewhere in northeast Louisiana a similar pattern was achieved using punctations arranged in a herringbone fashion (Hally 1972: 499-502).

Unclassified Decorated on Mississippi Plain, var. Oak Ridge (N= 19)

This group is much smaller than the unclassified decorated on Morehouse in part because of the differences in sample size. Also, Oak Ridge is a harder, finer pottery and would be less likely to erode or break down. The unclassified incised category is the largest (N= 11), and least diagnostic. Three groups of unclassified engraved, however, are of interest. The first engraved category consists of two sherds with fine rectilinear patterns on the exterior of large jars. In execution these are reminiscent of Walls Engraved, var. Hull, except Hull is only found on vessel interiors. One sherd has a Barton Incised design of opposed hatching on the upper body of a jar (Plate 31 e). Three sherds of interior engraved pottery make up the second group. Designs are on the interior of shallow bowls, and in two of the three cases consist of two parallel lines with rectilinear lines forming hatching between the lines (Plate 31 d). Nothing similar is noted in the literature, although these sherds resemble Anna Incised in design and design placement. The third sherd simply has a pattern of rectilinear engraving on the vessel interior. The last group consists of three sherds from the same vessel. Two of the three sherds are rims from an open, shallow bowl. The rims are unmodified and had been flattened. The lip was then modified by the addition of a mode of cane or hollow bone impressions forming a punctated lip. On the inside were a series of engraved lines parallel with the rim (Plate 31 m-n)). One of the sherds has an engraved line forming an elongated oval. Nothing at all like this has been reported in the Lower Mississippi Valley. It has no parallels in any other interior incised/engraved types or varieties, nor is anything similar known from the Caddoan region. The lip modification is typical of the Jordan phase assemblage as a whole, which suggests that this vessel may have been locally manufactured.

Unclassified Caddo Engraved (N= 16) (Plate)

As the name suggests this is a group of engraved pottery which I believe came to Jordan from the Caddoan archaeological region. The sherds are a mixed lot, consisting of shell and fine grit tempered wares, and with a number of different designs. Many of the sherds are too small to adequately identify, but were sorted to this class based on easily recognized traits such a lines with "ticks" (Plate 31 c), or fine crosshatching on non-Addis, non-shell tempered pottery (Plate 31 b). Three design clases can be identified. One is fine crosshatching in bands or as larger fields, often on vessel interiors. Several cases exhibit both interior and exterior crosshatching. Another class consists of fine, incised or engraved lines filled with crude hatching. Designs are poorly executed and the hatching often extends beyond the zoning lines. The last class includes those with incised "ticking" pending from engraved lines. The latter class is common in the Caddo area and could belong to any number of types.

Ceramic artifacts

Two clay artifacts were found at the Jordan site. One is a what I believe to be a pipe-stem fragment, while the other is an earplug. The pipe-stem fragment is tempered with fine grit which has white inclusions (not bone). The remaining exterior surface is convex and well polished and smooth. As best as I can tell the interior tube would have had a diameter of approximately five mm. The closest connection that this fragment recalls is to the Red River pipe (Hoffman 1967). However, as Hoffman points out, the Red River pipe was no longer in use during the late prehistoric and early historic periods in Louisiana and Arkansas (ibid.: 10-12). The fragment is not from an elbow pipe, so the function and identity of this object is still unknown. It was recovered from the midden in Test Unit Three.

A shell tempered ear plug was found in the "brown" midden in Test Unit Two (Plate 31 a). The earplug was found in a number of pieces and is not complete. In form it closely resembles the Expanded Earplug discussed by Williams and Brain (1983: 218-219). The Jordan example has a slightly larger face than the average reported at Lake George (ibid.: 218). Based on the presence and context at Jordan I am certain that this form is a good protohistoric marker.

<u>Daub</u>

Daub formed a large part of the ceramic artifact inventory at Jordan. Most daub was small and fragmented, but in test units One, Two, and Seven larger fragments were found. In both test units One and Two a small amount of the daub had been burned to the point where it vitrified. No construction detail could be gleaned from the daub, except that it was obviously a complement to cane-thatch construction.

Lithics

The lithics from the Jordan site can be characterized as belonging to a local flake tool tradition. Raw material was dominated by locally available stream gravels. Gravel size was probably small, and bipolar flaking is common. Finished tools were rare in the 1985 excavations at Jordan. Seven projectile points, three biface tools or fragments, and several point fragments were all that was recovered. Unutilized flakes and shatter formed the largest lithic category. There is no question that the excavated lithic sample from Jordan is highly biased. Excavations were exclusively conducted inside of the mound group, and usually near a mound. It is unlikely that these areas would have been the locus of intensive lithic reduction. Outside of the mound group the 1983 survey recovered a large quantity of finished and unfinished tools, and lots of debitage. From these data we can generalize that reduction occurred at the site, and that the most common means of tool production was the production of tools directly from a core (C. Q. Stubbs n.d.). Flake production for tool use was almost unknown. Free-hand and bipolar flaking were both common, although the latter was harder to detect. No evidence of spatially discrete lithic activity areas was noted in 1983. It was apparent that lithic reduction was a household task not an economic specialty.

Lithics from Jordan will be discussed in descending order of diagnostic utility. Points, bifaces, and finished tools will be classified first. Cores and utilized or retouched flakes are considered next, followed by unutilized flakes, shatter, and non-tool lithics. Chipped stone is overwhelmingly the most common lithic class. Ground stone artifacts were rare and unimportant. Metric measurements for all chipped stone tools are provided in Table 41.

Alba Stemmed, <u>var. Jordan</u> (N= 3)

Description: New variety.

<u>Background</u>: For an introduction to the use of the type-variety system in lithics see Williams and Brain (1983: 221-222). West of the Mississippi River many of the arrow point styles fall within what I loosely call the Alba Stemmed Tradition. This is a broad classification based on the general similarity among types (actually varieties in this scheme) which share like patterns of blade shape, corner-notching, moderate to prominent barbs, and straight to expanding stems with flat or convex bases. "Types" which fall into the Alba Stemmed Tradition include Alba, Ashley, Bonham, Catahoula, Colbert, Hayes, Homan, Scallorn, and possibly Perdiz. Chronologically this "tradition" spans the virtual length of the known time during which the bow and arrow have been utilized. The Catahoula and Ashley "types" seem to be among the latest forms in the Alba Tradition, but neither is thought to last into the late prehistoric or protohistoric periods (Lynott 1977; Rolingson 1971b; Baker and Webb 1976: 248-249).

Traditionally it has been thought that by the latest prehistoric and protohistoric periods in the Lower Mississippi Valley all of the chipped stone arrow points came in some variation of two basic forms: Mississippian Triangular, or Nodena Lanceolate (Williams and Brain 1983: 234). Stemmed arrow points had rarely been reported for these periods in a firm context. When the LMS first surveyed the Jordan site collections in the Oak Ridge area it was noted that stemmed and barbed arrow points were very common. Based on common knowledge in the Lower Mississippi Valley these points were assumed to pre-date the Mississippian occupation and were considered to be a marker of a Coles Creek period component on the site (Belmont 1985: 280). When Jordan was surveyed in 1983 we recovered a number of stemmed and barbed arrow points. Ceramics collected that year were thought to date exclusively to the late prehistoric or protohistoric periods. No Coles Creek or other Neo-Indian occupation could be documented for the site area. The points were so common in collections from the site, and they were so generally similar in form that we dubbed them the "Jordan" point. I was virtually convinced by the 1983 survey that the stemmed point was a Jordan phase marker; however, I lacked critical stratigraphic proof. I was additionally suspicious because we had not found any triangular or lanceolate forms. In 1985 we recovered several Jordan points from excavations at the site. The context were secure enough to allow me to set up the stemmed point as a Jordan phase marker. An unclassified (but similar to the Jordan variety) stemmed point was found in feature 6 in Test Unit Three (Plate 32 b), which positively confirmed the association of stemmed points with the Jordan phase. The variety has been named after the Jordan family.

Sorting criteria: *Jordan* points are moderately large arrow points (ca. 3-5 cm long) with triangular blades and recurved edges (Plate 32 e-g). Prominent barbs were formed by deep corner-notching. Stems are straight to slightly contracting and bases flat or convex. *Jordan* points at the Jordan site are almost all made of locally available cherts, but one example was thermally altered (heat-treated) (Plate 32 g).

Distribution: *Jordan* points are only known from two sites, Jordan, and Gee's Landing (3DR17) in the Saline River drainage in south-central Arkansas (White 1970: fig. 16). A similar, and certainly related type was labeled the Burthe point and has been found in the Tensas Basin and Yazoo Bluffs regions in protohistoric and early historic contexts (Hally 1972: 542-547). Moore (1909: 112, 125, 152) reported "barbed" arrow points at Keno (16MO31 [22-H-5]), Sycamore Landing (16MO30 [22-H-4]), and Ward (16MO12 [21-I-5]) on Bayou Bartholomew. To the south a *Jordan* point was found at the McPhail site (16RI91 [23-I-11]) with protohistoric ceramics (Fuller 1985). I would venture that the variety will be more common in the future as it becomes a recognized protohistoric lithic marker.

Chronological position: The known context for the *Jordan* point is the protohistoric and early historic periods. At Jordan it is positively associated with the Jordan II component, although it easily could extend earlier. At Gee's Landing the variety was found in a cemetery with protohistoric or early historic ceramics. The related Burthe point is known to have been associated with historic artifacts at the Burthe site in Mississippi (Hally 1972).

Therefore, it is certain that the variety dates to the protohistoric and probably early historic periods. When the variety first came into use is still unknown. I would guess that it had a greater time depth the further one moved west of the Mississippi.

Diagnostic modes: The *Jordan* point is a medium sized arrow, with recurved edges, prominent barbs, a straight stem, and a flat to convex base. At the Jordan site they were made of locally available stream gravels.

References: None.

Unclassified arrow points (N= 4)

These four specimens are closely related to the *Jordan* variety but are too damaged for certain identification. All four are broken, and one is only a large fragment. However, all four manifest enough diagnostic features to keep them out of the unclassified fragment category. One point was recovered from feature 6 in Test Unit Three (Plate 32 b). This point is made on a coarse white chert (which may have been subjected to heating or fire--it was found in a hearth) which is certainly non-local. The point has a small, slightly asymmetrical triangular blade with a mildly convex edge. The stem was formed by shallow corner-notching, and the stem is crude but generally straight. The base is rounded and poorly chipped. Another point from Test Unit Three was recovered in the midden. It too is closely related to the *Jordan* point. The blade is triangular with recurved edges and prominent barbs (Plate 32 c). The barbs, however, flare out laterally, and were not formed by corner-notching. The stem is broken but would have been either tapered or possibly straight. Workmanship is relatively fine, and when whole the point would have fit in the Jordan size range. Although related to the Jordan point, it also shares close morphological connections to the Perdiz point (cf. Suhm and Jelks 1962: plate 142 d, g). Contextually and culturally either type would fit, and in fact there may be a close relationship between Perdize and Jordan.

The other two points are slightly more damaged than the others. One was found in the top 10 cm of Test Unit One and is badly burned (Plate 32 d). In general shape it resembles the Jordan point, but it is missing one barb, and the distal end exhibits a hinge fracture. The remaining barb was made by moderately shallow corner-notching. The stem is straight and the base probably flat or slightly convex. Although unclassified this point might be considered tentatively to be within the Jordan variety. The last specimen is missing both distal end and the stem. However, it has a triangular blade with recurved edges, and moderate barbs made by shallow corner-notching. The workmanship is very fine, and it was made on a thermaly altered chert. The context was disturbed plow zone in Test Unit Four. If complete I am reasonably certain that this would have been a Jordan point.

Unclassified arrow point fragments (N= 2)

One distal point fragment was found in a shovel test, while a medial body fragment came from slope wash in Test Unit Two. The distal end could have come from a dart point or biface, but more likely it was a large arrow tip. The medial fragment was from a medium sized arrow with a slightly recurved blade. The barbs must have been prominent and were probably made by corner-notching. In sum, this is probably a Jordan point fragment.

Triangular bifaces (N= 3)

This group consists of two intact pieces and one fragment. One large triangular biface was found in a shovel test just east of Test Unit One (Plate 32 i), while another was found in Test Unit Six (Plate 32 h). The fragment came from Test Unit Seven in mound fill (Plate 32 a). The general shape of these specimens is triangular with a straight to slightly concave blade. The tip is generally rounded, and the base always convex. The two intact pieces are made of local stream gravel cherts, while the fragment was thermally altered. The intact specimen from Test Unit Six was unfinished, and may have been a blank for another tool form. A flaw in the median ridge may have caused the termination of its manufacture. Elsewhere in the Lower Mississippi Valley similar tools are known from protohistoric contexts. In the Yazoo Bluffs region they are known as triangular knives (Brain n.d.), while at Lake George similar looking items were called either scraper-knives (Williams and Brain 1983: fig. 7.23), or knife blades (ibid.: fig. 7.25). Numerous examples of triangular bifaces were recorded in the LMS surface collections in 1983 (Kidder 1985, n.d. a).

Cores (N= 16)

Cores recovered in 1985 fall into three categories; bipolar, free-hand, and fragments. Fragments were most common, but bipolar cores comprised six out of the nine intact specimens (66%). Eighty-one percent of the cores were made of locally available stream chert, while 13% were thermally altered. One flake core fragment was made of a non-local chert (6%). Bipolar cores were recognized by flaking from both ends, or the battering of one end with flakes removed from another. Either attribute is indicative of blows struck at two opposed ends of a core (Shafer 1973: 110-114). Bipolar core reduction is not surprising given the source material available to the Jordan occupants. Flake cores were made through hard-hammer free-hand flake removal. Prepared platforms were not given special attention and the flaking seemed random. Free-hand flake cores make up only 19% of the core sample. Flake core fragments have been classified because they appear to have reached their useful limit for flake production. It is possible that these exhausted cores were put to other uses as documented elsewhere (ibid.: 113-114), but no evidence for secondary utilization has been recognized at Jordan.

Blades (N= 4)

Three unutilized and one utilized blade were recovered at Jordan. All four specimens fit the definition of a blade, but only one appears to have been struck from a prepared blade core. All four pieces were made on local stream gravel. The utilized blade has one edge with tiny flake removal. Apparently this was a expedient tool which was discarded after use.

Retouched Flakes (N= 3)

Three flakes at Jordan had been additionally modified by unifacial retouch on one margin. Retouch flaking was at a steep angle but was not carefully executed. Although these pieces were modified beyond simple utilization they do not appear to have suffered any great deal of wear and thus may also have been expediant tools. Two of the retouched flakes were on local chert and one had been thermally altered.

Flakes (N= 298)

The flakes at Jordan have been divided into utilized and unutilized categories. The utilized category, however, only comprises 4% of the total flake sample. Utilized flakes usually only exhibited modification to one face, and apparently were quickly discarded. In the unutilized category I have identified an entire range of reduction residue. Primary, secondary, interior and biface retouch flakes were all represented in the sample. Lithic reduction inside of the mound group seems to have focused on production of tools after primary core reduction had occurred. Secondary and interior flakes account for thirty-two and thirty-three percent of the flake total, respectively. Primary flakes account for 18% of the total. However, biface retouch flakes only make up 13% of the flakes recovered.

Within the Jordan flake sample local cherts were the most common lithic source representing 71% of the total. Thermally altered cherts comprised 20% of the sample, while non-local cherts comprised only 9%. Within the mound group the largest amount of lithic material was recovered from Test Unit One (46%). Test Unit Two had the second largest number. However, both test units One and Two were 2x2 m units. Test Unit Six contained 17% of the lithic sample, but was only a 1x2 m trench. The lithic assemblage excavated at Jordan is suggests that lithic reduction was an activity carried out partly within the mound group. Admittedly the finished tool category was poorly represented, but in the flake category all forms of reduction have been documented. The quantity of flakes in test units One, Two, and Six, all located near mounds, further might be taken as an indication that lithic processing occurred on or around the mounds.

Shatter (N= 62)

Despite the presence of numerous chert flakes within the mound group there was not a corresponding amount of debitage. At Jordan, as elsewhere, shatter was defined as chipped stone that lacked either a prepared striking platform, or bulb of percussion. Not surprisingly, the bulk of the shatter (67%) was on locally available cherts. Thermally altered chert (some essentially fire-cracked) comprised 28% of the sample, while non-local cherts only contributed .05% of the total. The lack of shatter may be related to the fact that primary lithic reduction was not done within the mound group in any quantity. However, the presence of cores within the mounds argues that at least some primary chipping was being carried out.

Irregular palette fragment (N= 2)

This is the only modified groundstone artifact category recovered at Jordan in 1985. These artifacts are, as the name suggests, morphologically variable, but still a viable class. One is made of fine grained sandstone and the other a fine basalt, and both have one face modified by grinding or rubbing. The two fragments from Jordan have their edges modified by grinding. No residue remains on the modified face. One came from the plow zone in Test Unit

One, while the other was found in the west wall mound fill in Test Unit Seven at 110 cm below datum.

Ochre and Limonite (N= 2)

One piece each of ochre and limonite were recovered. Both were tiny fragments and neither had any visible sign of modification. Probably they represented raw material for pigments.

Unmodified sandstone fragments (N= 29)

Small, broken bits of either brown or white sandstone were common at Jordan. The material is relatively coarse, but not so coarse as to be friable or crumbly. No sign of modification can be seen on these specimens.

Unmodified chert pebbles (N= 72)

Small to tiny chert pebbles were often found in the excavations at Jordan. Most likely they were introduced with loads of pebbles, but they could, in some cases, be natural. None are modified.

Organics

Flora

The organic material at Jordan is largely unanalyzed. Very small floral samples were recovered but they too are unanalyzed. Despite the lack of analysis, several preliminary statements are possible. First, although the LMS recovered no evidence for it, corn was apparently cultivated at Jordan. Several ears of corn were recovered from trash pits outside of the mound group, and at least one sample was analyzed and found to consist of both eight and ten-row varieties (Neuman 1984: 11). Other floral remains which were noted included a small number of burned nut shell fragments. Pecan and Hickory are the only two species identified to date. A small amount of carbonized seed fragments were recovered during water screening, but none have been identified at the present.

Fauna

The faunal sample is largely poorly preserved. An exception to this statement is found in the remains from the "ash midden," and the "brown midden" in Test Unit Two. The sample from the "ash midden" was burned, which is probably why it was preserved. Why the "brown midden" sample was preserved is unknown. The "ash midden" fauna is very unusual. A sample of the avifauna was analyzed by David Hatfield, a Harvard Anthropology concentrator. The author undertook the identification of mammalian fauna. Fish and shellfish remain unidentified. Two species dominated the fauna from the "ash" midden. One was squirrel, and the other passenger pigeon (Hatfield n.d.). A total of 18 passenger pigeons were recorded. Additional birds found in the deposit include a red-winged blackbird, a brewer's blackbird, a robin, and a brown-headed cowbird (ibid.: 6). A number of deer bones were also recovered, though only one individual could be discerned. One small unidentified mammal was also represented by a single bone. Fish were represented by vertebre, spines, and scales. Gar fish scales were identifed, and at least one catfish spine as well. Neither could be identified to species. Shellfish (Unio, sp. indet.) were not common, but were present nonetheless. Until more research is conducted on this and other faunal samples little can be made of the "ash" midden sample. The presence of the passenger pigeon and other avifauna strongly hint at a winter period faunal assemblage (ibid.: 9). The "brown" midden above, however, presents a contrary picture. The "brown midden" fauna is largely comprised of deer, squirrel, unidentified turtle, and a wild turkey. Fish and shellfish were found in very small quantities in the "brown midden".

Elsewhere on the site the faunal sample is less well preserved. The bone from test units One, and Three through Seven is crumbly and very fragmented. A small, but well preserved sample of large mammal fauna was found in feature 6, Test Unit Three. Probably as a result of the bias of the sorters, large mammal predominates in counts for all of the test units except Test Unit Two. Fish was only recognized from Test Unit Two, however, this may change once qualified analysis is conducted.

A few generalizations can be made from the inadequately analyzed Jordan fauna. Despite the fact that corn was apparently grown on the site we did not recover any, despite some good contexts, and screening through 1/16th inch mesh. If corn was a significant part of the Jordan occupants' diet we found no evidence for it. Fishing was not a common subsistence activity, at least in our data set. Fish were only found in Test Unit Two in both in situ middens. Birds were surprisingly heavily exploited, although their contribution to the total subsistence diet is unknown and probably not significant. Deer and small mammal, but mostly the former, seem to have contributed the greatest to the subsistence of the Jordan site occupants. It is likely that the protohistoric period saw a general decline in agricultural based economies in favor of more flexible mixed hunting-farming-gathering subsistence practices.

Historic Artifacts

The last artifact category is historic material. Other than a single brass tinkler in a private collection no early historic artifacts have been found at Jordan. The brass tinkler was found in the fields north and east of the mound group along the west side of Jordan Slough. Despite the intensity of Euro-American occupation at and around the mound group, surprisingly little historic material was recovered. The bulk of the historic artifacts came from test units Three, Four, Five, and Seven. Most of the material appears to date to the late 19th and early 20th centuries, however, some could be slightly earlier. Two historic structures on mound B probably provided much of the material in test units Four and Five, while an early 19th century structure located just east of the mound group may have contributed to the historic artifacts found in test units Three and Seven. Material recovered included ceramics (mostly undiagnostic whiteware), glass, and iron (some recent) (see Tables 31- 38).

Culture History

Although Jordan is a physically complex site, its culture history is relatively simple, at least in outline. Prior to 1985 the LMS had made several surface collections from Jordan, and had also examined and photographed several local private collections which included material from the site. As a result of analysis of the LMS surface collected data it became apparent that Jordan was primarily, if not wholly, a very late prehistoric or protohistoric site. Several lines of evidence, mostly data from private collections, also suggested that the site area may also have supported a Poverty Point occupation.

The data which suggested a possibly Poverty Point component consisted of two classes: portable artifacts, and settlement plans. The diagnostic portable artifacts were not common, and only came from private collections. The Robert Barham collection from Jordan contains a large Gary stemmed point made from a heat treated reddish novaculite. The Thomas Barham collection includes a large corner-notched dart point from Jordan. There are also several large stemmed dart points which were found on the Jordan site property. The Jordan collection contains two large ground stone celts which may date to the Poverty Point period. Although these celts are morphologically similar to Poverty Point specimens (Webb 1977: fig. 22), they are not diagnostic, of and by themselves. The Jordan collection also contains a small number of stemmed points, most with cortex remaining on the stem base. These could date to the Poverty Point period, though it is just as likely they represent Edwards Stemmed, var. Sunflower points, a well known late prehistoric diagnostic in the Lower Mississippi Valley (Williams and Brain 1983: 225-229). The Jordan site collection at Louisiana State University contains an excellent example of a var. Sunflower point. The final portable object which probably dates to the Poverty Point period is a small red jaspar bead reportedly found in the fields northeast of the mounds. I have not examined this specimen directly, though a photograph is available, so I cannot offer comments on its chronological affiliation.

The second line of evidence which suggested a Poverty Point component for the Jordan site lay in its site plan. Part of Jordan consists of a circular arrangement of mounds which, it has been suggested, is one Poverty Point settlement trait (Webb 1968, 1977, 1982: 9-12). Furthermore, the main mound at Jordan consisted of a conical structure with a height which greatly exceeded its base. Until we mapped the site, and reconstructed the historic use of the site, we were uncertain if the main mound was actually a Mississippian structure. Today we are relatively certain that mound A is a protohistoric structure, but we did not test the mound, and it is possible that the core of mound A predates the Mississippian occupation.

Because of the above lines of evidence, one goal of the 1985 excavations was to substantiate the presence of a hypothetical Poverty Point occupation. Shovel tests and test excavations were placed to sample as much of the mound group as possible. Although none of the mounds were excavavated in 1985, several received limited testing along their flanks. Two test units were excavated near the edges of mounds C and E. Because we expected the Poverty Point component to be deeply buried, we excavated all test units to a minimum of 2.5 m below ground surface. Test unit One was excavated to 4.05 m below ground surface. Despite a program partly geared to finding an early component, the LMS recovered no artifacts which could possibly be assigned to the Poverty Point period. In fact, the LMS excavations overwhelmingly indicated that the Jordan site is solely a protohistoric and early historic manifestation.

How then, do we account for the several indisputable Poverty Point artifacts from Jordan? Two scenarios can be constructed which would suggest an answer to our question. First, it can be hypothesized that the Jordan site locality did have a Poverty Point component, but that it was not centered around the mound group. Given that the crevasse on which the Jordan site is located was being exploited by Late Archaic/Poverty Point groups (Kidder 1985, n.d. a), it is likely that a small Poverty Point period camp would have been located somewhere in the vicinity of the site. Modern agriculture and land modification would have destroyed all but the most diagnostic remains of such a site. A second possibility is that the Poverty Point artifacts represent currated pieces brought to the site by Mississippian inhabitants. Several Poverty Point sites on Bayou Bonne Idee are known to have been occupied by Jordan-related peoples, and it is possible that Poverty Point artifacts were brought back to Jordan as curios. While neither scenario is indisputable, either, or both, would provide a logical means by which a very few Poverty Point diagnostic artifacts could be found around the Jordan site.

Other than the possible Poverty Point component, there is no other evidence for any culture between 500 B.C., and A.D. 1500. The Neo-Indian remains from Jordan point to a remarkably homogeneous occupation dating roughly between 1500-1700. The artifacts from Jordan consist mostly of shell tempered ceramics, some stone, and bone. Very few ceramic artifacts were not shell tempered, and those probably derived from contemporary groups either to the east or west. The occupation at Jordan has been divided into two sequent components, named Jordan I, and Jordan II. A third, completely historic occupation is tentatively recognized and has been named the Prairie Jefferson phase. At present I can characterize the Jordan phase as being stongly "Tunican-related", and I hypothesize that the site to be a major center for the ancestors of the Koroa Indians (Kidder 1985).

As was noted above, the LMS made several large surface collections prior to 1985 (Table 29). These surface collections became the initial basis for our understanding of late prehistory in the Boeuf Basin. The LMS surface collections were dominated by shell tempered ceramics. A small amount of Addis Plain pottery was recovered, and a small amount of unclassified "Caddoan" plain pottery was also recognized (Kidder n.d. a). Thirty- three sherds from surface collections were identified as Baytown Plain, _var. Unspecified_. Lithics made up a large part of the LMS surface collections. Flakes and debitage were most common, but finished tools were also located. Projectile points at Jordan consisted of medium-sized arrows, with recurved edges, flaring barbes, and a straight base. A small number of triangular bifaces or knives were also found. With the exception of a piece of white chert, and three flakes of green chert, all of the surface collected lithic tools were made of locally available stream gravel cherts.

Of the 1305 plain sherds from surface collections at Jordan, 1264 were shell tempered. Two types of shell tempered pottery were recognized, polished and hard, and dull and soft. Plain rims were often notched or punctated, and showed a variety of vessel shapes. Jars were quite common, usually with a flaring rim. Bowls were also common, and usually had a notched, or unmodified rim. Several bottle fragments were also noted.

Of the 272 decorated sherds, only 12 were not on a shell tempered paste. The most common decorated ceramics types were Barton Incised, var. Unspecified, Cracker Road Incised, var. Cracker Road, and Grace Brushed, vars. Grace, Grand Gulf, and Warren. Also present were small amounts of Belcher Ridged, Chicot Red, Fatherland Incised, Glassel Engraved, several forms of Leland Incised, Maddox Engraved, three types of Owens Punctated, and five Winterville Incised varieties. A large number of untypable decorated shell tempered body and rim sherds were also recovered (Table 29).

The ceramic assemblage was quite distinct and unparalleled. The presence of late variants of Barton, Cracker Road, and large amounts of curvilinear Grace Brushed ceramics indicated a protohistoric date for the assemblage. The diversity of ceramics reflected some chronological depth, but also suggested a remarkable homogeneity. The presence of Caddoan and Natchez diagnostic ceramics was taken as a marker of contacts in those directions. In attempting to sort out the Jordan data it became clear that the site primarily dated to the protohistoric, or possibly the early historic period. Jordan was distinctly unlike the Transylvania phase, which showed a clear progression out of indigenous Plaquemine culture. Jordan, it seemed, had no local antecedents.

As a result of surface collections and other research conducted at the Jordan site the LMS had reason to believe that excavations could provide substantial answers to a host of important and interesting research problems focused on late prehistory in the Boeuf Basin. Testing would focus on site culture history, but research would be expanded to include the role that Jordan played in regional developments. Results of the 1985 excavations have confirmed our hypothesized outline of culture history. There can be no question that the site dates to the protohistoric period (ca. 1500-1700, actual dates 1543-1678). The questions of chronology that do arise concern when the site was first occupied (by Mississippian occupants), how, if at all, can the occupation be subdivided, and when it ended.

I have gone to great lengths throughout this section to prove that the Jordan phase can be subdivided into two chronologically distinct subphases, labeled Jordan I and II. The basis for my dividing the phase in two is that we found a sealed stratigraphic level with an exclusive ceramic assemblage in the "ash" midden in test unit two. This assemblage was unique in terms of the paste on which the ceramics were made, the varieties present, and the vessel shapes. Furthermore, the "ash" midden had a unique faunal assemblage. The "ash" midden was found at an elevation of between 50 and 55 cm below datum, and the surface sloped downward towards the south. Above the "ash" midden was another midden level and over that a redeposited midden. The "brown" midden overlying the "ash" midden had a very different ceramic assemblage. The basic ceramic paste, the varieties, and vessel shapes were generally not the same. The faunal assemblage was also unlike that in the "ash" midden below. The "brown" midden ceramics were similar in all respects to the ceramics found in other test units in the mound group. In no other instance, though, was there a similar superpositioning of Jordan I and II commponents. In fact, in no other test unit did we recover any Jordan I diagnostics.

The Jordan I deposit is interpreted as being a short lived and spatially discrete occupation representing the early protohistoric period. Stratigraphically there can be no question that it precedes the Jordan II deposits in Test Unit Two, and by absolute elevation it is the lowest intact deposit on the site. The problem is that this deposit could represent a spatially discrete, and early, ceremonial or otherwise specialized phenomenon which was not socially or really chronologically different from the Jordan II component. The limited vertical and spatial coverage of the Jordan I component is somewhat suspicious, as is its position near mound A. Also, the slope of the "ash" midden to the south could suggest that it represents a single episode of refuse deposition, perhaps related to a nearby structure.

However, it is also unusual that there is such a clear ceramic difference between the two components. The basic Mississippian pottery is quite different and distinct. Furthermore, other than Leland Incised, <u>var. Williams</u>, two varieties of Winterville Incised, there is no similarity of varieties between the two deposits. Also differences in the faunal assemblages suggest that the two middens were deposited during different seasons. Thus, if the differences were not chronological there was a strong separation of ceramic and subsistence variability. I feel at present that the stratigraphic relationship and ceramic differences are significant enough to argue for two subphases. I must confess to being slightly uncomfortable with the two subphases, but I feel that future work at Jordan will bear out my chronology. Regardless of the ultimate disposition of the two subphases, whatever the Jordan I deposit represents it was a short lived phenomenon. Currently I would doubt that the Jordan I component could represent more than 50 years of time. More likely it encompasses 10 or 20 years. To be conservative I would place the subphase between 1550 and 1600.

Markers for the Jordan I component are: Mississippi Plain, var. Oak Ridge, Barton Incised, var. Galion, Grace Brushed, var. Prairie Jefferson, Winterville Incised, var. Broutin, Winterville Incised, var. Forshey, Winterville Incised, Wailes, and Winterville Incised, var. Winterville. Vessel shapes are dominated by large jars, usually with a tall neck and flaring rim. Lip modification is also common, and provides a link to the Jordan II assemblage. Bowls are generally shallow and undecorated, although they too have modified lips. No lithics were recovered from the Jordan I midden, but there is no reason to doubt that the Jordan point was the common arrow.

The Jordan II component dominates the site history. Every pit had a representation, and in six of seven units it was the only cultural occupation. Jordan II is thought to date to the late protohistoric and early historic periods. No European early historic artifacts have been found at Jordan, but contemporary aboriginal ceramics have. Given that the region was not settled until the mid-to-late 19th century it should be no surprise that early historic artifacts are unknown. The occupation at Jordan had to have terminated by 1750 at the latest. A 1786 document written by Filhiol related that no indigenous natives were known, and the oldest people in the region did not "remember ever having seen a single one of them" (Rickey 1937: 476).

Physically it is apparent that during the Jordan II occupation the site grew to its maximum extent. Testing near mounds C and E has revealed that mound construction was taking place during the Jordan II component. Outside of the mound group the Jordan II component is ubiquitous. Interestingly, although the Jordan II component is everywhere, it really is not that intensive. In test units Two and Six where we found in situ midden, the deposits were very thin. Thick Jordan II midden was found in redeposited context, but that always involved slope wash from a nearby mound. It is my impression that the Jordan II component was also relatively short lived, but not as brief as the Jordan I occupation. Presently I would date Jordan II from ca. 1600-1700, or possibly slightly later.

Markers for the Jordan II component are those not noted for the Jordan I subphase. Primarily, Jordan II is noted for ceramics appearing on Mississippi Plain, var. Morehouse. Varieties noted to appear in Jordan I contexts almost never cross over to Jordan II deposits. The only exceptions are Leland Incised, var. Williams, and Winterville Incised, vars. Broutin and Wailes. Vessel shapes in Jordan II are slightly more varied than in Jordan I. Jars are not quite as common, and they have shorter necks and are generally smaller. Bowls, on the other hand, are often found in Jordan II contexts. Bowls that were not otherwise decorated were often modified on the lip. An expanded earplug was also found in a Jordan II context. Lithics certainly included the Jordan point and triangular bifaces as well.

To summarize then, it is possible to outline the history of the site in some detail. A possible Poverty Point component seems to exist in the general site area, although we could find no evidence for it in our excavations. The site area was not occupied from then until roughly A.D. 1500-1550. At that time the site was occupied by a Mississippian group which I believe arrived from the east. The evidence suggests that the site area was already supporting a prairie-like environment. The absence of wood working or felling tools, and the site location argue that the natives must have chosen the spot because it was open. If they had to clear dense woods there is no material evidence for such activities.

Physically the initial occupation appears to have been small and spatially limited. The Jordan I subphase was only found in one spot in the mound group. A single vessel in the Robert Barham collection from south of the mounds also dates to this subphase, and thus suggests it may not have been all that limited. Currently there is no evidence of mound building during the earliest Jordan phase occupation. The occupation character changed suddenly with the appearance of the Jordan II component. Rapidly the site grew to very large proportions, and there is solid evidence that mound construction was taking place. Although the Jordan II component is ubiquitous, the phase did not seem to last too long. The site was abandoned by the early-to-middle 18th century. The site area was reoccupied by Euro-American settlers early in the historic occupation of the region which is testimony to the importance of the site area and the fertility of its soils.

Conclusions

Excavations by the Lower Mississippi Survey at the Jordan site have demonstrated that it is one of the largest, latest, and most important sites in Louisiana today. Research has indicated that the site has a very complex geomophic history related to the crevasse of the No. 5 Arkansas River channel. Although the data are sketchy, it appears that the crevasse runs through what is now the center, and western portion of the mound site. The crevasse initially deposited sheets of sand, but eventually formed its own natural levee. Evidence from test excavations and geomorphic research suggests that the site is built on the levee, and partly in the channel of the crevasse. The levee of the crevasse formed the original ground surface when the site was first occupied.

Cultural data from Jordan indicate that the site is a wholly late prehistoric and protohistoric phenomenon. A Poverty Point period occupation may have been located within the site area, but does not seem responsible for the site layout or mound construction. Artifacts recovered in 1985 indicate that the site occupation was relatively brief, but spatially widespread. The two radiocarbon dates from Jordan must be examined critically. One has been rejected as too early, although the other date was tentatively accepted. The accepted date was from feature 6 in Test

Unit Three, and suggested an initial occupation between A.D. 1400-1600. The absence of diagnostic early historic European artifacts is evidence that the occupation was terminated by the mid-18th century (if not slightly earlier). I would now consider the site to date from roughly 1550 to 1700. Stratigraphic and typological data have been used to propose two components, Jordan I and II. With the data at hand, I feel that the identification of the Jordan site as a proto-Koroa center is now more possible than ever. Furthermore the evidence for the connection between the ancestors of the Koroa and those of the Tunica is also more certain. However, we still must prove that ceramic typology can lead to ethnic identification (Jeter 1982: 113-115).

As a result of testing at the Jordan site the LMS would recommend that the site be nominated to the National Register of Historic Places. However, we cannot stress too much the fact that the landowner will probably resist any attempt to have the site nominated. The site has been in the same family since the 1830s, and as such has enjoyed a measure of protection afforded few sites in the southeast. The landowner and his family have a strong preservation ethic, and I do not foresee any immediate threat to the mounds or site area. We would suggest that the landowner be approached diplomatically; he is a reasonable man with real fears for his site. Perhaps through a joint effort between the landowner and the state the site could be nominated. I must note again, in the strongest terms, that the landowner would see the Jordan site destroyed before he allowed the state, or any other governmental body, to infringe on his sovereignty.

CHAPTER EIGHT

CONCLUSIONS

The LMS had three primary goals in 1985: first, to test sites to determine if they were eligible for inclusion in the National Register of Historic Places; second, we were interested in testing the hypothesis that certain cultures would prefer to occupy active levees of the Arkansas River; and finally we wanted to examine the hypothesis that Jordan (16MO1) was a protohistoric site which was settled by immigrants from south-central Arkansas who were later known as the Koroa Indians.

National Register Eligibility Testing

The LMS tested eight sites in the summer of 1985. Three of the eight sites are suggested to be eligible for inclusion in the National Register of Historic Places. The other five sites were not deemed to be eligible by the LMS, but this in no way suggests that they could not be eligible now, or in the future. The Bapp Arnold site, 16MO110, is least likely to be eligible, because even surface deposits are now rare at the site. The LMS strongly suggests that more research be conducted at the Horseshoe Church site (16MO123) to investigate its possible Poverty Point occupation. The other three sites must be reassessed for eligibility. None should be excluded, but perhaps rigorous monitoring would be useful for determining future eligibility.

Three sites tested by the LMS were found to be good candidates for the National Register. The Stevenson site (16RI14) is an important locale for a multitude of cultural occupations, most notably late Marksville and Troyville. Future research at the site would be amply justified and rewarded. The Matheny (16MO2) site is also critical for understanding local prehistory, mostly because of its early Coles Creek and Mississippi period occupations. Despite the destruction of mound B, the site still should be preserved for future research. The Jordan site (16MO1) would deserve a nomination based on size and complexity alone. The site has great potential for contributing to our understanding of the enigmatic events between the visits of DeSoto in the 1540s, and Marquette in the late 17th century.

Of the three sites eligible for nomination only Jordan would prove difficult based on our understanding of the landowners feelings. Both the owners of Stevenson, and Matheny would probably welcome such a nomination. The Jordan family, however, is unlikely to support any nomination, unless they could be assured that the site would not be damaged, or seized by any government.

Arkansas River Channel Correlations

Although testing was always oriented toward investigation of National Register eligibility, the LMS maintained a program of hypothesis testing within the guidelines provided by granting agencies. One hypothesis we wished to test involved prediction of settlement location in relation to the Arkansas River channels. Our hypothesis was that the active channel would be selected for, while inactive belts would be gradually abandoned as they filled in. However, the opposite was found to be true. Active channels were apparently not occupied, or if they were the evidence has been destroyed. Rather, settlement patterns, at least in the

Meso-Indian era when the Arkansas River was active in the region, appear to have been directed towards finding inactive channels, or areas away from the flooding caused by the active channel. It would appear that the active meander belts were forcing occupation away from the floodplain, and on to the braided stream terraces to the east. During the period when the Arkansas River was active, primary settlement locations were found along the western margin of Macon Ridge, or possibly on isolated terrace remnants within the alluvial basin. Temporary or seasonal activity camps were situated to exploit the active channel environments, but villages and intensive occupation were not located in the floodplain.

As a result of consulting research by Roger Saucier we now know that the Arkansas had ceased to be active in the region by the end of the Meso-Indian era. None of the sites tested in 1985 exhibited Arkansas River sediments stratified with cultural remains. The dictates of Neo-Indian settlement are still illusive on a specific level. We can generalize about settlement location, and even construct a predictive model, but we still do not completely understand why specific occupations were located where they were, particularly given the choices available. Although our hypothesis did not hold up to the evidence we still have a wealth of data which will allow us to begin to construct a logic for prehistoric settlement in the central Boeuf Basin.

Protohistoric Culture Dynamics

The last aspect of our research was aimed at understanding the nature of late prehistoric and protohistoric cultural dynamics. We had hypothesized, based on survey data, that the Jordan site was settled at a very late date, and furthermore that the occupants were recent immigrants into the region. Results of testing at Matheny and Jordan suggest that we have to modify our migration hypothesis. However, the data still support some form of relatively recent immigration, both into the region, and more importantly at the Jordan site. The movement to Jordan may have been caused by a response to the European entrada in the 1540s. Jordan appears to fit into a well known pattern of ethnic movement which occurred in the 15th and 16th centuries (Brain 1978, n.d.). The pattern is one of movement away from major rivers, and into the interior, often in isolated locations. Jordan may be an extreme example of such a movement, but it now seems to fit the contemporary data quite well.

We cannot prove that the Jordan site was occupied by Koroa Indians, or their ancestors, but we can suggest it as a likely possibility. The Jordan ceramic assemblage is distinctly "Tunican"; the Koroa are thought to have spoken a Tunican-related language; and historic documents place the Koroa in the general vicinity in the 18th century (Swanton 1911; Kidder 1985). These lines of evidence, of course, prove nothing. However, they are quite suggestive, and give us the impetus to search further for the ethnic origins of the Jordan site occupants.

While this summary has been as detailed as possible, it is by necessity brief. The results of the research conducted by the LMS in 1985 cannot be distilled in such a short period of analysis. Continued analysis and perhaps future research will update and revise our ideas concerning local prehistory. The data from excavations in the Boeuf Basin will, however, contribute greatly to a better understanding of human prehistory and history in Louisiana.

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APPENDIX A

PROVENIENCE DATA FOR SITES EXCAVATED BY THE LMS IN 1985

Stevenson (16RI14 [22-J-2])

(Arbitrary datum equals +5.00 meters)

Surface Collections

K337, general surface collection, 1981
K341, shell midden in southwest corner of site, 1981
K504, general surface collection, 1983
K505, general surface collection, east half of site, 1983
K506, general surface collection, cemetary mound area, 1983
K562, general surface collection, 1983
K593, controlled surface collection, square N75, E50, 1983
K594, controlled surface collection, square N75, E25, 1983
K595, controlled surface collection, square N50, E50, 1983
K596, controlled surface collection, square N100, E100, 1983
K597, controlled surface collection, square N75, E75, 1983
K598, controlled surface collection, square N100, E75, 1983
K599, controlled surface collection, square N100, E50, 1983
K600, controlled surface collection, square N75, E100, 1983
K601, controlled surface collection, square N100, E25, 1983
K602, controlled surface collection, square N75, E25, 1983
K603, controlled surface collection, square N25, E25, 1983
K604, controlled surface collection, square N50, E75, 1983
K605, controlled surface collection, square N50, E25, 1983
K606, controlled surface collection, square N25, E25, 1983
K607, controlled surface collection, square N50, E25, 1983
K608, controlled surface collection, square N25, E50, 1983
K609, controlled surface collection, square N50, E50, 1983
K610, controlled surface collection, square N25, E75, 1983
K611, controlled surface collection, square N100, E00, 1983
K612, controlled surface collection, square N50, E00, 1983
K613, controlled surface collection, square N00, E50, 1983
K614, controlled surface collection, square N00, E150, 1983
K615, controlled surface collection, square N50, E100, 1983
K616, controlled surface collection, square N00, E100, 1983
K617, controlled surface collection, square N25, E100, 1983
K618, general surface collection, bank of Boeuf River, 1983
K749, general surface collection, 1984
K806, general surface collection, 1985
K807, general surface collection, 1985
K808, general surface collection, garden NW of mound B (1985)
K842, general surface collection, donated by R. Barham, 1986

Shovel Tests

K901-K914, 1983

Test Excavations

Test Unit One (K1500)

A: 10 cm arbitrary level, ground surface (-2 cm) to -12 cm
B: 10 cm arbitrary level, -12 cm to -22 cm
C: 10 cm arbitrary level, -22 cm to -32 cm
D: feature 3, -32 cm to -55 cm
E: 10 cm arbitrary level, -32 cm to -42 cm
F: 10 cm arbitrary level, -42 cm to -52 cm
G: 10 cm arbitrary level, -52 cm to -62 cm
H: 10 cm arbitrary level, -62 cm to -72 cm
I: 10 cm arbitrary level, -72 cm to -82 cm
J: profile cleanup

Test Unit Two (K1536)

A: 5 cm arbitrary level, ground surface (+31 cm) to +26 cm
B: 15 cm arbitrary level, +26 cm to +11 cm
C: 10 CM arbitrary level, +11 cm to +1 cm
D: 10 cm arbitrary level, +1 cm to -9 cm
E: 10 cm arbitrary level, -9 cm to -19 cm
F: 10 cm arbitrary level, -19 cm to -29 cm
G: 10 cm arbitrary level, -29 cm to -39 cm
H: 10 cm arbitrary level, -39 cm to -49 cm
I: 10 cm arbitrary level, -49 cm to -59 cm
J: Feature 4, ca. -49 cm to -71 cm
K: 10 cm arbitrary level, -59 cm to -69 cm
L: natural level, from -69 cm to subsoil
M: profile cleanup
N: wall profiles, zone 1
O: wall profiles, zone 2
P: wall profiles, zone 3
Q: wall profiles, zone 4

Test Unit Four (K1501)

A: 10 cm arbitrary level, ground surface (+45 cm) to +35 cm
B: 10 cm arbitrary level, +35 cm to +25 cm
C: same as B
D: 10 cm arbitrary level, +25 cm to +15 cm
E: 10 cm arbitrary level, +15 cm to +5 cm
F: 10 cm arbitrary level, +5 cm to -5 cm
G: 10 cm arbitrary level, -5 cm to -15 cm
H: 10 cm arbitrary level, -15 cm to -25 cm
I: 10 cm arbitrary level, -25 cm to -35 cm
J: same as I
K: sherd found on temporary floor at -35 cm, origin uncertain
L: 10 cm arbitrary level, -35 cm to -45 cm
M: 10 cm arbitrary level, -45 cm to -55 cm
N: 10 cm arbitrary level, -55 cm to -65 cm
O: profile cleanup
P: wall profiles, zone 3

Test Unit Six (K1502)

A: 10 cm arbitrary level, ground surface (+42 cm) to +32 cm
B: 10 cm arbitrary level, +32 cm to +22 cm
C: same as B
D: 10 cm arbitrary level, +22 cm to +12 cm
E: 10 cm arbitrary level, +12 cm to +2 cm
F: 10 cm arbitrary level, +2 cm to -8 cm
G: sherd found on temporary floor at -8 cm, origin uncertain
H: 10 cm arbitrary level, -8 cm to -18 cm
I: 10 cm arbitrary level, -18 cm to -28 cm
J: 10 cm arbitrary level, -28 cm to -38 cm
K: 10 cm arbitrary level, -38 cm to -48 cm
L: same as K
M: sherd found on temporary floor at -48 cm, origin uncertain
N: feature 1, from -48 cm to -73 cm
O: 10 cm arbitrary level, -48 cm to -58 cm
P: 10 cm arbitrary level, -58 cm to -68 cm
Q: profile cleanup
R: wall profiles, zone 2
S: wall profiles, zone 3A
T: wall profiles, zone 3B

Test Unit Ten (K1521)

A: 10 cm arbitrary level, ground surface (+10 cm) to 0 cm
B: 10 cm arbitrary level, 0 cm to -10 cm
C: feature 2, from -10 cm to -62 cm
D: 10 cm arbitrary level, -10 cm to -20 cm
E: 10 cm arbitrary level, -20 cm to -30 cm
F: 10 cm arbitrary level, -30 cm to -40 cm
G: 10 cm arbitrary level, -40 cm to -50 cm
H: 10 cm arbitrary level, -50 cm to -60 cm
I: 10 cm arbitrary level, -60 cm to -70 cm
J: profile cleanup
K: wall profiles, east wall, zone 1

Denler (16MO106 [22-J-25])

Surface Collections

K580, general surface collection, 1983
K812, general surface collection, 1985
K840, general surface collection, 1985

Shovel Tests

K1546-K1578, 1985

Matheny (16MO3 [21-I-2])

(Arbitrary datum equals +5.00 meters)

Surface Collections

K359, general surface collection, donated by B. Kinnaird, 1981
K360, general surface collection, slopes of mound A, 1981
K361, general surface collection, mound B, 1981
K540, general surface collection, 1983
K670, general surface collection, slope of mound A, 1983
K671, general surface collection, fields around mound A, 1983
K672, general surface collection, mound B, 1983
K673, general surface collection, bank on Bayou Bartholomew, 1983
K680, general surface collection, mound B, 1983
K681, general surface collection, slopes of mound A, 1983
K763, general surface collection, slopes of mound A, 1985
K813, general surface collection, 1985
K814, general surface collection, 1985
K815, general surface collection, mound B, 1985
K817, general surface collection, mound A area, 1985
K818, general surface collection, mound B area, 1985
K819, general surface collection, 1985
K820, general surface collection, mound B, 1985
K821, general surface collection, mound A, 1985
K822, general surface collection, plaza between mounds A and B, 1985
K823, general surface collection, 1985
K831, general surface collection, mound A, 1985
K832, general surface collection, mound B, 1985

Shovel Tests

K1579-K1605, 1985

Test Excavations

Test Unit Two (K1609)

A: 10 cm arbitrary level, ground surface (+7 cm) to -3 cm
B: 10 cm arbitrary level, -3 cm to -13 cm
C: 10 cm arbitrary level, -13 cm to -23 cm
D: 10 cm arbitrary level, -23 cm to -33 cm
E: combined natural and arbitrary level, -33 cm to -43 cm, or to top of submound midden
F: natural level, submound midden
G: combined natural and arbitrary level, to -43 cm
H: 10 cm arbitrary level, -43 cm to -53 cm
I: 10 cm arbitrary level, -53 cm to -63 cm
J: 10 cm arbitrary level, -63 cm to -73 cm
K: 10 cm arbitrary level, -73 cm to -83 cm
L: profile cleanup

Test Unit Three (K1610)

A: 10 cm arbitrary level, ground surface (+1.69 cm) to +1.59 cm
B: 10 cm arbitrary level, +1.59 cm to +1.49 cm
C: 10 cm arbitrary level, +1.49 cm to +1.39 cm
D: 10 cm arbitrary level, +1.39 cm to +1.29 cm
E-1: 10 cm arbitrary level, +1.29 cm to +1.19 cm

E-2: natural level, possible feature, +1.29 cm to +1.23 cm
E-3: 10 cm arbitrary level, +1.29 cm to +1.19 cm
E-4: 10 cm arbitrary level, +1.29 cm to +1.19 cm
F: 10 cm arbitrary level, +1.19 cm to +1.09 cm
G: 10 cm arbitrary level, +1.09 cm to +99 cm
H: 10 cm arbitrary level, +99 cm to +89 cm
I: 10 cm arbitrary level, +89 cm to +79 cm
J: 10 cm arbitrary level, +79 cm to +69 cm
K: temporary profile cleanup
L: 10 cm arbitrary level, +69 cm to +59 cm
M: 10 cm arbitrary level, +59 cm to +49 cm
N: 10 cm arbitrary level, +49 cm to +39 cm
O: 10 cm arbitrary level, +39 cm to +29 cm
P: 10 cm arbitrary level, +29 cm to +19 cm
Q: 10 cm arbitrary level, +19 cm to +9 cm
Q-1: fill removed from level Q prior to heavy thunderstorm
Q-2: fill removed from level Q after heavy thunderstorm and includes wall slump material
R: 10 cm arbitrary level, +9 cm to -1 cm
S: 10 cm arbitrary level, -1 cm to -11 cm
T: 10 cm arbitrary level, -11 cm to -21 cm
U: 10 cm arbitrary level, -21 cm to -31 cm
V: 10 cm arbitrary level, -31 cm to -41 cm
W: natural level, from -41 cm to top of submound midden
X: natural level, submound midden
Y: 10 cm arbitrary level, from base of midden to -61 cm
Z: 10 cm arbitrary level, -61 cm to -71 cm
AA: profile cleanup

Test Unit Five (K1608)

A: 10 cm arbitrary level, ground surface (+25 cm) to +15 cm
B: 10 cm arbitrary level, +15 cm to +5 cm
C: 10 cm arbitrary level, +5 cm to -5 cm
D: 10 cm arbitrary level, -5 cm to -15 cm
E: 10 cm arbitrary level, -15 cm to -25 cm
F: 10 cm arbitrary level, -25 cm to -35 cm

Test Unit Seven (K1606)

A: 10 cm arbitrary level, ground surface (+26 cm) to +16 cm
B: 10 cm arbitrary level, +16 cm to +6 cm
C: 10 cm arbitrary level, +6 cm to -4 cm
D: 10 cm arbitrary level, -4 cm to -14 cm
E: 10 cm arbitrary level, -14 cm to -24 cm
F: 10 cm arbitrary level, -24 cm to -34 cm
G: 10 cm arbitrary level, -34 cm to -44 cm

Test Unit Nine (K1607)

A: 10 cm arbitrary level, ground surface (+27 cm) to + 17 cm
B: 10 cm arbitrary level, +17 cm to +7 cm
C: 10 cm arbitrary level, +7 cm to -3 cm
D: 10 cm arbitrary level, -3 cm to -13 cm

E: 10 cm arbitrary level, -13 cm to -23 cm
F: 10 cm arbitrary level, -23 cm to -33 cm
G: 10 cm arbitrary level, -33 cm to -43 cm

Moss (16MO101 [22-J-15])

Surface Collections

K338, general surface collection, 1981
K816, general surface collection, 1985
K824, general surface collection, 1985

Shovel Tests

K1611-K1612, 1985 (only two of 16 shovel tests were assigned a K number)

Horseshoe Church (16MO123 [22-J-52])

Shovel Tests

K1664-K1692, 1985

Bapp Arnold (16MO110 [22-J-32])

Surface Collections

K619, general surface collection, south end of site, east of gulley, near road, 1983
K620, general surface collection, center of site, along dirt-track road, 1983
K621, general surface collection, northeast corner of site near bayou, 1983
K825, general surface collection, 1985
K826, general surface collection, 1985
K827, general surface collection, 1985

Shovel Tests

K1613-K1663, 1985

Book Shepard (16MO103 [22-J-18])

Surface Collections

K640, general surface collection, 1983
K811, general surface collection, 1985
K828, general surface collection, 1985
K829, general surface collection, 1985

Shovel Tests

K1693-1770, 1985

Jordan (16MO1 [22-I-1]) (Datum equals 27.90 meters NGVD)

Surface Collections

K519, general surface collection, fields around mound complex, 1983
K520, general surface collection, fields north of mound complex, 1983
K521, general surface collection, fields northeast of mound complex, 1983
K522, general surface collection, fields south of mound complex, 1983
K523, general surface collection, rise adjacent to mounds C and D, northeast of mound complex, 1983
K524, general surface collection, rise northeast of mound complex, east side of abandoned slough, near paved road, 1983
K525, general surface collection, rise northeast of mound complex, west side of abandoned slough, near paved road, 1983
K526, general surface collection, northeast of mound complex, southwest of K525, 1983
K527, general surface collection, north of mound complex, adjacent to mounds B and C, 1983
K528, general surface collection, north and west of mound complex, adjacent to mounds A and B, 1983
K529, general surface collection, southwest of mound complex, between mounds A and G, 1983
K530, general surface collection, trash pits south of mound complex, 1983
K531, general surface collection, southeast of mound complex and K530, 1983
K532, general surface collection, fields south of mound complex, 1983
K536, general surface collection, fields south of mound complex, 1983
K537, general surface collection, southeast of mound complex, 1983
K538, general surface collection, southeast of mound complex, north of K531, 1983
K563, same as K523, 1983
K564, same as K527, 1983
K565, same as K529, 1983
K569, mound A, 1983
K743, general surface collection, south of mound complex, 1984
K749, general surface collection, north of mound complex, 1984
K751, general surface collection, mound A, 1984
K802, general surface collection, east of mounds, donated by R. Barham, 1985
K804, general surface collection, donated by A. Jordan, 1985
K833, 19th/20th century deposits, east side of mound complex, 1985
K834, 19th/20th century deposits, southeast side of mound complex, 1985
K835, general surface collection, south of mound complex, 1985
K836, general surface collection, north of mound complex, 1985
K837, general surface collection, northeast of mound complex, 1985
K838, 19th/20th century deposit, east side of mound complex, 1985

K841, surface near test unit 4, 1985

Shovel Tests

K1799-K1923, 1985

Test Excavations

Test Unit One (K1927)

A: 10 cm arbitrary level, ground surface (0.0 cm) to -10 cm
B: 10 cm arbitrary level, -10 cm to -20 cm
C: 10 cm arbitrary level, -20 cm to -30 cm
D: 10 cm arbitrary level, -30 cm to -40 cm
E: 10 cm arbitrary level, -40 cm to -50 cm
F: 10 cm arbitrary level, -50 cm to -60 cm
G: 10 cm arbitrary level, -60 cm to -70 cm
H: 20 cm arbitrary level, -70 cm to -90 cm
I: 10 cm arbitrary level, -90 cm to -100 cm
J: 10 cm arbitrary level, -100 cm to -110 cm
K: 10 cm arbitrary level, -110 cm to -120 cm
L: 10 cm arbitrary level, -120 cm to -130 cm
M: 10 cm arbitrary level, -130 cm to -140 cm
N: wall profiles, zone 3
O: wall profiles, zones 4a, 4b
P: wall profiles, zone 4c
Q: wall profiles, zone 5
R: profile cleanup

Test Unit Two (K1929)

A: 10 cm arbitrary level, ground surface (+10 cm) to 0.0 cm
B: 10 cm arbitrary level, 0.0 cm to -10 cm
C: 10 cm arbitrary level, -10 cm to -20 cm
D: 10 cm arbitrary level, -20 cm to -30 cm
E: 10 cm arbitrary level, -30 cm to -40 cm
F: 10 cm arbitrary level, -40 cm to -50 cm
G: 10 cm arbitrary level, -50 cm to -60 cm
H: 10 cm arbitrary level, -60 cm to -70 cm
I: temporary profile cleanup
J: combined natural and arbitrary level, dark soil in south 1/4 of unit, from -70 cm to -80 cm
K: combined natural and arbitrary level, light ashy soil in northern 3/4 of unit, from -70 cm to -74 cm
L: feature 1, from -60 cm to -81 cm
M: feature 2, from -60 cm to -97 cm
N: natural level, ashy soil in central 1/3rd of unit, from -74 cm to -78 cm
O: natural level, ashy soil in northwestern 1/3rd of unit, from -74 cm to -80 cm
P: natural level, ashy soil in north half of unit, from -80 cm to -83 cm
Q: natural level, ashy soil from -83 cm to subsoil
R: arbitrary level from bottom of ashy soil to -100 cm

S: 10 cm arbitrary level, -100 cm to -110 cm
T: west wall profile cleanup, "brown" midden
U: west wall profile cleanup, "ash" midden
V: west wall profile cleanup
W: 1x1 meter deep test in northeast corner
X: profile cleanup, includes test unit 2 west

Test Unit Two west (K1930)

A: 10 cm arbitrary level, ground surface (+10 cm) to 0.0 cm
B: 10 cm arbitrary level, 0.0 cm to -10 cm
C: 10 cm arbitrary level, -10 cm to -20 cm
D: 10 cm arbitrary level, -20 cm to -30 cm
E: 10 cm arbitrary level, -30 cm to -40 cm
F: natural level, from -40 cm to top of "brown" midden
G: natural level, "brown" midden
H: west half of feature 2, from -60 cm to -92 cm
I: feature 3, from -63 cm to -89 cm
J: feature 4, from -65 cm to -75 cm
K: feature 5, from -65 cm to -84 cm
L: natural level, upper part of "ash" midden, to -74 cm
M: natural level, lower "burned"(?) part of "ash" midden, to -90 cm
N: natural level, leached zone beneath midden, from -90 cm to -104 cm
O: arbitrary level, from -104 cm to -110 cm

Test Unit Three (K1928)

A: 10 cm arbitrary level, ground surface (+73 cm) to +63 cm
B: 10 cm arbitrary level, +63 cm to +53 cm
C: 10 cm arbitrary level, +53 cm to +43 cm
D: 10 cm arbitrary level, +43 cm to +33 cm
E: 10 cm arbitrary level, +33 cm to +23 cm
F: 10 cm arbitrary level, +23 cm to +13 cm
G: 10 cm arbitrary level, +13 cm to +3 cm
H: feature 6, +4 cm to -10 cm
I: 10 cm arbitrary level, +3 cm to -7 cm
J: 10 cm arbitrary level, -7 cm to -17 cm
K: 10 cm arbitrary level, -17 cm to -27 cm
L: 10 cm arbitrary level, -27 cm to -37 cm
M: wall profiles, zone 1
N: wall profiles, zone 2
O: wall profiles, zone 3
P: wall profiles, feature 6

Test Unit Four (K1931)

A: 10 cm arbitrary level, ground surface (-19 cm) to -29 cm
B: 10 cm arbitrary level, -29 cm to -39 cm
C: 10 cm arbitrary level, -39 cm to -49 cm
D: 10 cm arbitrary level, -49 cm to -59 cm
E: 10 cm arbitrary level, -59 cm to -69 cm
F: 10 cm arbitrary level, -69 cm to -79 cm

G: 10 cm arbitrary level, -79 cm to -89 cm
H: 10 cm arbitrary level, -89 cm to -99 cm
I: 10 cm arbitrary level, -99 cm to -109 cm
J: 1x1 m deep test

Test Unit Five (K1932)

A: 10 cm arbitrary level, ground surface (-29 cm) to -39 cm
B: 10 cm arbitrary level, -39 cm to -49 cm
C: 10 cm arbitrary level, -49 cm to -59 cm
D: 10 cm arbitrary level, -59 cm to -69 cm
E: 10 cm arbitrary level, -69 cm to -79 cm
F: 10 cm arbitrary level, -79 cm to -89 cm
G: 10 cm arbitrary level, -89 cm to -99 cm
H: 10 cm arbitrary level, -99 cm to -109 cm
I: 10 cm arbitrary level, -109 cm to -119 cm
J: 10 cm arbitrary level, -119 cm to -129 cm
K: profile cleanup
L: 1x1 m deep test
M: wall profiles, zone 2

Test Unit Six (K1933)

A: 10 cm arbitrary level, ground surface (+101 cm) to +91 cm
B: 10 cm arbitrary level, +91 cm to +81 cm
C: 10 cm arbitrary level, +81 cm to +71 cm
D: 10 cm arbitrary level, +71 cm to +61 cm
E: 10 cm arbitrary level, +61 cm to +51 cm
F: 10 cm arbitrary level, +51 cm to +41 cm
G: 10 cm arbitrary level, +41 cm to +31 cm
H: 10 cm arbitrary level, +31 cm to +21 cm
I: 10 cm arbitrary level, +21 cm to +11 cm
J: 10 cm arbitrary level, +11 cm to +1 cm
K: 10 cm arbitrary level, +1 cm to -9 cm
L: profile cleanup

Test Unit Seven (K1934)

A: 10 cm arbitrary level, ground surface (-56 cm) to -66 cm
B: 10 cm arbitrary level, -66 cm to -76 cm
C: 10 cm arbitrary level, -76 cm to -86 cm
D: 10 cm arbitrary level, -86 cm to -96 cm
E: 10 cm arbitrary level, -96 cm to -106 cm
F: 10 cm arbitrary level, -106 cm to -116 cm
G: 10 cm arbitrary level, -116 cm to -126 cm
H: 10 cm arbitrary level, -126 cm to -136 cm
I: 10 cm arbitrary level, -136 cm to -146 cm
J: 10 cm arbitrary level, -146 cm to -156 cm
K: 1x1 m deep test
L: profile cleanup
M: wall profiles, zone 5

APPENDIX B

Scope of Work

Archaeological Test Excavations in the Northern Boeuf Basin

Introduction

This grant will provide funds to archaeologically test six archaeological sites to determine their eligibility for inclusion on the National Register of Historic Places.

Description of Services

The following services will be performed by the Grantee as discussed in the proposal (Attachment D).

1) Archaeological sites visited during the 1983 LMS survey will be ranked according to a priority system based on research needs, probable site integrity, and logistical considerations.

2) Approximately six of the highest ranked sites will be test excavated using standard archaeological procedures to derive stratigraphic data and confirm site integrity.

Grant Requirements

The Grantee is required to provide the following items or services.

A) Upon completion of field work a Management Summary will be completed. This summary will provide an overview of work accomplished and directions which will be taken in analysis of materials. Any preliminary findings will be presented.

B) A professional research report will be prepared incorporating the report requirements stipulated in Chapter III of the Draft Cultural Resources Code of Louisiana. This report will include a research design and methodology section. A standardized format and style of current professional archaeologists' journals will be used (i.e., American Antiquity's Style Guide). The title page of this report must read "Funded by grants from the United States Department of the Interior and administered by the Division of Archaeology, Office of Cultural Development, Department of Culture, Recreation and Tourism."

C) A draft of this report will be submitted to the Division for comment prior to production of the final report. Thirteen (13) copies of the final report will be submitted. Quarterly reports will be submitted along with Quarterly Billings. The Management Summary may take the place of one Quarterly Report.

D) A three-page, double spaced, popularly oriented, project summary will be prepared for public distribution. Completion of this report may be made at any time during the grant period.

E) Upon completion of the final report, the Grantee will make all arrangements for stabilization and curation of artifacts at a location approved by the Division.

F) Ten (10) color slides and three (3) 5 X 7 black and white prints of the project will be supplied to the Division of Archaeology.

G) The Grantee will be responsible for cataloging all artifacts. Upon completion of the final report, the Grantee will present copies of all field notes, site forms, artifact catalogs, and any other documents pertaining to this project to the Division of Archaeology.

H) Should archaeological deposits be found, which in the opinion of the Grantee warrant nomination to the National Register of Historic Places, a nomination form will be completed.

I) At least one project visit by a staff member of the Division of Archaeology will be scheduled at the convenience of the Grantee.

Time Schedule

Fieldwork will begin within ten (10) days of notice to proceed. A draft report will be submitted prior to the final report. Final report due July 31, 1986.

Personnel Requirements

The Principal Investigator and supervisory personnel will meet the minimum standards set by the Draft Cultural Resources Code of Louisiana.

APPENDIX C

Vitae for Principal Project Personel

Principal Investigator:

Dr. Stephen Williams
Peabody Professor of North American Archaeology and Ethnology, Harvard University

B.A.	Yale University	1949
M.A.	University of Michigan	1950
Ph.D.	Yale University	1954
Curator, North American Archaeology, Peabody Museum, Harvard University		
Director, Lower Mississippi Survey, Peabody Museum		1963-
Director, LMS excavations at the Lake George site, Mississippi		1958-1960
Director, LMS Tensas Basin Survey, Louisiana		1963-1964
Director, LMS Boeuf Basin Reconnaissance, Louisiana		1981
Director, LMS Northern Boeuf Basin Survey, Louisiana		1983
Director, LMS Southern Boeuf Basin Survey, Louisiana		1984

Field Director:

Tristram R. Kidder
Graduate Student (G-5), Department of Anthropology, Harvard University

B.A.	Tulane University	1982
Field Director, LMS Northern Boeuf Basin Survey		1983
Field Supervisor, Texico Pipeline Survey, Tulane University		1981
Faunal analyst, St. Charles Parish Survey, Tulane University		1979-1980

Appendix D

SOURCES FOR ARTIFACT ILLUSTRATIONS

Plate 1:
All artifacts, K580

Plate 3:
a) K1578; b-j) R. Barham collection, Oak Ridge, Louisiana

Plate 4:
a-b) S. L. Parks collection, Oak Ridge, Louisiana

Plate 10:
a) K1501G; b) K1501F; c) K1500D; d) K1500C; e) K1536D; f) K914; g) K1501F; h) K1500C; i) K504; j) K1502C; k) K11501H; l) K1536B

Plate 11:
a) K1501B; b) K1502I; c) K1536F; d) K1501F; e) K1502C; f) K1501C; g) K1536G; h) K1536F; i) K1536E; j) K1500D; k) K1500D; l) K1536J

Plate 12:
a) K1501G; b) K1536E; c) K1502E; d) K1536I; e) K1536E; f) K1500C; g) K1536I; h) K1536L; i) K1501I; j) K1500D; k) K901;

Plate 17:
a) K1608D; b) K1610N; c) K1609D; d) K1608E; e) K1608F; f) K1610T; g) K1606D; h) K1606E; i) K1608D; j) K1610X; k) K1610X; l) K1610X

Plate 18:
a) K1610D; b) K1610F; c) K1610D; d) K1610F; e) K1610E; f) K1610C; g) K1610E; h) K1610C; i) K1610F; j) K1610E; k) K1610E; l) K1610C

Plate 19:
a) K1609C; b) K1607B; c) K1606E; d) K1606A; e) K1610U; f) K1610A; g) K1608D; h) K1610A; i) K1607F

Plate 25:
a) K1927A, K1927B; b) K1927C; c) K1927C, K1927D; d) K1932D, K1932E; e) K1911; f) K1929H; g) K1929H; h) K1929H; i) K1929H; j) K1929G; k) K1929G; l) K1929G

Plate 26:
a) K1930G; b) K1929D; c) K1929G; d) K931E; e) K1928E; f) K1927I; g) K1928P; h) K1929G; j) K1930G; k) K1929G

Plate 27:
a) K1930M; b) K1929K; c) K1929K; d) K1929K; e) K1929K, K1930M; f) K1930L, K1930M

Plate 28:
a) K1930G; b) K1932I; c) K1845; d) K1929C; e) K1930G; f) K1933E; g) K1929G; h) K1929H; i) K1932D; j) K1929E; k) K1928P; l) K1928D; m) K1928G; n) K1928P; o) K1927H

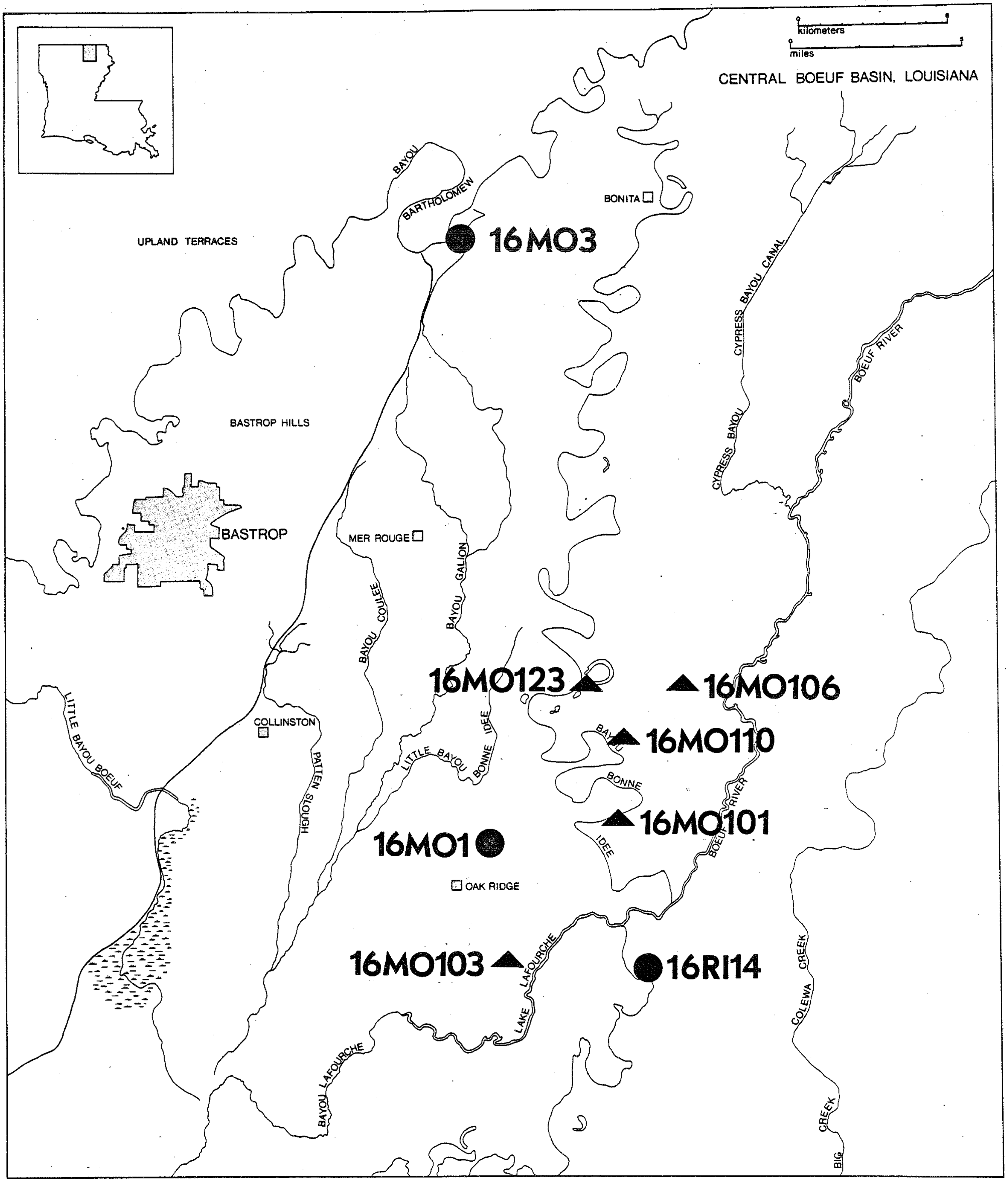
Plate 29 (part I):
a) K1929H, K1929J, K1929N; b) K1929H, K1929K; c) K1929H; d) K1930L; e) K1929H; f) K1929P

Plate 29 (part II):
a) K1930M; b) K1930N; c) K1930M; d) K1929P; e) K1929O; f) K1930M; g) K1929G, K1929H

Plate 30:
a) K1927C; b) K1929P; c) K1930M; d) K1881; e) K1928F; f) K1930M; g) K1927D; h) K1927O; i) K1918; j) K1929); k) K1929K, K1929N; l) K1929K

Plate 31:
a) K1929G; b) K1931G; c) K1932G; d) K1929K; e) K1930M; f) K1931E; g) K1933C; h) K1927C; i) K1931C; j) K1882; k) K1927B; l) K1799; m) K1929P; n) K1929Q

Plate 32:
a) K1934E; b) K1928P; c) K1928F; d) K1927A; e) K1930C; f) K1933B; g) K1930A; h) K1933E; i) K1883

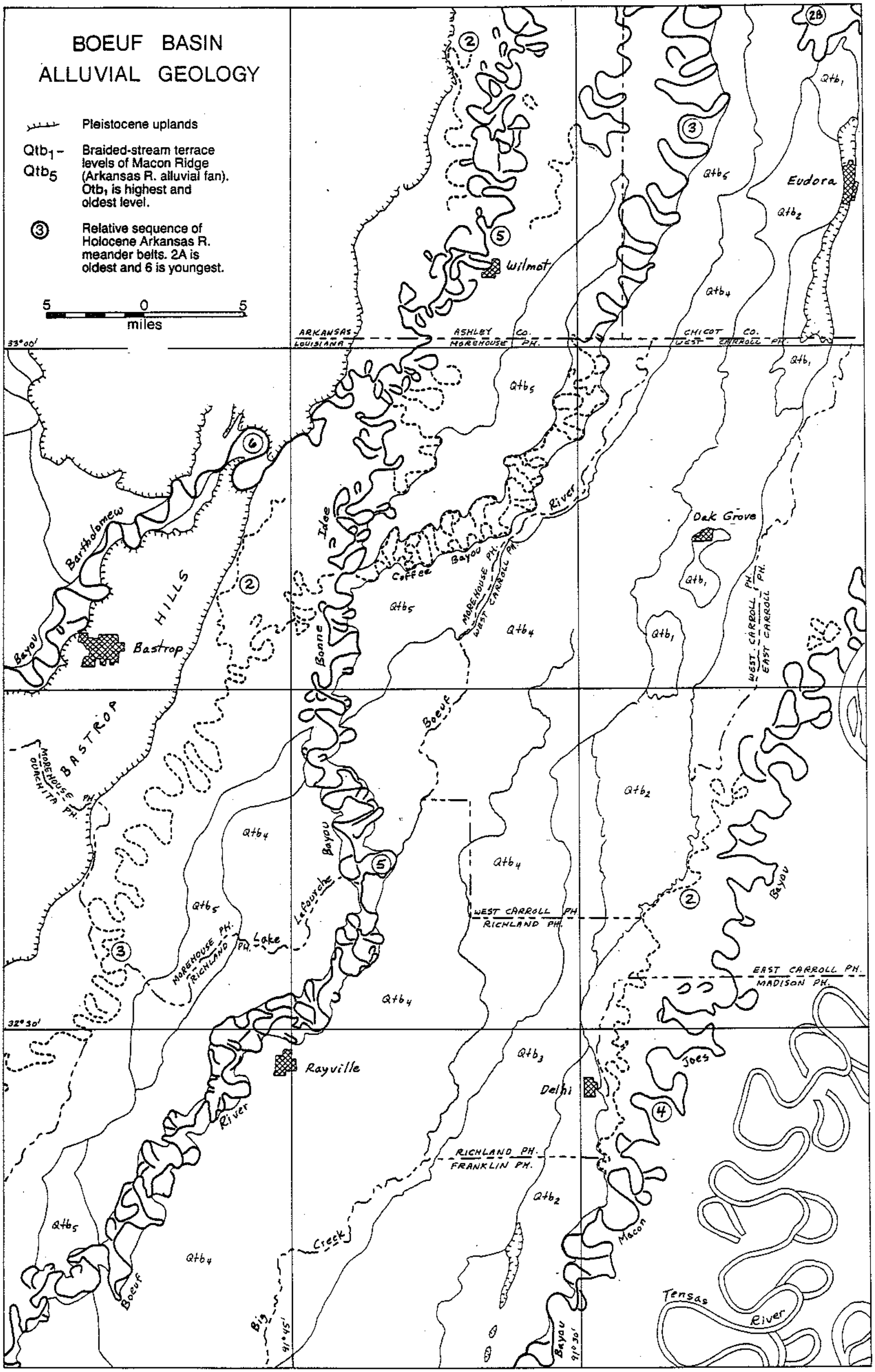


MAP 1:

Central Boeuf Basin, Louisiana, showing location of sites tested by the Lower Mississippi Survey in 1985.

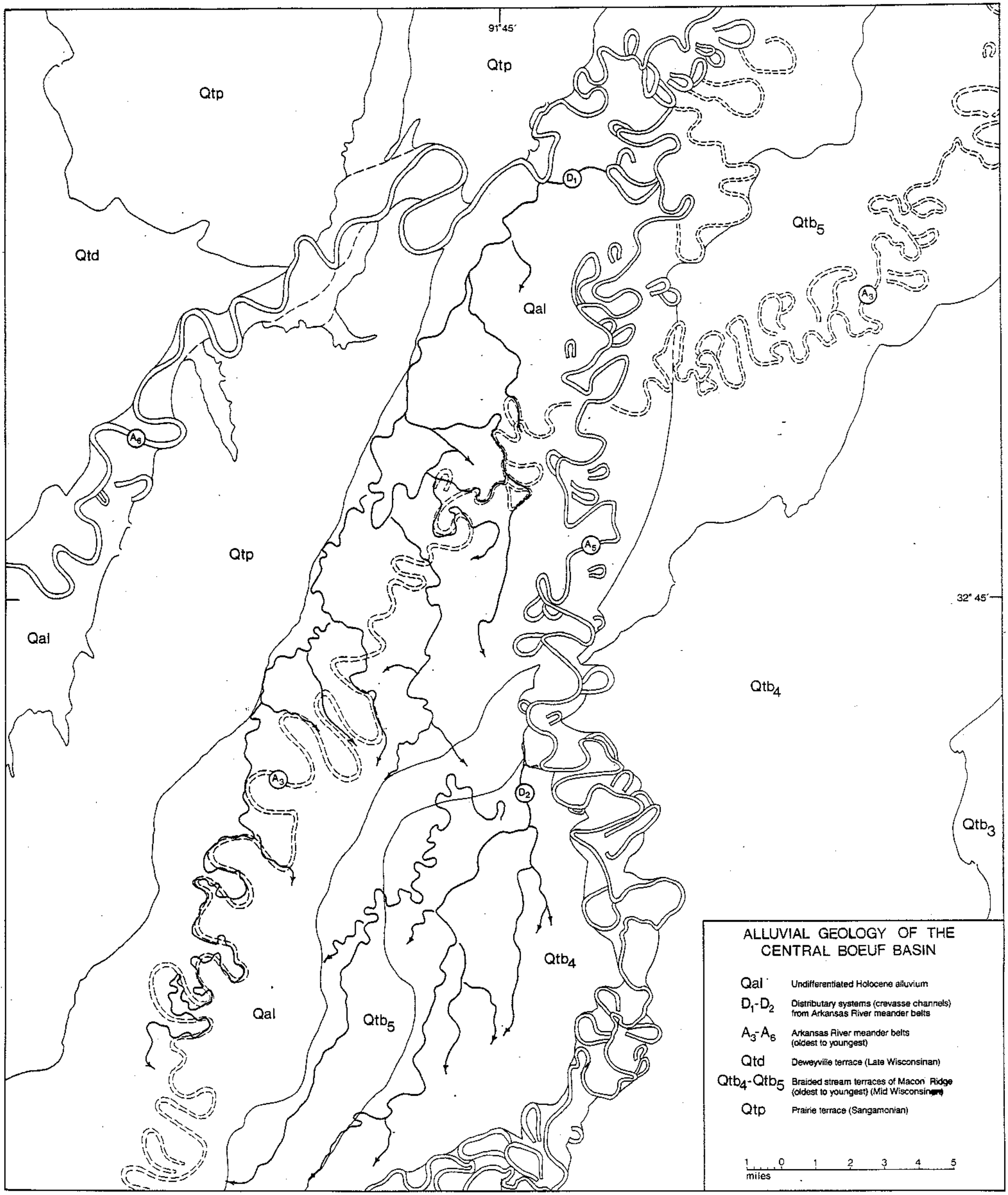
MAP 2:

Geology of the Boeuf Basin, Arkansas and Louisiana

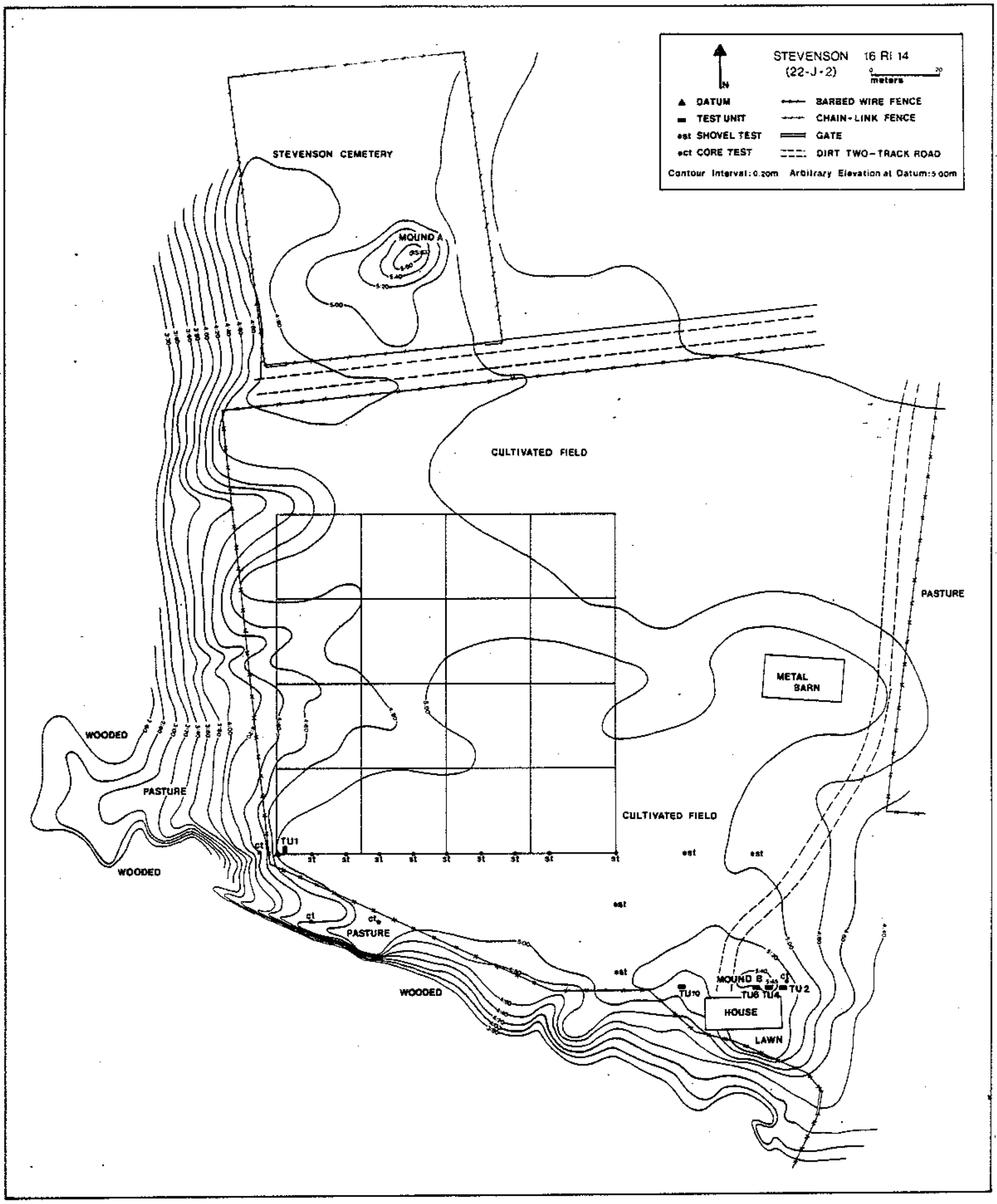

BOEUF BASIN
ALLUVIAL GEOLOGY
Pleistocene uplands
Qtb1 - Qtb5
Braided-stream terrace levels of Macon Ridge (Arkansas R. alluvial fan). Qtb1 is highest and oldest level.
3
Relative sequence of Holocene Arkansas R. meander belts. 2A is oldest and 6 is youngest.
5 0 5
miles
33°00'
32°30'
91°45'
91°30'
ARKANSAS
LOUISIANA
ASHLEY CO.
MOREHOUSE PH.
CHICOT CO.
WEST CARROLL PH.
Wilmot
Eudora
Bastrop
Oak Grove
Rayville
Delhi
BASTROP HILLS
Bartholomew
Bayou
Bayou Bonne Idee
Coffee Bayou
Boeuf River
Bayou Lafourche
Lake
Big Creek
Bayou Macon
Joes Bayou
Tensas River
MOREHOUSE PH.
OUACHITA PH.
MOREHOUSE PH.
RICHLAND PH.
WEST CARROLL PH.
RICHLAND PH.
RICHLAND PH.
FRANKLIN PH.
WEST CARROLL PH.
EAST CARROLL PH.
EAST CARROLL PH.
MADISON PH.
Qtb1
Qtb2
Qtb3
Qtb4
Qtb5
Qtb6

MAP 3:

Geology of the Central Boeuf Basín, showing Mer Rouge and Oak Ridge Distributary systems.



91°45′
Qtp
Qtp
D1
Qtd
Qtb5
Qal
A3
A6
Qtp
A5
32° 45′
Qal
Qtb4
A3
D2
Qtb3
Qtb4
Qal
Qtb5
ALLUVIAL GEOLOGY OF THE
CENTRAL BOEUF BASIN
Qal Undifferentiated Holocene alluvium
D1-D2 Distributary systems (crevasse channels) from Arkansas River meander belts
A3-A6 Arkansas River meander belts (oldest to youngest)
Qtd Deweyville terrace (Late Wisconsinan)
Qtb4-Qtb5 Braided stream terraces of Macon Ridge (oldest to youngest) (Mid Wisconsinan)
Qtp Prairie terrace (Sangamonian)
1 0 1 2 3 4 5
miles

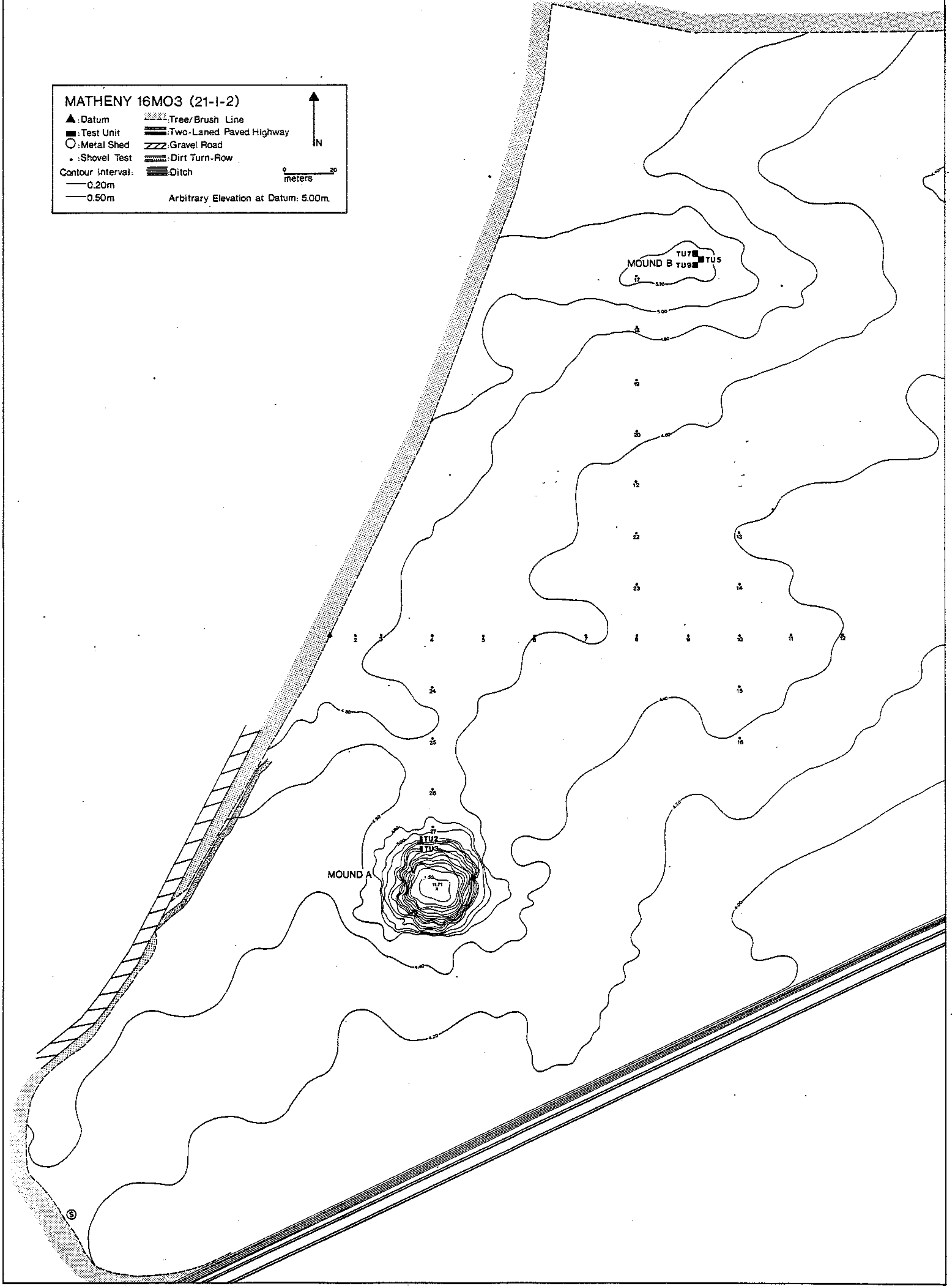


MAP 4:

Stevenson, 16RI14 (22-J-2)

MAP 5:

Matheny, 16MO3 (21-I-2)



MATHENY 16MO3 (21-I-2)
:Datum
:Test Unit
:Metal Shed
:Shovel Test
Contour Interval:
0.20m
0.50m
:Tree/Brush Line
:Two-Laned Paved Highway
:Gravel Road
:Dirt Turn-Row
:Ditch
N
0
20
meters
Arbitrary Elevation at Datum: 5.00m.
MOUND B
TU7
TU9
TU5
MOUND A
TU2
TU3

MAP 6:

Matheny, 16MO3 (21-I-2)

a) Matheny site area

b) Matheny site

(From Brodnax 1880, Diagrams I and II)

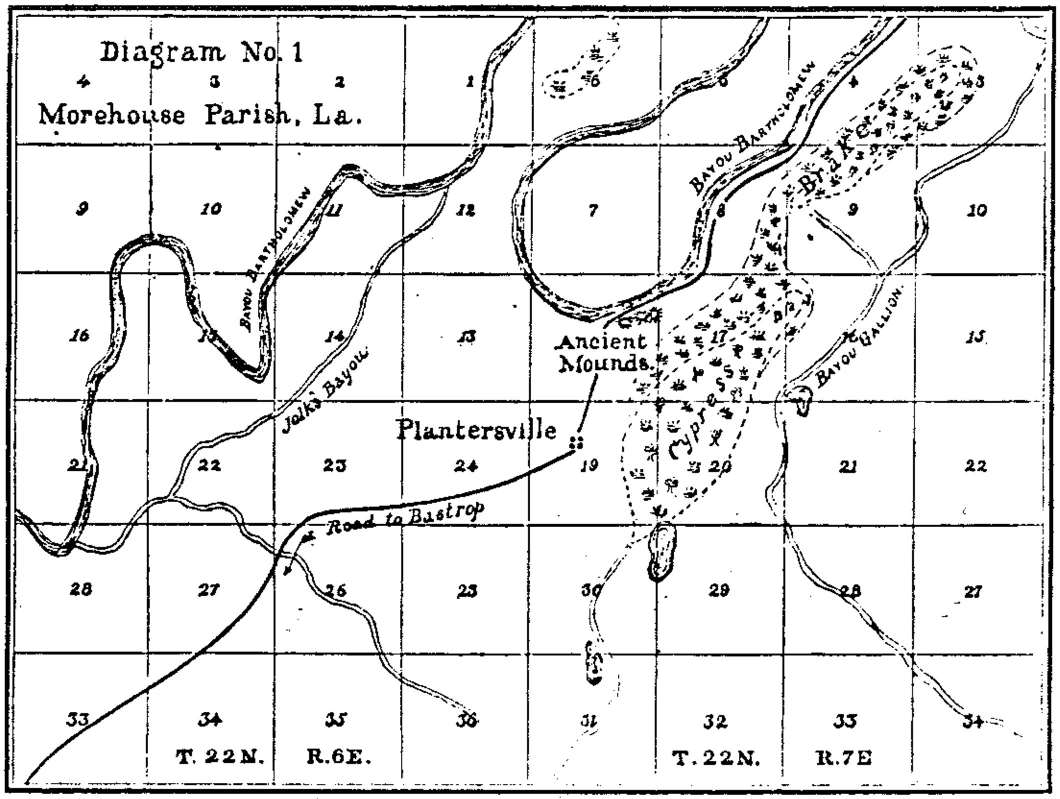


Diagram No. 1
Morehouse Parish, La.
Bayou Bartholomew
Jolks Bayou
Ancient Mounds.
Plantersville
Road to Bastrop
Cypress
Brake
Bayou Gallion
T. 22 N.
R. 6 E.
T. 22 N.
R. 7 E

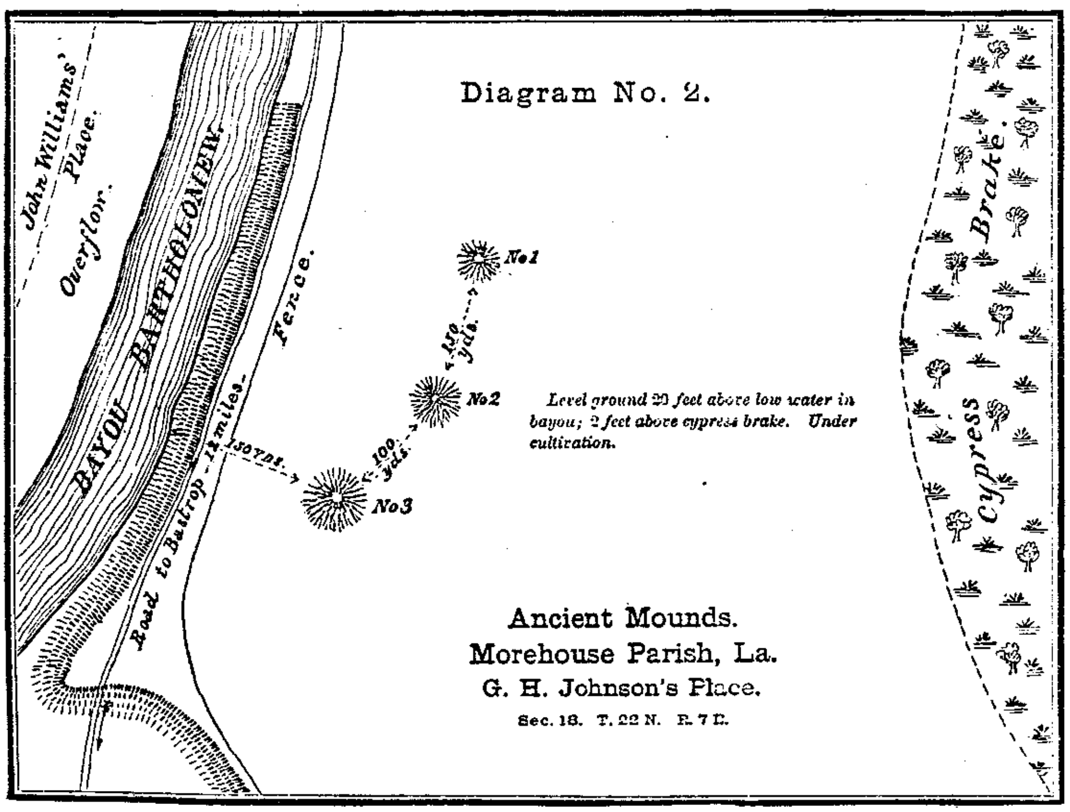


Diagram No. 2.
John Williams' Place.
Overflow.
BAYOU BARTHOLOMEW
Fence.
Road to Bastrop 12 miles
No 1
150 yds.
No 2
100 yds.
150 yds.
No 3
Level ground 20 feet above low water in bayou; 2 feet above cypress brake. Under cultivation.
Cypress
Brake.
Ancient Mounds.
Morehouse Parish, La.
G. H. Johnson's Place.
Sec. 18. T. 22 N. R. 7 E.

MAP 7:

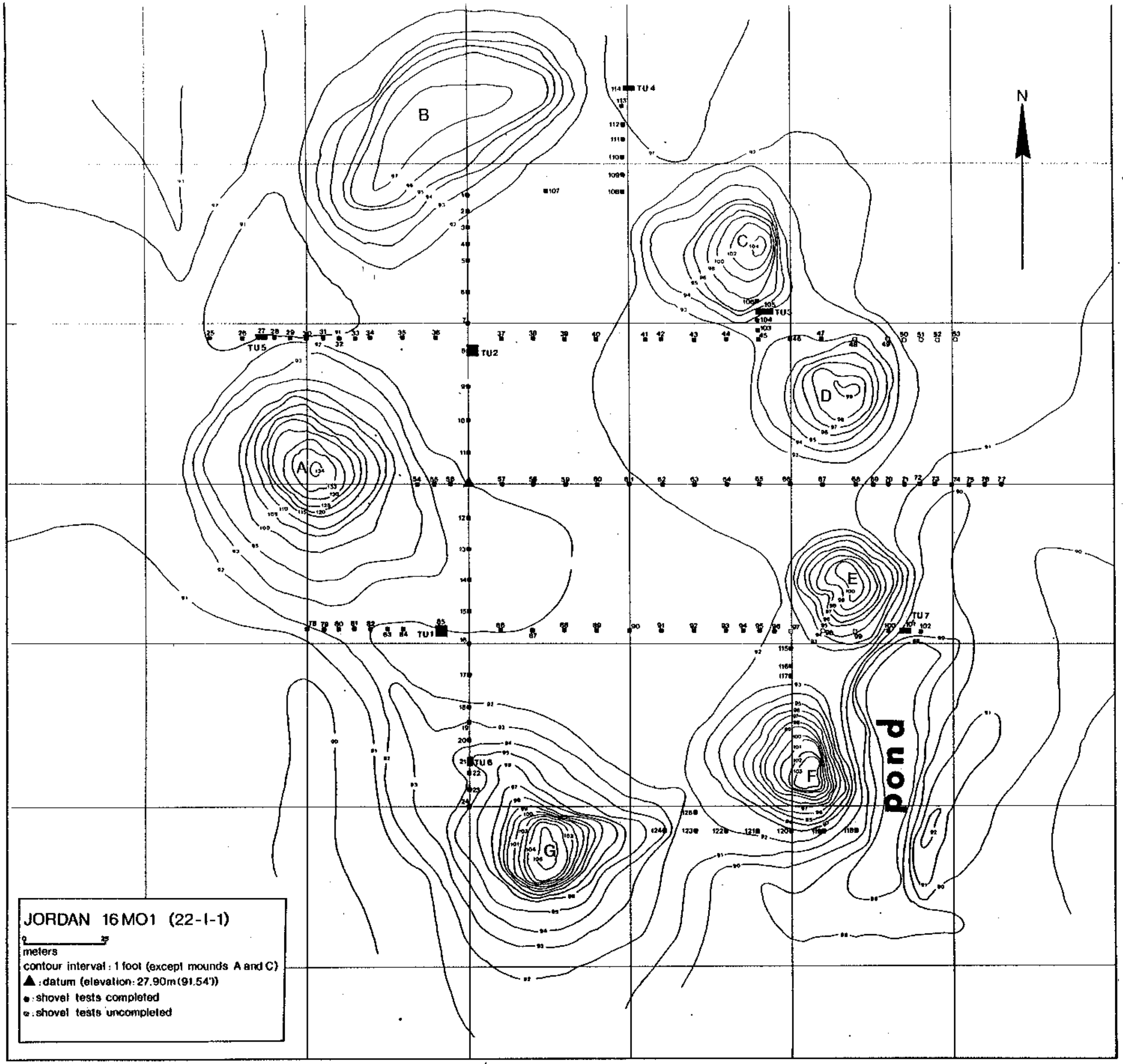
Jordan, 16M01 (22-I-1)

Aerial photograph of mound group and surrounding terrain (photo date 1983)


MOUNDS
5 4
8 9
43 8
44 45
8 9
9 42
45 48
47 41
46 50
41 40
48
44
8
8
4
17 16
46
16
47
17 16
20 21
16

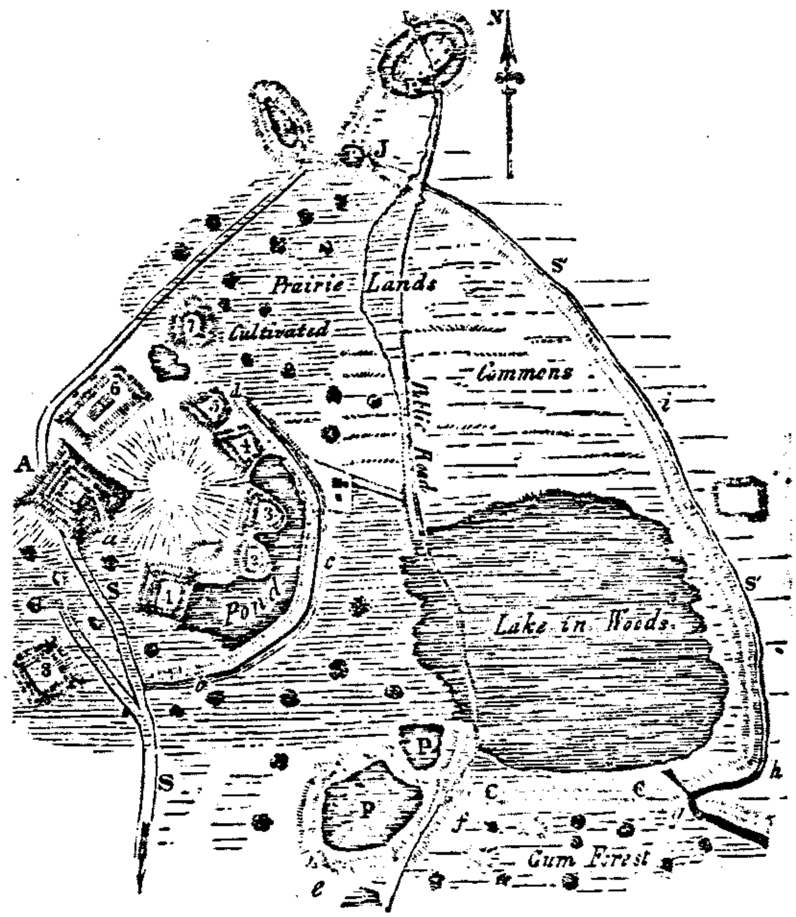
MAP 8:

Jordan, 16M01 (22-I-1); mound group


N
B
C
D
E
F
G
A
pond
TU1
TU2
TU3
TU4
TU5
TU6
TU7
JORDAN 16MO1 (22-I-1)
0 25
meters
contour interval: 1 foot (except mounds A and C)
▲: datum (elevation: 27.90m (91.54'))
●: shovel tests completed
○: shovel tests uncompleted

MAP 9:

Forshey's published map of the Jordan site, 16MO1 (22-I-1), 1845 (reproduced from Forshey, 1845)



DIMENSIONS OF THE MOUNDS.

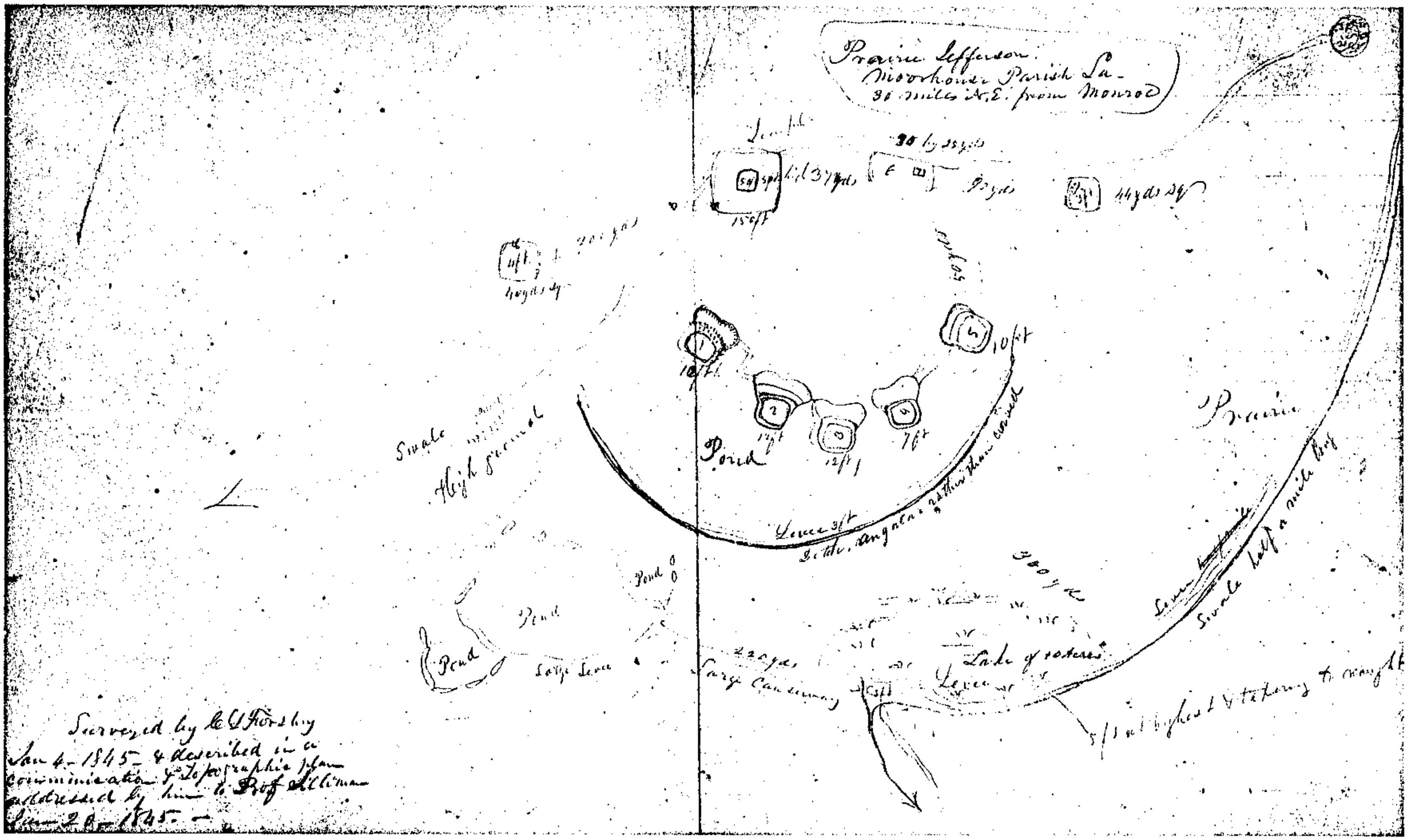
		length in yds.	width in yds.	height in ft.
Temple (A),		45	60	48
Temple on summit,		17	15	—
No. 1, (summit,)		20	14	10
Causeway from 1 to 2,		45	4 base	3
No. 2, (summit,)	in rear,	20	14	12
	in front,	26		
No. 3, "	in rear,	13	17	12
	in front,	20		

		length in yds.	width in yds.	height in ft.
No. 4, summit,	in front,	20	18	7
	in rear,	20		
No. 5, "	in rear,	9		
	in front,	12	15	10
No. 6, "		70	25	5
No. 7, (base,)		44	44	4
No. 8, (summit,)		40	40	4
Causeway bed,		330	2 to 4	1 to 3
Ditch bed,		330	1 to 3	1 to 3

C, C. Causeway four feet high and forty feet base.—P. Ponds.—S, S. Natural swale.—S′, S′. Swale of regular channel, embanked inside in low grounds.

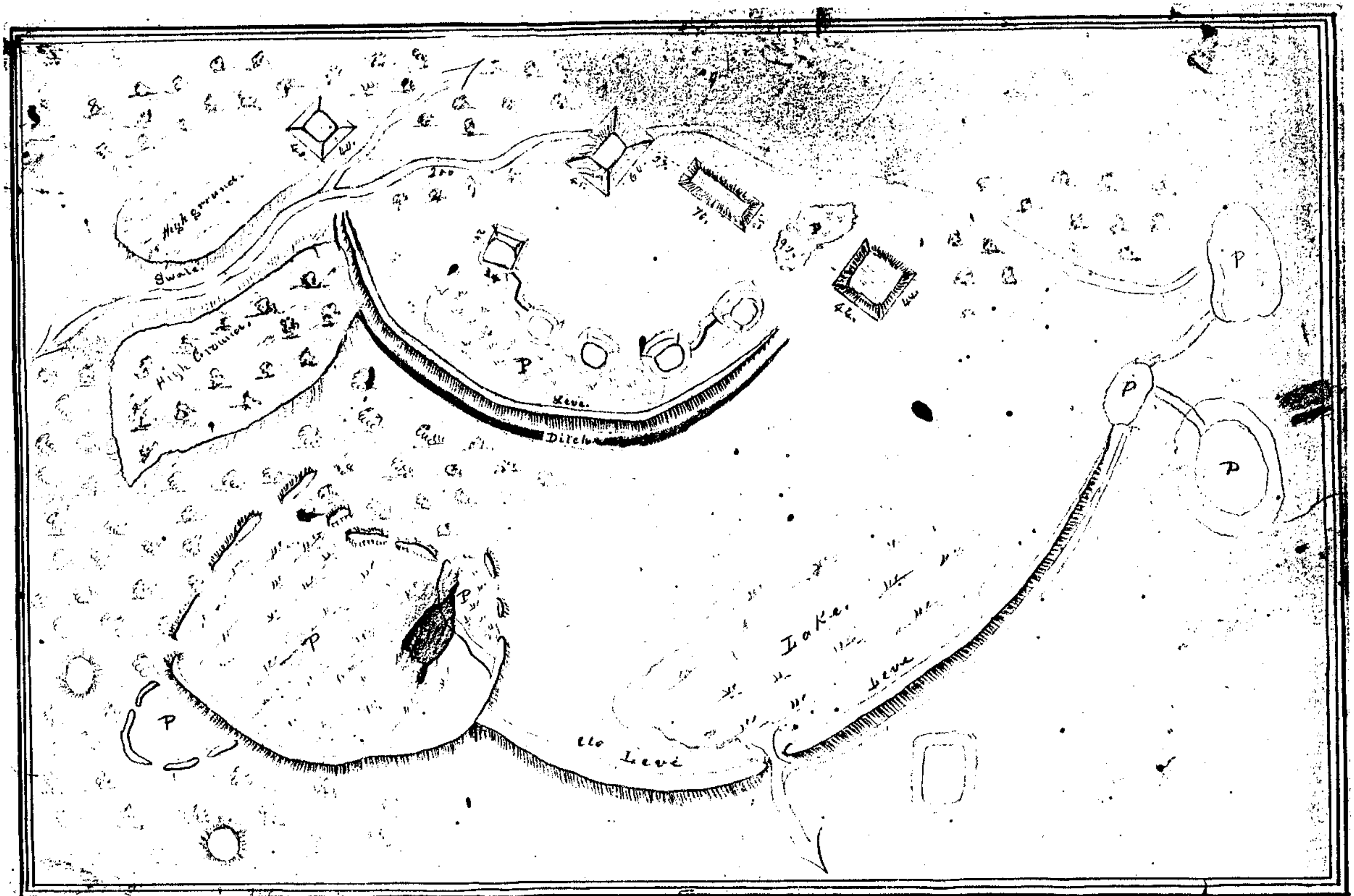
MAP 10:

First unpublished draft of Forshey's map of the Jordan site, 16MO1 (22-I-1), 1845 (reproduced with permission of the University Museum, University of Pennsylvania)


Prairie Jefferson
Moorhouse Parish La.
30 miles N.E. from Monroe
30 by 33 yds
37 yds
44 yds sq
15 ft
10 ft
12 ft
7 ft
Pond
Levee 3 ft
Prairie
Swale half a mile long
Swale
High ground
Lake of 10 acres
Levee
Pond
Large Levee
Surveyed by C G Forshey
Jan 4 - 1845 - & described in a
communication & topographic plan
addressed by him to Prof Silliman
Jan 20 - 1845 -

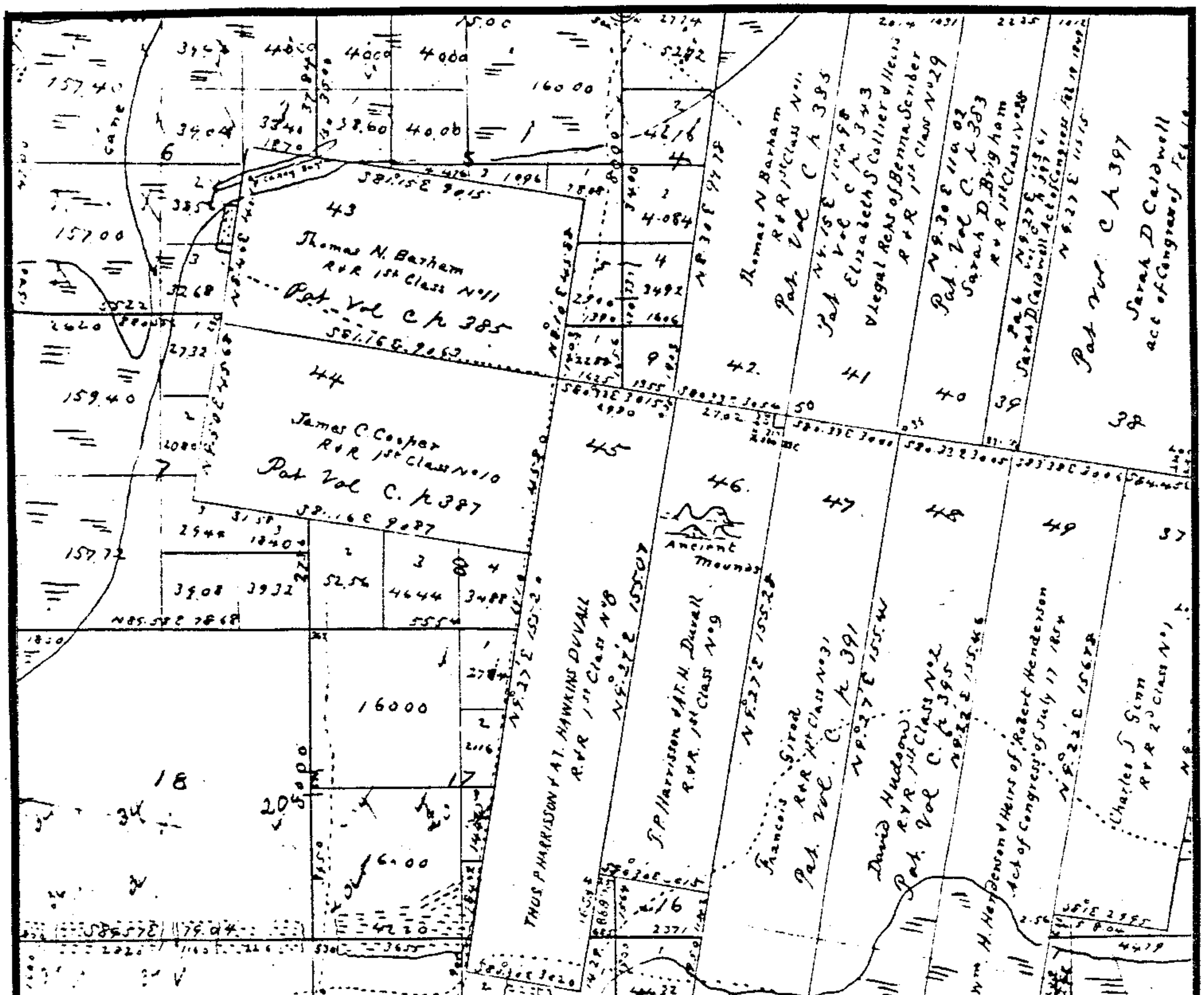
MAP 11:

Second unpublished draft of Forshey's map of the Jordan site, 16MO1 (22-I-1), 1845 (reproduced with permission of the University Museum, University of Pennsylvania)


High ground
Swale
High Ground
Leve
Ditch
Lake
Leve
Old Leve

MAP 12:

United States General Land Office plat of portion of T19N, R7E, District North of Red River, 1855


Thomas N. Barham
R&R 1st Class No 11
Pat Vol C p 385
James C Cooper
R&R 1st Class No 10
Pat Vol C p 387
Thos P Harrisson & At. Hawkins Duvall
R&R 1st Class No 8
T.P. Harrisson & At. H. Duvall
R&R 1st Class No 9
Francois Girod
R&R 1st Class No 31
Pat Vol C p 391
David Hudson
R&R 1st Class No 2
Pat Vol C p 395
Wm H. Henderson & Heirs of Robert Henderson
Act of Congress of July 17 1854
Charles J Ginn
R&R 2d Class No 1
Thomas N Barham
R&R 1st Class No 11
Pat Vol C p 385
Elizabeth S Collier & Heirs
Legal Reps of Benna Scriber
R&R 1st Class No 29
Sarah D. Brigham
Sarah D Caldwell
Pat Vol C p 397
Sarah D Caldwell
act of Congress of Feb
Ancient Mounds
Cane
43
44
45
46
47
48
49
42
41
40
39
38
37
6
7
18
17
16
19
20
21
22
30
29
28
27

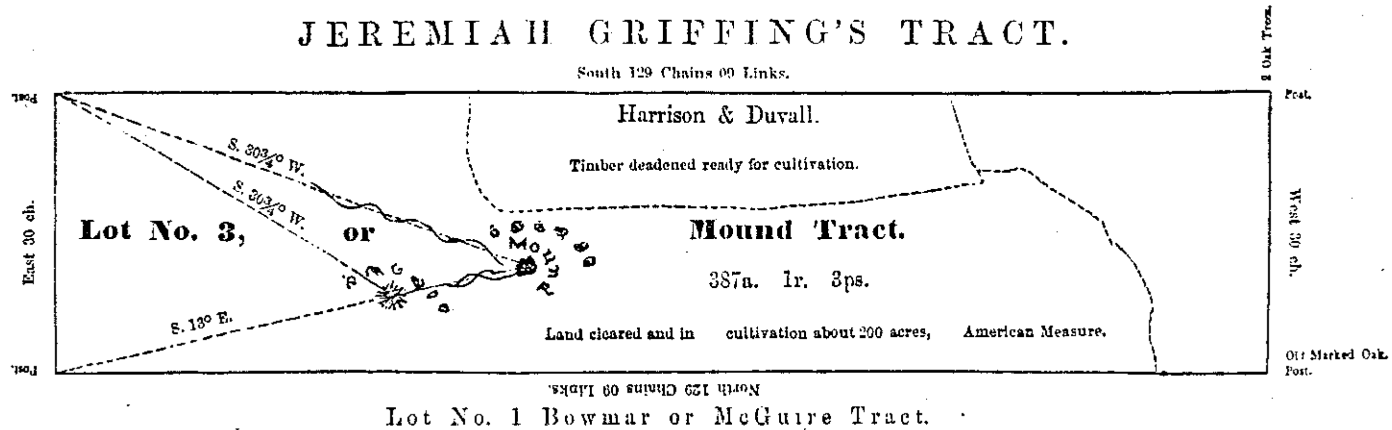
MAP 13:

a) 1849 plat of the "Mound Tract", T19N, R7E, District North of Red River (reproduced from U.S. Senate document four, second session, 1852, p. 166)

b) 1849 plat of the "Bowmar Tract", T19N, R7E, District North of Red River (reproduced from U.S. Senate document four, second session, 1852, p. 198)

LOT NO. 5.

JEREMIAH GRIFFING'S TRACT.



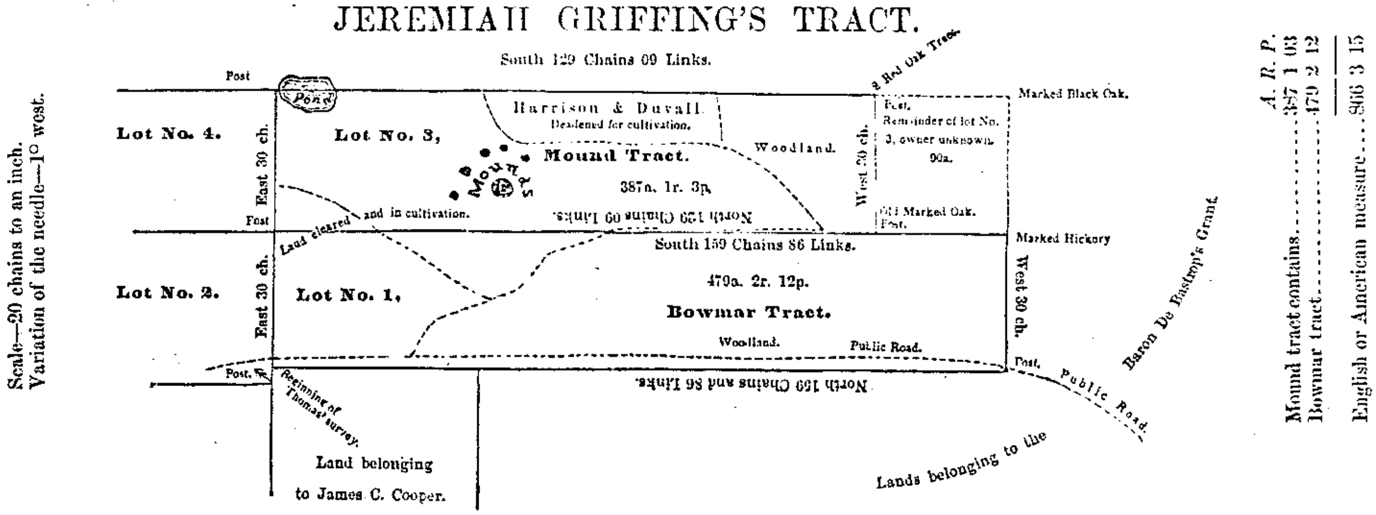
Scale 20 Chains to an inch, variation of the Needle 1° West.

I do hereby certify the above figurative plat is a true copy of the original, which was filed in a suit entitled "Harrison and Duvall *vs.* the United States," in the district court in the city of New Orleans. Survey made at the request of Messrs. Harrison and Duvall. Surveyed April, A. D. 1849.

ANDREW B. CLACK,
Parish Surveyor, Morehouse Parish, Louisiana.

LOT NO. 5.

JEREMIAH GRIFFING'S TRACT.



Explanations.

...... The dotted lines denote the fencing and public road.

——— The marked lines denote the boundaries and divisions between the lots.

The shaded part represents woodland, and the unshaded parts the cleared land, of which there is estimated to be about 355 acres.

I do hereby certify the within figurative plats are the same lands as described in the accompanying plats, being lots Nos. 1 and 3 in the Jefferson surveys, surveyed April, A. D. 1849.

A. B. CLACK,
Parish Surveyor, Morehouse Parish, La.

Medium grey-brown silt loam/ plowzone (I)

Dark grey-brown silt loam/ shell midden--Feature 4 (II)

Dark grey-brown silt loam w/ sparse shell--Feature 4 (II)

Homogeneous medium brown silt loam (III)

Brown-beige mottled silt loam (III)

Red-brown silty clay w/ beige and grey mottling (IV)

Grey-brown silt loam w/ grass and roots (I)

Medium brown silt loam midden (VI)

Light brown silt loam midden (VI)

Dark brown silt loam midden (VI)

Homogeneous tan silt loam (VII)

Medium brown mottled silt loam (VII)

Light brown silt loam, possibly disturbed midden

Light brown silt loam w/ tan and red mottling (VII)

Tan silt loam w/ red mottling (V)

Beige silt loam (VIII)

Red-beige clayey silt loam w/ brown mottling (V)

Dark grey brown ash, charcoal and shell concentration (VI)

Mottled brown, grey and tan silt loam--Feature 2 (X)

Grey-brown silt loam (X)

Red-brown silty clay (V)

Tan-brown mottled silt loam (X)

Medium brown silt loam w/ historic disturbance (IX)

Red-beige clayey silt loam (V)

Unexcavated

▲ Sherd

● Stone

□ Historic metal

■ Bone

FIGURE 1
STEVENSON, 16RI14 (22-J-2)
Key to Profiles
(Stratum Designations in Parentheses)

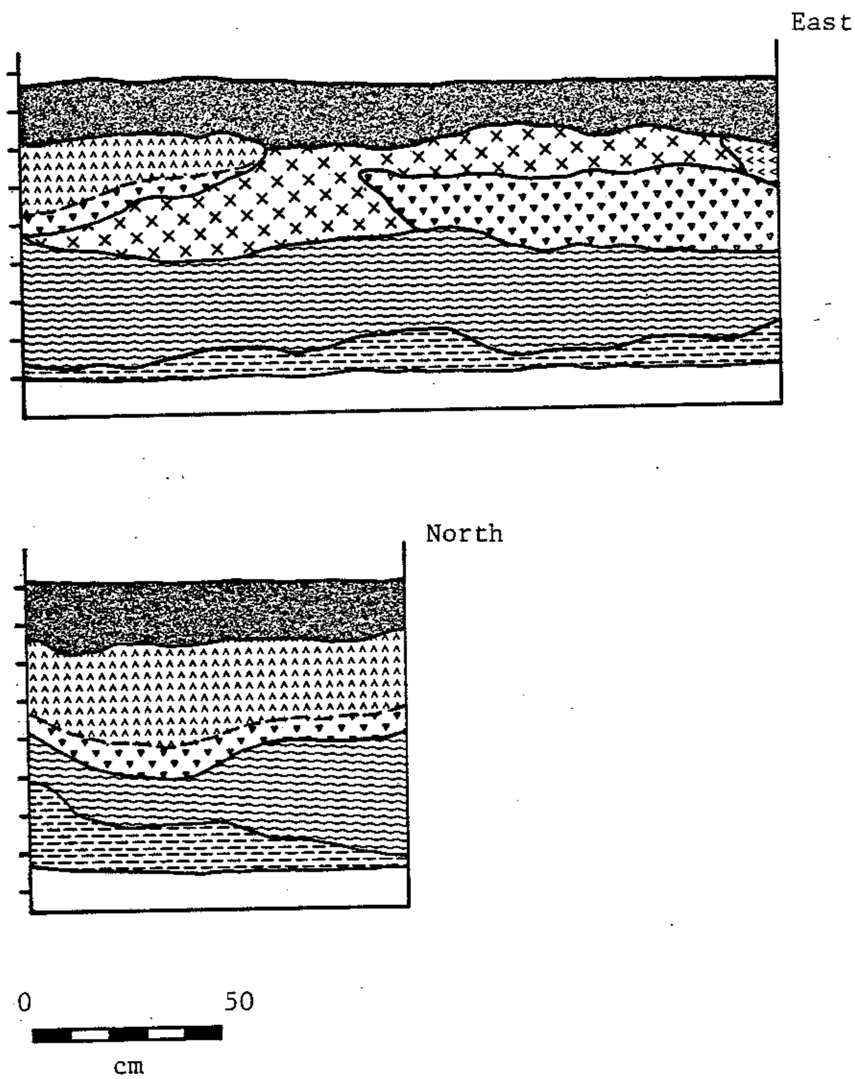


FIGURE 2
STEVENSON, 16RI14 (22-J-2)
Test Unit One
East and North Profiles

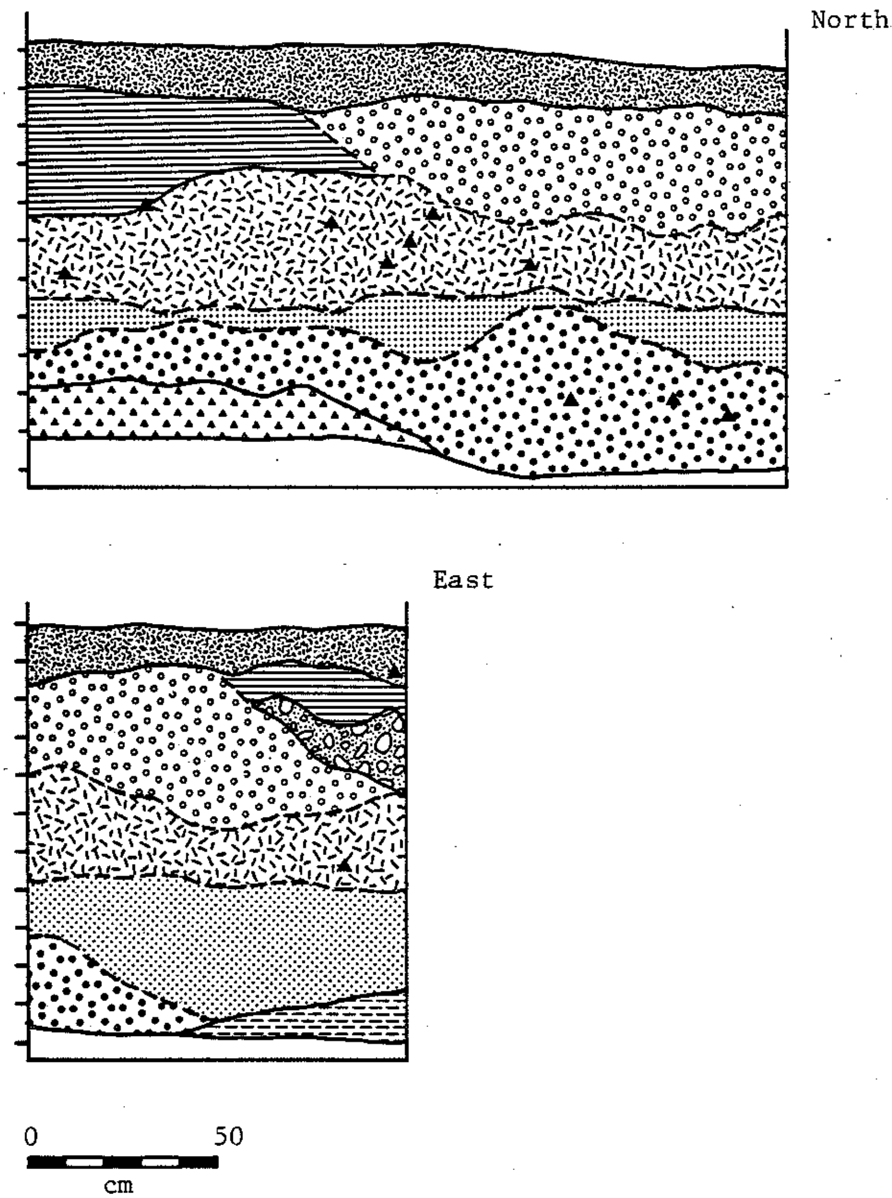


FIGURE 3
STEVENSON, 16RI14 (22-J-2)
Test Unit Two
North and East Profiles

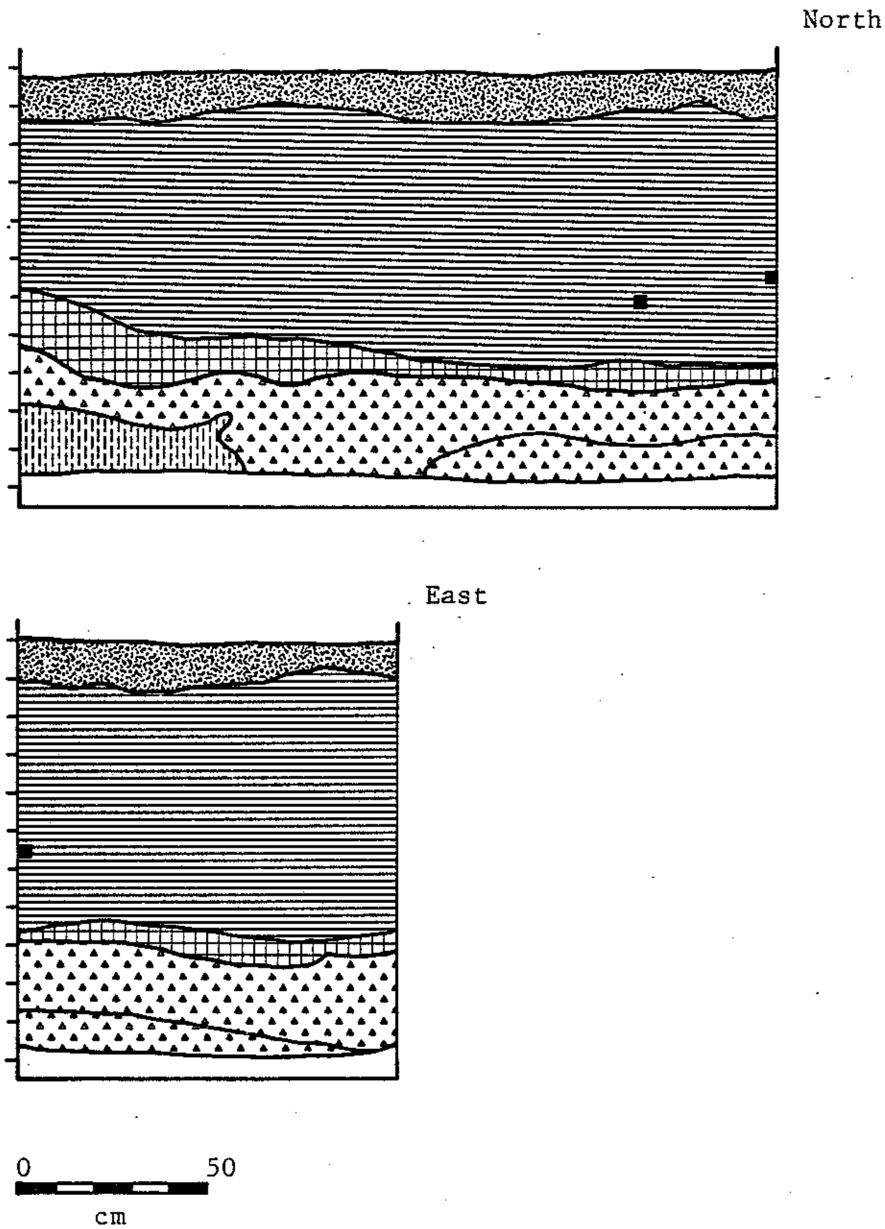
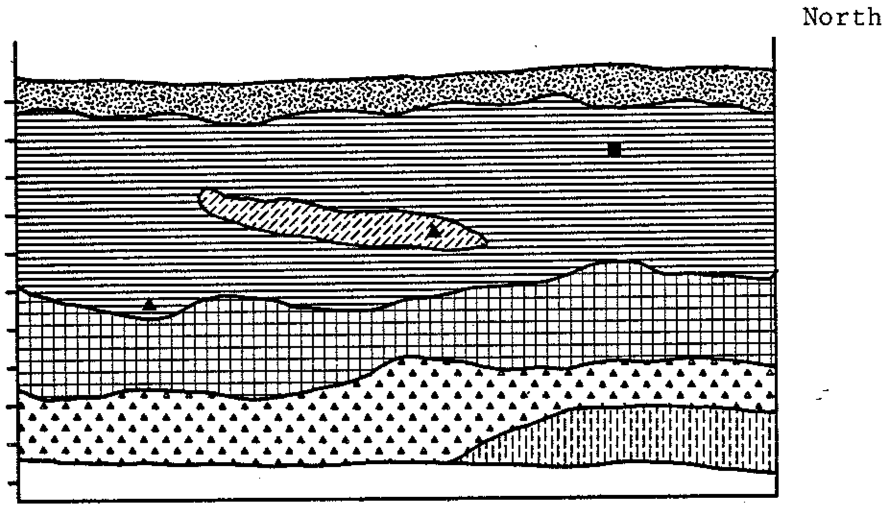


FIGURE 4
STEVENSON, 16RI14 (22-J-2)
Test Unit Four
North and East Profiles



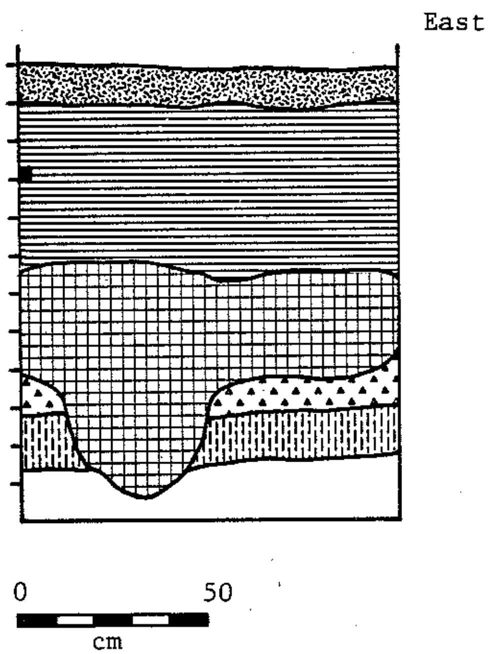


FIGURE 5
STEVENSON, 16RI14 (22-J-2)
Test Unit Six
North and East Profiles

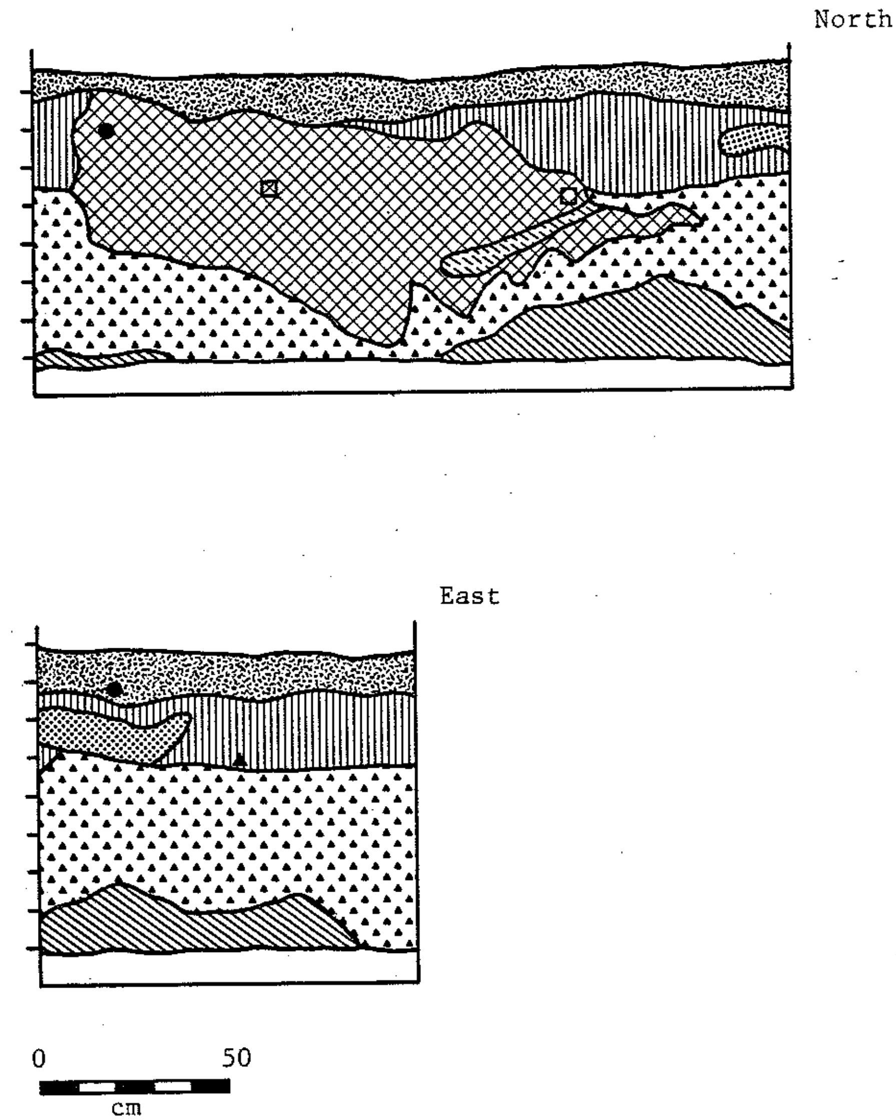


FIGURE 6
STEVENSON, 16RI14 (22-J-2)
Test Unit Ten
North and East Profiles

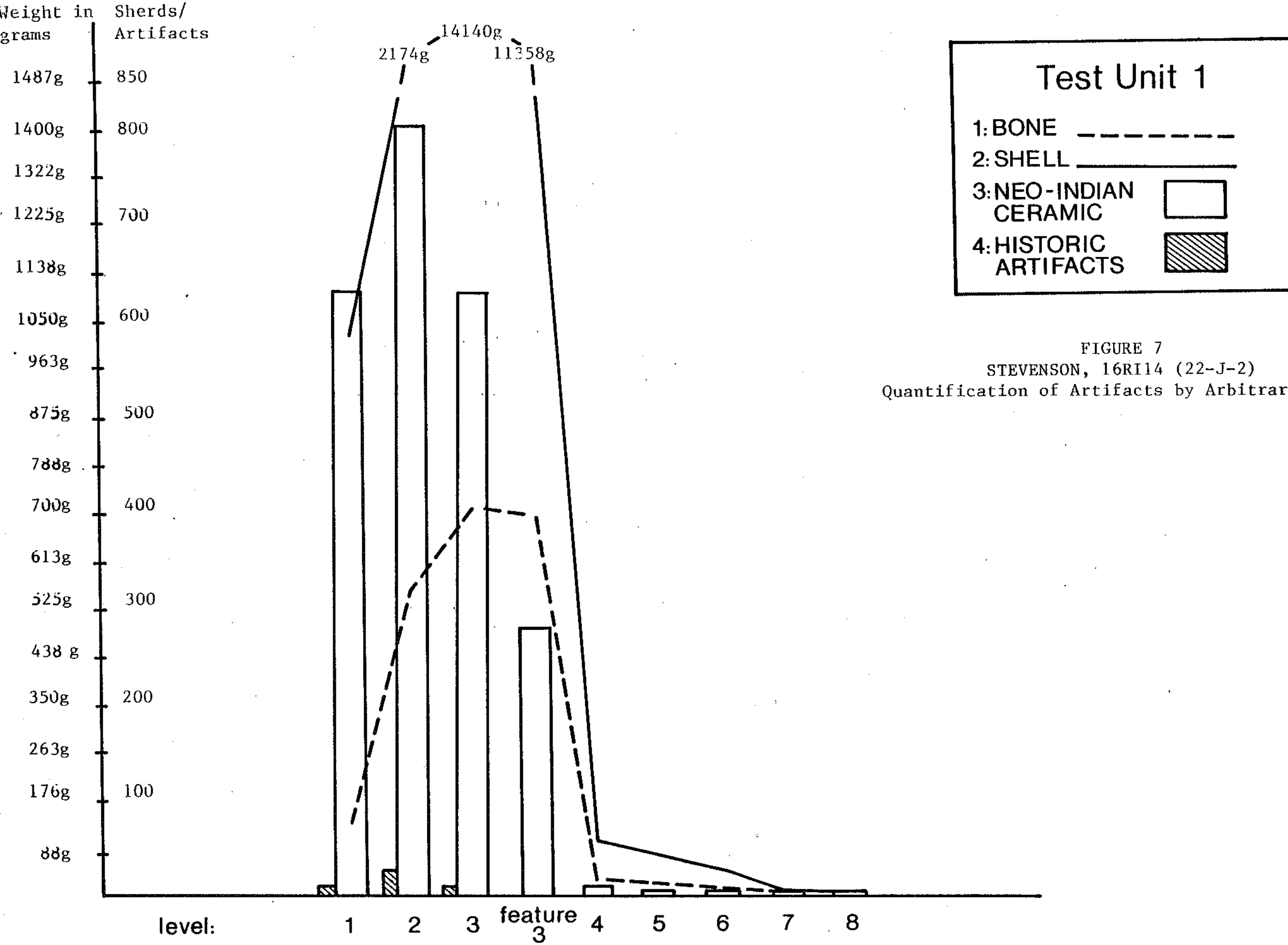
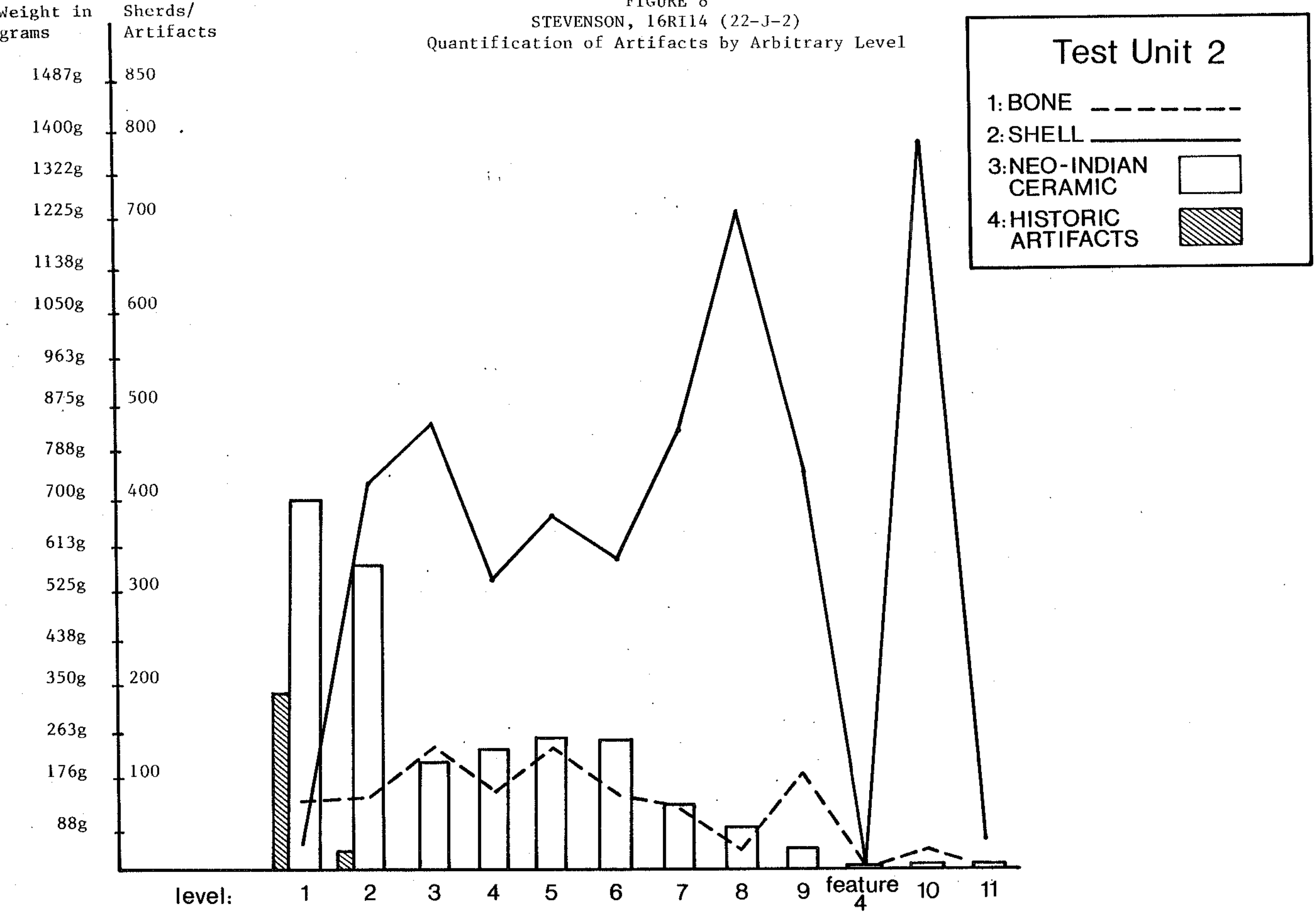


FIGURE 7
STEVENSON, 16RI14 (22-J-2)
Quantification of Artifacts by Arbitrary Leve

FIGURE 8
STEVENSON, 16RI14 (22-J-2)
Quantification of Artifacts by Arbitrary Level



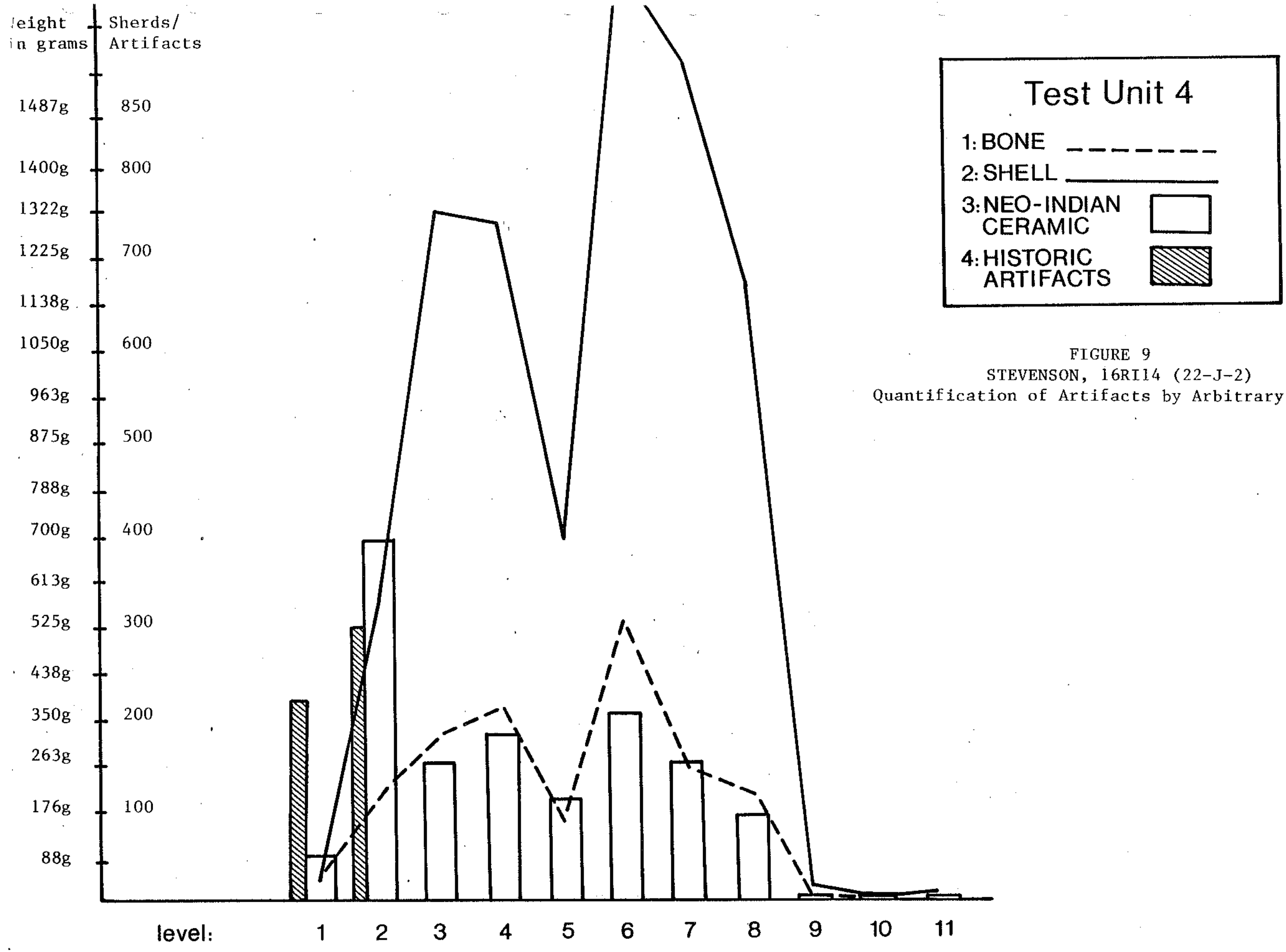
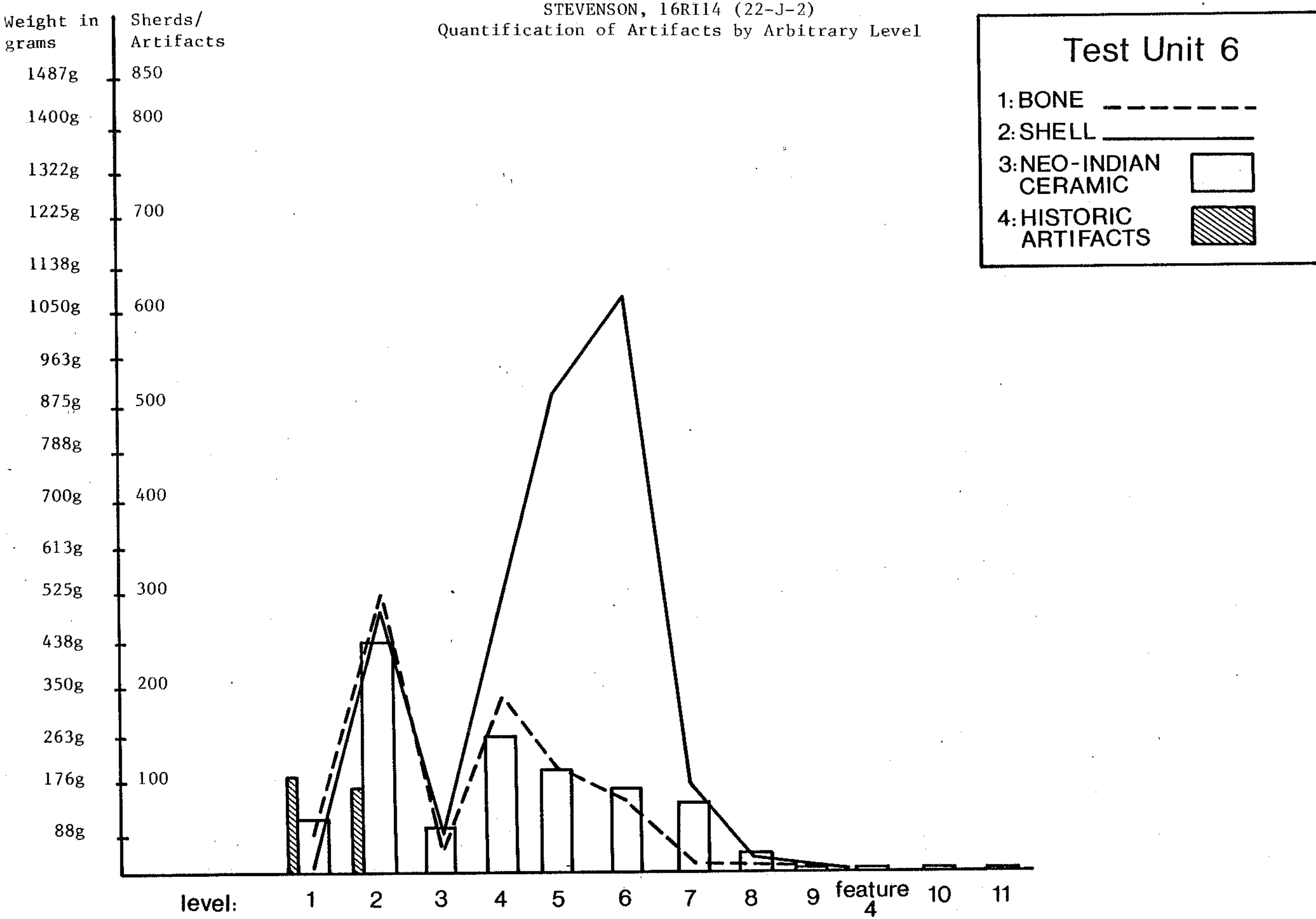


FIGURE 9
STEVENSON, 16RI14 (22-J-2)
Quantification of Artifacts by Arbitrary Level

FIGURE 10
STEVENSON, 16RI14 (22-J-2)
Quantification of Artifacts by Arbitrary Level



- Water sorted beige to tan mottled silt loam (I)
- Mottled orange-tan-brown silt loam--subsoiler scars
- Dark grey-brown silt loam midden (VIII/X)
- Mottled grey-brown silt loam midden (midden stain?) (VIII/X)
- Light reddish brown silty clay (IX)
- Reddish brown silty clay (IX)
- Dark brown to brown grey silt mixed w/ orange-tan-brown silt (XI)
- Tan-brown clayey silt w/ orange mottling (Vc)
- Red clay (VII)
- Tan to tan-white fine silt loam (II)
- Medium brown to tan silt w/ orange and red mottling (Va)
- Orange-tan-brown mottled silt--"calico" soil (XI)
- Medium brown to tan-orange silt (VI)
- Dark brown to greyish-black silt loam w/ash and charcoal (IV)
- Beige fine silt (VII)
- Tan to white silt loam w/ brown mottling (III).
- Beige to white mottled silty clay (Vb)
- Grey-brown silt loam--plowzone (I)
- Unexcavated

FIGURE 11
MATHENY, 16MO3 (21-I-2)
Key to Profiles
(Stratum Designations in Parentheses)

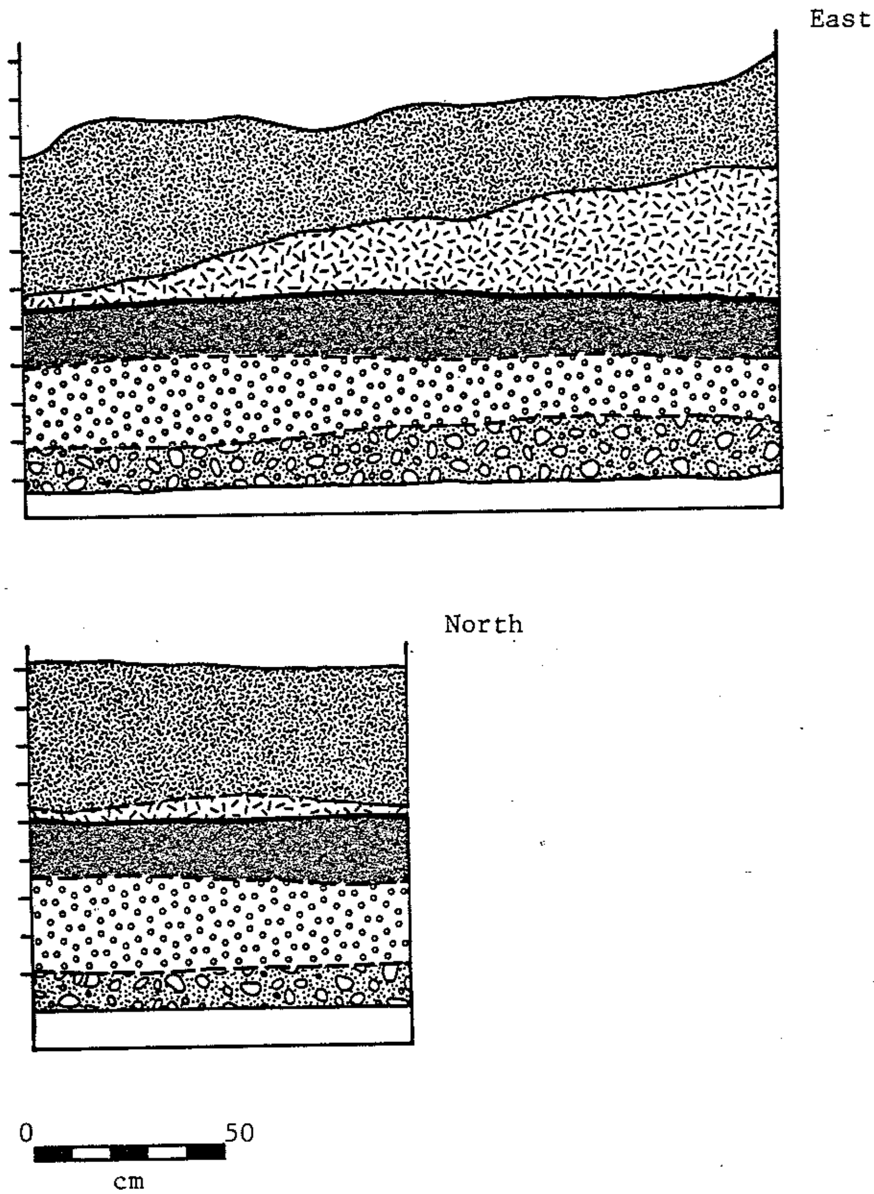


FIGURE 12
MATHENY, 16MO3 (21-I-2)
Test Unit Two
East and North Profiles

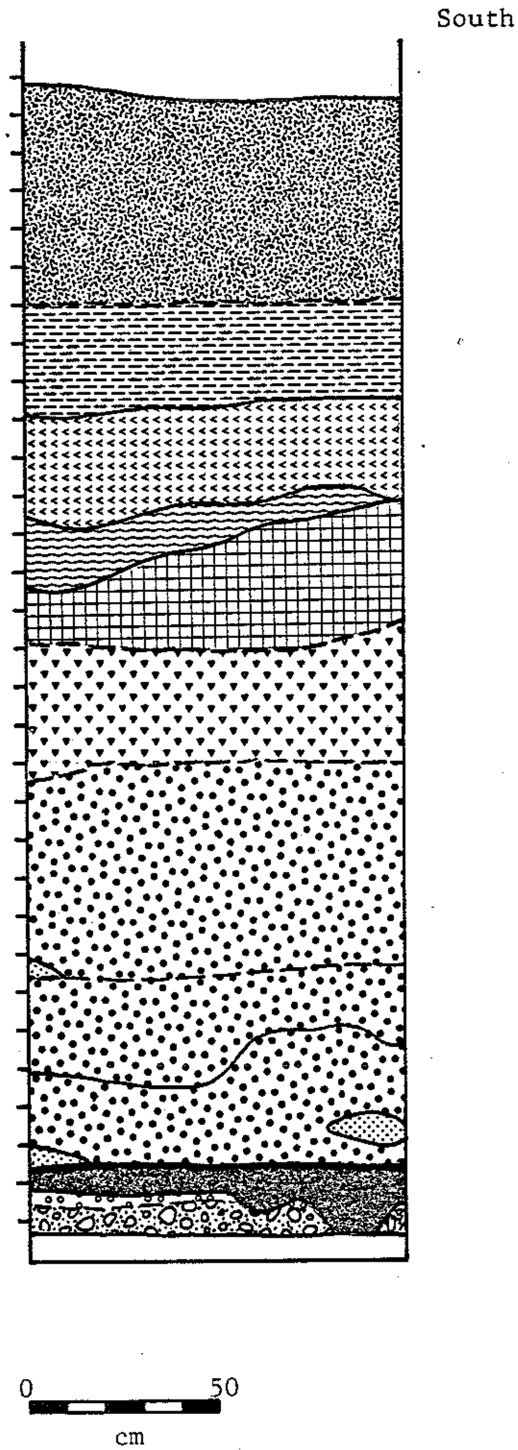
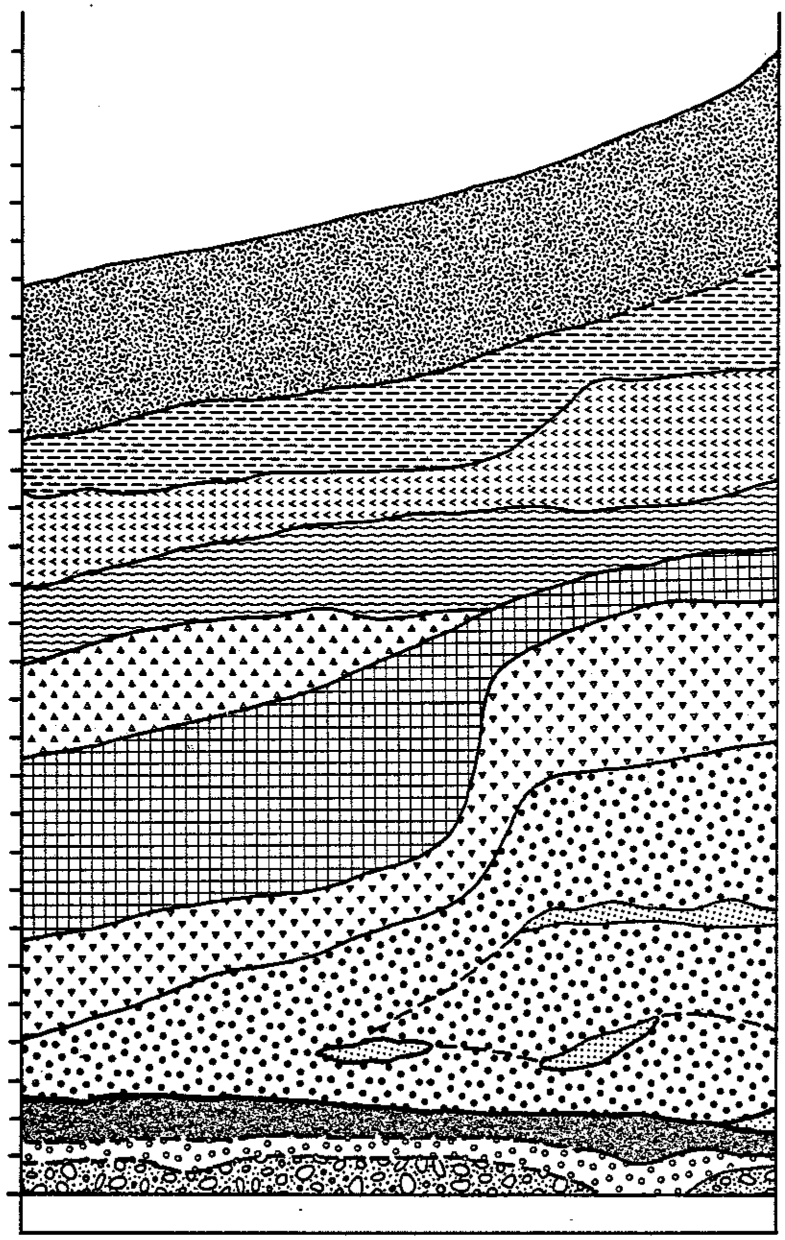


FIGURE 13a
MATHENY, 16MO3 (21-I-2)
Test Unit Three

East



0 50

cm

FIGURE 13b
MATHENY, 16MO3 (21-I-2)
Test Unit Three

North

East

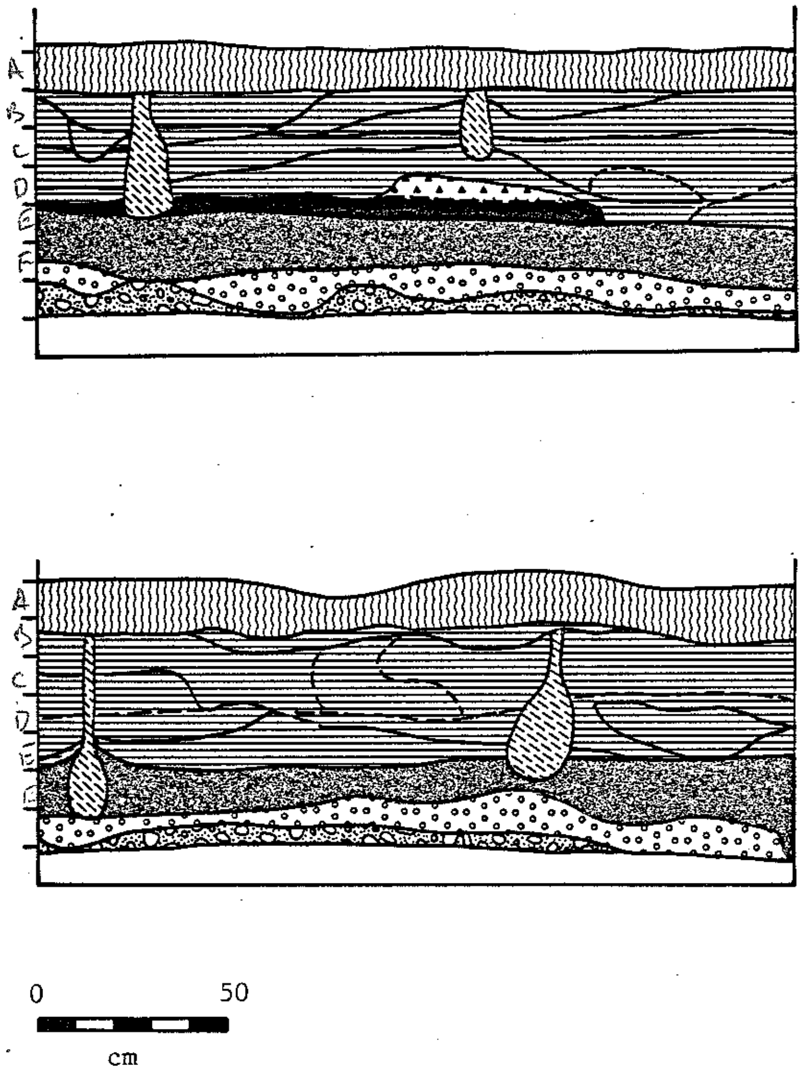


FIGURE 14
MATHENY, 16MO3 (21-I-2)
Test Unit Seven
North and East Profiles

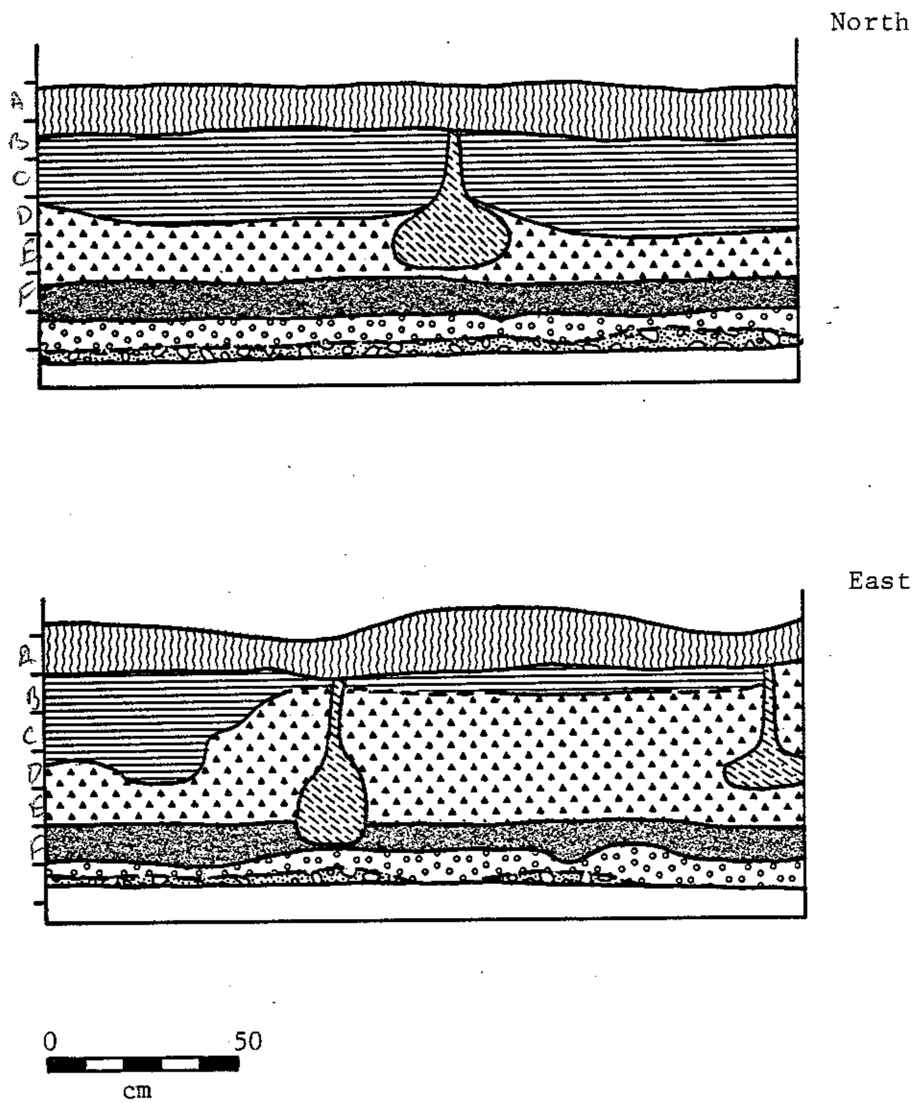


FIGURE 15
Matheny, 16MO3 (21-I-2)
Test Unit Nine
North and East Profiles

Fine grey-brown silt and humus (I)

Mottled grey to grey-brown silt (II)

Peach-colored silt w/ extensive bioturbation--natural levee (V)

Medium to dark grey very compact clayey silt (VIII)

Orange-beige to white fine sand (VI)

White to beige coarse sand (VI)

Orange-brown mottled sandy silt (II)

Medium brown silt loam--"brown midden" (III)

Light yellow to tan-white fine ash--"ash midden" (IVa)

Yellow to yellow-grey fine ash and charcoal--"ash Midden" (IVb)

Oxidized red-brown sandy clay (VII)

Grey-black ashy silt--Feature 6

Oxidized light red sandy silt (VII)

Red-brown silty sand (VII)

Dark to medium brown compact silt (VIII)

Grey to grey-brown coarse silt w/ FeO2 concretions (X)

Dark red to reddish brown clay (VII)

Orange to rusty red sandy silt (IX)

Unexcavated

■ Bone

▲ Sherds

FIGURE 16
JORDAN, 16MO1 (22-I-1)
Key to Profiles
(Stratum Designations in Parentheses)

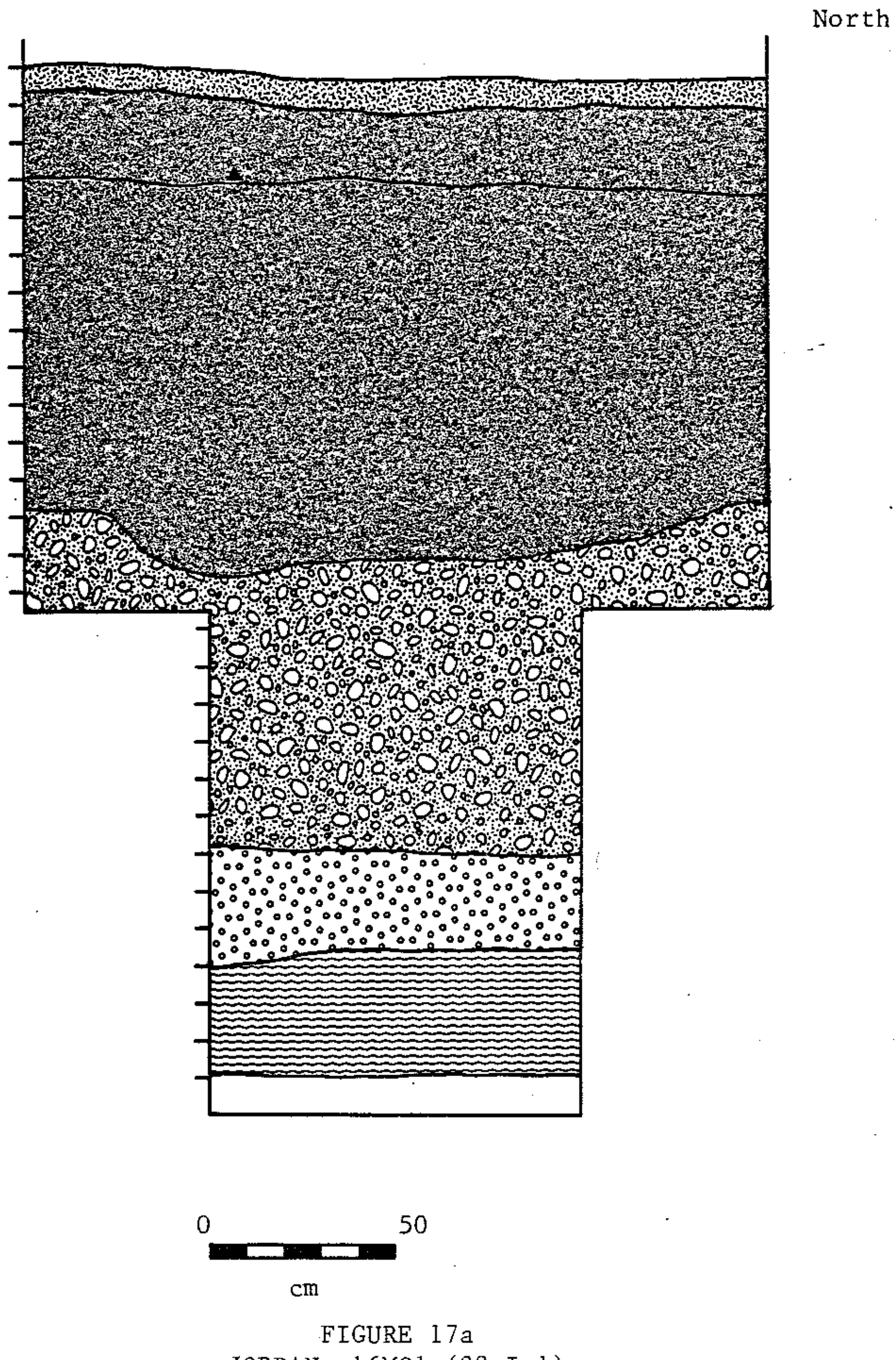


FIGURE 17a
JORDAN, 16MO1 (22-I-1)
Test Unit One
North Profile

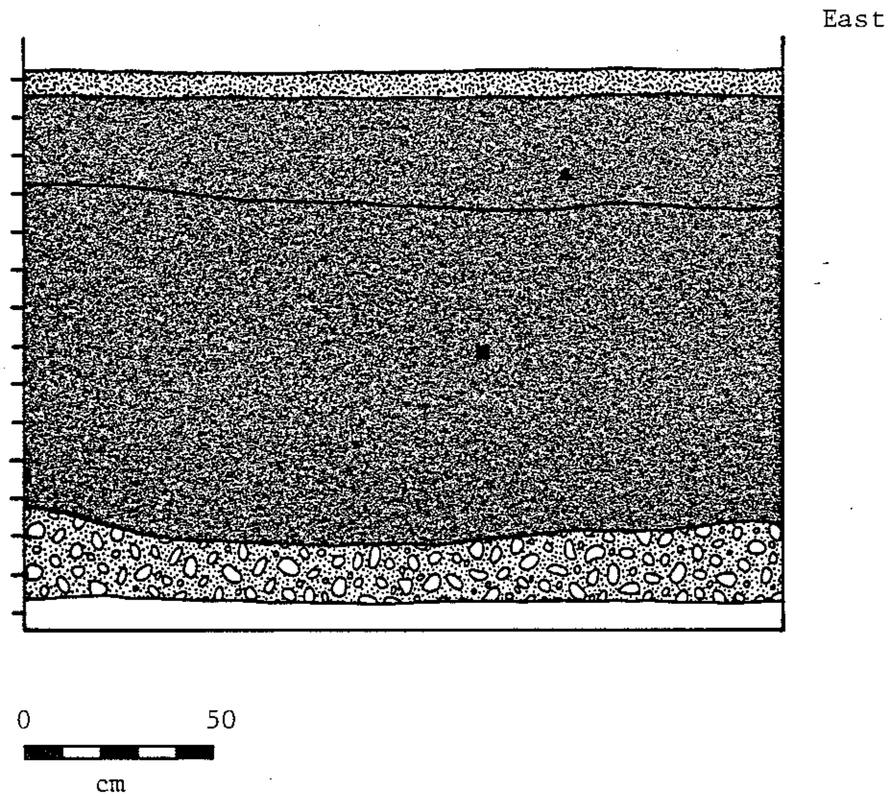


FIGURE 17b
JORDAN, 16MO1 (22-I-1)
Test Unit One
East Profile

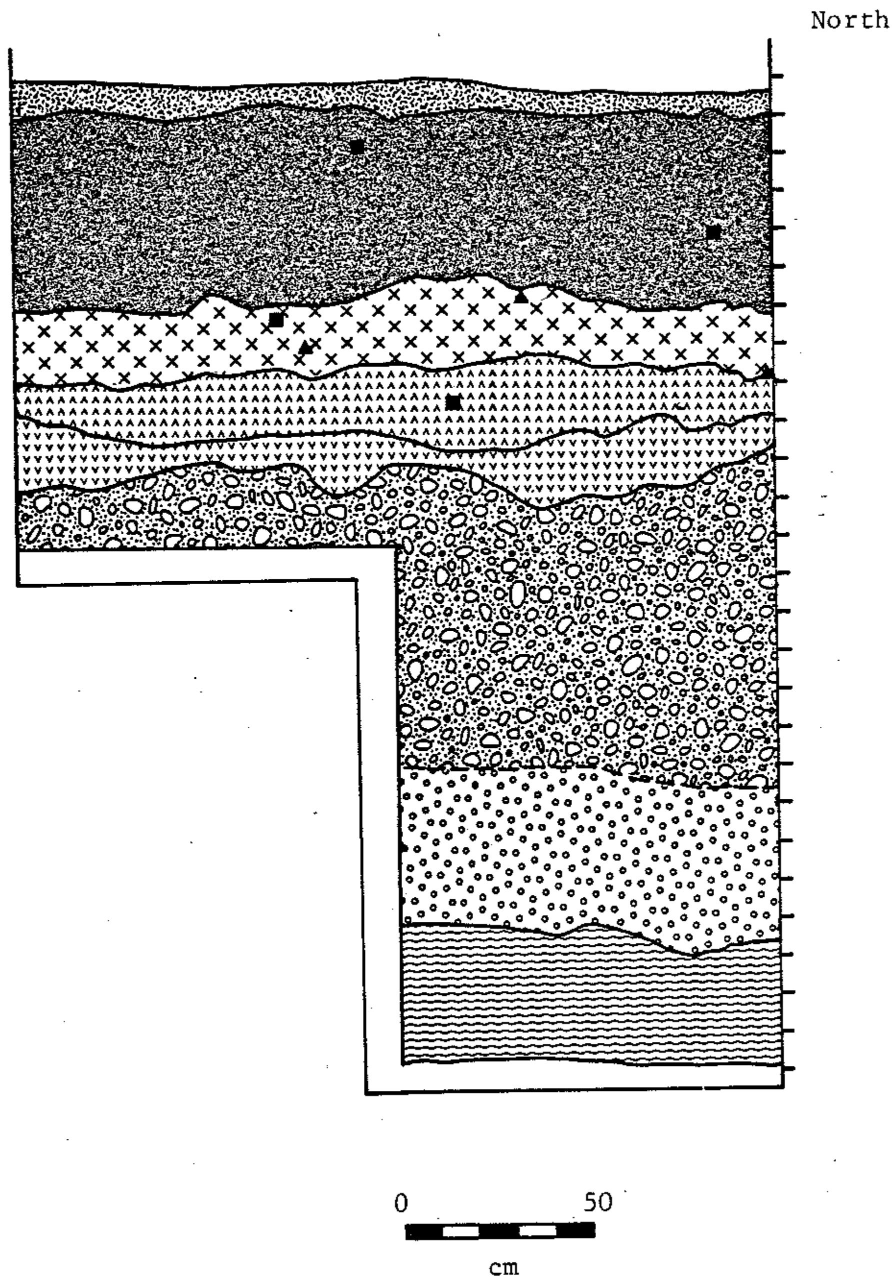


FIGURE 18a
JORDAN, 16MO1 (22-I-1)
Test Unit Two
North Profile

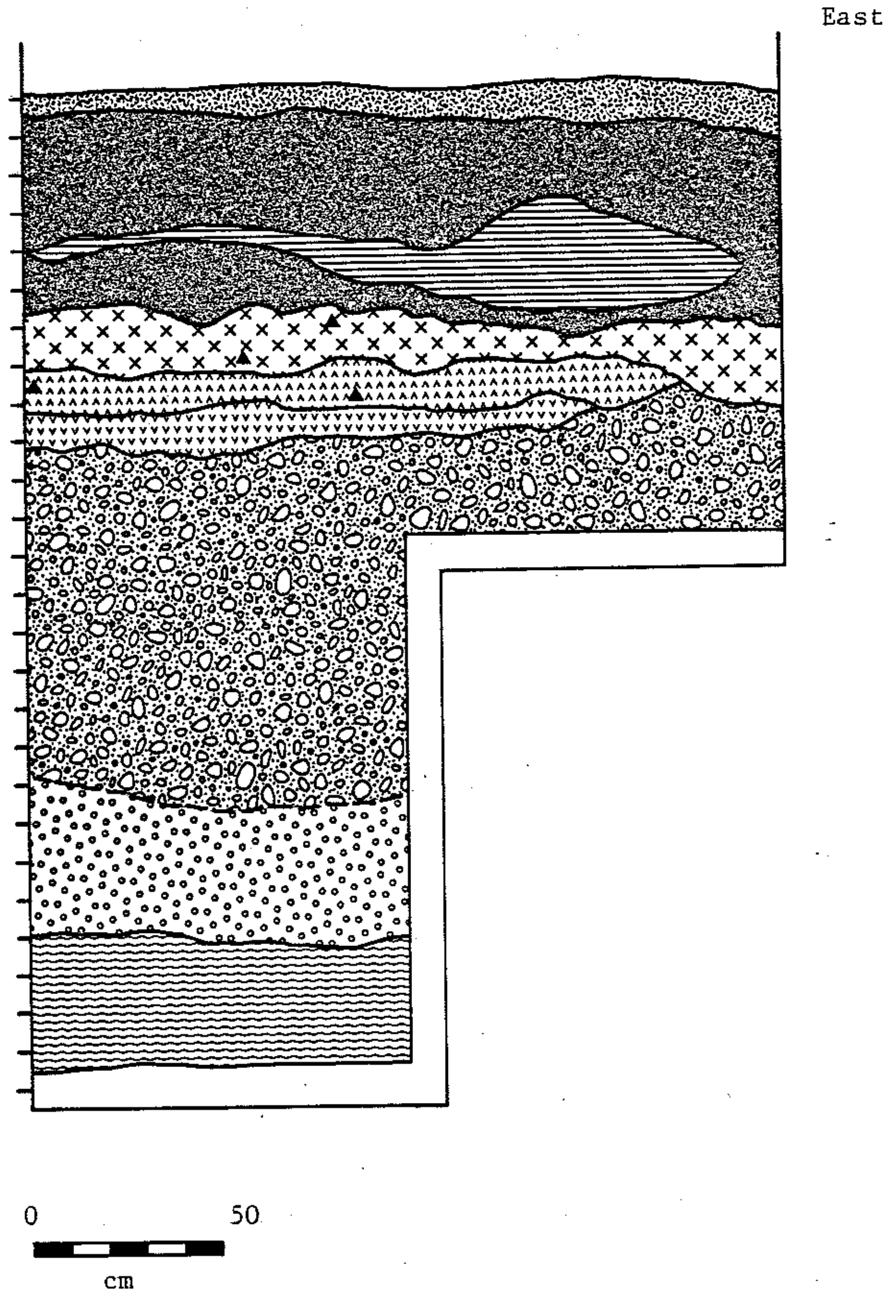


FIGURE 18b
JORDAN, 16MO1 (22-I-1)
Test Unit Two
East Profile

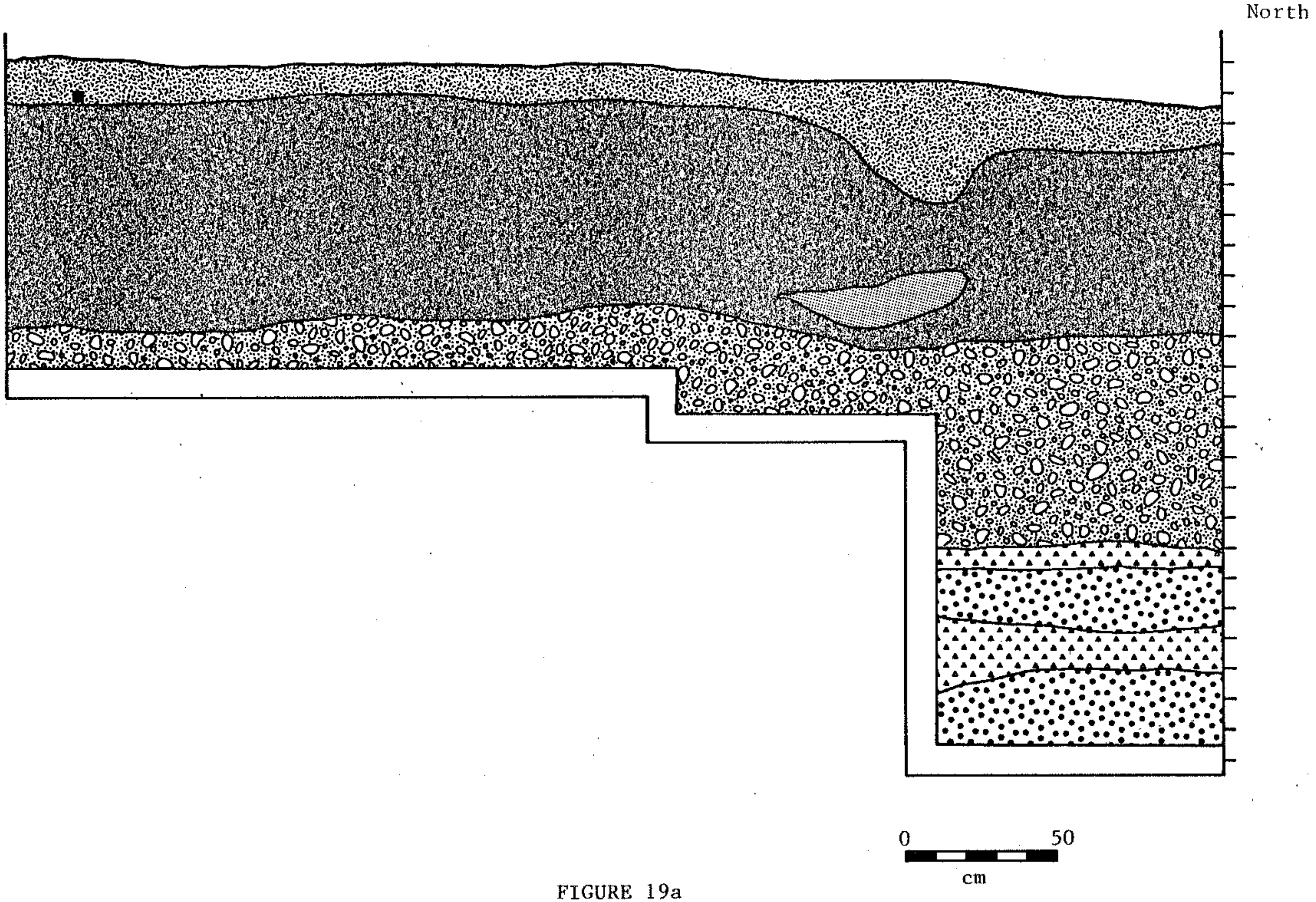


FIGURE 19a
JORDAN, 16M01 (22-I-1)
Test Unit Three
North Profile

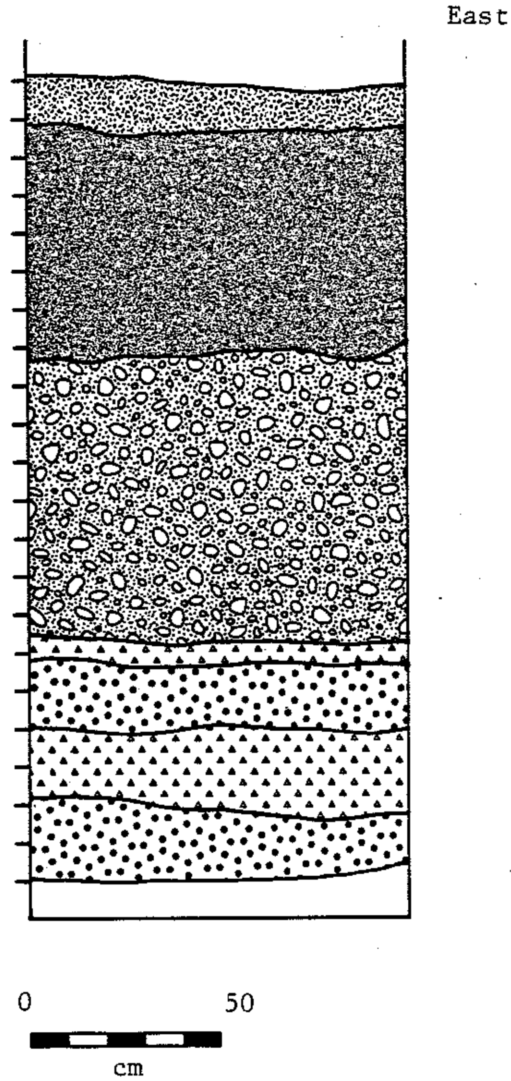


FIGURE 19b
JORDAN, 16MO1 (22-I-1)
Test Unit Three
East Profile

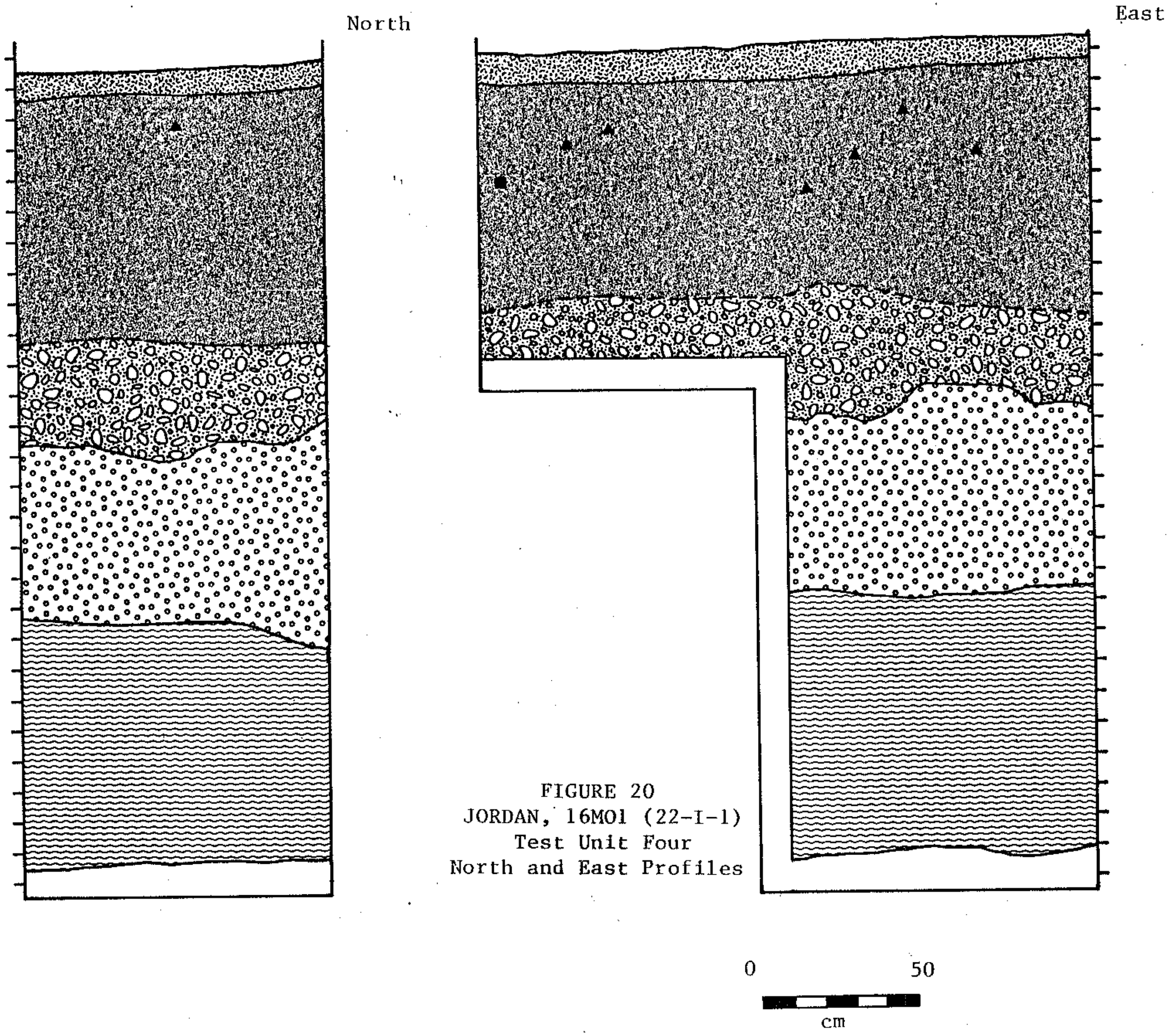


FIGURE 20
JORDAN, 16MO1 (22-I-1)
Test Unit Four
North and East Profiles

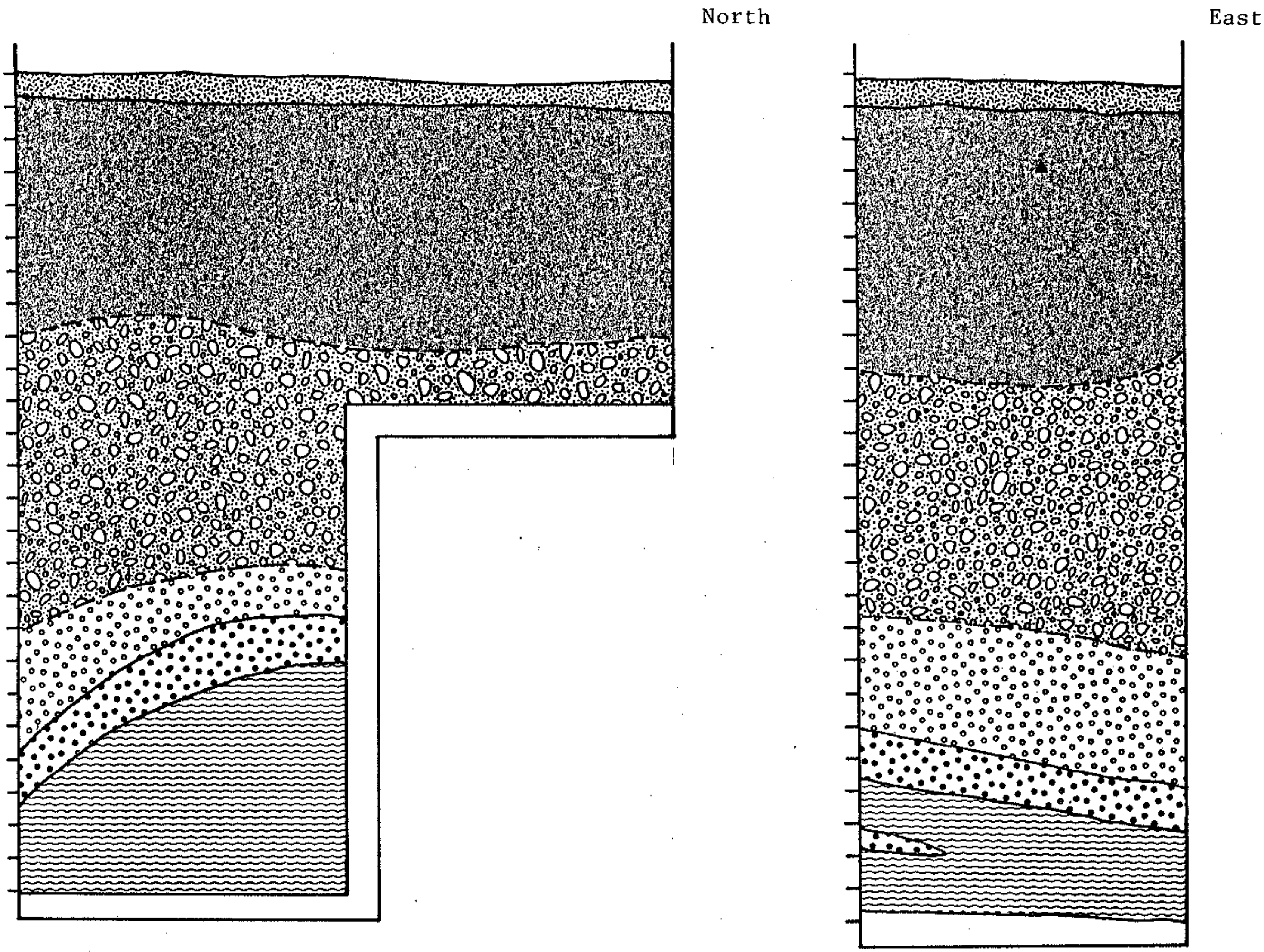


FIGURE 21
JORDAN, 16MO1 (22-I-1)
Test Unit Five
North and West Profiles

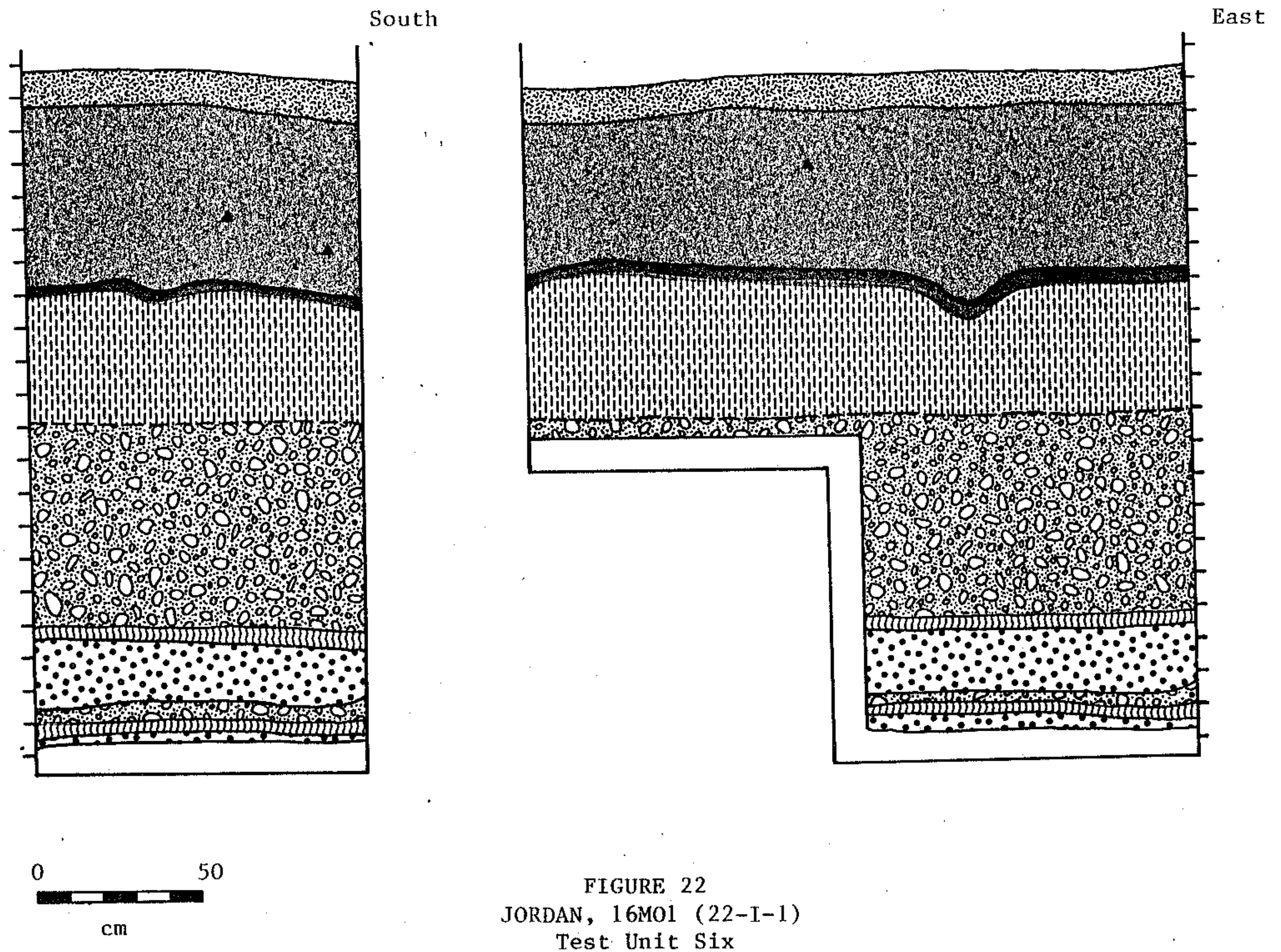


FIGURE 22
JORDAN, 16MO1 (22-I-1)
Test Unit Six
South and East Profiles

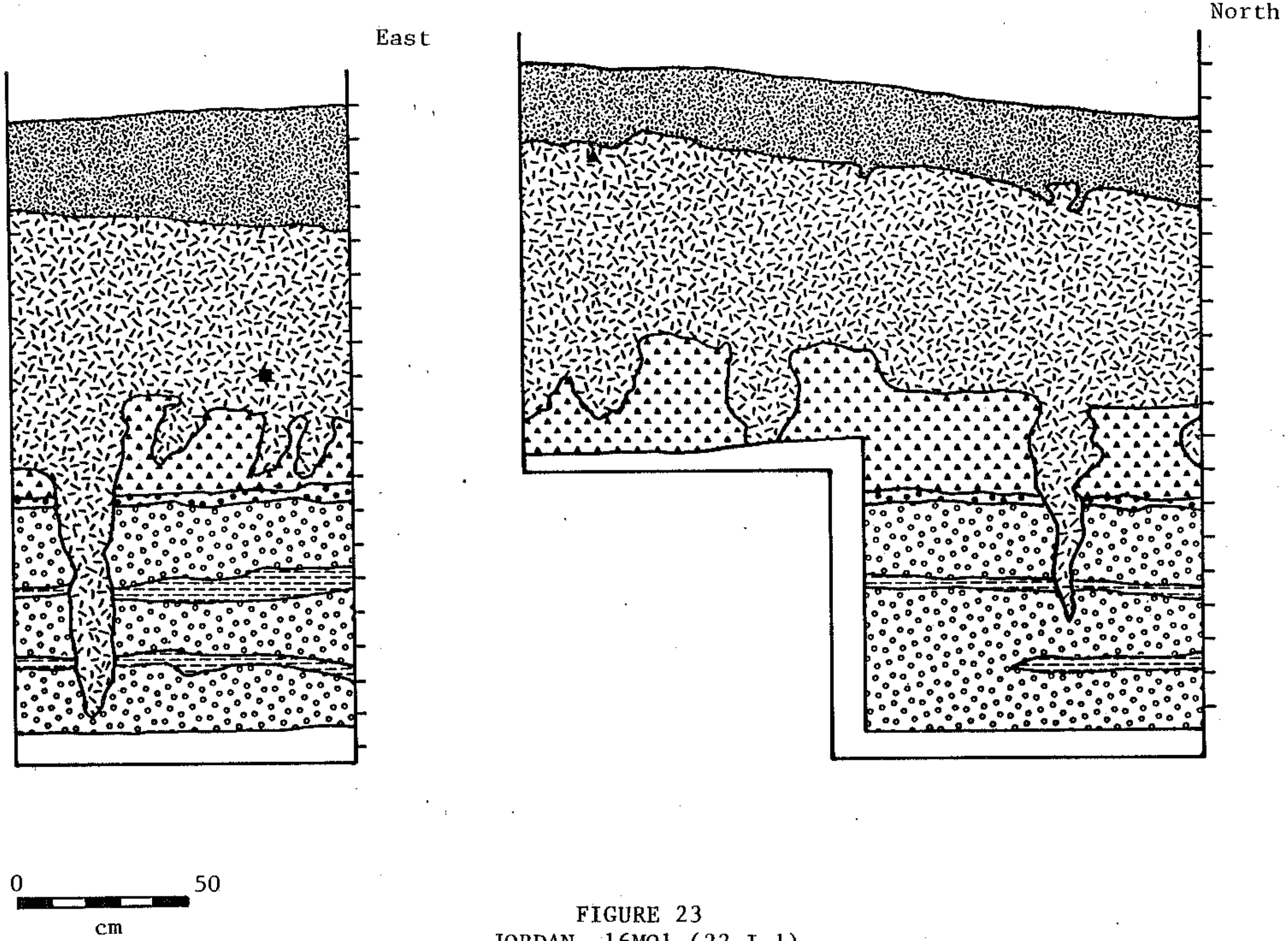


FIGURE 23
JORDAN, 16MO1 (22-I-1)
Test Unit Seven
East and North Profiles

TABLE 1
Denler, 16MO106 (22-J-25)
Surface Collections, 1983, 1985

Collection (see Appendix A for provenience)	1983 (K580)	1985 (K812, K840)	Total
Ceramics			
Baytown Plain, var. Unspecified	367	10	377
Coles Creek Incised, var. Hardy	1		1
Coles Creek Incised, var. Mott	1	1	2
Grace Brushed, var. Unspecified	1		1
Lake Borgne Incised, var. Lake Borgne	1		1
Mazique Incised, var. Manchac	1		1
Mazique Incised, var. Unspecified	1		1
Mississippi Plain, var. Unspecified	6		6
Morris Plain, var. Unspecified	1		1
Unclass. Incised on Baytown Plain, var. Unspecified	4	1	5
Unclass. Incised on Mississippi Plain, var. Unspecified	1		1
Unclass. Zoned Stamped on Tchefuncte Plain, var. Unspecified	1		1
Total Ceramics	386	12	398
Lithics			
Alba Stemmed, var. Alba	1		1
Alba Stemmed, var. Jordan	1		1
Alba Stemmed, var. Unspecified		1	1
Carrollton points	2		2
Collins Side-Notched, var. Unspecifed	1		1
Edwards Stemmed, var. Unspecified	1		1
Ellis point	1		1
Evans point	1		1
Gary Stemmed, var. Gary	1	1	2
Kent points	3		3
Marcos point	1		1
Sinner point	1		1
Unclass. Side-Notched dart point	1		1
Unclass. Corner-Notched dart point (Big Creek point?)	1		1
Unclass. Corner-Notched dart point (Burkett point?)	1		1
Unclass. Corner-Notched dart point (novaculite)	1		1
Unclass. Corner-Notched dart point fragments	5		5
Unclass. Small Contracting Stem dart point	1		1
Unclass. arrow point fragments	2		2
Asymmetrical hafted biface	1		1
Elongated triangular biface	1		1
Hafted endscraper (reworked biface?)	1		1
Biface/Preform	1		1
Biface fragments (novaculite)	5	2	7
Biface fragments	17	2	19
Crude Biface/Adz	1		1
Biface preform failure	1		1
Flake cores			
local chert	17	1	18
quartzite	2	1	3
Unifacially retouched flake scrapers	2	1	3
Unifacially retouched flake (novaculite)	1		1
Utilized flakes			
local chert	3		3
novaculite	4		4
Unutilized flakes			
local chert	53	16	69
novaculite	22	3	25
quartzite	1		1
Fire-cracked rock	28	3	31
Shatter	7		7
Cracked quartzite cobbles		4	4
Triangular ground and polished Atlatl weight	1		1
Groundstone Axes/Celts	2		2
Groundstone Axe/Celt fragment (bit end)	1		1
Biconcave grinding stones	2		2
Concave grinding stones	1		1
Faceted grinding stones	6		6
Hammerstones	3	1	4
Anvil/Hammerstone	2		2
Unmodified sandstone fragments	13		13
Petrified wood fragment	1		1
Total Lithics	226	36	262
Total Ceramics and Lithics	612	48	660

TABLE 2
Denler, 16MO106 (22-J-25)
Shovel Tests (see Appendix A for collection numbers)

Shovel Test Number (*)	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	29	30	31	32	Total
Ceramics																													
Baytown Plain, var. Unspecified		3			2		1	1	1	2	2	3	6		4		2			1		2		4		1			35
Mississippi Plain, var. Unspecified		1																											1
Total Ceramics	0	4	0	0	2	0	1	1	1	2	2	3	6	0	4	0	2	0	0	1	0	2	0	4	0	1	0	0	36
Lithics																													
Alba Stemmed, var. Unspecified																									1				1
Unutilized flakes																													
local chert	1											2		1				1											5
non-local chert										1	1		1										1	1		1	1		7
quartzite					1						1																		2
Shatter																													
local chert								1														1							2
non-local chert															4							1	1						6
Chipped chert pebbles														1		1	1		1										4
Unmodified sandstone fragments																							1	1					2
Unmodified chert pebbles							1							3					1		2	1		1				2	11
Total Lithics	1	0	0	0	1	0	1	1	0	1	2	2	1	5	4	1	1	1	2	0	2	3	3	3	1	1	1	2	40
Total Ceramics and Lithics	1	4	0	0	3	0	2	2	1	3	4	5	7	5	8	1	3	1	2	1	2	5	3	7	1	2	1	2	76
Fauna																													
Unidentified fish bone													1																1
Unidentified bone fragments	1					2	3					13							2	1		11			9				42
Unidentified freshwater mussel shell					1														2						11				14
Total Fauna	1	0	0	0	1	2	3	0	0	0	0	13	1	0	0	0	0	0	4	1	0	11	0	0	20	0	0	0	57
Fired clay	7	7	8	4		9	4	2		5	9	25	12	15		22	11	2	12	4	20	5	5	2	4	6	5	7	212

* Missing numbers indicate that no material was recovered

TABLE 3
Moss, 16MO101 (22-J-15)
Surface Collections, 1981, 1985

Collection (see Appendix A for provenience)	1981 (K338)	1985 (K816, K824)	Total
Ceramics			
Tchefuncte Plain, var. Unspecified	2		2
Lithics			
Unclassified biface fragment		1	1
Unifacially retouched flake (novaculite)		1	1
Unutilized flakes			
local chert	2		2
novaculite	3	6	9
non-local chert		1	1
Fire-cracked rock		2	2
Shatter		4	4
Unmodified sandstone fragment		1	1
Unmodified quartzite fragment		1	1
Total Lithics	5	17	22
Total Ceramics and Lithics	7	17	24

TABLE 4
Horseshoe Church, 16MO123 (22-J-52)
Shovel Tests (see Appendix A for collection numbers)

Shovel Test Number (*)	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16	17	25	29	Total
Ceramics																			
Baytown Plain, var. Unspecified		2			1	1					1							1	6
Mississippi Plain, var. Unspecified						1													1
Total Ceramics	0	2	0	0	1	2	0	0	0	0	1	0	0	0	0	0	0	1	7
Lithics																			
Flake core fragments						1								2					3
Utilized flakes (non-local chert)											1	1							2
Unutilized flakes																			
local chert		3	3			1						1						1	9
novaculite			1																1
non-local chert	1		2	1		2	1				1	2	3		1				14
Fire-cracked rock			1									1							2
Shatter	3	1	2	1	1	1								1		1			11
Chipped chert pebbles								1				1			2				4
Unmodified sandstone fragments	2	2	1			1													6
Unmodified chert pebbles		1											3	1					5
Total Lithics	6	7	10	2	1	6	1	1	0	0	2	6	6	4	3	1	0	1	57
Total Ceramics and Lithics	6	9	10	2	2	8	1	1	0	0	3	6	6	4	3	1	0	2	64
Unidentified bone fragments	1	1								2	1	2							7
Fired clay (Poverty Point object fragments?)	103	160	250	121	125	86	11	10	3	2	52	162	62	23	36	1	4	15	1226
Historic/Recent																			
Brick fragments																	2		2
Glass															2				2
Iron												1			1				2
Total Historic/Recent	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	2	0	6

* Missing numbers indicate that no material was recovered

TABLE 5
Bapp Arnold, 16MO110 (22-J-32)
Surface Collections, 1983, 1985

Collection (see Appendix A for provenience)	1983 (K619-K621)	1985 (K825-K827)	Total
Ceramics			
Baytown Plain, var. Unspecified	58	72	130
Coles Creek Incised, var. Unspecified		2	2
French Fork Incised, var. Unspecified		1	1
Mazique Incised, var. Unspecified		2	2
Mississippi Plain, var. Unspecified	1	1	2
Total Ceramics	59	78	137
Lithics			
Biface fragments			
local chert	2		2
novaculite	1	1	2
non-local chert		1	1
Flake cores		11	11
Unifacially retouched flakes			
novaculite		1	1
non-local chert		1	1
Unutilized flakes			
local chert	13	8	21
novaculite	11	6	17
non-local chert		4	4
quartzite	1		1
Fire-cracked rock	2	7	9
Shatter		4	4
Chipped chert pebbles	4		4
Unmodified sandstone fragments		4	4
Unmodified chert pebbles		4	4
Total Lithics	34	52	86
Total Ceramics and Lithics	93	130	223
Historic/Recent			
Stoneware		1	1
Whiteware		4	4
Glass		3	3
Total Historic/Recent	0	8	8

TABLE 6
Bapp Arnold, 16MO110 (22-J-32)
Shovel Tests

Shovel Test Number (see Appendix A for Collection Number) (*)	1	2	3	4	9	11	13	15	16	17	18	20	21	24	25	29	31	32	33	34	35	36	38	40	44	45	46	47	48	Total
Ceramics																														
Baytown Plain, var. Unspecified		4							2						8	1	2	1	1		4									23
Coles Creek Incised, var. Mott																		1												1
Coles Creek Incised, var. Unspecified																	1													1
Mississippi Plain, var. Unspecified		1					1														1									3
Morris Plain, var. Unspecified																				1										1
Unclass. Incised on Baytown Plain, var. Unspecified							1	1									3				1									6
Unclass. Incised on Mississippi Plain, var. Unspecified										1																				1
Total Ceramics	0	5	0	0	0	0	2	1	2	1	0	0	0	0	8	1	6	2	1	1	6	0	0	0	0	0	0	0	0	36
Lithics																														
Alba Stemmed, var. Alba																								1						1
Biface fragment							1																							1
Flake cores																									1					1
Flake core fragments																					1									1
Utilized flake (non-local chert)																							1							1
Unutilized flakes																														
local chert	1						1	1			1	6		1							1				2					14
novaculite										1		1																		2
non-local chert		1																												1
Shatter																														
local chert								1				1																	1	3
non-local chert	1		1																											2
Unmodified sandstone fragments												1																		1
Unmodified chert pebbles	1																			1						1		1		4
Total Lithics	3	1	1	0	0	0	2	2	0	1	1	9	0	1	0	0	0	0	0	1	2	0	1	1	3	1	0	1	1	32
Total Ceramics and Lithics	3	6	1	0	0	0	4	3	2	2	1	9	0	1	8	1	6	2	1	2	8	0	1	1	3	1	0	1	1	68
Fired clay	14	5		7	12	4	5	6	2			12	4		15	4	2			1	2	1		4						100
Unidentified bone fragment																	1													1
Historic/Recent																														
Brick fragments																		2									1			3
Glass																										2		1	1	4
Iron																						1					2			3
Total Historic/Recent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	3	1	1	10

* Missing numbers indicate that no material was recovered

TABLE 7
Book Shepard, 16MO103 (22-J-18)
Surface Collections, 1983, 1985

Collection (see Appendix A for provenience)	1983 (K640)	1985 (K811, K828, K829)	Total
Ceramics			
Barton Incised, var. Unspecified		1	1
Baytown Plain, var. Unspecified	275	100	375
Chevalier Stamped, var. Unspecified	1		1
Coleman Incised, var. Unspecified		1	1
Coles Creek Incised, var. Hardy	1		1
Coles Creek Incised, var. Unspecified		1	1
Grace Brushed, var. Grand Gulf		2	2
Grace Brushed, var. Warren		1	1
Hollyknowe Pinched, var. Unspecified	2		2
Kinlock Simple Stamped, var. Unspecified	1		1
Mazique Incised, var. Manchac	1	2	3
Mazique Incised, var. Unspecified	4	1	5
Mississippi Plain, var. Unspecified	1	17	18
Pargoud Incised, var. Unspecified	1	2	3
Parkin Punctated, var. Transylvania		1	1
Plaquemine Brushed, var. Plaquemine	1	4	5
Tammany Punctated, var. Fisk Bayou		1	1
Tchefuncte Incised, var. Unspecified		1	1
Tchefuncte Plain, var. Unspecified		10	10
Winterville Incised, var. Wailes		1	1
Unclass. Incised on Baytown Plain, var. Unspecified	4	6	10
Total Ceramics	292	152	444
Lithics			
Alba Stemmed, var. Jordan		1	1
Gary Stemmed, var. Gary	1	1	2
Kent point		1	1
Unclassified Corner-Notched dart points	1	1	2
Unclassified Corner-Notched dart point fragments		1	1
Bifaces	2	1	3
Biface fragments	3	3	6
Biface preform failure		1	1
Tabular flake cores		2	2
Flake cores	6	10	16
Unifacially retouched pebble (end scraper)		1	1
Utilized flake		1	1
Unutilized flakes			
local chert	19	20	39
novaculite	4	2	6
non-local chert		5	5
thermally altered chert		4	4
Fire-cracked rock	1		1
Shatter		13	13
Chipped chert pebbles	9	1	10
Chert hammerstone		1	1
Biconcave grinding stone		1	1
Concave grinding stones		2	2
Faceted grinding stone		1	1
sandstone abraider		1	1
Unmodified sandstone fragments	4	1	5
Limonite		4	4
Unmodified chert pebbles	1	7	8
Total Lithics	51	87	138
Total Ceramics and Lithics	343	239	582

TABLE 8
Book Shepard, 16MO103 (22-J-18)
Shovel Tests

Shovel Test Number (see Appendix A for Collection Number) (*)	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Ceramics																								
Addis Plain, var. Unspecified								7																
Baytown Plain, var. Unspecified		4	2	4	6	1	5	7	6	1	3	6	3	2	4	7	8	11	4	5	2			1
Mississippi Plain, var. Unspecified	1	1	1				2	1	1						4					3		1		
Morris Plain, var. Unspecified																								
Unclass. Incised on Addis Plain, var. Unspecified																								
Unclass. Incised on Baytown Plain, var. Unspecified																		1						
Unclass. Incised on Mississippi Plain, var. Unspecified																								
Total Ceramics	1	5	3	4	6	1	7	15	7	1	3	6	3	2	8	7	8	12	4	8	2	1	0	1
Lithics																								
Flake core													1											
Flake core fragments									1				1		1									
Utilized flakes																								
local chert																								
non-local chert									1															
Unutilized flakes																								
local chert	1								2					1		1					1		2	2
novaculite																								
non-local chert		2							1			1	1											
Shatter			2					1			1													
Chipped chert pebbles																								
Hematite fragments																								
Unmodified sandstone fragments									2									2						
Unmodified chert pebbles					1																			
Total Lithics	1	2	2	0	1	0	0	1	7	0	1	1	3	1	1	1	0	2	0	0	1	0	2	2
Total Ceramics and Lithics	2	7	5	4	7	1	7	16	14	1	4	7	6	3	9	8	8	14	4	8	3	1	2	3
Fired clay	14	37	6	7	8		8	22	37	25	46	38		11	5	10	6	46	12	7	7		2	7
Historic/Recent																								
Whiteware																								1
Brick fragments																								
Kaolin marble																								
Iron			1																					
Total Historic/Recent	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Shovel Test Number (see Appendix A for Collection Number) (*)	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Ceramics																										
Addis Plain, var. Unspecified																										
Baytown Plain, var. Unspecified	6	27	9	7	7	4	11	13	1		5	9	10	19	4	4	7	8	4	9	19		5	11	33	18
Mississippi Plain, var. Unspecified			1	4	2		1	1			1		5		1	9	8	5	5	6	6					2
Morris Plain, var. Unspecified																				4		1				
Unclass. Incised on Addis Plain, var. Unspecified		1																								
Unclass. Incised on Baytown Plain, var. Unspecified						1						2	1					1							1	
Unclass. Incised on Mississippi Plain, var. Unspecified																3			3	1						
Total Ceramics	6	28	10	11	9	5	12	14	1	0	6	11	16	19	5	16	15	14	12	20	25	1	5	11	34	20
Lithics																										
Flake core																										
Flake core fragments													1													
Utilized flakes																										
local chert																										
non-local chert															2				1							
Unutilized flakes																										
local chert	2	2	2	2		2					1	4	1	2	3	2			2	2	1		1		2	1
novaculite				2																						
non-local chert			1		1			1									2	1			1				1	
Shatter						1										2			1				1		1	
Chipped chert pebbles											1		1				1							1		
Hematite fragments															6											
Unmodified sandstone fragments																	1									
Unmodified chert pebbles																1						1				
Total Lithics	2	2	3	4	1	3	0	1	0	0	2	4	3	2	11	5	4	1	4	2	2	1	2	1	4	1
Total Ceramics and Lithics	8	30	13	15	10	8	12	15	1	0	8	15	19	21	16	21	19	15	16	22	27	2	7	12	38	21
Fired clay	17	29	12	7	11	11	1	9	13	59	9	27	27	13	50	30	20	18	47	40	32	15	12	18	16	10
Historic/Recent																										
Whiteware																										
Brick fragments																										
Kaolin marble																										
Iron																										
Total Historic/Recent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Shovel Test Number (see Appendix A for Collection Number) (*)	53	54	55	56	57	58	59	60	61	62	63	64	65	66	68	69	70	71	72	73	74	75	76	77	78	Total
Ceramics																										
Addis Plain, var. Unspecified		15																								22
Baytown Plain, var. Unspecified	3	14	32	14	7	3	4	7	4	5	13	1	5	1	1	3	1		2	5	2	1	2	1		473
Mississippi Plain, var. Unspecified			1	1	1														1							76
Morris Plain, var. Unspecified																										5
Unclass. Incised on Addis Plain, var. Unspecified																										1
Unclass. Incised on Baytown Plain, var. Unspecified	1		1	1																						10
Unclass. Incised on Mississippi Plain, var. Unspecified																										7
Total Ceramics	4	29	34	16	8	3	4	7	4	5	13	1	5	1	1	3	1	0	3	5	2	1	2	1	0	594
Lithics																										
Flake core																										1
Flake core fragments																					1					5
Utilized flakes																										
local chert		1																								1
non-local chert																										4
Unutilized flakes																										
local chert	1	1		2			1	3	1			3					1			1						56
novaculite																										2
non-local chert													1			1					1		1			17
Shatter				1						1		1							1						1	15
Chipped chert pebbles							1																			5
Hematite fragments																										6
Unmodified sandstone fragments					2															1						8
Unmodified chert pebbles																				1						4
Total Lithics	1	2	0	3	2	0	2	3	1	1	0	4	1	0	0	1	1	0	1	3	2	0	1	0	1	124
Total Ceramics and Lithics	5	31	34	19	10	3	6	10	5	6	13	5	6	1	1	4	2	0	4	8	4	1	3	1	1	718
Fired clay	5	25	19	76	3	28	36	19	33	22	5	5	5	7	6	19	7	3	1	9	7	6	6	12		1278
Historic/Recent																										
Whiteware																				2						3
Brick fragments															1						8	2				11
Kaolin marble									1																	1
Iron																			3			3		2	1	10
Total Historic/Recent	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	3	2	8	5	0	2	1	25

* Missing numbers indicate that no material was recovered

TABLE 9
Stevenson, 16RI14 (22-J-2)
Surface collections, 1981-1985

Collection Number (see Appendix A for provenience)	K341	K504	K505	K506	K593	K594	K595	K596	K597	K598	K599	K600	K601	K602	K603	K604	K605	K606	K607	K608	K609	K610	K611	K612	K613	K614	K615	K616	K617	K618	K749	K806	K807	K808	Total
Ceramics																																		
Marksville Period																																		
Mabin Stamped, var. Unspecified																					1													1
Marksville Incised, var. Goose Lake																				1										1				2
Marksville Incised, var. Spanish Fort																					1			1				1						3
Marksville Incised, var. Steele Bayou														1				1		3							1							6
Marksville Incised, var. Yokena		1															1	5		7	1	3			1			1	1		1			1	23
Marksville Incised, var. Unspecified	1				1				1	2		1			4	2	2	9	10	27	5	19		3	6	2	1	5	11		6				118
Marksville Stamped, var. Manny								1									6		7		4			2	1		3	3			1			28
Marksville Stamped, var. Newsome	1																								1										2
Marksville Stamped, var. Troyville					1		1											1	4	1											2		1		11
Marksville Stamped, var. Unspecified		2							1						1			3	1	2				1	1			1	1						14
Baytown Period																																		
Alligator Incised, var. Oxbow		2			2															1													2		7
Hollyknowe Pinched, var. Hollyknowe					1		1																	1											3
Larto Red, var. Larto								1										3							2			1	1			2			10
Larto Red, var. Unspecified							1								1				1	3															6
Mulberry Creek Cordmarked, var. Unspecified		1																		1															2
Coles Creek Period																																		
Avoyelles Punctated, var. Unspecified																				1															1
Coles Creek Incised, var. Mott																1																		1
Coles Creek Incised, var. Unspecified						1				1				3						2												1			8
Mazique Incised, var. Kings Point					3														2	2		2			1										10
Mazique Incised, var. Mazique																					1														1
Early Mississippi Period																																		
Anna Incised, var. Anna														1																				1
Carter Engraved, var. Unspecified										1																								1
Chicot Red, var. Unspecified											1								1																2
Coles Creek Incised, var. Hardy											1	2	1																		1				5
L'eau Noir Incised, var. Unspecified																				1															1
Leland Incised, var. Unspecified																										1		1							2
Mazique Incised, var. Manchac		2					1	1			1			4								1		1	1			4			6				22
Plaquemine Brushed, var. Plaquemine										1	1		1	1		2				1	1									1					9
Late Mississippi Period																																		
Barton Incised, var. Unspecified																		4		7	1			1							1				14
Grace Brushed, var. Unspecified															1				3				1	2										7
Owens Punctated, var. Menard																															1				1
Winterville Incised, var. Unspecified																		2	1						3										6
Early Historic Period (?)																																		0
																																		0
																																		0
Chickachae Combed, var. Unspecified													1																					1
Chronological Position Uncertain																																		
Evansville Punctated, var. Unspecified									1							1					2	1													5
Fatherland Incised, var. Unspecified																				1															1
French Fork Incised, var. Unspecified										1						1				3															5
Hollyknowe Pinched, var. Unspecified																				4	1														5
Indian Bay Stamped, var. Unspecified								1																										1
Mazique Incised, var. Unspecified	1									3	1	5		4		3	1	11	6	14	6	1			2			7	2			1			68
Salomon Brushed, var. Unspecified																		3		5	2						1				8				19
Unclassified Decorated																																		
Unclass. Incised on Addis Plain, var. Unspecified																		1										1							2
Unclass. Incised and Pinched on Addis Plain, var. Unspecified																												1							1
Unclass. Incised on Baytown Plain, var. Unspecified	7	1			14	6	4	2	10	2	1	1		4	8	2		31	18	55	13	4		5	6	2	2	6	1	3	11				219
Unclass. Interior Incised on Baytown Plain, var. Unspecified		1																1	1									1							4
Unclass. Interior/Exterior Incised on Baytown Plain, var. Unspecified								1											1																2
Unclass. Incised and Punctated on Baytown Plain, var. Unspecified															1																			1
Unclass. Punctated on Baytown Plain, var. Unspecified																				2										1					3
Unclass. Rocker Stamped on Baytown Plain, var. Unspecified																				1															1
Unclass. Slipped on Baytown Plain, var. Unspecified																					1														1
Unclass. Stamped on Baytown Plain, var. Unspecified																			1			1													2
Unclass. Textured on Baytown Plain, var. Unspecified									1			1			11	2			5	15								3							38
Unclass. Zoned Pinched on Baytown Plain, var. Unspecified																				1															1
Rims w/ single line below lip on Baytown Plain, var. Unspecified					2												1	7		5					2	1			1				1		20
Rims w/ Pinching below lip on Baytown Plain, var. Unspecified											1																							1
Unclass. Incised on Mississippi Plain, var. Unspecified																			2	7					1			1			1				12
Undecorated																																		
Addis Plain, var. Unspecified		1					2	2		1	8	10	1	4	1	3		12	17	52		4			4	5		3							130
Baytown Plain, var. Unspecified	484	325	11	1	456	54	441	87	240	354	218	150	83	246	549	499	478	3872	253	5857	1438	4002	60	397	1533	489	270	1292	3028	86	385	7	165		27810
Mississippi Plain, var. Unspecified	6	4			1		1	1		2	1		1	2	4		9	110	25	175	4	5	3	14	86	2		1	10	1			2		470
Tchefuncte Plain, var. Unspecified		1			1																											1		3
Total Ceramics	500	341	11	1	482	61	452	96	255	368	234	170	88	269	582	516	492	4081	350	6263	1480	4049	63	424	1655	503	274	1333	3060	92	424	12	172	1	29154

TABLE 9
Stevenson, 16RI14 (22-J-2)
Surface Collections, 1981-1985

Lithics

Collection Number (see Appendix A for provenience)	K341	K504	K505	K506	K593	K594	K595	K596	K597	K598	K599	K600	K601	K602	K603	K604	K605	K606	K607	K608	K609	K610	K611	K612	K613	K614	K615	K616	K617	K618	K749	K806	K807	K808	Total
Chipped Stone																																			
Alba Stemmed, var. Unspecified							1													1							1								3
Alba Stemmed, var. Ashley											1																								1
Edwards Stemmed, var. Sunflower																																		1	1
Gary Stemmed, var. Maybon																																		1	1
Hayes Point								1		1																									2
Homman Point					2													2																	4
Marshall Point																													1						1
Maud Point																														1					1
Unclassified corner-notched dart points	1																	1											1	1					4
Unclassified stemmed dart point																															1			1	2
Unclassified contracting-stem dart point																		1		1								1		1	4				8
Unclassified side-notched arrow points									1																1		1				1				4
Unclassified point on reworked novaculite flake																															1				1
Unclassified point on reworked local chert flake					1													1																	2
Unclassified arrow point fragments												1															1								2
Ovate biface																															1			1	2
Elongated ovate biface							1					2							1																4
Bipointed biface														1																					1
Asymmetrical bifaces					1				2		1			1	2											1		1	1						10
Asymmetrical biface/preform																															3				3
Biface drill/perforator											1								1						1										3
Biface side-scraper																						1													1
Biface/preform			1					1	1	1			1																						5
Microlith/drill																															1				1
Graver/perforator on flake																				1															1
Unifacially retouched flake-scraper												1																						2	3
Unifacially retouched novaculite flakes																	1	1																	2
Unifacially retouched local chert flakes						1					3	1						1		2			1				2		2						13
Unifacially retouched local chert pebble																												1							1
Biface fragments																																			
local chert	2		1		2				2	2	2	3	1	1	1		1	5	1	2	4	2	1		1			5	2		4				45
novaculite									1											1															2
quartzite											1							1		1				1											4
Flake cores																																			
local chert		2	3		14	2	2	3	7	4	4	6	2		4	4		6	2	6		6	1	2	5	9	7	13			13		1	1	129
quartzite		2			1				1				1				1			1								5							12
Utilized flakes																																			
local chert					5		3		3		2	3	3	3	8	2	2	4	6	22	8	1			3	4		27	4		5		1		119
novaculite																		1	2	2											1				6
Flake with use polish (celt spall?)																		1													2				3
Unutilized flakes																																			
local chert		5	1		16	12	32	12	21	22	31	21	48	25	7	16	29	91	47	142	32	47	11	13	76	29	22	103	58	9	33		2	4	1017
novaculite									1				1	1	1	1					2														7
quartzite																1		1	1	1									4						8
quartz																		2																	2
Ground Stone																																			
Polished black celt	1																																		1
Celt fragments																															2			1	3
Celt spall																		1																	1
Polished stone fragment (celt fragment?)																				1															1
Hemetite plummet																																		1	1
Gorget fragment (silicified mudstone)																											1								1
Gorget fragment (slate)						1																													1
Steatite fragments		1																																1	2
Worked magnetite fragment (plummet?)																												1							1
Modified sandstone disk fragment																		1																	1
Sandstone abraider		1																																	1
Chert Hammerstones																				1											1				2
Quartzite Hammerstones																						2													2
Unmodified sandstone fragments		1				1	2			2		1	2	2	2	1	2	14	5	12	8	3		1	6	17	3	9	3			1			98
Petrified wood fragment																								1											1
Total Lithics	4	12	6	0	42	17	41	17	40	32	46	39	59	34	25	25	36	135	66	197	54	62	14	18	93	60	38	166	76	12	73	1	4	14	1558

TABLE 10
Stevenson, 16RI14 (22-J-2)
1983 Shovel Tests (K901-K914)

Shovel Test Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Ceramics															
Barton Incised, var. Unspecified	1														1
Baytown Plain, var. Unspecified (*)	149	111	130	38	65	30	41	41	34	74	20	5	26	38	802
Larto Red, var. Larto	1														1
Mabin Stamped, var. Unspecified	1														1
Marksville Incised, var. Leist	1														1
Marksville Incised, var. Unspecified						1									1
Marksville Stamped, var. Troyville	1														1
Mazique Incised, var. Manchac	1			1											2
Mississippi Plain, var. Unspecified	3	2	13	8	8										34
Unclass. Incised on Baytown Plain, var. Unspecified	1				2		1						1		5
Unclass. Incised on Mississippi Plain, var. Unspecified	1														1
Total Ceramics	160	113	143	47	75	31	42	41	34	74	20	74	27	38	850
Lithics															
Utilized flakes		1			1										2
Unutilized flakes	3	5	5	6	8	5	1	4	4	6	1	2		7	57
Chipped chert pebbles		2										3			5
Sandstone fragments	4														4
Hemetite chunks					1										1
Unmodified chert pebbles	1						2		2	6	6	34		2	53
Total Lithics	8	8	5	6	10	5	3	4	6	12	7	39	0	9	122
Unidentified bone (*= present)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Unidentified freshwater mussel shell (*= present)	*	*	*	*	*	*				*	*	*			
Recent (*= present)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

* Includes sherds less than 1/4 inch in size

TABLE 11
Stevenson, 16RI14 (22-J-2)
Test Unit One (K1500)

Level (see Appendix A for vertical provenience)	A	B	C	Fea. 3	E	F	G	H	I	Total
Ceramics										
Baytown Plain, var. Fitler	2									2
Baytown Plain, var. Johnson	36	30	169	29	4					268
Baytown Plain, var. Reed			11	3						14
Baytown Plain, var. Satartia	14	24		16						54
Baytown Plain, var. Unspecified	549	736	445	230	13	3	1		2	1979
Churupa Punctated, var. Churupa			1							1
Churupa Punctated, var. Unspecified						1				1
Grace Brushed, var. Unspecified		1								1
Hudson Engraved, var. Unspecified	1									1
Mabin Stamped, var. Unspecified			1							1
Macon Textured, var. Macon	11	8	3	3						25
Marksville Incised, var. Steele Bayou			1	1						2
Marksville Incised, var. Vick	1	1								2
Marksville Incised, var. Unspecified	1	5	1							7
Marksville Stamped, var. Manny			1							1
Marksville Stamped, var. Newsome		1	1							2
Marksville Stamped, var. Unspecified	2	1		1						4
Mazique Incised, var. Unspecified		1								1
Mississippi Plain, var. Unspecified	15	14	7	1						37
Officer Punctated, var. Unspecified			1							1
Unclass. Engraved on Mississippi Plain, var. Unspecified		1								1
Unclass. Incised on Baytown Plain, var. Unspecified	3		1							4
Unclass. Punctated on Baytown Plain, var. Unspecified	1									1
Total Ceramics	636	823	643	284	17	4	1	0	2	2410
Lithics										
Flake core fragment (local chert)	1									1
Utilized flakes										
local chert		3	3							6
non-local chert	2	1	1							4
Unutilized flakes										
local chert	6	11	10	5	2	3				37
non-local chert	3	8	5	2	1					19
Shatter										
local chert	3	8	2		1					14
non-local chert	2	3	1							6
Chipped chert pebbles		1	1							2
Unmodified chert pebbles	8		5	5						18
Total Lithics	25	35	28	12	4	3	0	0	0	107
Total Ceramics and Lithics	661	858	671	296	21	7	1	0	2	2517
Poverty Point Object fragments	3		1	52	14	12	9	11	1	103
Fired clay	1465	1727	2363	1261	420	217	138	242	17	7850
Polished bone pin				1						1
Fauna										
Unidentified bone (grams)	136	549	706	698	29	21	6.2	1		2146.2
Unidentified freshwater mussel shell (grams)	992	2174	14140	11358	108	71	52	3.8	.1	28898.9
Total Fauna (grams)	1128	2723	14846	12056	137	92	58.2	4.8	.1	31045.1
Recent (*= present)	*	*	*							

TABLE 12
Stevenson, 16RI14 (22-J-2)
Test Unit Two (K1536)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	Fea. 4	K	L	Total
Ceramics													
Baytown Plain, var. Fitler			1										1
Baytown Plain, var. Johnson	56	101	41	36	31	27	26	9	9			3	339
Baytown Plain, var. Reed		5	1	1			1						8
Baytown Plain, var. Satartia	5	3	2	1	4	2	4	1			1		23
Baytown Plain, var. Unspecified	336	216	69	99	118	115	66	45	12		11	3	1090
French Fork Incised, var. Unspecified			1			1	1						3
Landon Red on Buff, var. Unspecified						1							1
Macon Textured, var. Macon	2	3	3	3	1	2	1	2	1			1	19
Marksville Incised, var. Vick							1						1
Marksville Incised, var. Unspecified	1	2	2		1	1							7
Marksville Stamped, var. Manny				1									1
Marksville Stamped, var. Newsome							1						1
Marksville Stamped, var. Unspecified				1									1
Mississippi Plain, var. Unspecified		1											1
Unclass. Incised on Baytown Plain, var. Unspecified	1	1	1			3							6
Ceramic pipe fragment					1								1
Total Ceramics	401	332	121	142	156	152	101	57	22	0	12	7	1503
Lithics													
Utilized flakes													
local chert					1			1					2
non-local chert	1							1					2
quartzite		2											2
Unutilized flakes													
local chert		2				1	2	1	1		1		8
non-local chert		3	2		1		1						7
Chipped chert pebbles			2										2
Unmodified chert pebble								1					1
Total Lithics	1	7	4	0	2	1	3	4	1	0	1	0	24
Total Ceramics and Lithics	402	339	125	142	158	153	104	61	23	0	13	7	1527
Poverty Point objects/fragments										123	156		279
Fired clay	92	335	296	340	516	433	334	94	155			7	2602
Fauna													
Unidentified bone (grams)	135	145	230	149	239	145	125	46	204	2.5	41	1	1462.5
Unidentified freshwater mussel shell (grams)	78	725	858	552	669	595	823	1240	773		1394	83	7790
Total Fauna (grams)	213	870	1088	701	908	740	948	1286	977	2.5	1435	84	9252.5
Recent (*= present)	*	*											

TABLE 13
Stevenson, 16RI14 (22-J-2)
Test Unit Four (K1501)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	K	Total
Ceramics												
Baytown Plain, var. Johnson	9	37	49	49	25	53	42	14				278
Baytown Plain, var. Satartia	1	3	4	54	1	7	2	10	1			83
Baytown Plain, var. Unspecified	39	365	79	82	80	148	103	8	9	1		914
Alligator Incised, var. Oxbow	1				1							2
Churupa Punctated, var. Churupa						1						1
Churupa Punctated, var. Unspecified		2										2
Evansville Punctated, var. Unspecified		1										1
French Fork Incised, var. Unspecified		1										1
Larto Red, var. Larto					1							1
Larto Red, var. Unspecified						1						1
Macon Textured, var. Macon		10	9	3	2	7	1	1				33
Marksville Incised, var. Steele Bayou					1							1
Marksville Incised, var. Vick		2	1									3
Marksville Incised, var. Yokena				1								1
Marksville Stamped, var. Newsome					1							1
Marksville Stamped, var. Unspecified	1						1					2
Tchefuncte Incised, var. Unspecified							1					1
Unclass. Incised on Baytown Plain, var. Satartia			1									1
Unclass. Incised on Baytown Plain, var. Unspecified		5	1	1	1							8
Total Ceramics	51	426	144	190	113	217	150	33	10	1	0	1335
Lithics												
Gary Stemmed, var. Maybon						1						1
Unclassified dart point fragment						1						1
Utilized flakes												
local chert								1				1
non-local chert						1		1				2
Unutilized flakes												
local chert								1		1		2
non-local chert							3	2	1			6
quartzite						1						1
Unclassified modified object				1								1
Chipped chert pebbles	3			1								4
Unmodified chert pebbles		9	2									11
Total Lithics	3	9	2	2	0	4	3	5	1	1	0	30
Total Ceramics and Lithics	54	435	146	192	113	221	153	38	11	2	0	1365
Fired clay	22	186	165	174	78	290	213	165	10	4	2	1309
Fauna												
Unidentified bone (grams)	51	208	319	368	158	537	261	192	3.7	.1		2097.8
Unidentified freshwater mussel shell (grams)	49	569	1321	1294	701	1774	1591	1180	26		6	8511
Total Fauna (grams)	100	777	1640	1662	859	2311	1852	1372	29.7	.1	6	10608
Recent (*= present)	*	*										

TABLE 14
Stevenson, 16RI14 (22-J-2)
Test Unit Six (K1502)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	Fea. 1	K	L	Total
Ceramics													
Baytown Plain, var. Johnson	9	78	8	26	26	26	19	3	1				196
Baytown Plain, var. Reed				1									1
Baytown Plain, var. Satartia		6		1	2	3	1	1					14
Baytown Plain, var. Unspecified	51	168	38	121	88	56	58	21	2	5			608
Churupa Punctated, var. Churupa		2											2
Larto Red, var. Unspecified		1				5							6
Macon Textured, var. Macon		8	2	2	3	1	2						18
Marksville Incised, var. Vick.		2						2					4
Marksville Incised, var. Unspecified		1											1
Marksville Stamped, var. Bayou Rouge		1											1
Marksville Stamped, var. Newsome							1						1
Marksville Stamped, var. Unspecified							1						1
Salomon Brushed, var. Unspecified									1				1
Unclass. Incised on Baytown Plain, var. Satartia						1							1
Unclass. Incised on Baytown Plain, var. Unspecified		1			1								2
Unclass. Punctated on Baytown Plain, var. Unspecified				1									1
Total Ceramics	60	268	48	152	120	92	82	27	4	5	0	0	858
Lithics													
Flake core fragments													
local chert							1						1
non-local chert									1				1
Utilized flakes													
local chert	1					1							2
non-local chert	1		1	1			1						4
Unutilized flakes													
local chert		9		8	5	2	3		1				28
non-local chert		7		1	4	3	2	2	1				20
Shatter													
local chert				1		1		2	1			1	6
non-local chert		1											1
quartzite		1											1
Chipped chert pebbles	9	1	1										11
Unmodified chert pebbles					1			3					4
Total Lithics	11	19	2	11	10	7	7	7	4	0	0	1	79
Total Ceramics and Lithics	60	268	48	152	121	92	82	30	4	5	0	0	862
Fired clay	23	263	78	418	263	196	149	121	43	3	12	4	1573
Fauna													
Unidentified bone (grams)	83	522	51	347	224	164	38	38	11	1.5	10	.7	1490.2
Unidentified freshwater mussel shell (grams)	8.3	497	61	509	895	1094	161	37	16.7		3.5	1.2	3283.7
Total Fauna (grams)	91.3	1019	112	856	1119	1258	199	75	27.7	1.5	13.5	1.9	4773.9
Recent (*= present)	*	*											

TABLE 15
Stevenson, 16RI14 (22-J-2)
Test Unit Ten (K1521)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	K	Total
Ceramics												
Baytown Plain, var. Johnson			6	28	13	2	2			2	3	56
Baytown Plain, var. Marksville		1										1
Baytown Plain, var. Reed		1										1
Baytown Plain, var. Satartia			9		1			1	1			12
Baytown Plain, var. Unspecified	125	156	28	5	20	4				3		341
Coles Creek Incised, var. Unspecified			1									1
Larto Red, var. Larto				1								1
Marksville Incised, var. Unspecified		1										1
Mississippi Plain, var. Unspecified		1										1
Unclass. Incised on Baytown Plain, var. Unspecified	9	5		3	1							18
Unclass. Punctated on Baytown Plain, var. Unspecified		3										3
Total Ceramics	134	168	44	37	35	6	2	1	1	5	3	436
Lithics												
Unclassified arrow point fragment		1										1
Retouched flake												
local chert		1										1
Utilized flakes												
local chert		3			1	1						5
non-local chert		4			1							5
Unutilized flakes												
local chert		8	2		4	1	1	1				17
non-local chert	1	10	25	6	6	1	1					50
quartzite		1										1
Fire-cracked rock	1		7	1								9
Shatter												
local chert	1		3				1					5
non-local chert		2	3	1	2	1						9
Sandstone fragments		1	1									2
Chipped chert pebbles		1			1							2
Unmodified chert pebbles	34	13			1							48
Total Lithics	37	45	41	8	16	4	3	1	0	0	0	155
Total Ceramics and Lithics	171	213	85	45	51	10	5	2	1	5	3	591
Recent (*= present)	*	*	*	*	*							

TABLE 16
Stevenson, 16RI14 (22-J-2)
Summary of Ceramics by Test Unit

Test Unit Number	1	2	4	6	10	Total	%
Alligator Incised, var. Unspecified			2			2	.00030
Churupa Punctated, var. Churupa	1		1	2		4	.00061
Churupa Punctated, var. Unspecified	1		2			3	.00045
Coles Creek Incised, var. Unspecified					1	1	.00015
Evansville Punctated, var. Unspecified			1			1	.00015
French Fork Incised, var. Unspecified		3	1			4	.00061
Grace Brushed, var. Unspecified	1					1	.00015
Hudson Engraved, var. Unspecified	1					1	.00015
Landon Red on Buff, var. Unspecified		1				1	.00015
Larto Red, var. Larto			1		1	2	.00030
Larto Red, var. Unspecified			1	6		7	.00107
Mabin Stamped, var. Unspecified	1					1	.00015
Macon Brushed, var. Macon	25	19	33	18		95	.01452
Marksville Incised, var. Steele Bayou	2		1			3	.00045
Marksville Incised, var. Vick	2	1	3	4		10	.00152
Marksville Incised, var. Yokena			1			1	.00015
Marksville Incised, var. Unspecified	7	7		1	1	16	.00244
Marksville Stamped, var. Bayou Rouge				1		1	.00015
Marksville Stamped, var. Manny	1	1				2	.00030
Marksville Stamped, var. Newsome	2	1	1	1		5	.00076
Marksville Stamped, var. Unspecified	4	1	2	1		8	.00122
Mazique Incised, var. Unspecified	1					1	.00015
Officer Punctated, var. Unspecified	1					1	.00015
Salomon Brushed, var. Unspecified				1		1	.00015
Tchefuncte Incised, var. Unspecified			1			1	.00015
Unclass. Engraved on Mississippi Plain, var. Unspecified	1					1	.00015
Unclass. Incised on Baytown Plain, var. Satartia			1	1		2	.00030
Unclass. Incised on Baytown Plain, var. Unspecified	4	6	8	2	18	38	.00580
Unclass. Punctated on Baytown Plain, var. Unspecified	1			1	3	5	.00076
Baytown Plain, var. Fitler	2	1				3	.00045
Baytown Plain, var. Johnson	268	339	278	196	56	1137	.17380
Baytown Plain, var. Marksville					1	1	.00015
Baytown Plain, var. Reed	14	8		1	1	24	.00366
Baytown Plain, var. Satartia	54	23	83	14	12	186	.02843
Baytown Plain, var. Unspecified	1979	1090	914	608	341	4932	.75389
Mississippi Plain, var. Unspecified	37	1			1	39	.00596
Ceramic pipe fragment		1				1	.00015
Total	2410	1503	1335	858	436	6542	1

TABLE 17
Stevenson, 16RI14 (22-J-2)
Summary of Lithics by Test Unit

Test Unit Number	1	2	4	6	10	Total	%
Gary Stemmed, var. Maybon			1			1	.002
Unclassified arrow point fragment					1	1	.002
Unclassified dart point fragment			1			1	.002
Flake core fragments							
local chert	1			1		2	.005
non-local chert				1		1	.002
Retouched flake					1	1	.002
Utilized flakes							
local chert	6	2	1	2	5	16	.040
non-local chert	4	2	2	4	5	17	.043
quartzite		2				2	.005
Unutilized flakes							
local chert	37	8	2	28	17	92	.232
non-local chert	19	7	6	20	50	102	.258
quartzite			1		1	2	.005
Fire-cracked rock					9	9	.022
Shatter							
local chert	14			6	5	25	.063
non-local chert	6			1	9	16	.040
quartzite				1		1	.002
Unclassified modified object			1			1	.002
Chipped chert pebbles	2	2	4	11	2	21	.053
sandstone fragments					2	2	.005
Unmodified chert pebbles	18	1	11	4	48	82	.207
Total	107	24	30	79	155	395	1

TABLE 18
Radiocarbon dates for sites excavated by LMS in 1985 (+)

Sample No.	Site Name	Provenience	C-14 age, B.P.	Calendar Date	Corrected date (*)	Corrected date (#)	Corrected date span (@)
Beta-14043	Stevenson (16RI14)	Test Unit One, level 3	1570 +/- 80	A.D. 380 +/-80	A.D. 540	A.D. 450	A.D. 235--615
Beta-14044	Stevenson (16RI14)	Test Unit One, feature 3	1570 +/- 60	A.D. 380 +/- 60	A.D. 540	A.D. 450	A.D. 255-595
Beta-14045	Matheny (16MO3)	Test Unit Three, level 5	680 +/- 60	A.D. 1270 +/- 60	A.D. 1290	A.D. 1260--1290	A.D. 1240-1385
Beta-14046	Matheny (16MO3)	Test Unit Three, level 6	980 +/- 70	A.D. 970 +/- 70	A.D. 1030	A.D. 1020	A.D. 900-1210
Beta-14047	Matheny (16MO3)	Test Unit Three, level 23	1300 +/- 80	A.D. 650 +/- 80	A.D. 690	A.D. 690	A.D. 580-895
Beta-14048	Jordan (16MO1)	Test Unit Three, feature 6	480 +/- 80	A.D. 1470 +/- 80	A.D. 1430	A.D. 1420	A.D. 1320-1605
Beta-14049	Jordan (16MO1)	Test Unit Two, level 9	680 +/- 60	A.D. 1270 +/- 60	A.D. 1290	A.D. 1260--1290	A.D. 1240-1385

+ Samples dated by Beta Analytical, Coral Gables, Florida
* Calibration from Stuiver 1982
# Calibration from Ralph et al. 1973
@ Calibrated date span from Klein et al. 1982

TABLE 19
Matheny, 16MO3 (21-I-2)
Surface Collected Artifacts, 1981-1985

Collection year (see Appendix A for collection provenience)	1981-1983	1985	Total
Ceramics			
Alligator Incised, var. Unspecified	1		1
Avoyelles Punctated, var. Dupree		1	1
Barton Incised, var. Unspecified	2	2	4
Coles Creek Incised, var. Campbellsville	2	1	3
Coles Creek Incised, var. Coles Creek	3		3
Coles Creek Incised, var. Hardy	2	6	8
Coles Creek Incised, var. Keo	3	1	4
Coles Creek Incised, var. Unspecified	5	1	6
Evansville Punctated, var. Unspecified	4	5	9
Fatherland Incised, var. Snyders Bluff	1		1
Fatherland Incised, var. Unspecified	1		1
French Fork Incised, var. McNutt	1		1
Harrison Bayou Incised, var. Harrison Bayou	3	1	4
Leland Incised, var. Unspecified	1		1
Maddox Engraved, var. Emerald		1	1
Mazique Incised, var. Kings Point		1	1
Mazique Incised, var. Manchac	6	5	11
Mazique Incised, var. Mazique		2	2
Mazique Incised, var. Unspecified	2		2
Parkin Punctated, var. Unspecified		1	1
Plaquemine Brushed, var. Plaquemine	1	2	3
Sinner Linear Punctated, var. Unspecified		1	1
Unclass. Incised on Addis Plain, var. Unspecified	1		1
Unclass. Incised on Baytown Plain, var. Unspecified	12	20	32
Unclass. Interior Incised on Baytown Plain, var. Unspecified		1	1
Unclass. Incised and Punctated on Baytown Plain, var. Unspecified		1	1
Unclass. Incised on Mississippi Plain, var. Unspecified	1	1	2
Addis Plain, var. Addis	1		1
Addis Plain, var. Ratcliffe	1		1
Addis Plain, var. Unspecified	18		18
Baytown Plain, var. Unspecified	206	485	691
Mississippi Plain, var. Unspecified	11	30	41
Morris Plain, var. Unspecified		1	1
Total Ceramics	289	570	859
Lithics			
Alba Stemmed, var. Ashley	2		2
Alba Stemmed, var. Unspecified		1	1
Unclassified small dart point (novaculite)	1		1
Trapezoidal biface	1		1
Ovate biface		2	2
Biface fragments	3		3
Bifacially chipped perforators on flakes	2		2
Unifacially retouched flakes	2	3	5
Unifacially chipped flake (graver ?)	1		1
Utilized flake cores	6		6
Flake cores	49	6	55
Utilized flakes	2	24	26
Unutilized flakes	78	21	99
Polished chert flake (celt spall ?)	1		1
Fire-cracked rock	7	2	9
Shatter		12	12
Chipped chert pebbles	8	11	19
Pitted nutting stones	2	2	4
Chert hammerstones	1	1	2
Quartzite hammerstones	1	1	2
Total Lithics	167	86	253
Total Ceramics and Lithics	456	656	1112

TABLE 20
Matheny, 16MO3 (21-I-2)
1985 Shovel Tests

Shovel Test Number (*)	1	2	3	5	7	10	11	13	14	15	16	17	20	22	24	25	27	Total
Ceramics																		
Baytown Plain, var. Unspecified	1	1				2	1		1			2			1			9
Mississippi Plain, var. Bonita				2							2	11						15
Unclass. Incised on Baytown Plain, var. Unspecified											1	1				1	1	4
Unclass. Incised on Mississippi Plain, var. Bonita												3						3
Total Ceramics	1	1	0	2	0	2	1	0	1	0	3	17	0	0	1	1	1	31
Lithics																		
Unutilized blade												1						1
Utilized flakes																		
local chert										1								1
non-local chert														1				1
Unutilized flakes																		
local chert		1			1	1	1	2	2		1	1						10
non-local chert	1																	1
Shatter																		
local chert			1						1									2
non-local chert	1										1		1					3
Chipped chert pebbles	2	2																4
Unmodified chert pebbles			1															1
Total Lithics	4	3	2	0	1	1	1	2	3	1	2	2	1	1	0	0	0	24
Total Ceramics and Lithics	5	4	2	2	1	3	2	2	4	1	5	19	1	1	1	1	1	55
Fired clay	13							2	3		3	3						24
Fauna																		
Unidentified fish bone			1															1
Unidentified bone					1													1
Total Fauna	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Historic/Recent																		
Whiteware	1																	1
Glass	2																	2
Iron	1	1	1														1	4
Brick	1		1													1		3
Total Historic/Recent	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	10

* Missing Shovel test numbers indicate that no artifacts were recovered

TABLE 21
Matheny, 16MO3 (21-I-2)
Test Unit Two (K1609)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	K	Total
Ceramics												
Baytown Plain, var. Sharfit					1	3						4
Baytown Plain, var. Unspecified	22	12	3	1	1	6				1	1	47
Coles Creek Incised, var. Stoner				1								1
Evansville Punctated, var. Unspecified			1									1
Mississippi Plain, var. Bonita		1										1
Winterville Incised, var. Belzoni	1											1
Winterville Incised, var. Tunica	1											1
Unclass. Incised on Baytown Plain, var. Unspecified			2									2
Unclass. Slipped on Baytown Plain, var. Unspecified	1											1
Unclass. Incised on Mississippi Plain, var. Bonita	1											1
Total Ceramics	26	13	6	2	2	9	0	0	0	1	1	60
Lithics												
Unclass. Arrow Point			1									1
Unclass. Reworked Arrow/Chisel			1									1
Biface preform/failure	1											1
Flake Core Fragments												
local chert		2										2
thermally altered chert		1										1
Unutilized Flakes												
local chert	15	6	3	1	1	1		1		1		29
non-local chert	5	6	1		1			1				14
thermally altered chert	5	1	1	1				1				9
Shatter												
local chert	6	3	1	1	1							12
non-local chert		2	2		1							5
thermally altered chert	4	2	1	1								8
Unmodified Chert Pebbles	10		3		2							15
Total Lithics	46	23	14	4	6	1	0	3	0	1	0	98
Total Ceramics and Lithics	72	36	20	6	4	10	0	3	0	2	1	158
Land Snail Shell	1											1
Nail	1											1

TABLE 22
Matheny, 16MO3 (21-I-2)
Test Unit 3 (K1610)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Total
Ceramics																										
Addis Plain, var. Feliciana							2																			2
Addis Plain, var. Ratcliffe				2					5																	7
Addis Plain, var. Unspecified						3	2																			5
Avoyelles Punctated, var. Dupree					1																					1
Barton Incised, var. Midnight						2																				2
Barton Incised, var. Unspecified				1	1	6	1																			9
Baytown Plain, var. Reed																							11		1	12
Baytown Plain, var. Sharfit																						4	7			11
Baytown Plain, var. Unspecified	32	15	14	27	19	18	13	7	8	5	5	1	10	1	1	1	2		1	2			12	14	2	210
Coles Creek Incised, var. Coles Creek	1												1													2
Coles Creek Incised, var. Unspecified		1	1																1							3
Evansville Punctated, var. Unspecified				1																						1
French Fork Incised, var. Unspecified		1																								1
Leland Incised, var. Unspecified					1		1																			2
Mazique Incised, var. Kings Point	1																									1
Mazique Incised, var. Manchac						1																				1
Mississippi Plain, var. Bonita	23	14	18	45	58	63	29	18	3																	271
Morris Plain, var. Unspecified	1	1			1																					3
Owens Punctated, var. Widow Creek						1																				1
Parkin Punctated, var. Transylvania		1	2	6	8	5		1																		23
Parkin Punctated, var. Unspecified				1		2																				3
Winterville Incised, var. Belzoni	2				2		1																			5
Winterville Incised, var. Wailes			1																							1
Winterville Incised, var. Unspecified					2	2																				4
Unclass. Incised on Baytown Plain, var. Unspecified	6	6		4			3	1																		20
Unclass. Incised on Mississippi Plain, var. Bonita	1	2	1	2	4	10	2	2	1																	25
Unclass. Punctated on Baytown Plain, var. Unspecified							1																			1
Unclass. Slipped on Baytown Plain, var. Unspecified	1								1			1														3
Total Ceramics	68	41	37	89	97	113	55	29	18	5	5	2	11	1	1	1	2	0	2	2	0	4	30	14	3	630
Lithics																										
Alba Stemmed, var. Scallorn																				1						1
Unclassified arrow point	1																									1
Drill	1																									1
Flake core fragments																										
local chert		1				1																				2
non-local chert				1		1			1																	3
thermally altered chert			2																							2
Utilized flakes																										
local chert	1				1	2	2																			6
non-local chert	1						1																			2
Unutilized flakes																										
local chert	6	4	5	9	5	6	4	1	2				1					1								44
non-local chert	3	3	2	1	2	4	1	1		2		1	2	1		2		1					1	1	1	29
thermally altered chert	3	2	2	1	2		1	1																		12
quartz			1																							1
Fire-cracked rock								3								1										4
Shatter																										
local chert	2	4		4			2																			12
non-local chert	3	2				1		1		1		1						1								10
thermally altered chert	2			1	2	1	2					2														10
Sandstone fragments		1			1	1	1																			4
Unmodified chert pebbles	1	1		1	1	2	2	1		2																11
Total Lithics	24	18	12	18	14	19	16	8	3	5	0	4	3	1	0	3	0	3	0	1	0	0	1	1	1	155
Total Ceramics and Lithics	92	59	49	107	111	132	71	37	21	10	5	6	14	2	1	4	2	3	2	3	0	4	31	15	4	785
Fired clay (grams)	4.9	10	15.9	8	36.8	31.4	8.5	1.1	2.4		2.8															121.8
Fauna																										
Deer bone (grams)						8.3																	133.5			141.8
Unidentified large mammal bone (grams)																	1.8						93.4			95.2
Unidentified fish bone (grams)																							5.1			5.1
Unidentified bone (grams)																	.09				6.7	10.5	111.6			128.89
Unidentified freshwater mussel shell (grams)		.01				6	.08						2.8	2.2	1.1			6.9		.07		6.1	45.6		.07	70.93
Total Fauna (grams)	0	.01	0	0	0	14.3	.08	0	0	0	0	0	2.8	2.2	1.1	0	1.89	6.9	0	.07	6.7	16.6	389.2	0	.07	441.92
Unidentified nutshell fragments (grams)						.05	.04																			.09
Iron nail	1																									1
Calcium Carbonate concretions (grams)													12.2	270.2	555.5	977.7	350.2	120	114.5	? *	449.5	667.5				3517.3

* Indicates sample discarded or lost

TABLE 23
Matheny, 16MO3 (21-I-2)
Test Unit Five (K1608)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	Total
Ceramics							
Baytown Plain, var. Unspecified	17		6	24	26	11	84
Coles Creek Incised, var. Coles Creek				1			1
Coles Creek Incised, var. Hunt					1		1
Coles Creek Incised, var. Unspecified				2		1	3
Plaquemine Brushed, var. Plaquemine	1						1
Unclassified Incised on Baytown Plain, var. Unspecified	2				1		3
Total Ceramics	20	0	6	27	28	12	93
Lithics							
Unclassified arrow point				1			1
Flake core fragment					1		1
Unutilized flakes							
local chert	1		1	1	4		7
non-local chert	1			1	1		3
Thermally altered chert	2			1	2		5
Shatter							
local chert						2	2
non-local chert						1	1
Groundstone abraider/hammerstone					1		1
Sandstone fragments				1	1		2
Unmodified chert pebbles			1			1	2
Total Lithics	4	0	2	5	10	4	25
Total Ceramics and Lithics	24	0	8	32	38	16	118
Fired clay (grams)			.03	5.7	6	.05	11.78
Fauna							
Deer tooth fragments (grams)				.01			.01
Unidentified bone (grams)				.09	.05	.02	.16
Total Fauna (grams)	0	0	0	.1	.05	.02	.17
Unidentified nutshell fragments (grams)				.01	.01	.01	.03

TABLE 24
Matheny, 16MO3 (21-I-2)
Test Unit Seven (K1606)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	Total
Ceramics							
Baytown Plain, var. Reed				3	5		8
Baytown Plain, var. Sharfit					9		9
Baytown Plain, var. Unspecified	9	3	1	5	53	3	74
Coles Creek Incised, var. Unspecified				1	2		3
Unclassified Incised on Baytown Plain, var. Unspecified					2		2
Total Ceramics	9	3	1	9	71	3	96
Lithics							
Alba Stemmed, var. Scallorn	1				2		3
Unutilized flakes							
local chert	1					1	2
non-local chert		2			2	1	5
Shatter			1				1
Sandstone fragment			1				1
Unmodified chert pebbles					1	1	2
Total Lithics	2	2	2	0	5	3	14
Total Ceramics and Lithics	11	5	3	9	76	6	110
Fauna							
Deer bone (grams)					5.4		5.4
Unidentified bone (grams)			.01		5.8		5.81
Total Fauna (grams)	0	0	.01	0	11.2	0	11.21
Unidentified nutshell fragments (grams)						1.6	1.6

TABLE 25
Matheny, 16MO3 (21-I-2)
Test Unit Nine (K1607)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	Total
Ceramics								
Baytown Plain, var. Unspecified	6	7	4	6	8	8		39
Coles Creek Incised, var. Unspecified		1				1		2
Unclassified Incised on Baytown Plain, var. Unspecified			1					1
Total Ceramics	6	8	5	6	8	9	0	42
Lithics								
Unclassified arrow point		1						1
Unclassified small arrow/large dart point						1		1
Flake core fragments				2				2
Utilized flakes	1		1					2
Unutilized flakes								
local chert		1	1	2	2	2		8
non-local chert	1				1	1	3	6
thermally altered chert	1							1
Shatter				1				1
Sandstone fragment		1						1
Ochre					1			1
Unmodified chert pebbles		1						1
Total Lithics	3	4	2	5	4	4	3	25
Total Ceramics and Lithics	9	12	7	11	12	13	3	67
Fired clay (grams)	.01	1.2		1.4				2.61
Unidentified bone (grams)		.08						.08

TABLE 26
Matheny, 16MO3 (21-I-2)
Summary of Ceramics by Test Unit

Test Unit Number	2	3	5	7	9	Total	% of Total
Avoyelles Punctated, var. Dupree		1				1	.001
Barton Incised, var. Midnight		2				2	.002
Barton Incised, var. Unspecified		9				9	.009
Coles Creek Incised, var. Coles Creek		2	1			3	.003
Coles Creek Incised, var.Hunt			1			1	.001
Coles Creek Incised, var. Stoner	1					1	.001
Coles Creek Incised, var. Unspecified		3	3	3	2	11	.011
Evansville Punctated, var. Unspecified	1	1				2	.002
French Fork Incised, var. Unspecified		1				1	.001
Leland Incised, var. Unspecified		2				2	.002
Mazique Incised, var. Kings Point		1				1	.001
Mazique Incised, var. Manchac		1				1	.001
Owens Punctated, var. Widow Creek		1				1	.001
Parkin Punctated, var. Transylvania		23				23	.024
Parkin Punctated, var. Unspecified		3				3	.003
Plaquemine Brushed, var. Plaquemine			1			1	.001
Winterville Incised, var. Belzoni	1	5				6	.006
Winterville Incised, var. Tunica	1					1	.001
Winterville Incised, var. Wailes		1				1	.001
Winterville Incised, var. Unspecified		4				4	.004
Unclass. Incised on Baytown Plain, var. Unspecified	2	20	3	2	1	28	.030
Unclass. Incised on Mississippi Plain, var. Unspecified	1	25				26	.028
Unclass. Punctated on Baytown Plain, var. Unspecified		1				1	.001
Unclass. Slipped on Baytown Plain, var. Unspecified	1	3				4	.004
Addis Plain, var. Feliciana		2				2	.002
Addis Plain, var. Ratcliffe		7				7	.007
Addis Plain, var. Unspecified		5				5	.005
Baytown Plain, var. Reed		12		8		20	.021
Baytown Plain, var. Sharfit	4	11		9		24	.026
Baytown Plain, var Unspecified	47	210	84	74	39	454	.492
Mississippi Plain, var. Bonita	1	271				272	.295
Morris Plain, var. Unspecified		3				3	.003
Total	60	630	93	96	42	921	1

TABLE 27
Matheny, 16MO2 (21-I-2)
Summary of Lithics by Test Unit

Test Unit Number	2	3	5	7	9	Total	% of Total
Alba Stemmed, var. Scallorn		1		3		4	.012
Unclassified arrow points	1	1	1		1	4	.012
Unclassified large arrow/small dart point					1	1	.003
Unclassified reworked arrow/chisel	1					1	.003
Drill		1				1	.003
Biface preform/failure	1					1	.003
Flake core fragments							
local chert	2	2	1			5	.015
non-local chert		2				2	.006
thermally altered chert	1	2			2	5	.015
quartz		1				1	.003
Utilized flakes							
local chert		6				6	.018
non-local chert		2				2	.006
thermally altered chert					2	2	.006
Unutilized flakes							
local chert	29	44	7	2	8	90	.283
non-local chert	14	30	3	5	6	58	.182
thermally altered chert	9	12	5		1	27	.085
Fire-cracked rock		4				4	.012
Shatter							
local chert	12	12	2	1	1	28	.088
non-local chert	5	10	1			16	.050
thermally altered chert	8	10				18	.056
Groundstone abraider/hammerstone			1			1	.003
Sandstone fragments		4	2	1	1	8	.025
Ochre					1	1	.003
Unmodified chert pebbles	15	11	2	2	1	31	.097
Total	98	155	25	14	25	317	1

Table 28
Matheny, 16M03 (21-I-2)
Metric measurements for chipped stone tools

Collection Number	Type	Maximum Length (mm)	Maximum Width (mm)	Maximum Thickness (mm)	Weight (grams)	Material	Illustration
K1606A	Alba Stemmed, var. Scallorn	23.5	14.5	2.8	.06	local chert	Plate 19 d
K1606E	Alba Stemmed, var. Scallorn	20	10 *	3.3	.06	non-local chert	Not illustrated
K1606E	Alba Stemmed, var. Scallorn	18.1	9	4	.05	thermally altered chert	Plate 19 c
K1610U	Alba Stemmed, var. Scallorn	25	11	3.2	.07	local chert	Plate 19 e
K1609C	Unclassified arrow point	16	10	3	.03	local chert	Plate 19 a
K1608D	Unclassified arrow point	27	9	4.1	.07	local chert	Plate 19 g
K1610A	Unclassified arrow point	34 *	13.5	4	1.4	local chert	Plate 19 h
K1607B	Unclassified arrow point (on flake)	16 *	10	3.5	.05	local chert	Plate 19 b
K1609C	Unclassified arrow point/chisel	12 #	6 *	3	.02	non-local chert	Not illustrated
K1607F	Unclassified large arrow/small dart point	31 *	22	7	4.5	non-local chert	Plate 19 i
K1610A	Drill	27.5	11	4.5	1	non-local chert	Plate 19 f

* indicates that tool was not intact in measured dimension
# Tip was broken and then reworked into chisel

TABLE 29
Jordan, 16MO1 (22-I-1)
Surface Collections, 1983-1985 (*)

Collection Number (see Appendix A for provenience)	K519	K520	K521	K522	K523	K524	K525	K526	K527	K528	K529	K530	K531	K532	K536	K537	K538	K563	K564	K565	K569	K750	K751	K802	K835	K837	K838	Total
Ceramics																												
Addis Plain, var. Feliciana																						1						1
Addis Plain, var. Unspecified		1						1		1	1						1					1						6
Barton Incised, var. Unspecified		1		1			1		1	1			11	1	1	4			1			2						25
Baytown Plain, var. Unspecified				1	1	6	1		1	11					1	9		1				2						34
Belcher Ridged, var. Belcher Ridged				2						2			1															5
Chicot Red, var. Grand Village																						1						1
Chicot Red, var. Unspecified				1					1																			2
Cracker Road Incised, var. Cracker Road				1			6									1												8
Cracker Road Incised, var. Unspecified				3	1			1	1	2	1		5	2	2	3						1						22
Fatherland Incised, var. Unspecified							1																					1
Glassel Engraved, var. Unspecified										1																		1
Grace Brushed, var. Grace							2					3										4						9
Grace Brushed, var. Grand Gulf										1			2									9						12
Grace Brushed, var. Warren															1													1
Grace Brushed, var. Unspecified		3			2	2	1		9				8	5	7		2			1		2				3		45
Leland Incised, var. Russell														1														1
Leland Incised, var. Unspecified				3								1	1		1		2											8
Maddox Engraved, var. Emerald																						1						1
Maddox Engraved, var. Unspecified				1																								1
Mississippi Plain, var. Unspecified		27	3	72	171		199	40	148	113	40	33	106	7	101	48	22	31	8	9	2	81	1	7	17	33	16	1335
Owens Punctated, var. Beland City									1																			1
Owens Punctated, var. Manly										1				1														2
Owens Punctated, var. Menard									1																			1
Owens Punctated, var. Unspecified		1								1																		2
Parkin Punctated, var. Unspecified		1		1					1	1			2	1	1													8
Walls Engraved, var. Unspecified				1			1			1								1										4
Winterville Incised, var. Belzoni							1		1	1			1		6							2						12
Winterville Incised, var. Blum				1								1										2						4
Winterville Incised, var. Ranch							1						2															3
Winterville Incised, var. Tunica																									1			1
Winterville Incised, var. Wailes							1								1													2
Winterville Incised, var. Unspecified		1			1		1	1	6		1		6		3		1	3				1					1	26
Unclass. Incised on Addis Plain, var. Unspecified									1													1						2
Unclass. Caddo Engraved									1	1																		2
Unclass. Caddo Incised													1															1
Unclass. Engraved on Mississippi Plain, var. Unspecified				1	1	1			2									1										6
Unclass. Incised on Mississippi Plain, var. Unspecified		4	1	9	15	2	8	3	5	10	7		11		7			3				4					1	90
Ceramic ear spool (shell tempered ?)														1														1
Ceramic disk on Misississippi Plain, var. Unspecified .													1															1
Total Ceramics	0	39	4	98	192	11	224	46	180	148	50	38	158	19	132	65	28	40	9	10	2	115	1	7	18	36	18	1688
Lithics																												
Alba Stemmed, var. Jordan	2								5								1					1					1	10
Alba Stemmed, var. Unspecified			2			1		1		2	1																	7
Maud points					2																							2
Unclassified dart point		1								1				1														3
Unclassified projectile point					2					1																		3
Drill					1																						1	2
Triangular bifaces		2	1	2	6	2	5		1	2	1	2			4							4						32
Ovate biface/scrapers					1						1																	2
Biface/knife										1												1						2
Biface/preform		1	1				4						1	1								3						11
Utilized flake cores				1					1				1		1		1											5
Flake cores																												
local chert				5	15	3	4	2	17	10	2	1	5		2	8	2	2	1			10				2	1	92
quartzite																						5					1	6
Bifacially retouched flake				1																								1
Unifacially retouched flakes				2	1		2			1			1		1											1		9
Utilized flakes																												
local chert		11		13	5	2	24	7	26	9	1	12	17		11		3	2	1					1	1			146
quartzite							1																					1
quartz							1																					1
Unutilized flakes																												
local chert		14	1	30	101	18	37	17	71	56	26	7	18		16	5	8	6	1	1		20		1		8	1	463
quartzite		1					2								1											1		5
Groundstone celts							1	1						3														5
Chipped and polished celt							1																					1
Polished basalt (?) flake (celt spall?)									1																			1
Grinding stone					1																						1	2
Pestle/abraider												1																1
Hammerstones																												
chert				2	4	1	2	1							1													11
quartzite							2																					2
Pecked quartzite spheroid									1																			1
Sandstone abraider														1														1
Unmodified sandstone fragments	1				2		4			1	1		1															10
Unmodified petrified wood fragment		1							1													1						3
Unmodified pebbles																												
chert		10	1			2			1	1	1	2		1			1											20
quartzite						1						1																2
Total Lithics	3	41	6	56	141	30	90	29	125	85	34	26	44	7	37	13	16	10	3	1	0	45	0	2	1	12	6	863
Total Ceramics and Lithics	3	80	10	154	333	41	314	75	305	233	84	64	202	26	169	78	44	50	12	11	2	160	1	9	19	48	24	2551

* Surface collections were sorted in 1983 and 1984 and returned to owner, thus these counts do not necessarily reflect current typological usage.

Table 30
Jordan, 16MO1 (22-I-1)
Shovel Tests (see Appendix A for collection numbers)

Shovel Test Number (*)	1	2	3	4	5	6	7	8	9	10	11	12	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	43	44	45	46	47	52	53	54
Ceramics																																									
Addis Plain, var. Feliciana				1	1																						2											1			
Addis Plain, var. Junkin																																									
Addis Plain, var. Ratcliffe																															1										
Addis Plain, var. Unspecified			1														2		1					1		1															
Barton Incised, var. Unspecified																																									
Belcher Ridged, var. Belcher Ridged																																									
Grace Brushed, var. Duvall		2							12						4	1					2	4			1				1	1											
Grace Brushed, var. Prairie Jefferson								1																																	
Hudson Engraved, var. Unspecified							1																								1										
Leland Incised, var. Williams																																	1								
Leland Incised, var. Unspecified																																									
Maddox Engraved, var. Silver City														1																											
Mississippi Plain, var. Morehouse	5		2		3	1	5	8	13	3	6			3	7	3	4		1		6	3	1	1		4	1		9	6	2	4	1	2		3	3	5	1		4
Mississippi Plain, var. Oak Ridge								10																																	
Mound Tract Incised and Brushed, var. Mound Tract																																									
Owens Punctated, var. Unspecified																															9										
Parkin Punctated, var. Unspecified															1																										
Winterville Incised, var. Tunica																																									
Winterville Incised, var. Wailes																																					1				
Winterville Incised, var. Unspecified													1					1																							
Unclass. Incised on Addis Plain, var. Addis										1	1																														
Unclass. Incised on Addis Plain, var. Feliciana																																									
Unclass. Incised on Addis Plain, var. Unspecified																																									
Unclass. Incised and Brushed on Addis Plain, var. Feliciana																															1										
Unclass. Caddo Engraved on Addis Plain, var. Unspecified																												1													
Unclass. Incised on Mississippi Plain, var. Morehouse	6					1			1	1	1		1		2			1							1	1	1	1	4				2		1	3	1	1			
Unclass. Incised and Brushed on Mississippi Plain, var. Morehouse					1																																				
Unclass. Punctated on Mississippi Plain, var. Morehouse																																									
Unclass. Stamped on Mississippi Plain, var. Morehouse																																									
Lithics																																									
Triangular biface/knife																																									
Biface fragment																																									
Utilized flake core scraper																														1											
Flake core fragments																						1				1	1														
Utilized flakes																																									
local chert																														1											
non-local chert																				1																					
Unutilized flakes																																									
local chert	2	1	1	1	1		1	1	1	1	3	1	1	1	3	3						1		1		1		1	1		1	1				1	1			1	
non-local chert	1														2			1										1			1					2					
thermally altered chert	1	1						1																					2		1					1					
Shatter																																									
local chert													1																1												
non-local chert					1											1																									
thermally altered chert																															1										
Chipped chert pebbles															1					1				1																	
Unmodified sandstone fragments																												1		1											
Unmodified chert pebbles	1	1																							1				1	1	1						1		1	1	1
Total Ceramics and Lithics	16	5	4	2	7	2	7	21	27	6	11	1	4	5	20	8	6	3	2	2	8	9	1	4	3	8	5	5	19	11	19	5	4	2	1	10	7	7	2	2	5
Organics																																									
Unidentified bone (grams)	26.2						5.02	73.1	3	21.2	1.4										16.6								35.7	.01	13.8					.09		.05			
Unidentified freshwater mussel shell (grams)								4.4													6.2																				
Unidentified land snail shells (grams)			.03	.02									1.1		.02		.05	.01		.07					.03	.02		.03	.03					.04				.01	.01		
Unidentified carbonized flora (grams)	.02			.01											.01			.05		.03																.01			.01		
Mississippi Plain, var. Unspecified (sherds < 1/4 inch) (grams)	11.5	14.2	3.2	6.5	7.8	6.7	30.6	18	30	10.8	9.9	.01		1	10.6	5.2	5	7.7	1.9	1.9	4.4	3.6	3.7	1.1	2.7	4.2	4.3	5.5	19	15.7	20.9	3.8	3.9	.09	.01	.5	1.5	2.8	1.2		3.3
Daub (grams)	3.3				.03		66.1	41.1	35.8	43.7	22.6				.07		.05			2	4.5	3	.07	1.5	1	4.3	1.8	2.8	151	244	18.7	8.9	8.9			.02		1.4			7.3
Fired Clay (grams)	4.5		.1		1.5	1.7		10										.01	27.7																						
Historic/Recent																																									
Ceramics																																							1		
Brick fragments	1	10	4											1															4			10		2				1			
Glass	1		1														1										1							1	1		2	2			
Metal	3	6	2			1					1			1					1						3				1					1		2		1	5	1	

* Missing numbers indicate that no material was recovered

Table 30 (page 2)
Jordan, 16MO1 (22-1-1)
Shovel Tests

Shovel Test Number (*)	55	56	57	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	95	96	100	101	102	103	104	105	106	107	108	109	110	112	113	114	115	116	117	118	120	121	122	123	124	Total
Ceramics																																																				
Addis Plain, var. Feliciana																																		1	1																	7
Addis Plain, var. Junkin																				1																																1
Addis Plain, var. Ratcliffe																																																				1
Addis Plain, var. Unspecified																																																				6
Barton Incised, var. Unspecified								1								1																1																				3
Belcher Ridged, var. Belcher Ridged																																									1											1
Grace Brushed, var. Duvall																			1	1	11		3	3	8								6	3				2	1													67
Grace Brushed, var. Prairie Jefferson																																																				1
Hudson Engraved, var. Unspecified															7					1			1																													11
Leland Incised, var. Williams																							1																													2
Leland Incised, var. Unspecified																				1			1																													2
Maddox Engraved, var. Silver City																																																				1
Mississippi Plain, var. Morehouse	1					2		7	5		2	5	2	2	6		2		14	10	9	3	24	18	20	1			1	6		1	11	9	6	11		8	11	12	8	12	1				5	1	2	2	8	368
Mississippi Plain, var. Oak Ridge																																																				10
Mound Tract Incised and Brushed, var. Mound Tract																																															1					1
Owens Punctated, var. Unspecified																																																				9
Parkin Punctated, var. Unspecified																																																				1
Winterville Incised, var. Tunica																								2														1														3
Winterville Incised, var. Wailes																				3				1																												5
Winterville Incised, var. Unspecified																									1																											3
Unclass. Incised on Addis Plain, var. Addis									1																																											3
Unclass. Incised on Addis Plain, var. Feliciana	1																																																			1
Unclass. Incised on Addis Plain, var. Unspecified																										1																										1
Unclass. Incised and Brushed on Addis Plain, var. Feliciana																																																				1
Unclass. Caddo Engraved on Addis Plain, var. Unspecified																																																				1
Unclass. Incised on Mississippi Plain, var. Morehouse			1						2			1		1					3	2			7		4			1					2	1	2			1	4												3	65
Unclass. Incised and Brushed on Mississippi Plain, var. Morehouse																																																				1
Unclass. Punctated on Mississippi Plain, var. Morehouse																																							1													1
Unclass. Stamped on Mississippi Plain, var. Morehouse																									1																											1
Lithics																																																				
Triangular biface/knife																										1																										1
Biface fragment																								1																												1
Utilized flake core scraper																																																				1
Flake core fragments																					1					1								1				1		1												8
Utilized flakes																																																			
local chert																										1																										2
non-local chert																																																				1
Unutilized flakes																																																			
local chert	3								3			2				1			1		1		1	2		2				1					1									2	1							53
non-local chert												1							1																																	10
thermally altered chert		1																					1																			1										10
Shatter																																																			
local chert												1								1						3				1					2																	10
non-local chert																							1	1																												4
thermally altered chert																				1	1			1																												4
Chipped chert pebbles																																																				3
Unmodified sandstone fragments																																																				2
Unmodified chert pebbles							1										1			2		1	2	1	2																							1				21
Total Ceramics and Lithics	5	1	1	0	0	2	1	8	11	0	2	10	2	3	13	2	3	0	20	23	23	4	42	30	36	10	0	1	1	8	0	2	19	15	12	11	0	13	17	13	9	13	1	2	1	0	6	2	2	2	11	709
Organics																																																				
Unidentified bone (grams)			.03		.02			.01				.07			.05	.01			7.2	36.58	.04		11.2	12.5	4.57	5.6	2.4													.05		.03				.01	.04					276.58
Unidentified freshwater mussel shells (grams)																							1.5																													12.1
Unidentified land snail shells (grams)					.01			.01						.01			.03	.01	.01		.04	.02	.03										.02				.02															1.72
Unidentified carbonized flora (grams)						.02	2.4	.01				.08			.06		.03											.04		.02				.05			.03														.02	2.92
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	.06	1.2	2.4		2.1	1.2	2.4	4.1	2.5	.03	3	2.9	.07		4.7			.02	6.5	8	9.6	1.9	18.1	25.1	7.8	3		.04		.05	1.3	2.2	3.7	4	3.1	1.9	2	6	10.5	3.6	4.7	6.2	.09	.09	.05		1.9			.05	.08	442.96
Daub (grams)	7.1	4.8	9.4					47.1				.02				.08			5.6	12.2	3.4	.01	16.9	4	9.4	.06		.04	.04				.06	.01						3.6	1.1	2.2										804.26
Fired Clay (grams)																																											.01									45.52
Historic/Recent																																																				
Ceramics														1				1									3			3	1								1													11
Brick fragments												33													2														1					2								71
Glass					1						1	1			1		1								1		1			2	3																1		1			24
Metal				2				9	1	1		2			1				1						2														1	1	1		2	6								60

* Missing numbers indicate that no material was recovered

TABLE 31
Jordan, 16MO1 (22-I-1)
Test Unit One (K1927)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	K	L	Total
Ceramics													
Addis Plain, var. Feliciana	3	3		3	2	1				1			13
Addis Plain, var. Ratcliffe								1					1
Addis Plain, var. St. Catherine									1				1
Addis Plain, var. Unspecified		2	2	2				2		1			9
Barton Incised, var. Davion						1							1
Barton Incised, var. Unspecified	1	9	5	4	2	1		2					24
Belcher Ridged, var. Belcher Ridged					1								1
Cracker Road Incised, var. Cracker Road		1		4	5								10
Cracker Road Incised, var. Unspecified	2		4	1	1								8
Fatherland Incised, var. Bayou Goula	1												1
Fatherland Incised, var. Fatherland			1										1
Grace Brushed, var. Duvall	2	7	7	2	6	1		7	1	1			34
Grace Brushed, var. Warren			1										1
Hudson Engraved, var. Hudson										1			1
Leland Incised, var. Blanchard			3	1	1	1							6
Leland Incised, var. Leland					3								3
Leland Incised, var. Williams				1									1
Leland Incised, var. Unspecified			1	1									2
Mississippi Plain, var. Morehouse	105	151	69	96	76	36	12	33	48	28	5	3	662
Mississippi Plain, var. Unspecified		1		1									2
Mound Tract Incised and Brushed, var. Mound Tract	1	2	1		1	1							6
Nodena Red on White, var. Unspecified			1										1
Owens Punctated, var. Unspecified				1									1
Parkin Punctated, var. Unspecified				1									1
Winterville Incised, var. Broutin	1		1										2
Winterville Incised, var. Tunica		3		5		2				1			11
Winterville Incised, var. Wailes	1			1		1							3
Winterville Incised, var. Unspecified		5	3	2	6	1							17
Unclass. Engraved on Mississippi Plain, var. Morehouse		1											1
Unclass. Caddo Engraved	1	2	1		2	1							7
Unclass. Incised on Addis Plain, var. Feliciana				1						2			3
Unclass. Incised on Addis Plain, var. Unspecified		1	1	1									3
Unclass. Incised on Mississippi Plain, var. Morehouse	17	42	27	13	10	5	2	3	4	2	2		127
Unclass. Interior/Exterior Incised on Mississippi Plain, var. Morehouse		1											1
Unclass. Interior Incised on Mississippi Plain, var. Morehouse	1		1						1				3
Unclass. Stamped on Mississippi Plain, var. Morehouse					1	1							2
Total Ceramics	136	231	129	141	117	53	14	48	55	37	7	3	971
Lithics													
Alba Stemmed, var. Unspecified	1												1
Bipolar flake cores													
local chert	1												1
thermally altered chert			1										1
Flake core fragments													
local chert	1	1											2
non-local chert	1												1
Unutilized blade (local chert)				1									1
Utilized flakes													
local chert	1		3	1	1								6
thermally altered chert			1										1
Unutilized flakes													
local chert	10	21	26	15	11		1	3					87
non-local chert		4		6		1							11
thermally altered chert	2	8	7	13	1			1					32
Shatter													
local chert	3	4	8	3	2		1						21
thermally altered chert	3				1								4
Irregular palette fragment	1												1
Unmodified sandstone fragments	1	3		6		1							11
Unmodified chert pebbles	7	4	3	4	2	1				1	1		23
Total Lithics	32	45	49	49	18	3	2	4	0	1	1	0	204
Total Ceramics and Lithics	168	276	178	190	135	56	16	52	55	38	8	3	1175
Fauna													
Human (unidentified skull bones) (grams)								4.5					4.5
Deer (grams)				40									40
Unidentified fish (grams)			.01										.01
Unidentified bone fragments (grams)	11.5	15.5	35.5	16	57	22.5	2	74.5	28	1.4	2.9		266.8
Unidentified tooth fragments (grams)				.03									.03
Unidentified land snail shell (grams)	11.2	.01			.01								11.22
Total Fauna (grams)	22.7	15.51	35.51	56.03	57.01	22.5	2	79	28	1.4	2.9	0	322.56
Unidentified carbonized flora (grams)	1			.06			.02			.02	.02		1.12
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	66.9	157.9	92.5	45.5	20	1.7	2.3	14	9.9	7.7		1.6	420
Daub (grams)	21.4	27.5	58.5	122.8	96.7	36.5	9.3	8.5	.03		1.1	9.9	392.23
Historic/Recent													
Brick	1												1
Glass	1												1
Iron	1												1
Total Historic/Recent	3	0	0	0	0	0	0	0	0	0	0	0	3
Unidentified mineral concretions (grams)	3.03	3.5	.03	.04	7.5	4	10.9	7	.07				36.07

TABLE 32
Jordan, 16MO1 (22-I-1)
Test Unit Two (K1929)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	J	K	N	O	P	Q	R	Total
Ceramics																
Addis Plain, var. Unspecified	3															3
Barton Incised, var. Galion								6		4						10
Barton Incised, var. Mer Rouge							9									9
Barton Incised, var. Unspecified			2			1	14									17
Cracker Road Incised, var. Cracker Road		1														1
Cracker Road Incised, var. Unspecified	2	1														3
Grace Brushed, var. Duvall			1	1	1	3	18									24
Grace Brushed, var. Prairie Jefferson								7	5	30	2	2	4	3		53
Leland Incised, var. Williams				1									1			2
Leland Incised, var. Unspecified							1									1
Maddox Engraved, var. Emerald	1															1
Mississippi Plain, var. Morehouse	29	45	34	18	7	31	131	4								299
Mississippi Plain, var. Oak Ridge								114	48	45	8	10	37	18	5	285
Owens Punctated, var. Unspecified		1											1			2
Walls Engraved, var. Unspecified							1									1
Winterville Incised, var. Broutin							1						1			2
Winterville Incised, var. Forshey										2	3	1	1	1		8
Winterville Incised, var. Tunica			1					2								3
Winterville Incised, var. Wailes			1	1												2
Winterville Incised, var. Unspecified						1		1		2			1			5
Unclass. Interior Engraved on Mississippi Plain, var. Oak Ridge										1		1				2
Unclass. Incised on Mississippi Plain, var. Morehouse	7	6		4	1	1	2	1								22
Unclass. Incised on Mississippi Plain, var. Oak Ridge														1		1
Unclass. Interior Incised on Mississippi Plain, var. Oak Ridge													1	2		3
Unclass. Punctated on Mississippi Plain, var. Morehouse					1											1
Unclass. Punctated on Mississippi Plain, var. Oak Ridge									2							2
Shell tempered ear plug							1									1
Total Ceramics	42	54	39	25	10	37	178	135	55	84	13	14	47	25	5	763
Lithics																
Flake core fragments																
local chert		1														1
thermally altered chert		1														1
Unutilized blade	1															1
Unifacially retouched flake (thermally altered chert)														1		1
Utilized flake		1														1
Unutilized flakes																
local chert	4	5	4	3	1		1	1								19
non-local chert	1	1														2
thermally altered chert		1					1			1		1	1			5
Shatter																
local chert		3														3
non-local chert				1												1
thermally altered chert		3						5								8
Unmodified sandstone fragments	2						5									7
Unmodified chert pebbles		1						1		1		2	4	1		10
Total Lithics	8	17	4	4	1	0	7	7	0	2	0	3	5	2	0	60
Total Ceramics and Lithics	50	71	43	29	11	37	185	142	55	86	13	17	52	27	5	823
Fauna																
Deer (grams)				9			9.4	64.1				19.3				101.8
Squirrel (grams)												4.83	14.4			19.23
Unidentified large mammal (grams)							100		5.2	22.8						128
Unidentified small mammal (grams)								4.8		3.2	1.7		.08	1.9		11.68
Unidentified mammal (grams)													17.2			17.2
Unidentified bird (grams)													4.6	13.81		18.41
Unidentified fish (grams)							4	10.1	3.68	4.7	1.9	.04	8.3	7.6	1	41.32
Unidentified turtle (grams)										3.5						3.5
Unidentified bone fragments (grams)	.06		2.9	1.1	3.2	1.4	25.6	114.3	22.2	99.7	57	34.3	154.1	22.3	5.9	544.06
Unidentified freshwater mussel shell (grams)								8.2	.01	24		13.3	17	12.6		75.11
Total Fauna (grams)	.06	0	2.9	10.1	3.2	1.4	139	201.5	31.09	157.9	60.6	71.77	215.68	58.21	6.9	960.31
Unidentified carbonized flora								.02		.03						.05
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	53.8	121.7	19	13	1	4.4	35	26.3	8.1	9.5			8.9	3.4	.07	304.17
Daub (grams)	119.9	355.8	225.7	107.2	42	5.2	6.7	5.5								868
Historic/Recent																
Glass	2	1														3
Iron		4														4
Total Historic/Recent	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	7

TABLE 33
Jordan, 16MO1 (22-I-1)
Test Unit 2West (K1930)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	L	M	N	O	Total
Ceramics												
Addis Plain, var. Feliciana	1											1
Addis Plain, var. Unspecified							2					2
Barton Incised, var. Galion								6	4		2	12
Barton Incised, var. Mer Rouge							6					6
Barton Incised, var. Unspecified		1			1		7					9
Cracker Road Incised, var. Unspecified						1						1
Grace Brushed, var. Duvall	2	5	2			2	41					52
Grace Brushed, var. Prairie Jefferson							2	16	24		4	46
Kinlock Simple Stamped, var. Unspecified							1					1
Leland Incised, var. Blanchard		1										1
Leland Incised, var. Williams							3					3
Mississippi Plain, var. Morehouse	89	37	28	11	6	18	177					366
Mississippi Plain, var. Oak Ridge							41	104	129	15	5	294
Mound Tract Incised and Brushed, var. Mound Tract			1									1
Winterville Incised, var. Broutin								1	2	1		4
Winterville Incised, var. Forshey							1		4			5
Winterville Incised, var. Tunica							1					1
Winterville Incised, var. Wailes						1			2			3
Winterville Incised, var. Winterville								2	5			7
Winterville Incised, var. Unspecified							3		3			6
Unclass. Engraved on Mississippi Plain, var. Oak Ridge								2	1			3
Unclass. Interior Engraved on Mississippi Plain, var. Oak Ridge								1				1
Unclass. Incised on Mississippi Plain, var. Morehouse	12	7	2	1		3	8					33
Unclass. Incised on Mississippi Plain, var. Oak Ridge								1	8	1		10
Unclass. Punctated on Mississippi Plain, var. Morehouse		1					3					4
Total Ceramics	104	52	33	12	7	25	296	133	182	17	11	872
Lithics												
Alba Stemmed, var. Jordan	1		1									2
Unclassified arrow point fragment			1									1
Utilized flakes												
local chert			3									3
thermally altered chert			1									1
Unutilized flakes												
local chert	11	7		2			1					21
non-local chert	1					1						2
thermally altered chert		1					1	5	3			10
Shatter												
local chert	3	4										7
thermally altered chert								2				2
Unmodified sandstone fragment	1											1
Unmodified chert pebbles	3	1	1				7					12
Total Lithics	20	13	7	2	0	1	9	7	3	0	0	62
Total Ceramics and Lithics	124	65	40	14	7	26	305	140	185	17	11	934
Fauna												
Deer (grams)							2.2		185			187.2
Squirrel (grams)							3.3	1.5	28			32.8
Unidentified large mammal (grams)							59	84.5	177.5	80		401
Unidentified mammal (grams)							3.3					3.3
Unidentified bird (grams)							13.7		13.5			27.2
Unidentified fish (grams)							7.8	7.5	26.8	1	.03	43.13
Unidentified turtle (grams)							1		3.9			4.9
Unidentified freshwater mussel shell (grams)								60	154.5	3.5		218
Unidentified bone fragments (grams)	.07	.08	.08	3.4	.05	8.8	89.5	234.1	292.8	17	10.1	655.98
Total Fauna (grams)	.07	.08	.08	3.4	.05	8.8	179.8	387.6	.882	101.5	10.13	1573.51
Unidentified carbonized flora (grams)			.04				.01	.01	2.5	.02		2.58
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	53.7	76.5	19.2	3	1.1	7.8	56.7	15	55.9	2.6	2.7	294.2
Daub (grams)	146.3	227	82.6	39.9	24.3	19.8	55					594.9
Fired Clay (grams)							25.5	168	4	2.6	2.5	202.6
Historic/Recent												
Yellow lead glazed stoneware		1										1
Glass	1											1
Iron	4	3										7
Total Historic/Recent	5	4	0	0	0	0	0	0	0	0	0	9

TABLE 34
Jordan, 16MO1 (22-I-1)
Test Unit Three (K1928)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	I	J	H*	P**	Total
Ceramics												
Addis Plain, var. Addis		1	2	1								4
Addis Plain, var. Feliciana			1			1	5			14	12	33
Addis Plain, var. St. Catherine											1	1
Addis Plain, var. Unspecified					1		1				1	3
Barton Incised, var. Unspecified					2	3	1	1				7
Grace Brushed, var. Duvall			2	2	27	15	6			1	5	58
Leland Incised, var. Unspecified						1						1
Mississippi Plain, var. Morehouse	20	23	24	33	66	60	31	8	3	11	31	310
Owens Punctated, var. Unspecified	1											1
Winterville Incised, var. Broutin				3	1	1					1	6
Winterville Incised, var. Tunica			1									1
Winterville Incised, var. Wailes						1						1
Winterville Incised, var. Unspecified	1											1
Unclass. Engraved on Mississippi Plain, var. Morehouse			1									1
Unclass. Incised on Addis Plain, var. Unspecified				2			1					3
Unclass. Incised on Mississippi Plain, var. Morehouse		1		2	6	2	2	1		1	2	17
Unclass. Interior Incised on Addis Plain, var. Unspecified			2									2
Unclass. Interior Incised on Mississippi Plain, var. Morehouse							2					2
Unclass. Pinched on Mississippi Plain, var. Morehouse					1							1
Ceramic pipe (?) fragment							1					1
Total Ceramics	22	25	33	43	104	84	50	10	3	27	53	454
Lithics												
Alba Stemmed, var. Unspecified						1					1	2
Flake core				1								1
Utilized blade						1						1
Unifacially retouched flake			1									1
Unutilized flakes												
local chert	1	6	1	2	3		1					14
non-local chert	1	2										3
Shatter (thermally altered chert)		1										1
Ochre			1									1
Unmodified chert pebble		1										1
Total Lithics	2	10	3	3	3	2	1	0	0	0	1	25
Total Ceramics and Lithics	24	35	36	46	107	86	51	10	3	27	54	479
Fauna												
Unidentified large mammal (prob. Deer) (grams)										68.2		68.2
Unidentified mammal (grams)	1.4											1.4
Unidentified bone fragments (grams)		3.81					1				15.6	20.41
Total Fauna (grams)	1.4	3.81	0	0	0	0	1	0	0	68.2	15.6	90.01
Unidentified carbonized flora (grams)							.04			.07	.09	.2
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	4.7	16	24.4	13.1	64.3	23.8	7.8	1.2	1.3	2.3	4.1	163
Daub (grams)	5	1.7	71.3	3.5	52.2	13.5	11.7				3.5	162.4
Historic/Recent												
Stoneware	1											1
Earthenware (hand painted blue on white)	1											1
Brick fragments	8	6	2									16
Glass	12	2										14
Iron	2	9										11
Brass shotgun shell base												0
Total Historic/Recent	24	17	2	0	0	0	0	0	0	0	0	43
Unidentified mineral concretions (grams)	1.7	5.7	1.8		.04							9.24

H* Feature 6
P** Feature 6 extension

TABLE 35
Jordan, 16MO1 (22-I-1)
Test Unit Four (K1931)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	Total
Ceramics										
Addis Plain, var. Feliciana			2	2		1				5
Addis Plain, var. Unspecified	1									1
Barton Incised, var. Unspecified			2	2	2	1	1			8
Belcher Ridged, var. Belcher Ridged			1							1
Cracker Road Incised, var. Cracker Road			1							1
Grace Brushed, var. Duvall		2	18	5	8	4		1		38
Hudson Engraved, var. Hudson						1				1
Leland Incised, var. Williams			1							1
Mississippi Plain, var. Morehouse	1	12	72	75	40	24	13	4	3	244
Owens Punctated, var. Unspecified			1	1						2
Winterville Incised, var. Tunica			1	1			1			3
Winterville Incised, var. Unspecified			1	1						2
Unclass. Caddo Engraved			1				1			2
Unclass. Incised on Mississippi Plain, var. Morehouse	2	3	3	6	4	1				19
Unclass. Interior Incised on Mississippi Plain, var. Unspecified			1			1				2
Unclass. Punctated on Addis Plain, var. Feliciana			1							1
Unclass. Punctated on Mississippi Plain, var. Morehouse							2			2
Unclass. Stamped on Mississippi Plain, var. Morehouse			2		2					4
Total Ceramics	4	17	108	93	56	33	18	5	3	337
Lithics										
Alba Stemmed, var. Unspecified		1								1
Bipolar flake core				1						1
Unutilized flakes										
local chert	1	1	2			1				5
non-local chert			2							2
thermally altered chert				1						1
Shatter			1							1
Unmodified sandstone fragments			4							4
Unmodified chert pebbles	5	1	1							7
Total Lithics	6	3	10	2	0	1	0	0	0	22
Total Ceramics and Lithics	10	20	118	95	56	34	18	5	3	359
Fauna										
Deer (grams)				2.4						2.4
Unidentified large mammal (grams)				81.7	11.5					93.2
Unidentified mammal (grams)			30.5	23.5						54
Unidentified bird (grams)				.01						.01
Unidentified fish (grams)				.01						.01
Unidentified bone fragments (grams)		.01	2.69	8	.18	8.26		3.43		22.57
Unidentified freshwater mussel shell (grams)								.03		.03
Total Fauna (grams)	0	.01	33.19	115.62	11.68	8.26	0	3.46	0	172.22
Unidentified carbonized flora (grams)	.01	.01	.05			.05				.12
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	10.5	10.8	62	18.5	13.3	6.1	10.9	5.2	.05	137.35
Daub (grams)			32	33.2	3	4	3.8	3.1		79.1
Fired Clay (grams)	.09	3.6	6.2		2.4					12.29
Historic/Recent										
Pearlware	2									2
Brick fragments	26	19	2							47
Glass	6		1							7
Iron	4	9	2							15
Total Historic/Recent	38	28	5	0	0	0	0	0	0	71

TABLE 36
Jordan, 16MO1 (22-I-1)
Test Unit Five (K1932)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	Total
Ceramics											
Addis Plain, var. Feliciana						1	1				2
Barton Incised, var. Unspecified	1			1			2		2	1	7
Belcher Ridged, var. Belcher Ridged				1							1
Cracker Road Incised, var. Unspecified					1						1
Grace Brushed, var. Duvall			3	9				1			13
Hudson Engraved, var. Hudson									1		1
Mississippi Plain, var. Morehouse	1	9	15	28	6	14	22	5	8	3	111
Mound Tract Incised and Brushed, var. Mound Tract					1						1
Winterville Incised, var. Wailes									1		1
Winterville Incised, var. Unspecified								1	1		2
Unclass. Caddo Engraved							1				1
Unclass. Incised on Mississippi Plain, var. Morehouse		4	2	1	1	1	1	1	3		14
Unclass. Incised and Punctated on Mississippi Plain, var. Morehouse						1					1
Unclass. Punctated on Mississippi Plain, var. Morehouse				1							1
Unclass. Stamped on Mississippi Plain, var. Morehouse								1			1
Total Ceramics	2	13	20	41	9	17	27	9	16	4	158
Lithics											
Bipolar flake core					1						1
Unutilized flakes											
local chert	1	1	1								3
thermally altered chert		1			1						2
Shatter							1				1
Unmodified chert pebbles	8			1							9
Total Lithics	9	2	1	1	2	0	1	0	0	0	16
Total Ceramics and Lithics	11	15	21	42	11	17	28	9	16	4	174
Fauna											
Unidentified large mammal (grams)				10.6							10.6
Unidentified bone fragments (grams)					.1			5.9	.06		6.06
Unidentified land snail shells (grams)	4.2	.02	.01						.01		4.24
Total Fauna	4.2	.02	.01	10.6	.1	0	0	5.9	.07	0	20.9
Unidentified carbonized flora (grams)		.05		.04		.05	.01	.03	.07		.25
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	5.4	14.7	15.8	28.8	.06	2.6	8.2		1.8		77.36
Daub (grams)	3.2	11.2	12	19	2.7	.07	10.5	1	1.3		60.97
Historic/Recent											
Yellow glazed stoneware	1	1									2
Whiteware	2		1								3
Brick fragments	5	1									6
Glass	2	1									3
Iron	21	20									41
Slate	1										1
Total Historic/Recent	32	23	1	0	0	0	0	0	0	0	56
Unidentified mineral concretions (grams)		.08		.07					2		2.15

TABLE 37
Jordan, 16MO1 (22-I-1)
Test Unit Six (K1933)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	Total
Ceramics									
Addis Plain, var. Feliciana				3					3
Addis Plain, var. Ratcliffe						2			2
Addis Plain, var. Unspecified						5			5
Barton Incised, var. Midnight				1					1
Barton Incised, var. Unspecified	1	3	3					1	8
Cracker Road Incised, var. Cracker Road				1					1
Cracker Road Incised, var, Unspecified		1		1		1		2	5
Grace Brushed, var. Duvall		3	6	2	2	8			21
Grace Brushed, var. Warren				2					2
Leland Incised, var. Williams	1								1
Leland Incised, var. Unspecified				1					1
Maddox Engraved, var. Silver City			1						1
Mississippi Plain, var. Morehouse	29	37	55	68	51	112	30	6	388
Mound Tract Incised and Brushed, var. Mound Tract			1	2					3
Owens Punctated, var. Manly					1				1
Owens Punctated, var. Unspecified				1	1	1			3
Winterville Incised, var. Broutin	1							2	3
Winterville Incised, var. Tunica			1	3		3			7
Winterville Incised, var. Wailes				1					1
Winterville Incised, var. Unspecified					1	1			2
Unclass. Caddo Engraved						1	1		2
Unclass. Incised on Addis Plain, var. Unspecified		1							1
Unclass. Incised on Mississippi Plain, var. Morehouse	1	4	10	11	9	7	4	1	47
Unclass. Interior Incised on Mississippi Plain, var. Morehouse				2		2			4
Unclass. Punctated on Addis Plain, var. Feliciana			1						1
Unclass. Punctated on Mississippi Plain, var. Morehouse				1					1
Unclass. Stamped on Mississippi Plain, var. Morehouse	1	1	1		1				4
Total Ceramics	34	50	79	100	66	143	35	12	519
Lithics									
Alba Stemmed, var. Jordan		1							1
Triangular biface					1				1
Bipolar flake core			1			1			2
Flake core	1	1							2
Flake core fragments					1	1			2
Unutilized flakes									
local chert	1	5	5	12	2	11		2	38
non-local chert			1	2		1			4
thermally altered chert		2	4	2					8
Shatter									
local chert		3	3			1	1		8
thermally altered chert		2							2
Limonite		1							1
Unmodified chert pebbles				1	1				2
Total Lithics	2	15	14	17	5	15	1	2	71
Total Ceramics and Lithics	36	65	93	117	71	158	36	14	590
Fauna									
Deer (grams)				34.15					34.15
Unidentified mammal (grams)			13.3	84.5					97.8
Unidentified bone fragments (grams)		1.9	3.5	35.8	21.53	8.8	.01		71.54
Unidentified land snail shells (grams)	.08	.02	.01				.01		.12
Total Fauna (grams)	.08	1.92	16.81	154.45	21.53	8.8	.02	0	203.61
Unidentified carbonized flora (grams)		.02	.01		.01	.01			.05
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	5.1	13.8	11.5	16	16.8	30.8	6.4		100.4
Daub (grams)	1.8	12.1	40	73.1	17.9	22	4.3		171.2
Historic/Recent									
Iron		2							2
Total Historic/Recent	0	2	0	0	0	0	0	0	2

TABLE 38
Jordan, 16MO1 (22-I-1)
Test Unit Seven (K1934)

Level (see Appendix A for vertical provenience)	A	B	C	D	E	F	G	H	I	J	Total
Ceramics											
Barton Incised, var. Unspecified			2					3	1		6
Cracker Road Incised, var. Unspecified						1					1
Grace Brushed, var. Duvall							1	5	6		12
Leland Incised, var. Williams					4	1					5
Leland Incised, var. Unspecified									1		1
Maddox Engraved, var. Emerald					2						2
Mississippi Plain, var. Morehouse		5	24	13	5	49	17	124	55	6	298
Owens Punctated, var. Menard									1		1
Winterville Incised, var. Belzoni										1	1
Winterville Incised, var. Winterville										1	1
Winterville Incised, var. Unspecified								1			1
Unclass. Brushed and Punctated on Mississippi Plain, var. Morehouse								1			1
Unclass. Incised on Mississippi Plain, var. Morehouse			2	1		3		6			12
Unclass. Interior Incised on Mississippi Plain, var. Morehouse						1					1
Unclass. Punctated on Mississippi Plain, var. Morehouse								2			2
Total Ceramics	0	5	28	14	11	55	18	142	64	8	345
Lithics											
Triangular biface fragment					1						1
Unutilized blade						1					1
Unifacially retouched flake									1		1
Unutilized flakes											
local chert				3	4	1	2	1	2	1	14
non-local chert	1				1	1					3
Shatter											
local chert							1				1
non-local chert		1		1							2
Unmodified sandstone fragments						5				1	6
Unmodified chert pebbles		6		1							7
Total Lithics	1	7	0	5	6	8	3	1	3	2	36
Total Ceramics and Lithics	1	12	28	19	17	63	21	143	67	10	381
Fauna											
Deer (grams)								.08			.08
Unidentified bone fragments (grams)	1.8		3.5		18.1	57.3	11.4	74.3	2.3	.05	168.75
Total Fauna (grams)	1.8	0	3.5	0	18.1	57.3	11.4	74.38	2.3	.05	168.83
Mississippi Plain, var. Unspecified (sherds < 1/4 inch (grams))	2.9	2.1	5.9	15	5.8	17.4	9.3	36.3	11.1	4.1	109.9
Daub (grams)			81.5	216.8	88.1	198.5	90.4	29.9	7.2	4.5	716.9
Fired clay (grams)	9.6										9.6
Mud dauber nest casts (grams)			9.9			13.6					23.5
Historic/Recent											
Stoneware	2	4	1								7
Whiteware	2		1								3
Brick fragments			5	4							9
Glass	6	6	2	2							16
Iron	13		8								21
Brass shotgun shell base	1										1
Plastic button	1										1
Total Historic/Recent	25	10	17	6	0	0	0	0	0	0	58
Unidentified mineral concretions (FeO2?) (grams)			256	269	383	4527	1004	15533	875	19.9	22866.9

TABLE 39
Jordan, 16MO1 (22-I-1)
Summary of Ceramics by Test Unit

Test Unit Number	1	2	2W	3	4	5	6	7	Total	% of Total
Barton Incised, var. Davion	1								1	.0002
Barton Incised, var. Galion		10	12						22	.0049
Barton Incised, var. Mer Rouge		9	6						15	.0034
Barton Incised, var. Midnight							1		1	.0002
Barton Incised, var. Unspecified	24	17	9	7	8	7	8	6	86	.0195
Belcher Ridged, var. Belcher Ridged	1				1	1			3	.0006
Cracker Road Incised, var. Cracker Road	10	1			1		1		13	.0029
Cracker Road Incised, var. Unspecified	8	3	1			1	5	1	19	.0043
Fatherland Incised, var. Bayou Goula	1								1	.0002
Fatherland Incised, var. Fatherland	1								1	.0002
Grace Brushed, var. Duvall	34	24	52	58	38	13	21	12	252	.0571
Grace Brushed, var. Prairie Jefferson		53	46						99	.0224
Grace Brushed, var. Warren	1						2		3	.0006
Hudson Engraved, var. Hudson	1				1	1			3	.0006
Kinlock Simple Stamped, var. Unspecified			1						1	.0002
Leland Incised, var. Blanchard	6		1						7	.0015
Leland Incised, var. Leland	3								3	.0006
Leland Incised, var. Williams	1	2	3		1		1	5	13	.0029
Leland Incised, var. Unspecified	2	1		1			1	1	6	.0013
Maddox Engraved, var. Emerald		1						2	3	.0006
Maddox Engraved, var. Silver City							1		1	.0002
Mound Tract Incised and Brushed, var. Mound Tract	6		1			1	3		11	.0024
Nodena Red and White, var. Unspecified	1								1	.0002
Owens Punctated, var. Manly							1		1	.0002
Owens Punctated, var. Menard								1	1	.0002
Owens Punctated, var. Unspecified	1	2		1	2		3		9	.0020
Parkin Punctated, var. Unspecified	1								1	.0002
Walls Engraved, var. Unspecified		1							1	.0002
Winterville Incised, var. Belzoni								1	1	.0002
Winterville Incised, var. Broutin	2	2	4	6			3		17	.0038
Winterville Incised, var. Forshey		8	5						13	.0029
Winterville Incised, var. Tunica	11	3	1	1	3		7		26	.0058
Winterville Incised, var. Wailes	3	2	3	1		1	1		11	.0024
Winterville Incised, var. Winterville			7					1	8	.0018
Winterville Incised, var. Unspecified	17	5	6	1	2	2	2	1	36	.0081
Unclass. Brushed and Punctated on Mississippi Plain, var. Morehouse								1	1	.0002
Unclass. Caddo Engraved	7				2	1	2		12	.0027
Unclass. Engraved on Miss. Plain, var. Morehouse	1			1					2	.0004
Unclass. Engraved on Miss. Plain, var. Oak Ridge			3						3	.0006
Unclass. Incised on Addis Plain, var. Feliciana	3								3	.0006
Unclass. Incised on Addis Plain, var. Unspecified	3			3			1		7	.0015
Unclass. Incised on Miss. Plain, var. Morehouse	127	22	33	17	19	14	47	12	291	.0660
Unclass. Incised on Miss. Plain, var. Oak Ridge		1	10						12	.0027
Unclass. Incised and Punctated on Mississippi Plain, var. Morehouse						1			1	.0002
Unclass. Interior Engraved on Mississippi Plain, var. Oak Ridge		2	1						3	.0006
Unclass. Interior Incised on Addis Plain, var. Unspecified				2					2	.0004
Unclass. Interior Incised on Mississippi Plain, var. Morehouse	3			2	2		4	1	3	.0006
Unclass. Interior Incised on Mississippi Plain, var. Oak Ridge		3							1	.0002
Unclass. Interior/Exterior Incised on Mississippi Plain, var. Morehouse	1								1	.0002
Unclass. Pinched on Mississippi Plain, var. Morehouse				1					1	.0002
Unclass. Punctated on Addis Plain, var. Feliciana					1		1		2	.0004
Unclass. Punctated on Mississippi Plain, var. Morehouse		1	4		2	1	1	2	11	.0024
Unclass. Punctated on Mississippi Plain, var. Oak Ridge		2							2	.0004
Unclass. Stamped on Mississippi Plain, var. Morehouse	2				4	1	4		11	.0024
Addis Plain, var. Addis				4					2	.0004
Addis Plain, var. Feliciana	13		1	33	5	2	3		57	.0129
Addis Plain, var. Ratcliffe	1						2		3	.0006
Addis Plain, var. St. Catherine	1			1					2	.0004
Addis Plain, var. Unspecified	9	3	2	3	1		5		23	.0052
Mississippi Plain, var. Morehouse	662	299	366	310	244	111	388	298	2678	.6076
Mississippi Plain, var. Oak Ridge		285	294						579	.1313
Mississippi Plain, var. Unspecified	2								2	.0004
Shell Tempered Ear Plug		1							1	.0002
Ceramic Pipe (?) Fragment				1					1	.0002
Total	971	763	872	454	337	158	519	345	4407	1

TABLE 40
Jordan, 16M01 (22-I-1)
Summary of Lithics by Test Unit

Test Unit Number	1	2	2w	3	4	5	6	7	Total	% of Total
Alba Stemmed, var. Jordan			2				1		3	.006
Alba Stemmed, var. Unspecified	1			2	1				4	.008
Unclassified arrow point fragments			1						1	.002
Triangular Bifaces							1	1	2	.004
Bipolar flake cores										
local chert	1				1	1	2		5	.010
Thermally altered chert	1								1	.002
Free-hand flake cores				1			2		3	.006
Flake core fragments										
local chert	2	1					2		5	.010
non-local chert	1								1	.002
thermally altered chert		1							1	.002
Utilized blades				1					1	.002
Unutilized blades	1	1						1	3	.006
Retouched flakes										
local chert				1				1	2	.004
thermally altered chert		1							1	.002
Utilized flakes										
local chert	6	1	3						10	.020
thermally altered chert	1		1						2	.004
Unutilized flakes										
local chert	87	19	21	14	5	3	38	14	201	.405
non-local chert	11	2	2	3	2		4	3	27	.054
thermally altered chert	32	5	10		1	2	8		58	.116
Shatter										
local chert	21	3	7		1	1	8	1	42	.084
non-local chert		1						2	3	.006
thermally altered chert	4	8	2	1			2		17	.034
Irregular palette fragment	1								1	.002
Ochre				1					1	.002
Limonite							1		1	.002
Unmodified sandstone fragments	11	7	1		4			6	29	.058
Unmodified chert pebbles	23	10	12	1	7	9	2	7	71	.143
Total	204	60	62	25	22	16	71	36	496	1

TABLE 41
Jordan, 16MO1 (22-I-1)
Metric dimensions of chipped stone tools
(see Appendix A for provenience)

Collection Number	Maximum Length (mm)	Type	Maximum Width (mm)	Maximum Thickness (mm)	Weight (grams)	Material	Illustration
K1930A	33	Alba Stemmed, var. Jordan	23	4	2.6	local chert	Plate 32 g
K1930C	28	Alba Stemmed, var. Jordan	18*	4	1.1	local chert	Plate 32 e
K1933B	26.5*	Alba Stemmed, var. Jordan	17	4	1.3	local chert	Plate 32 f
K1928F	27.5*	Alba Stemmed, var. Unspecified	19.5	4	1.7	local chert	Plate 32 c
K1927A	30*	Alba Stemmed, var. Unspecified	20.5*	4.5	2.3	thermally altered chert	Plate 32 d
K1928P	26	Alba Stemmed, var. Unspecified	14	4	1.2	non-local chert	Plate 32 b
K1883	42.5	Triangular biface	23	7	6.1	local chert	Plate 32 i
K1933E	31	Triangular biface	17	9	3.5	local chert	Plate 32 h

* Indicates that tool was not intact in measured dimension

Table 42

Logs of Core Holes, Vicinity of Oak Ridge, Louisiana

Core Hole Number 1
Location: 32° 39′ 01" N. Lat., 91 45′ 20" W. Long.
approximate elevation--92 ft.

Depth	Description
0.0′-1.8′	Dark brown fine sandy loam w/plant remains and organic matter.
1.8′-3.0′	Massive light brownish red fine sandy loam with specks of oxidization.
3.0′-4.9′	Medium light brownish red silty clay loam.
4.9′-5.2′	Fine light red sandy silt.
5.2′-7.1′	Light reddish brown stratified sandy silt and silty loam. Layers about 1 to 2 inches thick.
7.1′-10.5′	No core recovery.
10.5′-12.5′	Wetter and darker light reddish brown sandy loam. Little or no stratification.
12.5′-15.2′	Same as above.
15.2′-15.5′	Dark grey clay w/ organic matter. Possibly slump material from above.
15.5′-17.5′	No core recovery.
17.5′-18.5′	Mottled medium red brown and grey hard silty clay with oxidization specks and organic matter.

Core Hole Number 2
Location: 32° 39′ 01" N. Lat., 91 45′ 24" W. Long.
approximate elevation--90 ft.

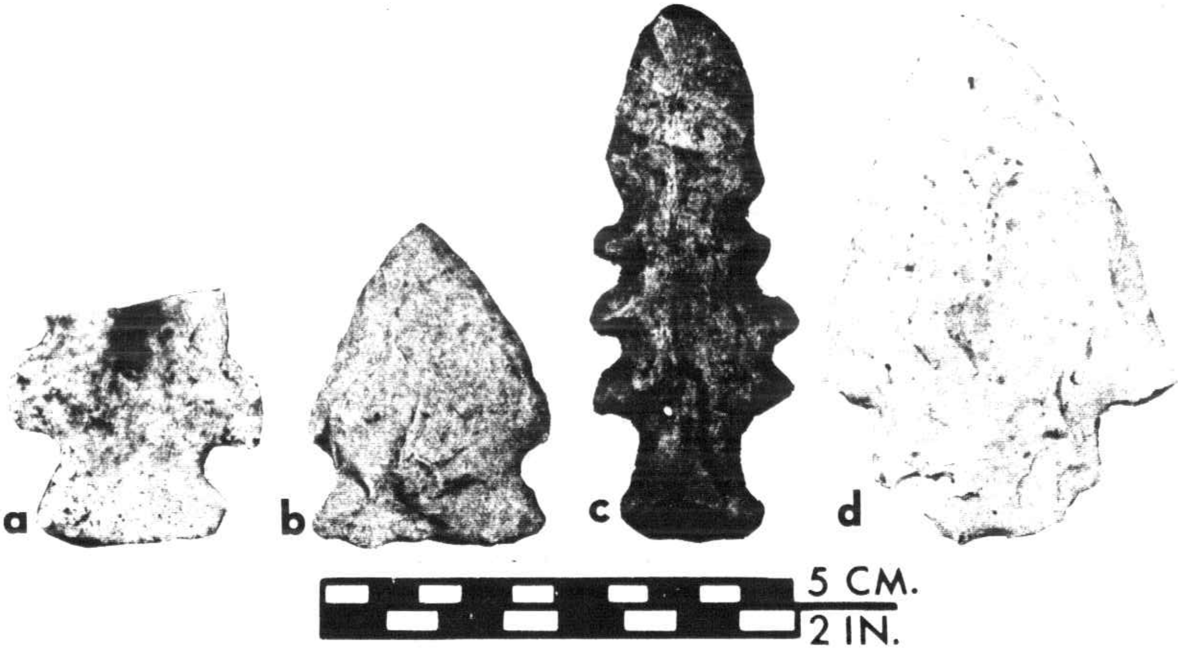
Depth	Description
0.0′-2.0′	Dark grey brown organic sandy/silty loam.
2.0′-4.0′	Light reddish brown sandy clay.
4.0′-6.0′	Light reddish brown sandy silt.
6.0′-8.0′	Laminated light reddish brown sandy loam and light reddish brown sandy clay.
8.0′-10.0′	No core recovery
10.0′-12.0′	Wet medium light reddish brown sandy silt w/ a few thin sandy clay layers to 1 inch thick.
12.0′-14.5′	Same, except slightly wetter and sandier.
14.5′-16.0′	Hard medium to dark reddish brown silty clay stratified w/ thin silt layers. Contains black concretions and oxidization specks. Grades to dark grey at bottom.
16.0′-19.1′	No core recovery
19.1′-20.0′	Hard reddish grey slightly stratified silty clay w/ a few small oxidization mottles and manganese nodules.

Core Hole Number 3
Location: 32° 39′ 00" N. Lat., 91 45′ 14" W. Long.
approximate elevation--87 ft.

Depth	Description
0.0′-4.0′	Medium dark grey brown to brown sandy loam. Grades to medium reddish brown.
4.0′-5.5′	Very light red to peach colored fine sand.
5.5′-8.0′	Same as above, except lighter in color--cream to light peach colored fine sand.
8.0′-12.0′	Same as above except w/ a few light grey sand layers.
12.0′-13.8′	Very light reddish brown fine to medium sand. Grades from fine to medium with depth and contains very thin light grey brown clay lamina.

Core Hole Number 4
Location: 32° 36′ 13" N. Lat., 91 46′ 31" W. Long.
approximate elevation--82 ft.

Depth	Description
0.0′-1.0′	Light grey brown sandy/silty loam. Well oxidized.
1.0′-4.0′	Light tan to very light peach colored fine sand with some silt lenses. Well oxidized.
4.0′-6.0′	Same as above but w/ clay seams and lamina.
6.0′-8.0′	Same as above, but getting coarser grained.
8.0′-12.0′	Very light cream/peach colored fine to medium sand.



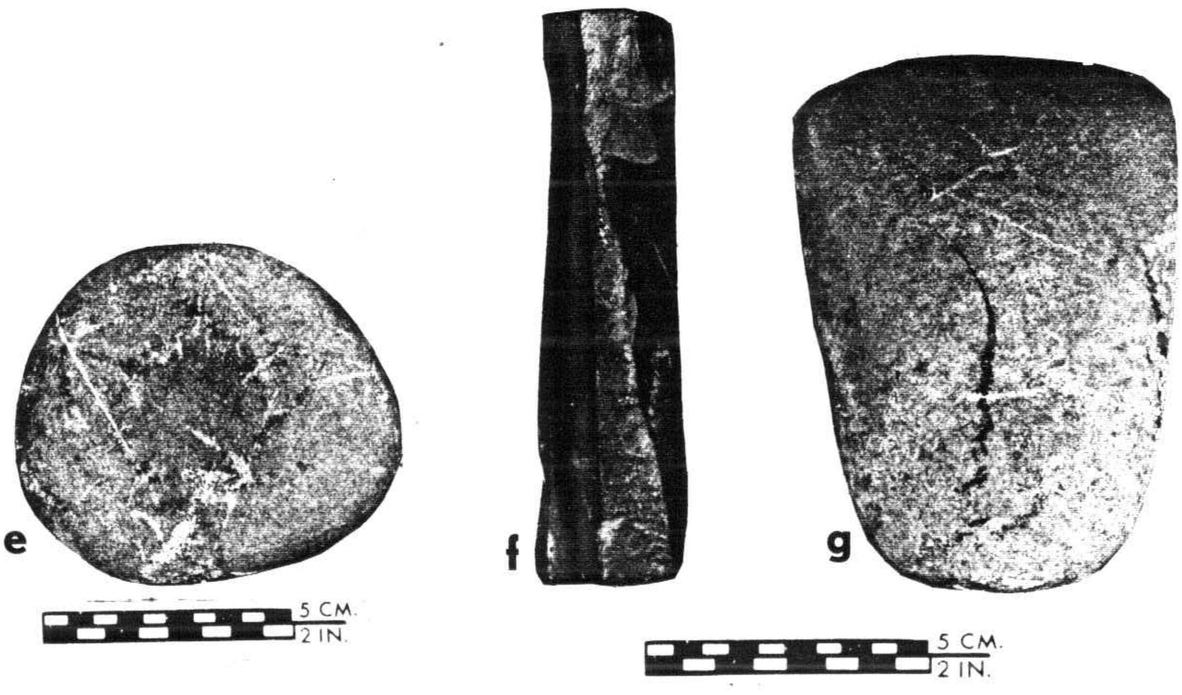


PLATE 1: Meso-Indian artifacts from Denler, 16MO106 (22-J-25)
A) Evans point; B) Unclassified side-notched dart point (Big Creek-like); C) Sinner Point; D) Unclassified corner-notched dart point; E) Biconcave nutting stone; F) Triangular ground and polished atlatl weight; G) Ground and polished axe. (LMS Neg. No. 85/Plx/1)

PLATE 2: Denler, 16MO106 (22-J-25)

Mack McClinton and Richard Fuller shovel testing at Denler, June, 1985.

(LMS Neg. No. 85/Plx/12/3a)

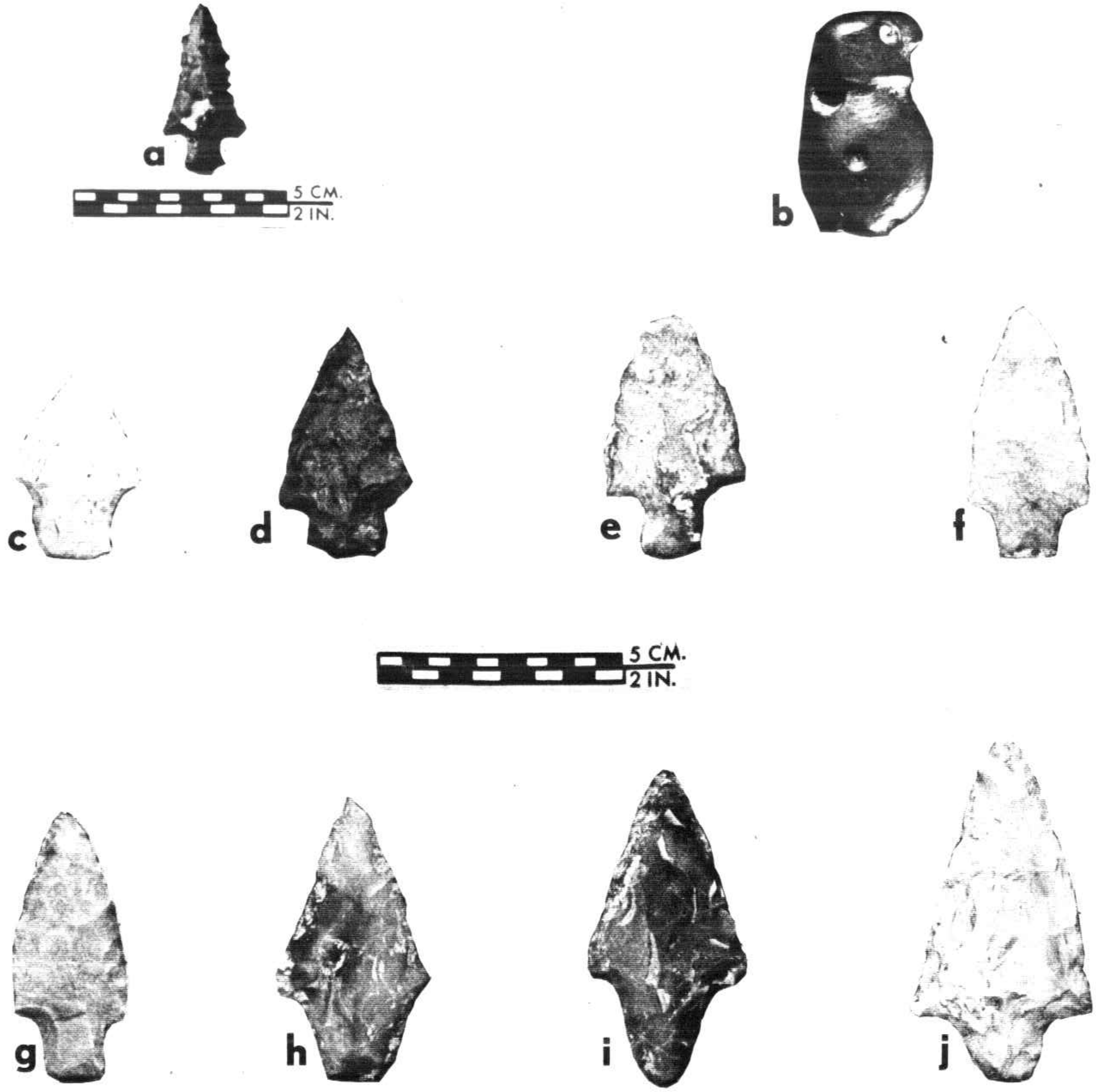


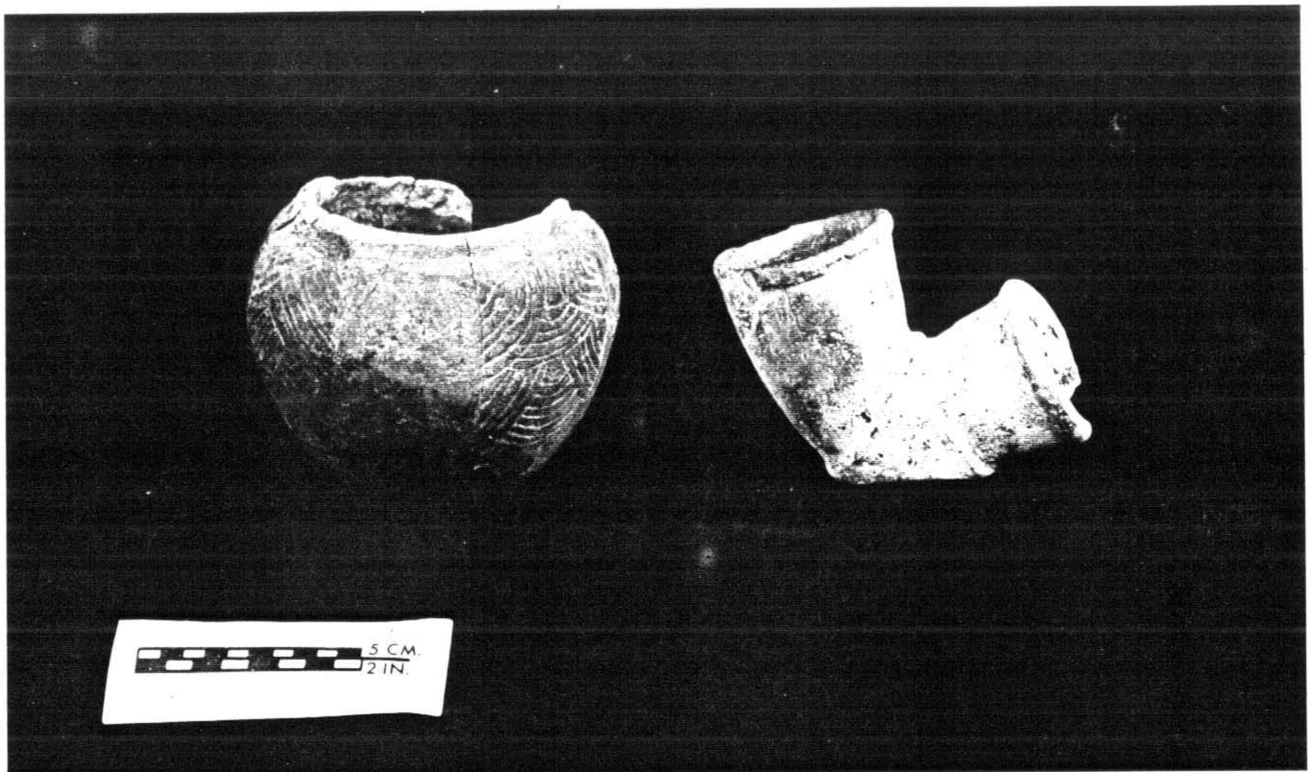
PLATE 3:

Denler, 16MO106 (22-J-25)

a) Alba Stemmed, <u>var</u>. <u>Unspecified</u> (LMS Neg. No. 86/Pnx/6/3)

Moss, 16MO101 (22-J-15)

b) Red Jaspar owl from Barham Collection (height 1.7 cm) (LMS Neg. No. 81/Pnx/3/34); c) Carrollton point; d-e) Unclassified dart points; f-g) Macon Points; h-j) Gary Stemmed, <u>var</u>. <u>Gary</u> (all points in Barham Collection) (LMS Neg. No. 81/Pnx/3/24)



a b

PLATE 4: Bapp Arnold, 16MO110 (22-J-32)

Protohistoric ceramics from the S. L. Parks collection. a) Unclassified Incised on Mississippi Plain, *var*. *Unspecified* (*var*. *Morehouse* ?); b) Shell tempered elbow pipe. (LMS Neg. No. 81/Pnx/7/14)

PLATE 5: Stevenson, 16RI14 (22-J-2)

Mound B, looking southwest towards Boeuf River (behind trees). Test Unit Two, Four and Six are in front of house, while Test Unit Ten is to right of pump house. (LMS Neg. No. 85/Plx/11/11)

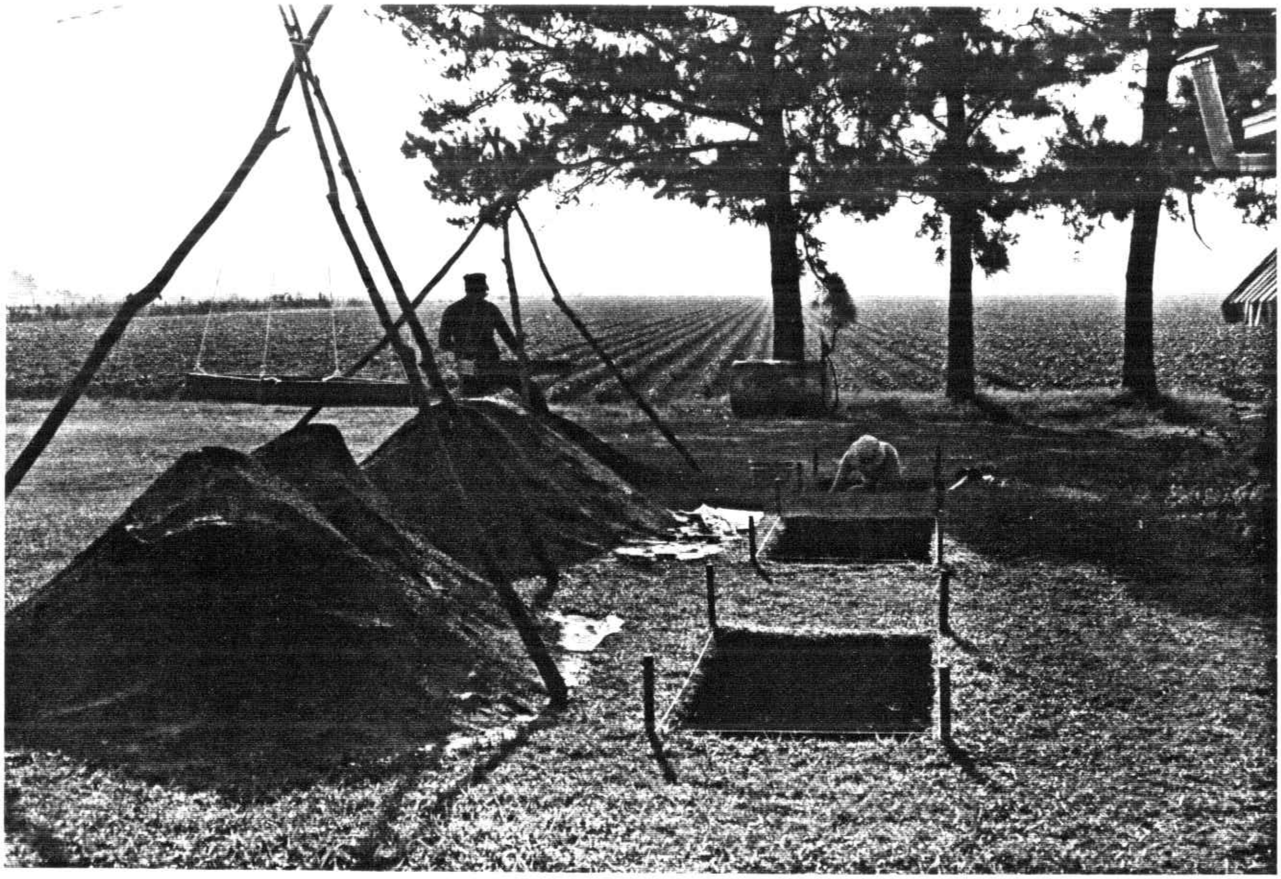


PLATE 6: Stevenson, 16RI14 (22-J-2)

Excavations on mound B, looking east. Test Unit Six is in foreground and Test Unit Two is being excavated in background. (LMS Neg. No. 85/Plx/10/29a)

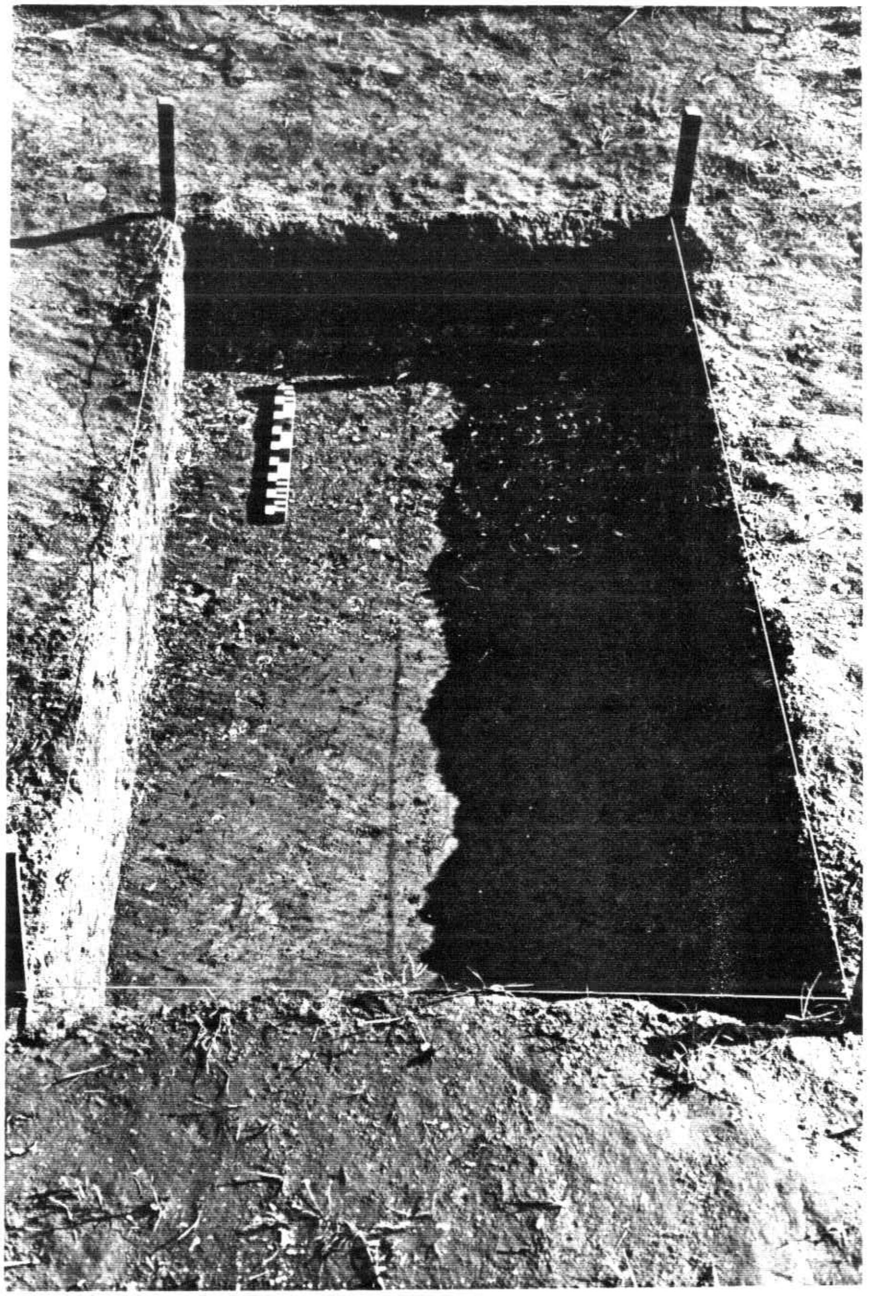


PLATE 7: Stevenson, 16RI14 (22-J-2)

Test Unit One, base of level C (20-30 cm), looking north. Feature 3 exposed in north and west corner of unit. (LMS Neg. No. 85/Plx/11/8)

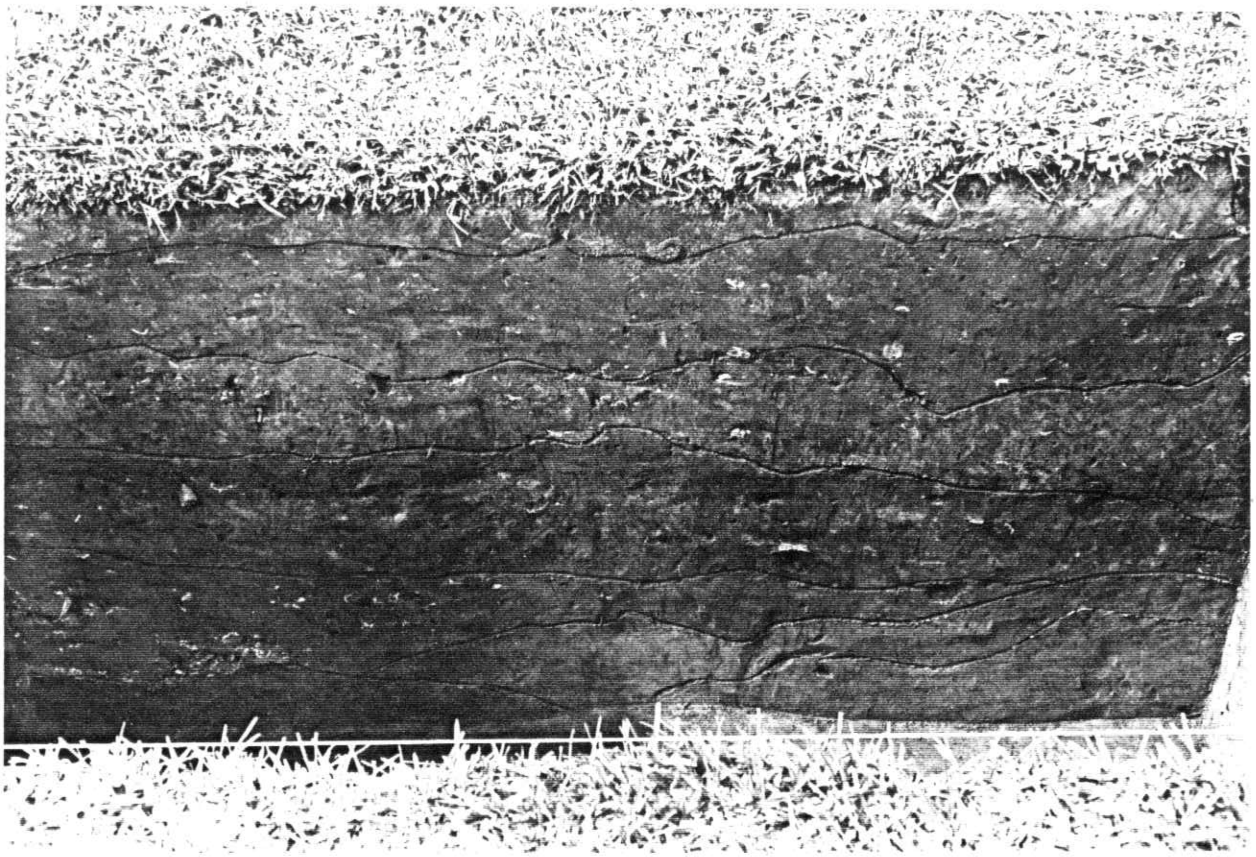


PLATE 8: Stevenson, 16RI14 (22-J-2)

Test Unit Two, south profile. Note shell concentration in lower left corner.

(LMS Neg. No. 85/Plx/11/35a)

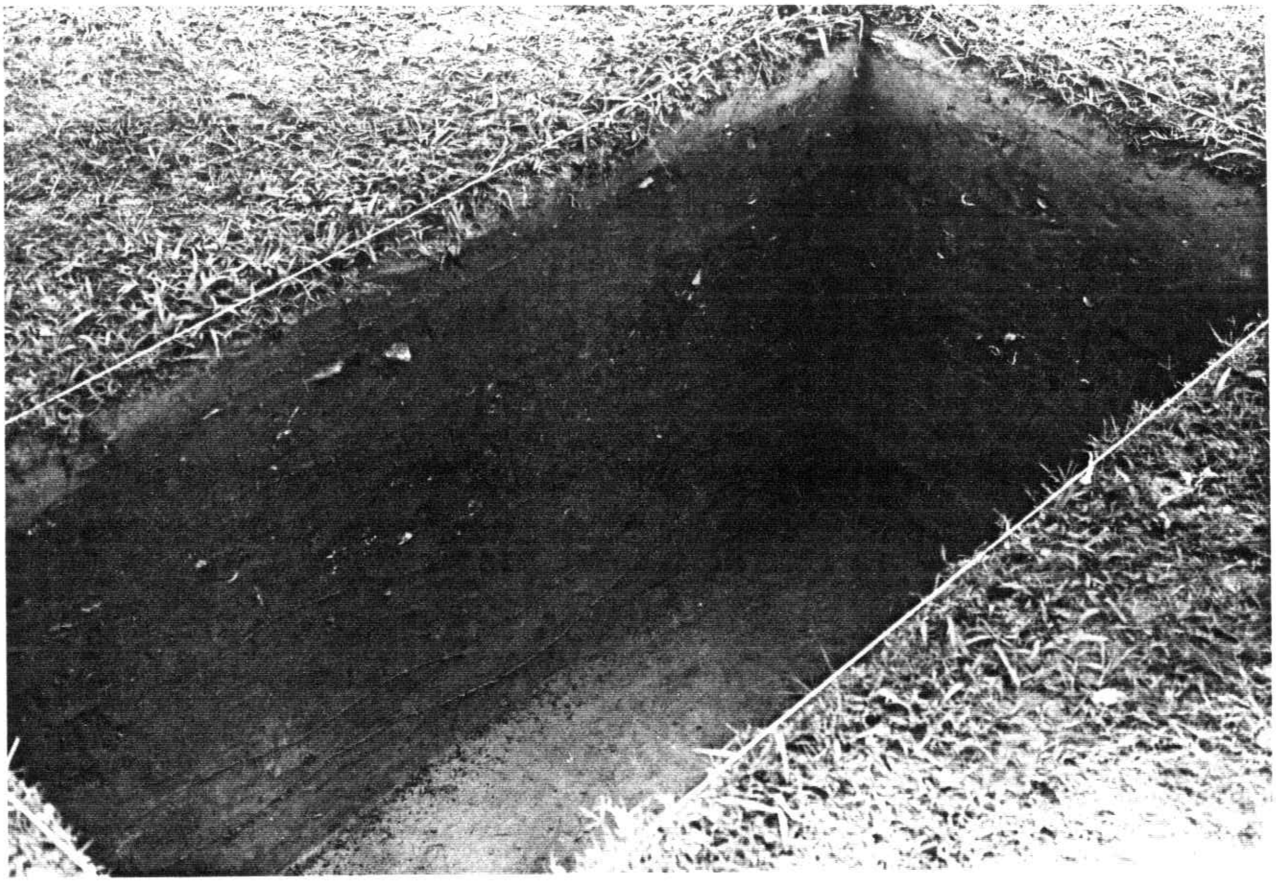


PLATE 9: Stevenson, 16RI14 (22-J-2)

Test Unit Four, north and east profile (note lack of contrast in profile).
(LMS Neg. No. 85/Plx/10/20a)

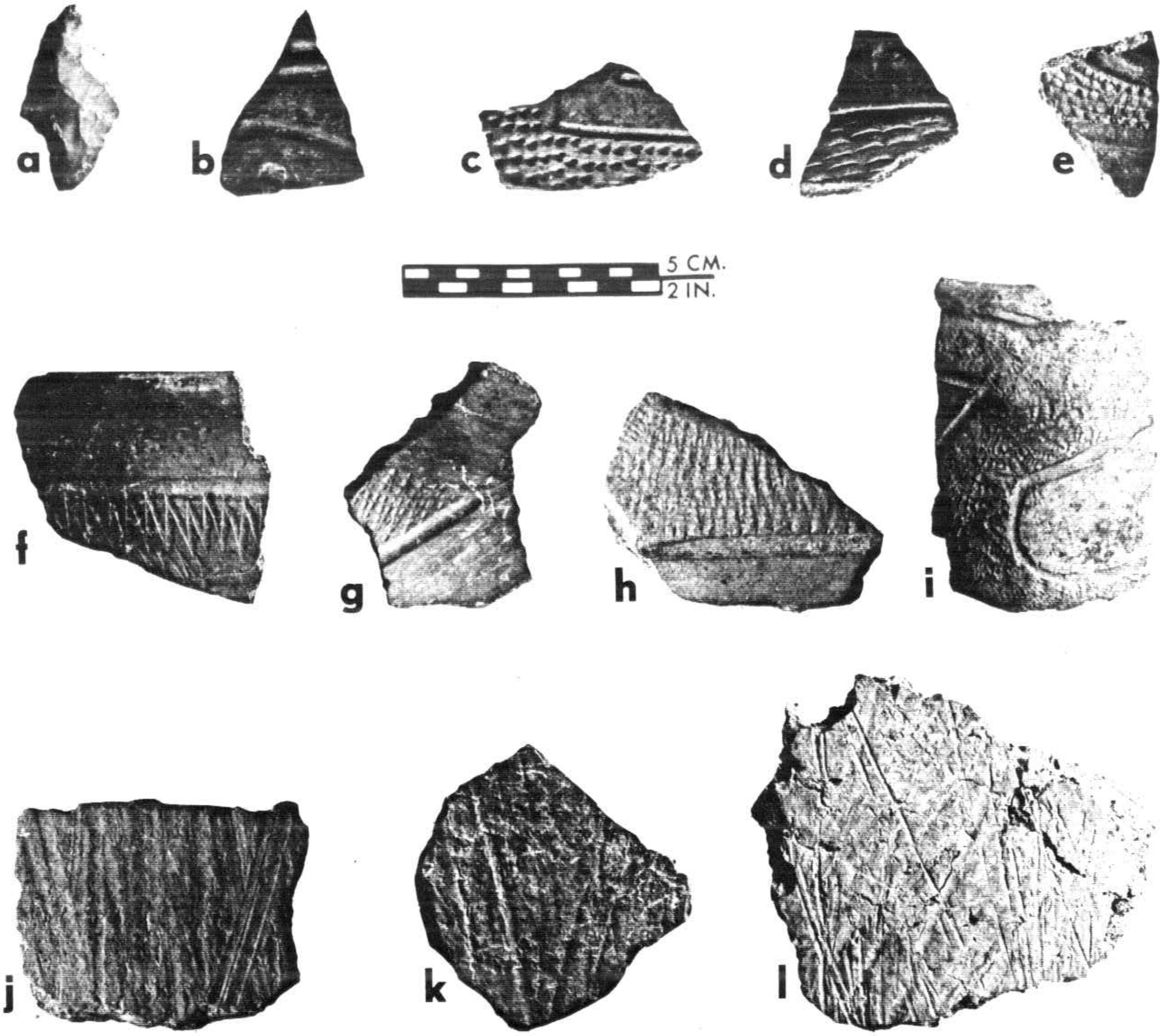


PLATE 10: Stevenson, 16RI14 (22-J-2)

Marksville Period Ceramics

a) Gary Stemmed, var. Maybon; b) Marksville Incised, var. Steele Bayou; c) Churupa Punctated, var. Churupa; d) Mabin Stamped, var. Unspecified; e) Marksville Stamped, var. Manny; f) Marksville Stamped, var. Troyville; g-i) Marksville Stamped, var. Newsome; j-l) Macon Textured, var. Macon (LMS Neg. No. 86/Pnx/6)

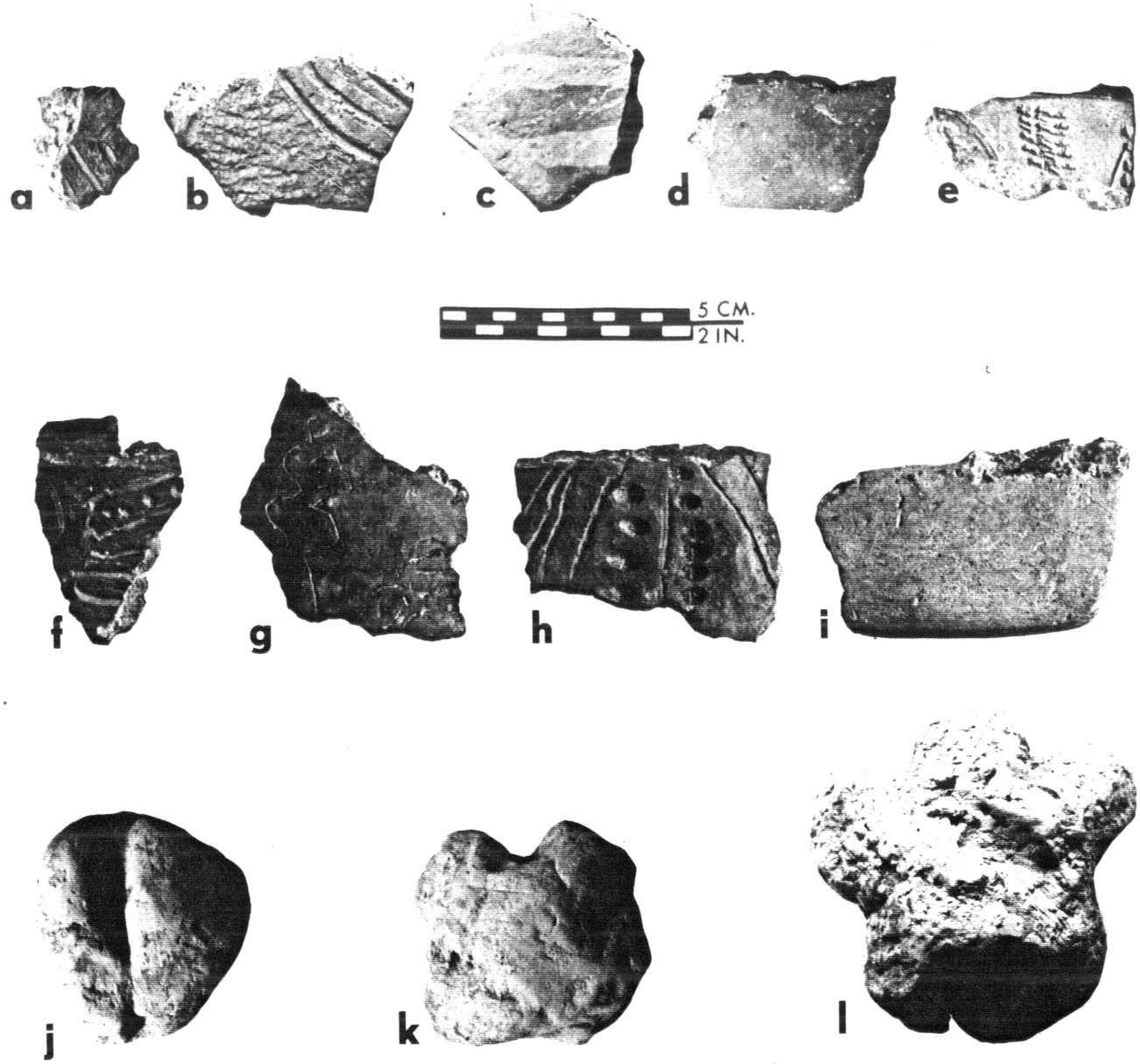


PLATE 11: Stevenson, 16RI14 (22-J-2)

Miscellaneous Ceramics and Poverty Point Objects

a) Marksville Incised, *var*. *Vick*; b) Marksville Stamped, *var*. *Unspecified* (*var*. *Watson*?); c) Landon Red on Buff, *var*. *Unspecified*; d) Larto Red, *var*. *Larto*; e) Marksville Stamped, *var*. *Bayou Rouge*; f) Churupa Punctated, *var*. *Unspecified* (*var*. *Cummins*?); g-h) French Fork Incised, *var*. *Unspecified*; i) ceramic pipe fragment; j-l) Poverty Point objects (LMS Neg. No. 86/ Pnx/6)

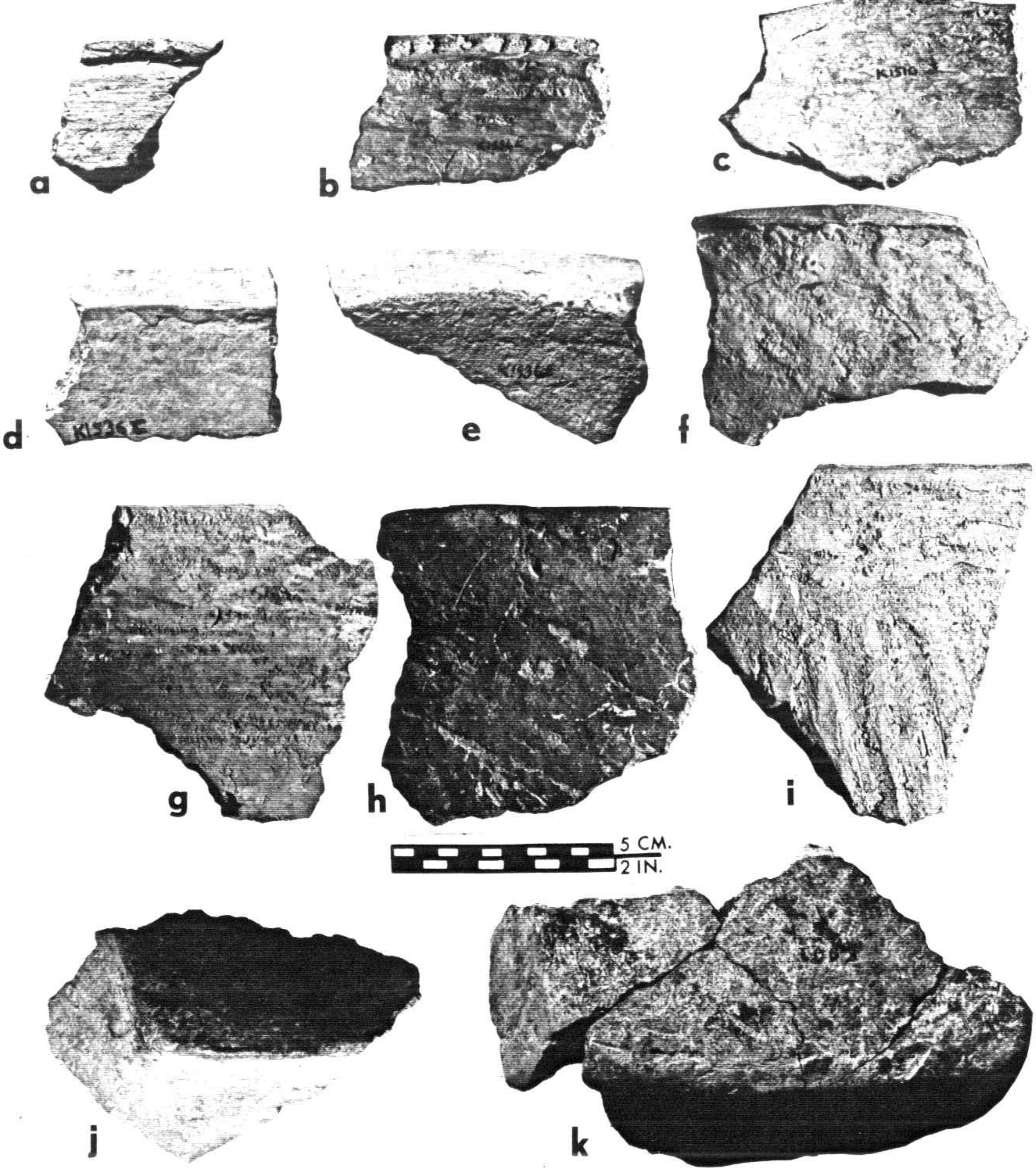


PLATE 12: Stevenson, 16RI14 (22-J-2)

Baytown Plain Ceramics

a-i) Baytown Plain, var. Johnson (a-rim fold; b-interior bevel with punctations; c- peaked rim; d-e-"Arcadia" rims; f-i-"Hegwood" rim; j-k) Baytown Plain, var. Satartia (square bases) (86/Pnx/6)

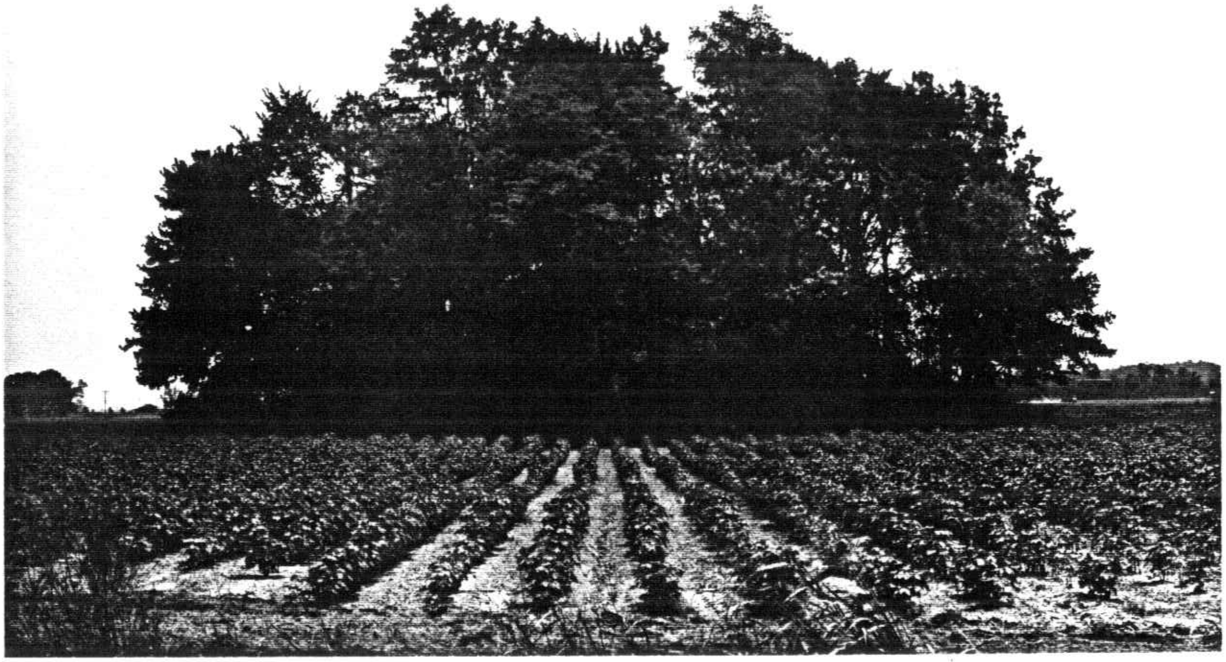


PLATE 13: Matheny, 16MO3 (21-I-2)

Mound A, looking east, July, 1983 (LMS Neg. No. 83/Plx/8/21)

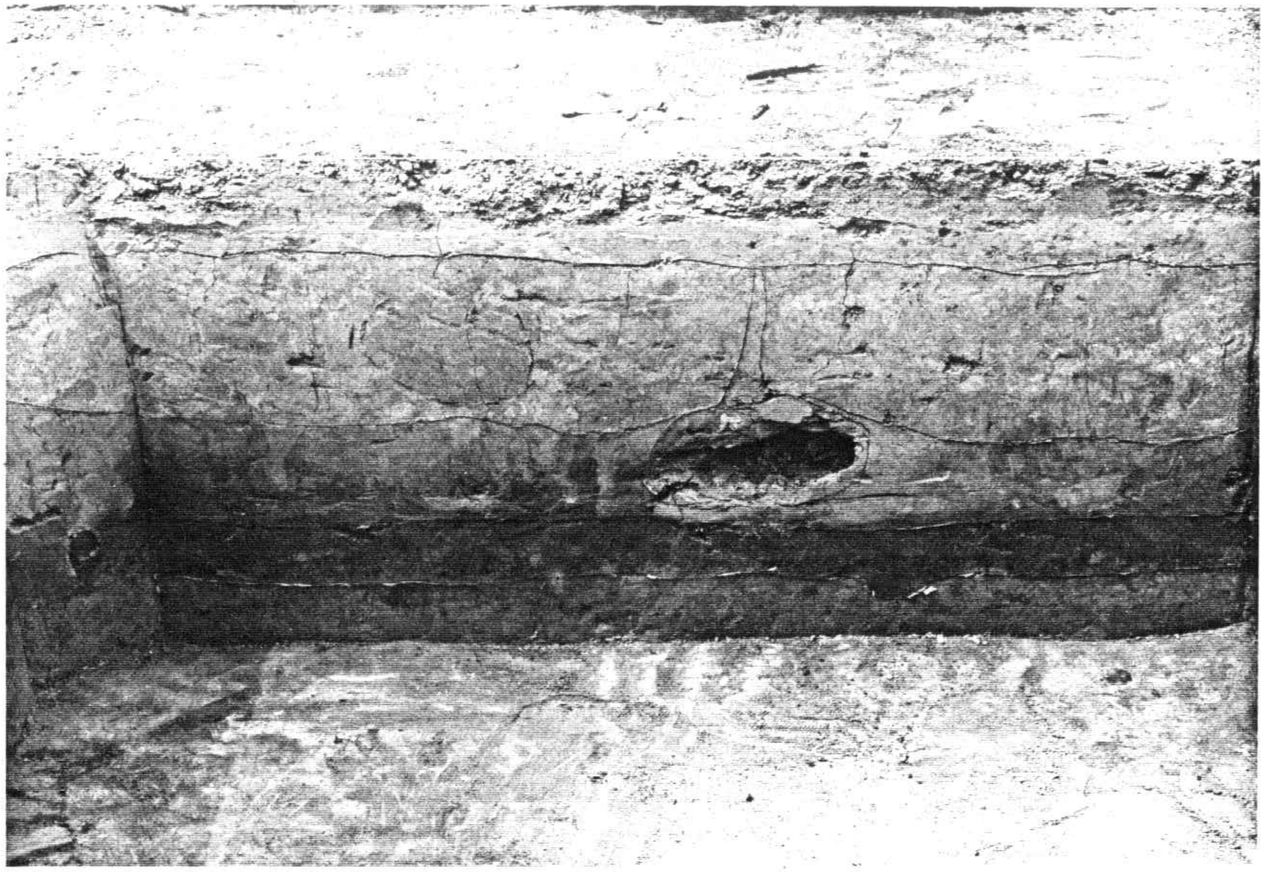


PLATE 14: Matheny, 16MO3 (21-I-2)

Test Unit Nine, eat profile, showing subsoiler scar just above midden band. Note lack of soil contrast in profile compared with Test Unit Seven, east profile (see Plate 15). (LMS Neg. No. 85/Plx/13/17)

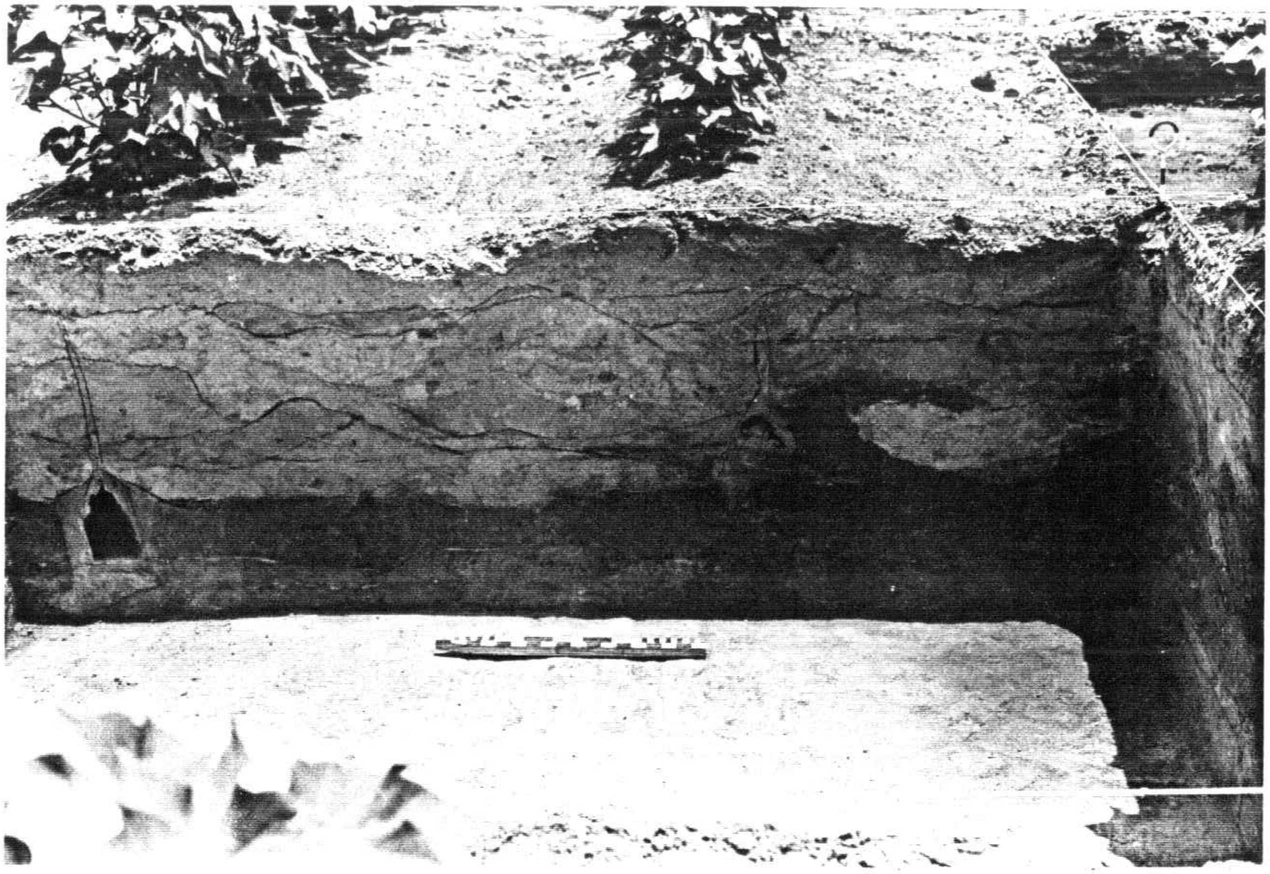


PLATE 15: Matheny, 16MO3 (21-I-2)

Test Unit Seven, east profile. Note subsoiler scars and verigated profile, with basket load clearly visible in right corner. (LMS Neg. No. 85/Plx/13/6)

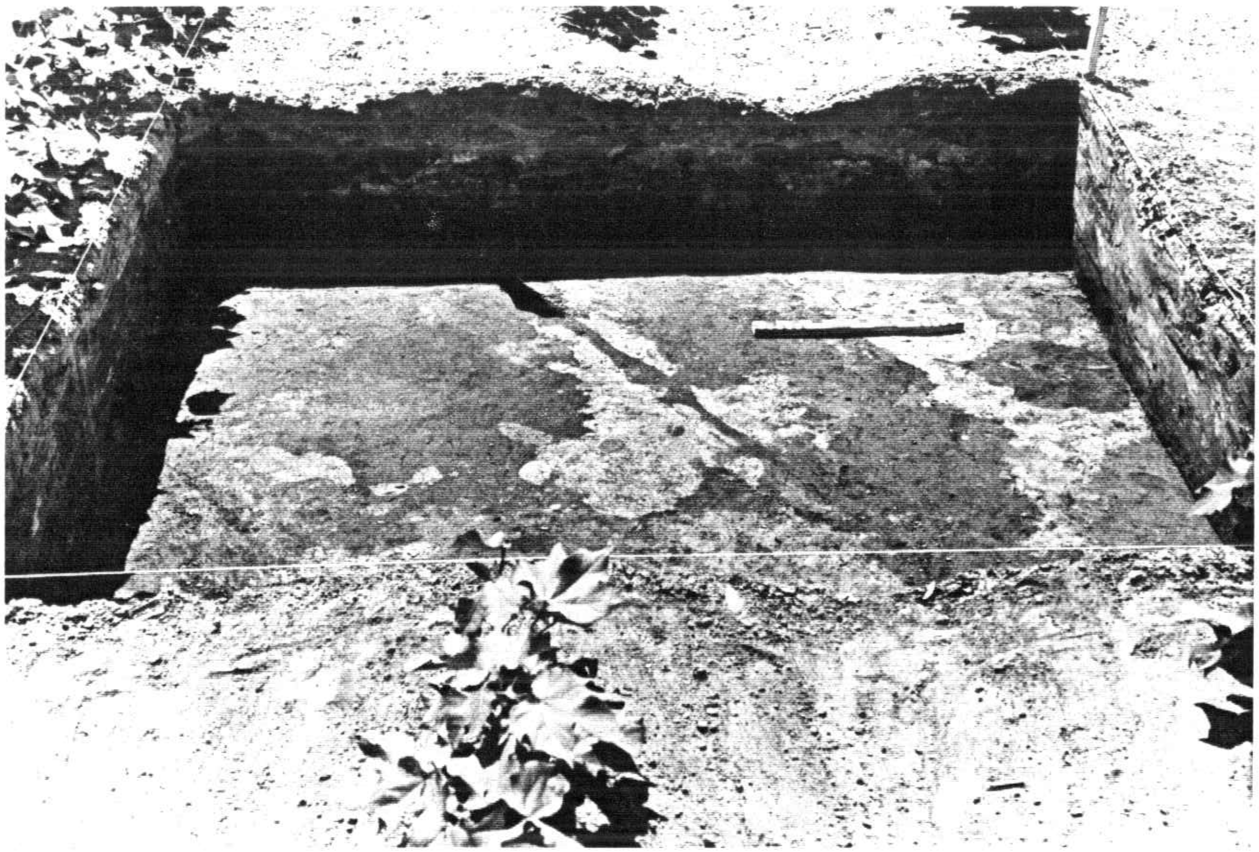


PLATE 16: Matheny, 16MO3 (21-I-2)

Test Unit Seven, top of level E. Note the verigated "calico" soil in both plan and profile. Furthermore, also note the subsoiler scar running diagonally across center of unit. (LMS Neg. No. 85/Plx/12/31)

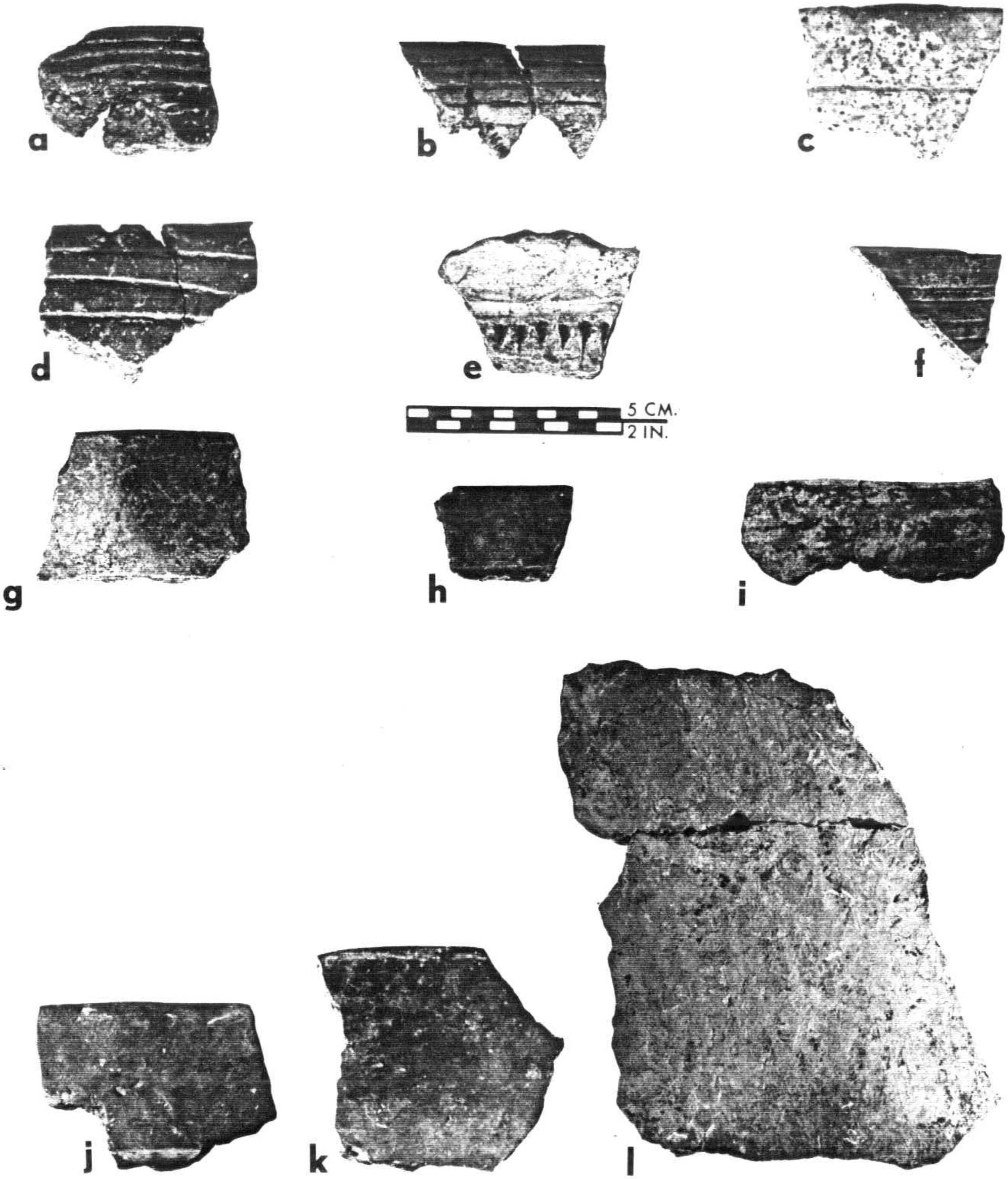


PLATE 17: Matheny, 16MO3 (21-I-2)

Baytown and Coles Creek Ceramics

a-b) Coles Creek Incised, var. Coles Creek; c) Coles Creek Incised, var. Stoner; d) Coles Creek Incised, var. Hunt; e-f) Coles Creek Incised, var. Unspecified; g-h) Coles Creek Incised, var. Unspecified (Stoner?); i-j) Baytown Plain, var. Unspecified (rims); k) Baytown Plain, var. Sharfit (rim); Baytown Plain, var. Reed (beaker fragment) (LMS Neg. No. 86/Plx/5)

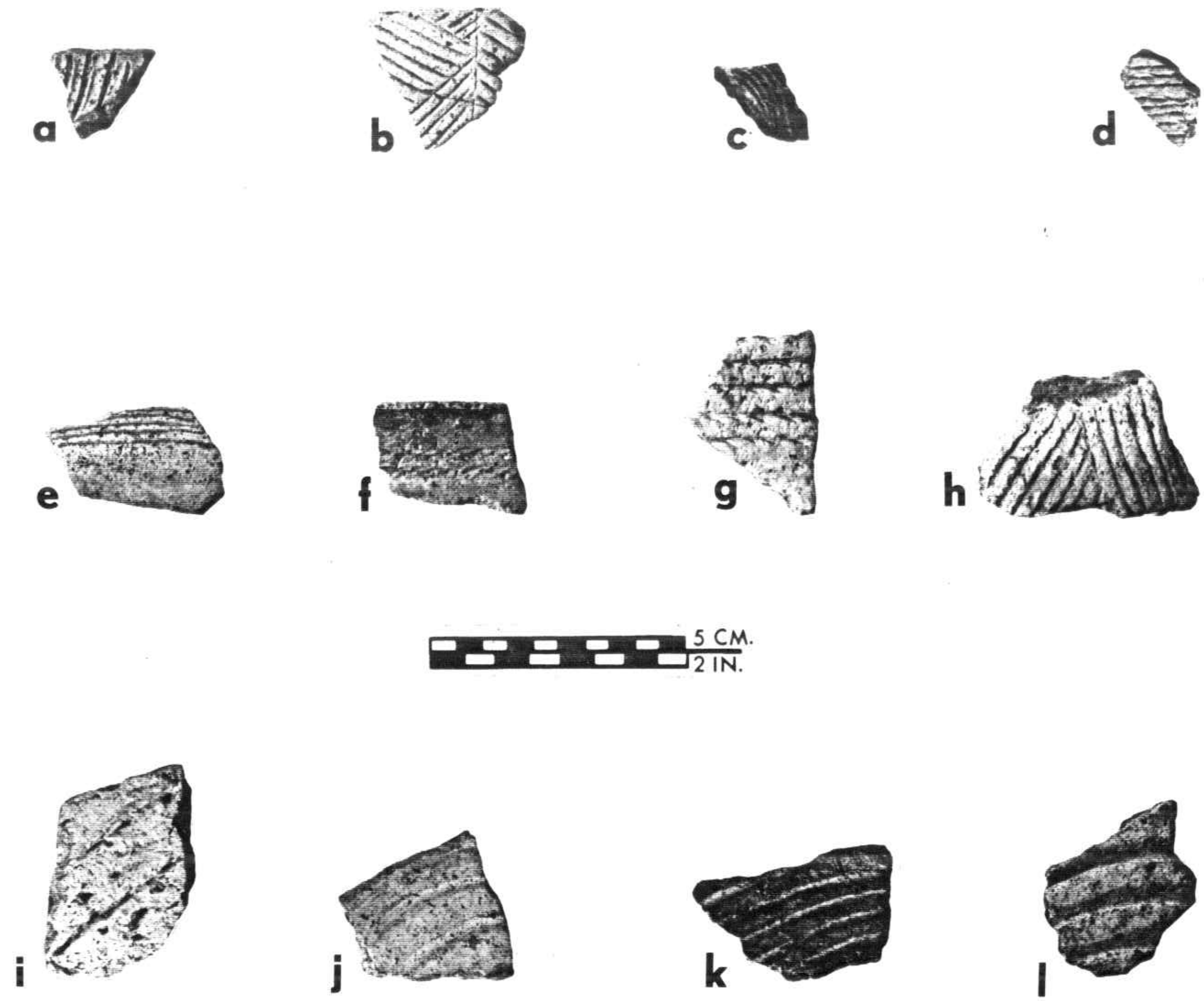


PLATE 18: Matheny, 16MO3 (21-I-2)

Mississippian (Kinnaird phase) Ceramics

a) Barton Incised, var. Unspecified; b) Barton Incised, var. Midnight; c-e) Parkin Punctated, var. Transylvania (fine treatment); f-h) Parkin Punctated, var. Transylvania (medium treatment); i) Parkin Punctated, var. Transylvania (coarse treatment); j-k) Winterville Incised, var. Belzoni; l) Winterville Incised, var. Wailes (LMS Neg. No. 86/Plx/5)

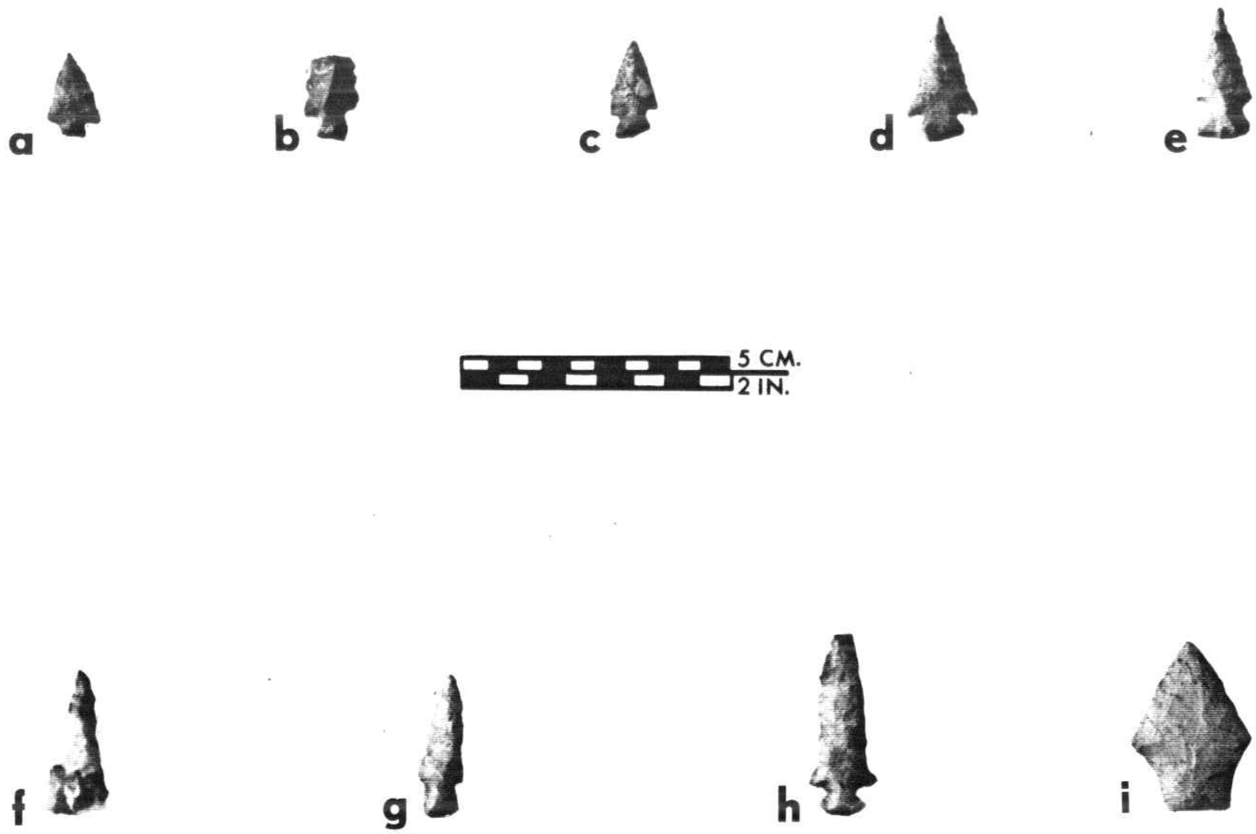


PLATE 19: Matheny, 16M03 (21-I-2)

Lithics

a-b) Unclassified arrow points; c-e) Alba Stemmed, var. Scallorn; f) Drill; g-h) Unclassified arrow points; i) Unclassified small dart/ large arrow point (LMS Neg. No. 86/Pnx/5/36a)

PLATE 20: Jordan, 16MO1 (22-I-1)

Channel of abandoned crevasse north and east of mound group, looking west. Tree in right of photograph marks a tenant shack located next to Morehouse Parish road 5540. (LMS Neg. No. 86/Plx/2/34)

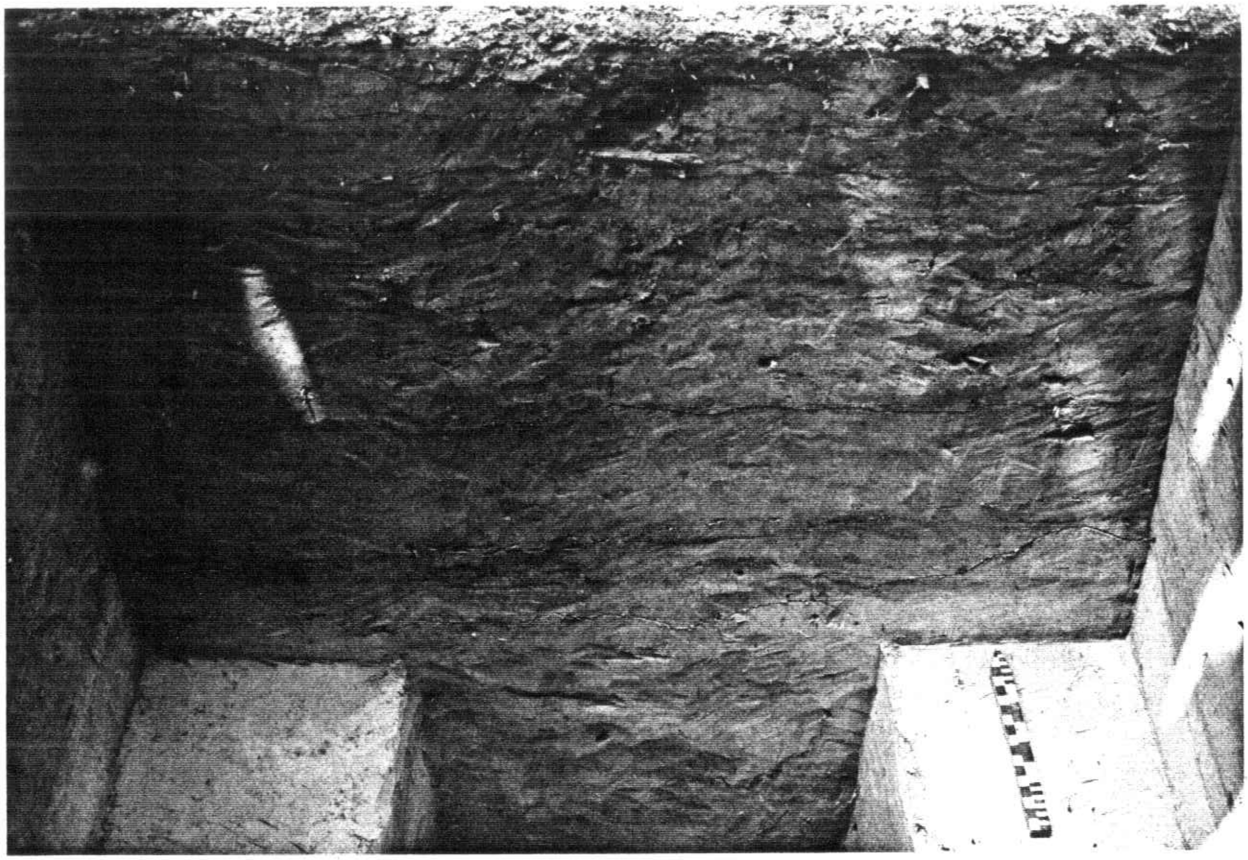


PLATE 21: Jordan, 16MOl (22-I-1)

Test Unit One, north profile, showing deep test in center of unit. Note the relative lack of stratigraphy and the lighter sands appearing just above the beginning of the deep test. (LMS Neg. No. 85/Plx/22/13)

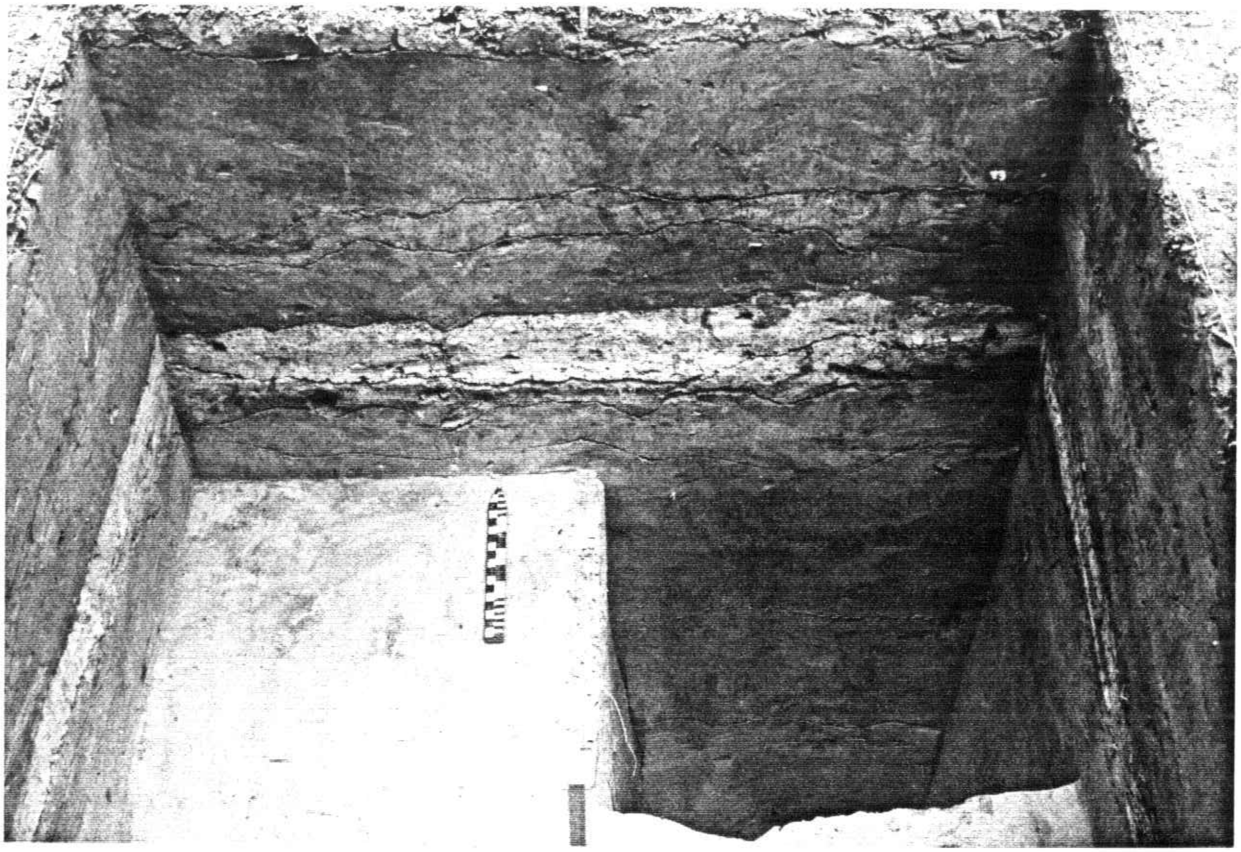


PLATE 22: Jordan, 16MO1 (22-I-1)

Test Unit Two, north profile. Note the thick "ash midden", with the "brown midden" immediately above. Also note the deep test in northeast corner of unit. (LMS Neg. No. 85/P1x/24/16)

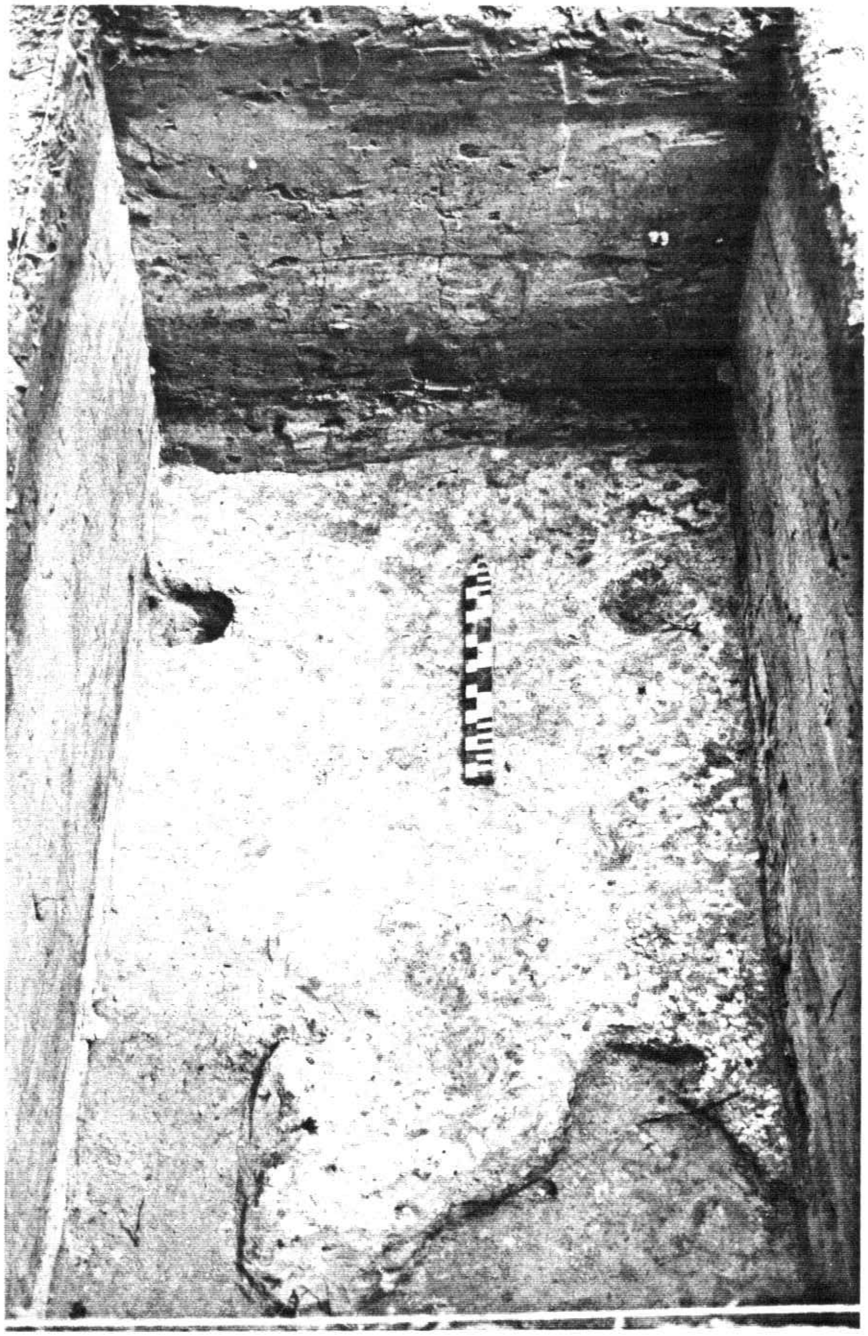


PLATE 23: Jordan, 16MO1 (22-I-1)

Test Unit Two (prior to expansion), top of level J. Note that this is the upper part of the "ash midden", and that it only extends across part of the unit. Two post-holes are evident in the northern end of the unit. (LMS Neg. No. 85/Plx/19/17)

PLATE 24: Jordan, 16MO1 (22-I-1)

Test Unit Three, feature 6, looking north. Note charcoal and bone in profile of feature. (LMS Neg. No. 85/Plx/22/27)

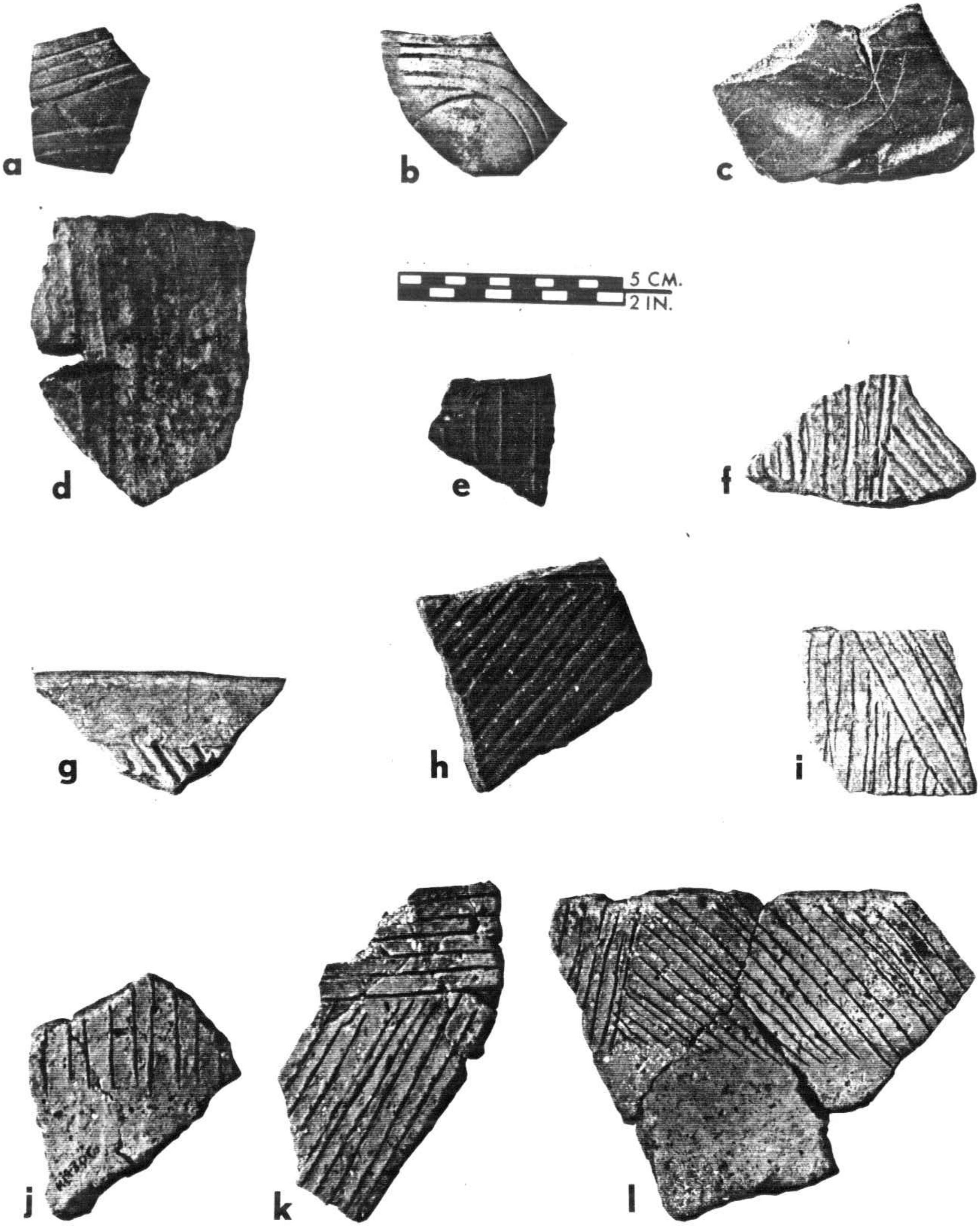


PLATE 25: Jordan, 16MO1 (22-I-1)

Decorated Ceramics

a) Fatherland Incised, _var_. _Bayou Goula_; b) Fatherland Incised, _var_. _Fatherland_; c) Cracker Road Incised, _var_. _Unspecified_; d-e) Belcher Ridged, _var_. _Belcher Ridged_; f-i) Barton Incised, _var_. _Galion_; j-l) Barton Incised, _var_. _Mer Rouge_ (LMS Neg. No. 86/Pnx/3)

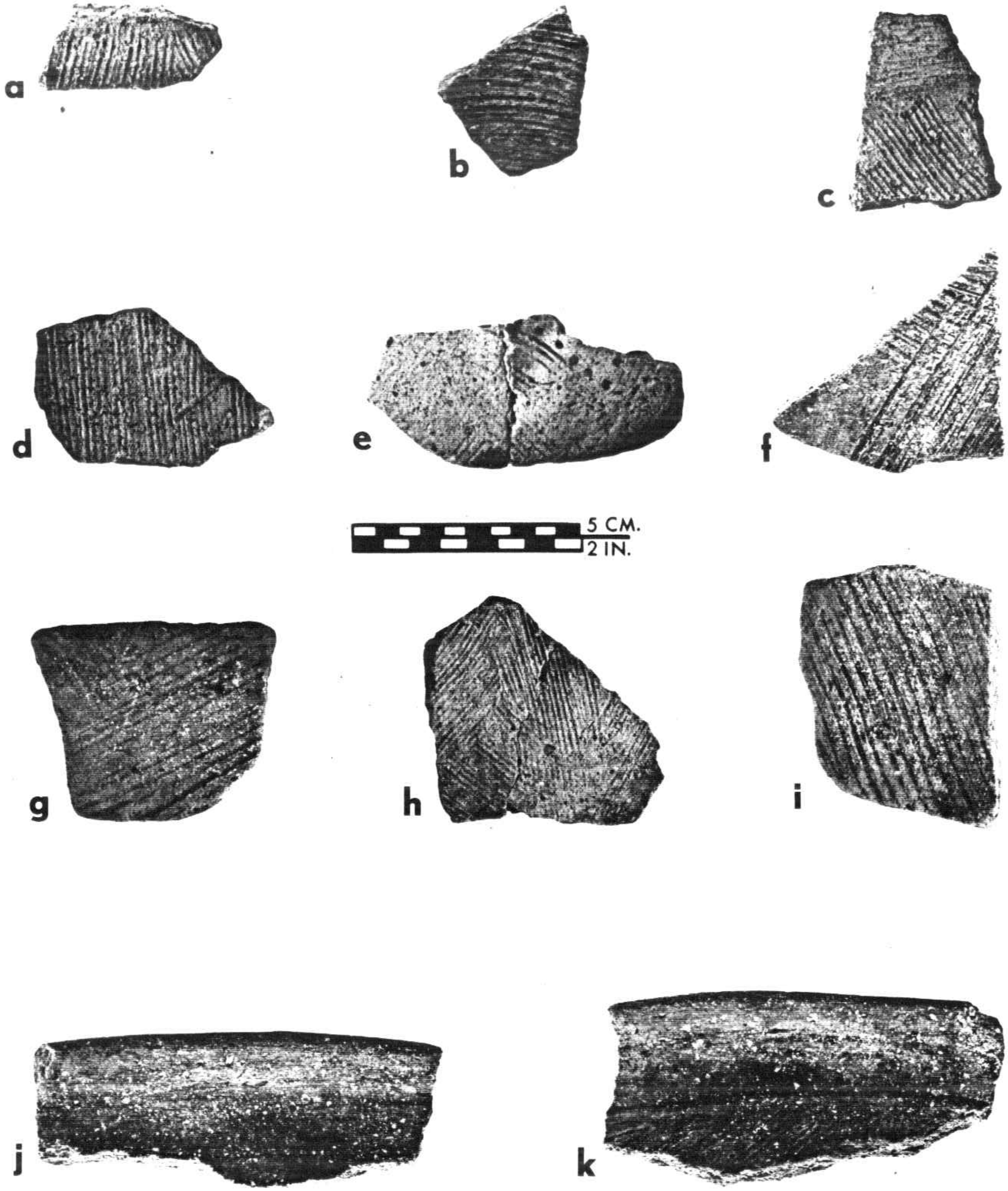


PLATE 26: Jordan, 16MO1 (22-I-1)

Decorated Ceramics

a-k) Grace Brushed, var. Duvall (j-k are jar rims) (LMS Neg. No. 86/Pnx/3)

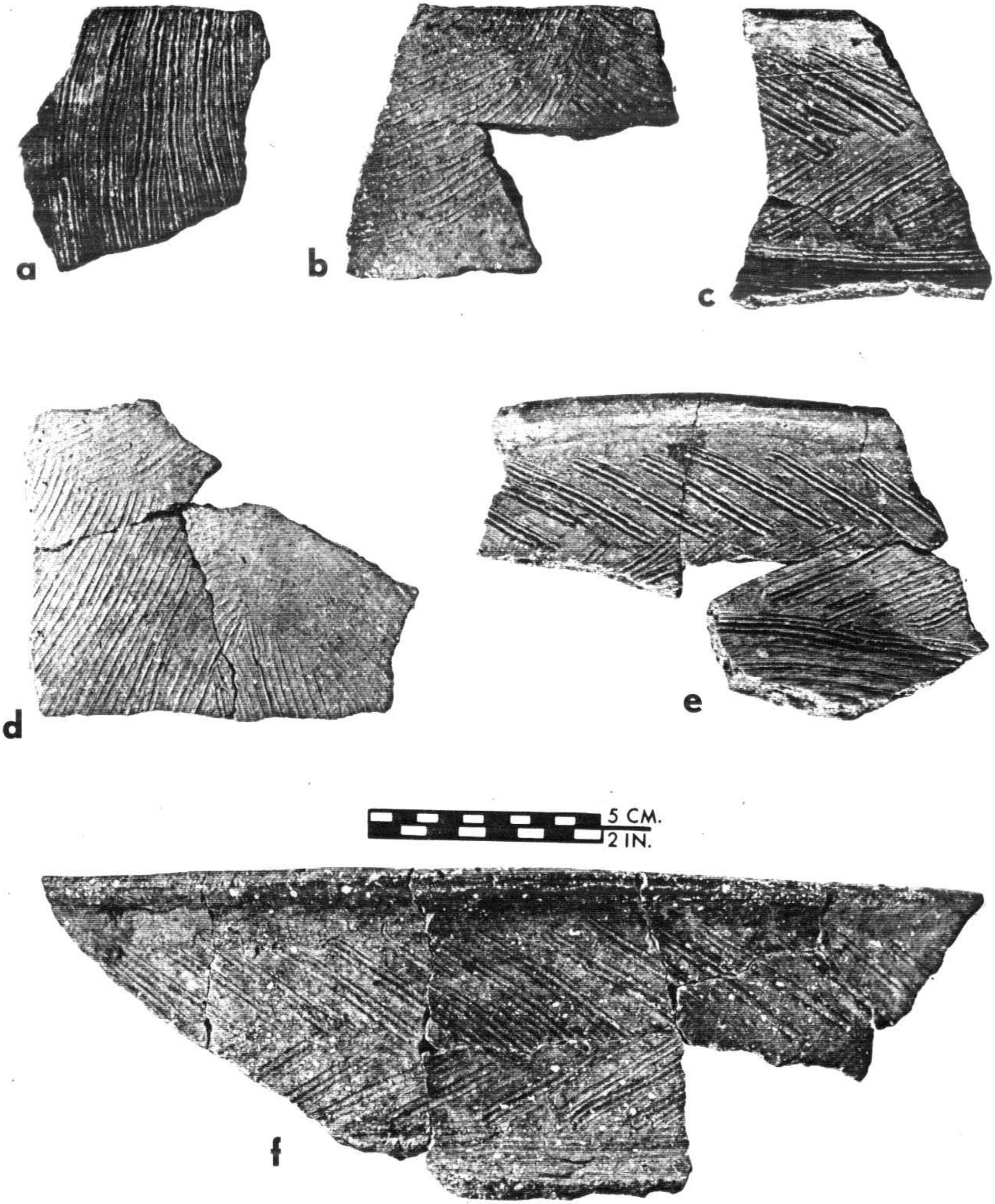


PLATE 27: Jordan, 16MO1 (22-I-1)

Decorated Ceramics

a-f) Grace Brushed, var. Prairie Jefferson (c, e-f are jar rims) (LMS Neg. No. 86/Pnx/3)

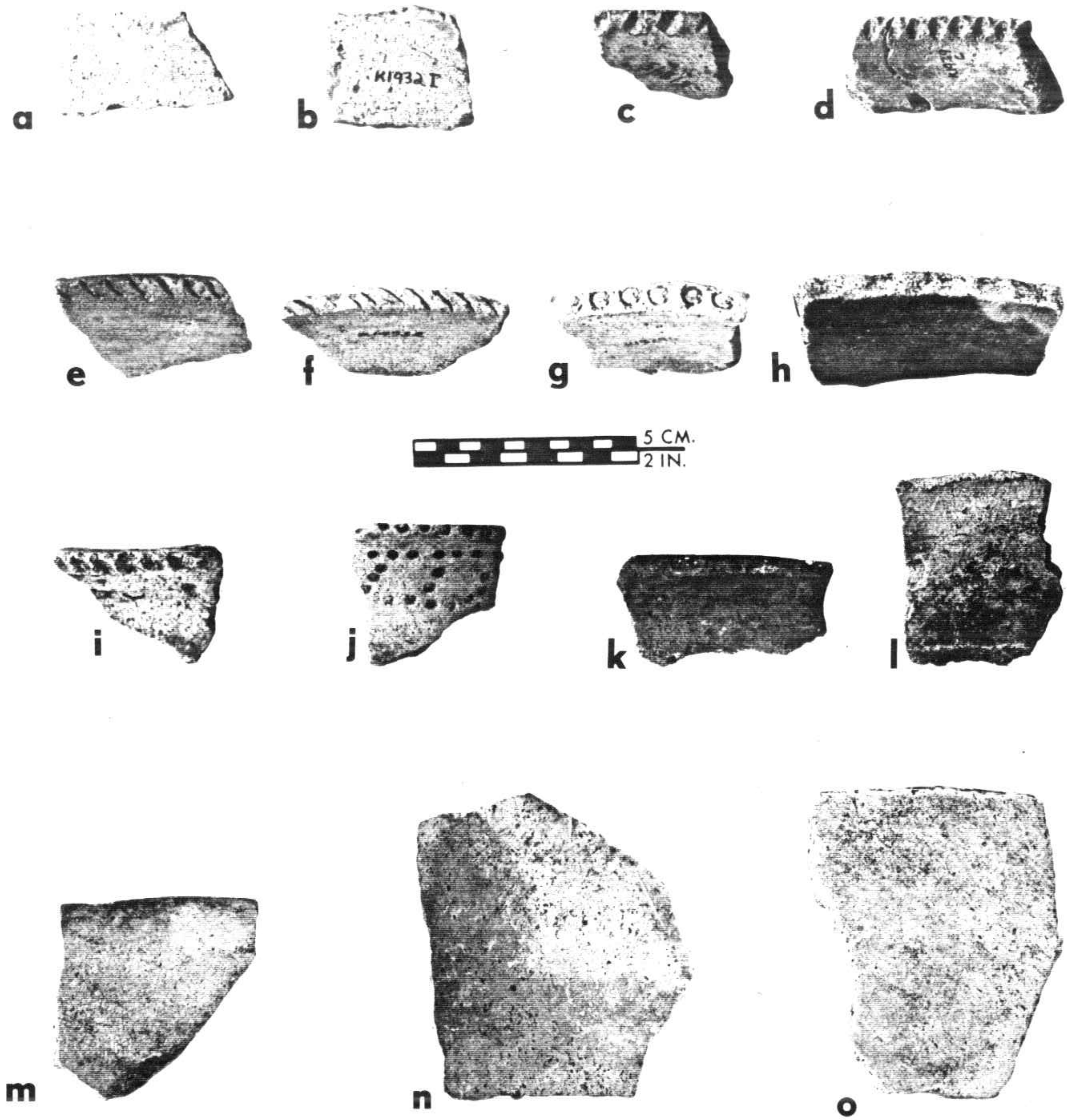


PLATE 28: Jordan, 16MO1 (22-I-1)

Mississippi Plain, var. Morehouse

a) plain bowl rim; b) peaked bowl rim; c-h) punctated or notched bowl rims; i-j) punctated jar rims (j has "tunica" mode); k-l) plain jar rims; m) plain bowl rim; n-o) plain body sherds (LMS Neg. No. 86/Pnx/5)

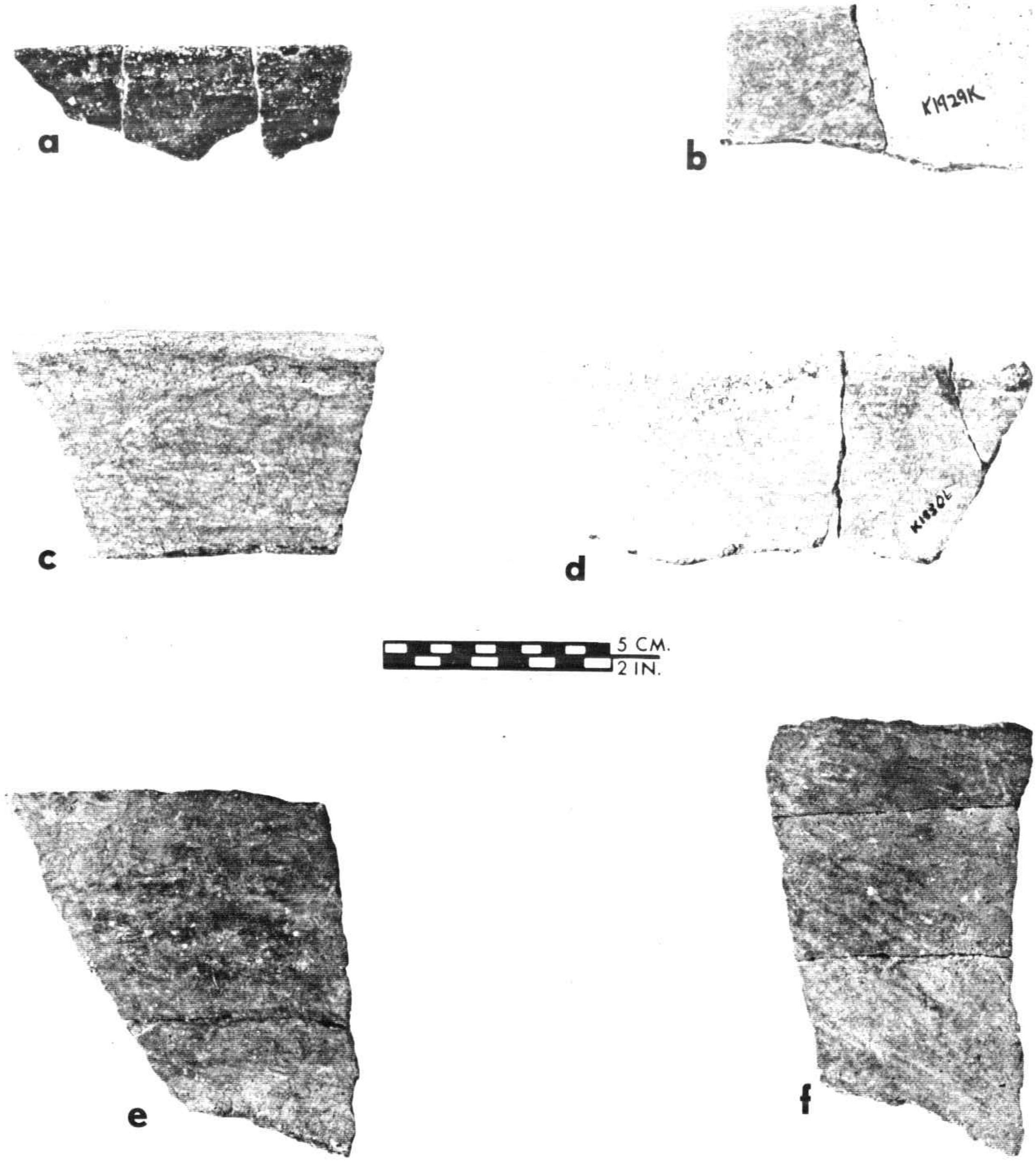


PLATE 29: Jordan, 16MO1 (22-I-1)

Mississippi Plain, var. Oak Ridge

a-d) Plain rims; e-f) plain body sherds (note coil breaks) (LMS Neg. No. 86/Pnx/4)

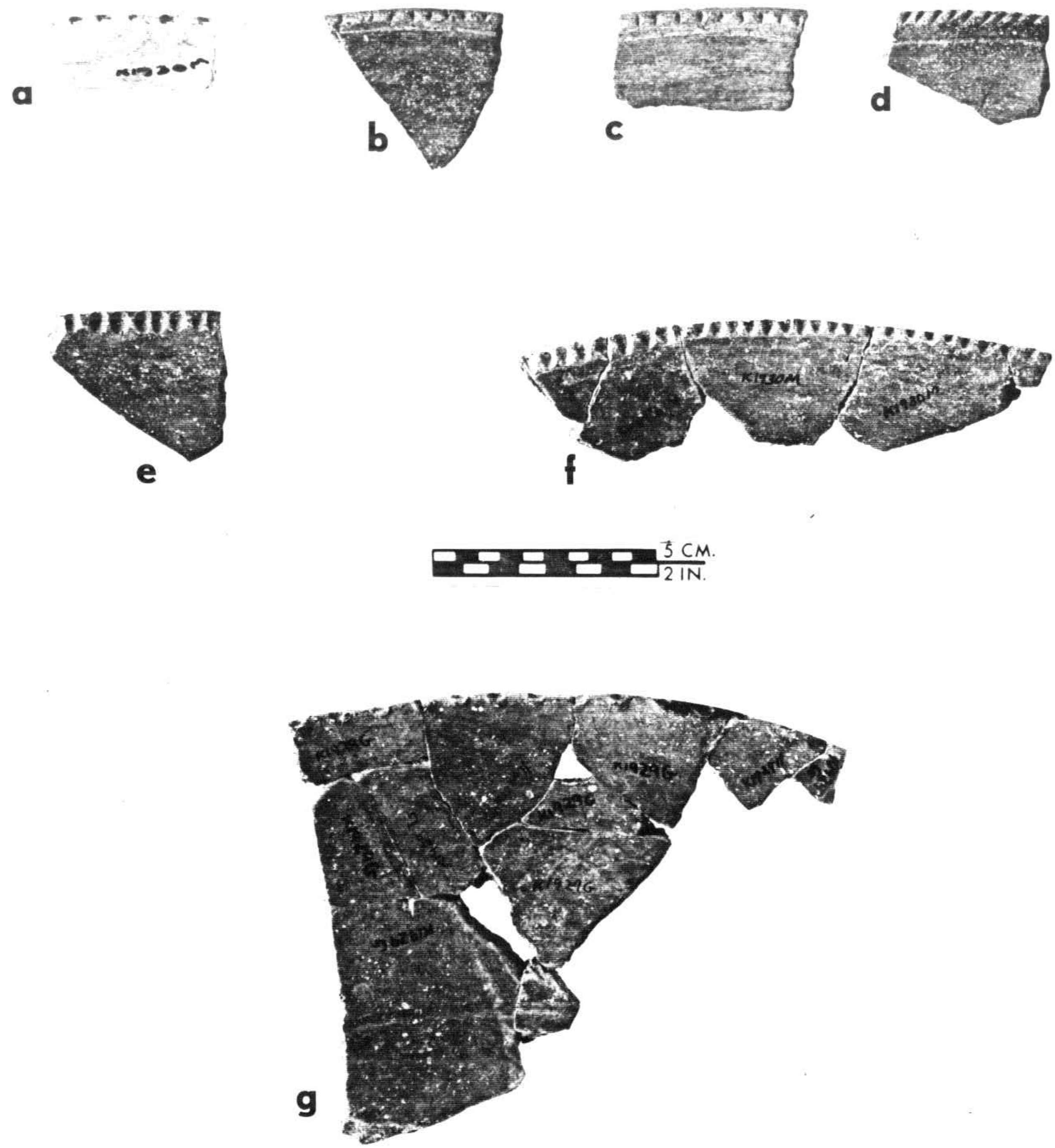


PLATE 29: (cont.) Jordan, 16MO1 (22-I-1)

Mississippi Plain, var. Oak Ridge

a) punctated bowl rim; b-d) notched bowl rims with interior line; e-g) punctated bowl rims (note broad line well below rim on interior of g) (LMS Neg. No. 86/Pnx/4)

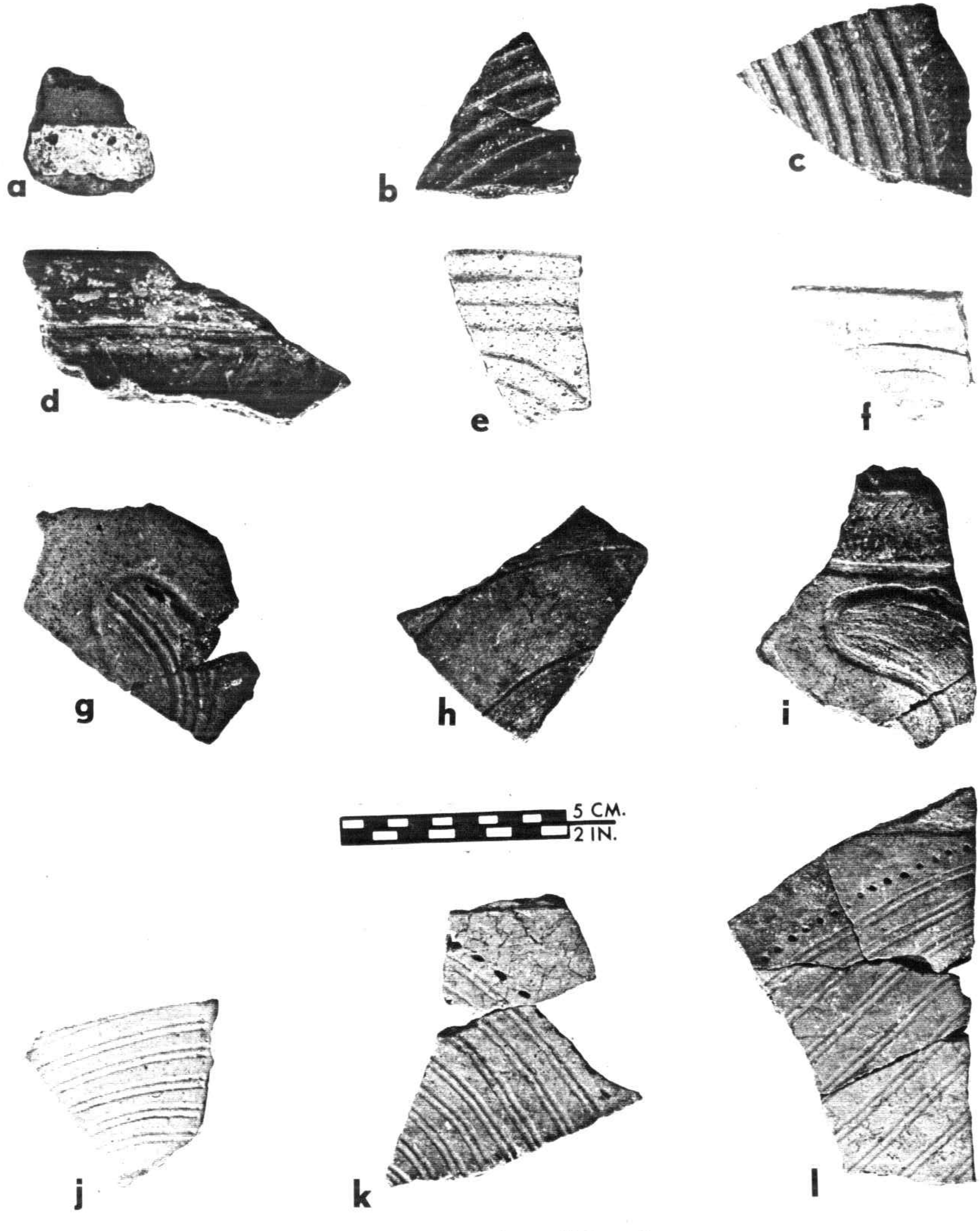


PLATE 30: Jordan, 16MO1 (22-I-1)

Decorated Ceramics

a) Nodena Red on White, var. Unspecified; b-c) Winterville Incised, var. Broutin; d-f) Winterville Incised, var. Wailes; g-i) Mound Tract Incised and Brushed, var. Mound Tract; j-l) Winterville Incised, var. Forshey (LMS Neg. No. 86/Pnx/3; d-86/Pnx/4)

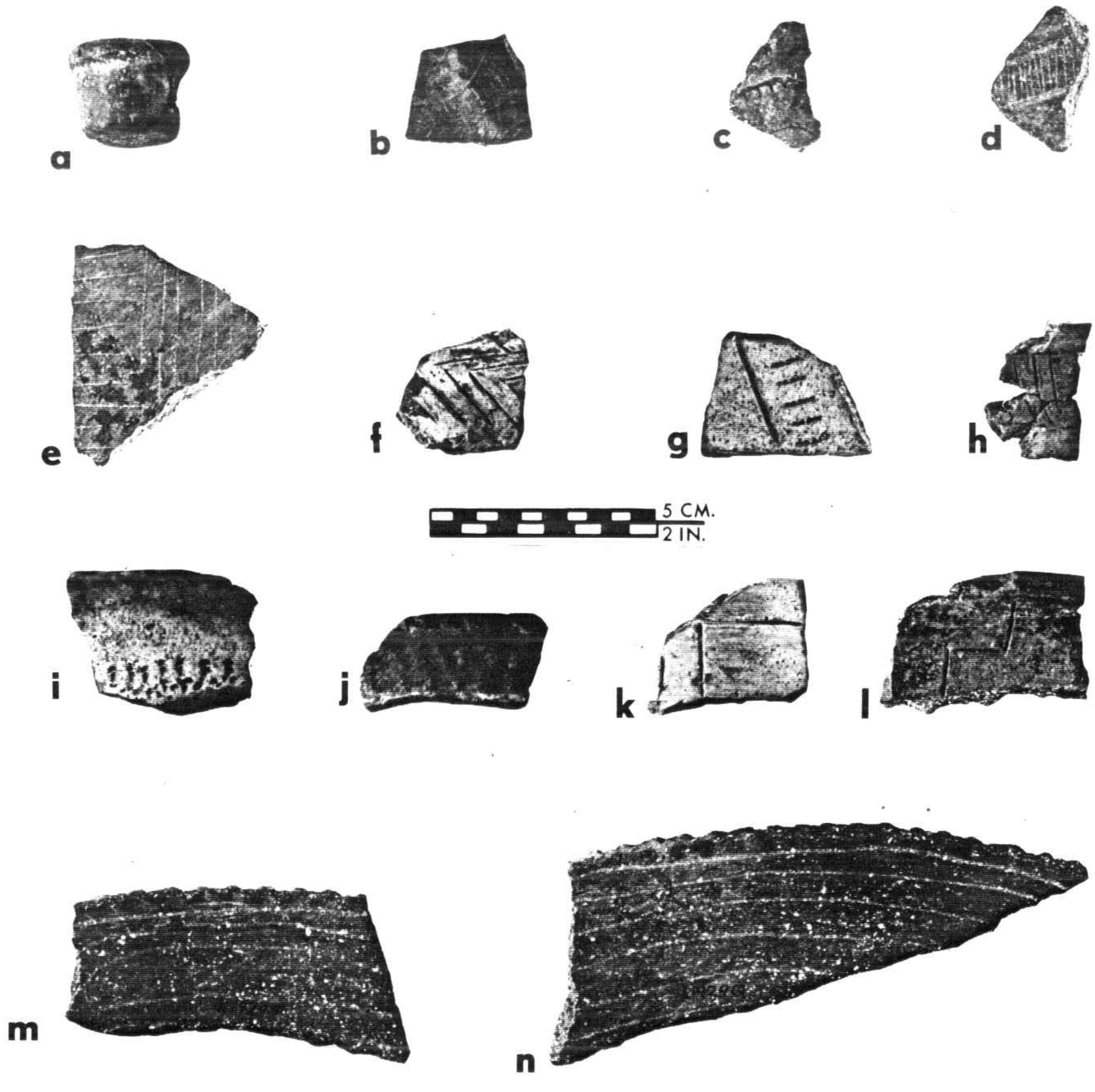


PLATE 31: Jordan, 16MO1 (22-I-1)

Decorated Ceramics

a) shell tempered ear plug; b-c) unclassified caddoan ceramics; d-e) unclassified incised on Mississippi Plain, var. Oak Ridge; f-j) Stamped or incised neck decoration; k-l) unclassified incised on Mississippi Plain, var. Morehouse ("step" motif); m-n) unclassified interior incised on Mississippi Plain, var. Oak Ridge (LMS Neg. No. 86/Pnx/5)

PLATE 32: Jordan, 16M01 (22-I-1)

Lithics

a) triangular biface fragment; b-d) Alba Stemmed, var. Unspecified; e-g) Alba Stemmed, var. Jordan; h-i) Triangular bifaces (h may be a preform failure) (LMS Neg. No. 86/Pnx/5)