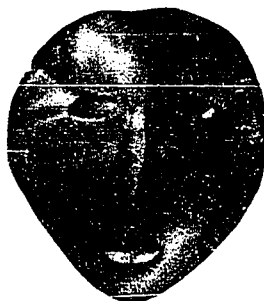


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FRONTISPIECE. Carved Human Face of Fluorite from Crosno.
(enlarged from specimen in Anderson Collection)

AN ARCHEOLOGICAL STUDY
OF THE
MISSISSIPPIAN CULTURE IN SOUTHEAST MISSOURI

Stephen Williams

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of Yale University in candidacy for the degree
of Doctor of Philosophy.

ABSTRACT

This study is concerned with the archeological situation in Southeast Missouri during late prehistoric times. It embodies data which were obtained from a surface survey of the area, some museum studies, and a major excavation at one site, Crosno, in Mississippi County, Missouri.

The results of this excavation and the survey are first presented, followed with a description of the kinds of artifacts which are typical of the period and area under consideration. A brief summary of the types of sites encountered and their location with regard to some physiographic features follows.

This cultural data is then integrated into four major cultural phases within the Mississippian Tradition. These are the Cairo Lowland, Pemiscot Bayou, Malden Plain, and Nodena phases. This four-fold classification represents a new ordering of the archeological materials from this area during the time period considered.

PREFACE

A Definition of Terms

One of the words in the title of this work must be defined for the structure of the whole study is based on it. That word is "Mississippian." By this is not meant the culture of the State of Mississippi nor the geological period of the Carboniferous system. Rather, the study concerns the archeological remains of an extinct group of American Indians who once occupied Southeast Missouri in late prehistoric times and who are called Mississippian.

These Indians were sedentary agriculturalists who lived in villages, near lakes or rivers. Their religious or political systems required the raising of important structures such as chiefs' residences or temples upon the tops of earthen mounds; hence the common name "Mound Builder"--a term which has been applied to other cultural groups besides the one under consideration. They generally buried their dead in an extended position accompanied by clay vessels.

They lived for the most part in clay-walled houses with thatched roofs. These structures were generally clustered in villages surrounded by a palisaded wall and ditch. Land outside the village walls was planted in corn, beans and squash.

Mississippian pottery is well-made and often of esthetic interest. Their pots, aside from simple utilitarian cooking ware, show a variety of shapes unsurpassed by any prehistoric contemporaries north of Mexico. This pottery is characteristically tempered with crushed shell. A few art forms also persist in copper and shell. Apart from the above the cultural inventory seen in the archeological record is not impressive. They wove textiles and worked in wood too, but no tangible record remains. They appear, therefore, to have specialized in the ceramic craft. In fact the Mississippian tradition was originally defined by these ceramic remains; and this definition was based, to a certain extent, on the material from Southeast Missouri.

Mississippian, meaning a way of life which is recognized archeologically, in this area can not be equated with any Historic Indian groups, but there are many reasons for believing that the Mississippian people and their descendants inhabited the area from about 1100 A.D. till as late as the early 1600's.

This definition of Mississippian culture is likewise valid for other parts of the greater Southeastern area with some local variation, since in terms of over-all cultural history most of the area received a similar diffusion of the Mississippian tradition. A notable example of the impact of this tradition is the widespread occurrence of temple mounds (flat-topped pyramids, rectangular in plan) and shell tempering in the pottery over most of Southeastern United States on the same general time horizon.

A cultural configuration antedating the Mississippian is the Woodland pattern, generally called the Baytown tradition in this study and briefly characterized by conical burial mounds and clay tempered, cord marked pottery. The settlement pattern is less well-defined but centered around groups of these mounds. The villages were probably fairly stable as agriculture was presumably practiced.

Within Southeast Missouri, as elsewhere in the Lower Mississippi Valley, these two major traditions come into contact. There can be little doubt as to the temporal priority of Baytown over Mississippian, but the question of the nature of cultural interaction between the two when contact occurs, if it occurs, will be discussed later. It suffices to say at this point, that most of the Baytown culture antedates the Mississippian. The amount of data on the period of culture contact is so limited that few hypotheses can be validated.

One final note on the word "Mississippian." It is used in this study as a modifier for a number of terms as follows: Mississippian Complex, Mississippian Period, Mississippian Tradition. A definition of these terms, likewise, seems in order. Mississippian Complex refers to a series of traits, often types of pottery, identifiable as products of Mississippian people. The Mississippian Period is the segment of time during which this culture had its rise, flowering and decline, while the Mississippian Tradition is the continuity in space, time, and form of the complex just defined.

A Definition of Aims

This study is an attempt to take an inclusive approach to the research of a rather small area. This is no claim that another Viru Valley Study has been undertaken, but merely that a broad view—in the selection of ultimate objectives has been employed. I have tried, therefore, to give each section of the study its due without overemphasizing any particular phase of research. The reader will, no doubt, find more words devoted to potsherds than to anything else. This is a result of the nature of the evidence. I have also attempted to integrate a number of techniques and to collect data from various scientific fields. In pursuance of this aim I have taken into account as many as possible of the various factors which must have affected the living people who left these odd bits and pieces of their life behind.

If there are defects in this study, consider the opinion of Steinbeck who wrote:

There is a curious idea among unscientific men that in scientific writing there is a common plateau of perfectionism. Nothing could be more untrue. The reports of biologists [archeologists, too] are the measure, not of the science, but of the men themselves. (The LOG from the SEA OF CORTEZ, 1951: 73).

A Note on Hypothesis

A great deal of what follows in this study is hypothesis. Persons who require certainties in life may find archeology hesitant to state matters in definite terms. This unsureness can be carried to extremes when the archeologist is so cautious that he avoids making any flat statement of fact.

I have tried to keep hypothesis and fact separated and to avoid dependence upon any single hypothesis. On this point Steinbeck has written:

There is one great difficulty with a good hypothesis. When it is completed and rounded, the corners smoothed and the content cohesive and coherent, it is likely to become a thing in itself, a work of art. It is then like a finished sonnet or a painting completed. One hates to disturb it. Even if subsequent information should shoot a hole in it, one hates to tear it down because it once was beautiful and whole. One of our leading scientists, having reasoned a reef in the Pacific, was unable for a long time to reconcile the lack of a reef, indicated by soundings, with the reef his mind told him was there.... This is not set down in criticism; it is no light matter to make up one's mind about anything,...and once made up, it is even harder to abandon the position. When a hypothesis is deeply accepted it becomes a growth which only a kind of surgery can amputate. (The LOG from the SEA OF CORTEZ, 1951: 180)

A Note on Understanding

I need only look back over what I have written during the past six years in my study of archeology to note an unconscionable amount of criticism of workers in the field. Statements I made in the past now seem naive. Further, I can better understand some of the problems which baffled my predecessors and which have now in their turn taken their toll of me.

It seems the fashion in a number of dissertations I have read for the author to assume the pose of a knight-errant ready and willing to slay the dragons of Academic Mistakes or Old Theory with gusto. I have no such lance in hand.

For the academic tolerance and understanding to which I have been exposed I must acknowledge my debt to Irving Rouse. His championing of intellectual fair play has been an inspiration which I shall always try to emulate.

A Note on Training

It seems appropriate at this time to review the training in archeology which I have had. I did my first field archeology during the month of July, 1947, in my home state, Minnesota, under the guidance of Dr. Lloyd A. Wilford of the University of Minnesota. This work was not preceded by a long period of arrowhead collecting which is a part of some archeologist's youthful background. I helped excavate a number of mounds and learned a few of the rudiments of excavation. Except for a few rare burials, little was found, not even sherds, so it was

mainly practice in moving dirt.

After visiting and making a surface collection at a site in Southeast Missouri (on my own initiative) in December, 1948, I wrote an undergraduate thesis based almost entirely on a museum study. To continue my training in field archeology, I attended the University of Arizona's Field School at Point of Pines, Arizona, in the summer of 1949. As a result it was under Dr. Emil W. Haury and his staff that I made first contact with organized excavation on a major scale. Here I learned something of the intricacies of pottery typology and methods for excavating Mogollon pit houses, besides a general picture of Southwestern prehistory.

My formal introduction to the archeology of the Mississippi Valley took place in the summer of 1950 when I began the field work embodied in this study. Throughout the three seasons that followed I had aid from Dr. James B. Griffin in over-all direction in much of the field and laboratory research. However, it was not till last November that I visited a site in the Lower Mississippi Valley in the company of a trained archeologist.

In my academic work I have long had the helpful counsel of Irving Rouse. For the past six years he has shown me what archeology is, how it should be done, and why it is done. He has, as well, introduced me to countless details of archeological fact. The late Wendell C. Bennett set for me goals of industry, honesty and clarity which I shall strive to attain. Further he emphasized the importance of ethnology and arche-

ology going hand in hand because of the time perspective in the archeological record and also taught me something of the broad sweep of archeology in the Andes.

The late Ralph Linton helped me reach a better understanding of how ethnological data could be applied to archeological problems and showed me the importance of looking at the pattern of everyday life of the people under consideration. He also taught me an appreciation and understanding of Primitive Art which has been very useful in evaluating the archeological material that falls into this category. Dr. Phillip Phillips, whose enthusiasm for the archeology of the Mississippi Valley is, indeed, contagious, has been a source of help in many ways. His ideas on environment, channel correlation, site designation and cultural history have been used or modified by me in a number of ways, but he is, of course, not responsible for my interpretations.

Dr. Griffin has led me through some of the wasteland of ceramic typology, and the groupings used in Section 5 had their inception with his analysis in 1950. What has happened to them since then is my responsibility. He has also been of great aid in chronological problems as they were encountered in this study.

The debt I owe to Edward G. Scully, my associate in the field for two years and consultant on problems of all sorts, is great. I learned a lot of practical things about field archeology from him, and his knowledge of geology has been a source of countless mineralogical determinations for inter-

ested amateurs, while I stood by unknowing. He also has served as a check on some of my more elaborate interpretations of the archeological data which we shared. My only regret is that, due to circumstances not wholly within his control, his part of our research together is not ready for release at this time. My discussion of the time periods which he was to have covered is a very poor substitute for the thesis he has partly completed.

Although the schooling described above has been varied and I will gratefully admit that I have had the benefit of acquaintance with some of the finest minds that have been turned to New World archeology, I have had relatively little training in the techniques of field archeology. As a result I am very glad I didn't have any expert sitting on the levee above Croso watching my first attempts at large scale excavation but experience is a teacher of sorts. I learned a lot of things I'll never do again, but there is a definite limit to this approach. If I had it to do all over again, I would use the same general methods described herein for I'm convinced these techniques were best suited to the type of data I was most interested in. But there were many little technical points that would have been easy to improve. I have felt the need for the teaching of these techniques, and I do not believe that I am alone in this feeling.

Acknowledgments

The field work on which this study is based was sponsored and in great part underwritten by the following groups: The

Museum of Anthropology, University of Michigan, for the field season of 1950 and half of the 1951 season; The Department of Anthropology, Yale University, for half the 1951 season and a fraction of the 1952 excavation at Crosno; and The Peabody Museum of Natural History, Yale University, for the majority of the excavation at Crosno in 1952. I gratefully acknowledge this support and further wish to thank Dr. Griffin of Michigan and Dr. Cornelius Osgood of Yale for providing laboratory space during the analysis and writing up of this material.

I had a good deal of help from people in the State of Missouri, who did everything possible to further my research, and to these persons I must acknowledge a great debt of gratitude. Of these individuals no one did more to aid my work than Leo O. Anderson of Van Buren, who gave generously of his time, information, and hospitality and who allowed me to both photograph his collection and borrow other specimens. Not only this, but he also revisited many of the sites originally covered by our survey and gathered additional data which were invaluable. His contribution to this study has been immense, and I can not imagine a more cooperative colleague.

Carl H. Chapman of the University of Missouri made an enormous contribution to the survey work with original data on site locations gathered by the State Archeological Survey from his files. He has cooperated in all phases of the study, and I am happy to acknowledge his help.

In terms of identification of various excavated materials I gratefully acknowledge the following assistance: Dr. Norton

H. Nickerson (formerly Washington University, St. Louis), Department of Botany, University of Massachusetts, analyzed carbonized maize remains; Dr. Arthur Koehler, Yale Department of Forestry, determined the species of charred timbers; Mr. Richard Adams, Laboratory of Comparative Osteology, Bloomington, Indiana, made identifications on the fish bones; and finally, Mr. Robert M. Goslin, Ohio State Museum, identified all mammal, bird, and turtle remains. In doing this, Mr. Goslin spent some three to four months going over nearly 5000 fragmentary osteological specimens and made an identification in the great majority of cases. In doing this piece of work, he compiled the first extensive list of identified faunal remains from an archeological site for the Lower Mississippi Valley. My debt to him for this research and for the use of this data is great.

The drawings of most of the artifacts, including the frontispiece in color, were carefully prepared by Miss Shirley Glaser of the Yale Peabody Museum. Most of the maps, charts, and other miscellaneous drafting work was ably and speedily accomplished by Miss Polly Horan, Harvard University. Harry Alter traced the field drawings of the excavated structures done by Bill Barton. Both are undergraduates at Yale. The aerial photographs are taken from ones obtained from the Department of Agriculture and Mississippi River Commission. The maps are based on ones published by the Mississippi River Commission. The site plan of Crosno was done by Mr. Gordon K. Ellis at the Yale Map Laboratory with the writer's assistance.

The photographs are by the writer unless some other source is noted. Wallace B. Mitchell, Cambridge, has been of great aid in reproducing the figures used in this study. The typing of this manuscript has been ably handled in the main by Mrs. Evelyn Middleton, and Mrs. Ruth E. Williamson also has been of great aid of late.

My final thanks go to my parents, whose understanding has withstood the uneasy education of an archeologist.

Cambridge, Mass.

May, 1954.

STEPHEN WILLIAMS

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SECTION 2

INTRODUCTION

INTRODUCTION

The Area Under Consideration

The area to be treated in the following study is known as Southeast Missouri. It includes that part of the state of Missouri between the Mississippi and the St. Francis rivers below the latitude of $37^{\circ} 15'$. The counties which make up this area are, in order from east to west and from north to south: Cape Girardeau, Bollinger, Wayne; Scott, Mississippi, New Madrid, Stoddard; Pemiscot and Dunklin (Fig. 1).

This region takes in part of the northern section of the great Lower Mississippi Alluvial Valley, and therefore the division of the area has a basis in general physiographic terms (Fisk, 1944: 6). Also it should be recognized that the writer has taken such a rather arbitrary segment of geography for a subject of research because the most southern boundary of the state follows, during the archeological period to be considered, rather closely the separation between a cultural province of Southeast Missouri and one of Northeast Arkansas (see Section 9).

There is likewise ample precedent for such a division in the literature. Holmes (1903: 81) mentions the Southeast Missouri subgroup within the general middle Mississippi Valley. This grouping was made exclusively on the basis of whole vessels observed in museums. Kroeber (1939: 102) utilized this same division and added a map summing up the information gath-

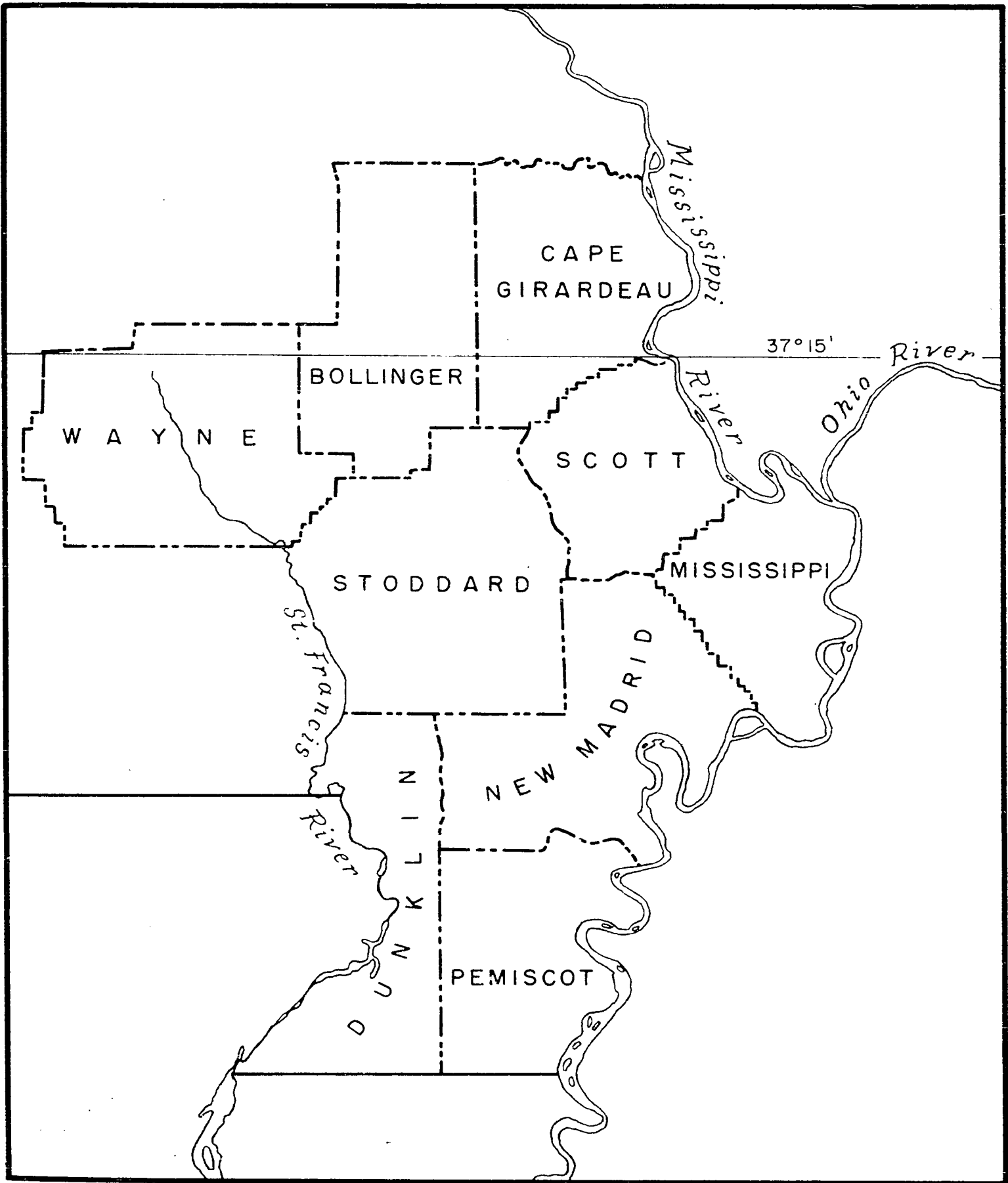


Fig. 1. Map of the Southeast Missouri Area.

gathered by Thomas (1894) with regard to mound distribution, making Southeast Missouri one of his areal subgroups.

A closely analagous division was made by Phillips (1939) based on a more rounded archeological picture, although he employed the term "Cairo Lowlands" and restricted it pretty much to the smaller physiographic area to be discussed later. Walker and Adams (1946), Chapman (1947), and Griffin (1952) all have made use of the concept of an archeological area of Southeast Missouri.

Environment

The Physical Geogranhy

The geographical setting of Southeast Missouri has already been treated in immense detail by Phillips et al. (1951: 5-36) since this was considered part of their survey area. Readers are, therefore, referred to that volume for a more detailed treatment of the subject.

It is within Southeast Missouri that the Mississippi River leaves the rather narrow confines of the gorge which it has followed from St. Anthony Falls at Minneapolis, and meanders across a wide flood plain that it has created through the centuries. Here also the Ohio River joins the "Father of Waters," and for some miles the clearer Ohio's water refuses to mix with it.

These two great rivers have not always come together at Cairo, Illinois; once the Mississippi flowed far to the west

and joined the Ohio near Vicksburg, Mississippi. A ridge at one time formed a barrier between the two rivers, but now they both run to the east of it and other rivers have taken over the old channels.

This is Crowley's Ridge and no other feature within the whole alluvial flood plain so breaks up the broad expanse of flat land. Rising abruptly on the east to a final height of some 100 to 250 feet above the plain, the western slope of the ridge is gradual. The ridge averages about twelve miles in width in this northern division of the Mississippi Alluvial Valley. The major physiographic region of the division which can be seen in Fig. 2 (after Fisk, 1944), are as follows:

The Cairo and Morehouse Lowlands are a broad expanse of flood plain cut in a north and south direction by the low sand Sikeston Ridge. This ridge is generally not more than twenty feet in height, but it has a definite effect on drainage and shows how small differences in elevation can be significant in the flood plain.

The Little River Lowland is nothing more than a southern extension of the Morehouse Lowland, but the division will be retained by the writer for archeological reasons. Pemiscot Bayou is a main feature of this lowland and the whole area around it has been very swampy till very recent times.

The Malden Plain is an important elevated region running along the western side of the area which is made up of rather sandy materials and was originally prairie land. The Advance Lowland is a northern region much like the other lowlands so

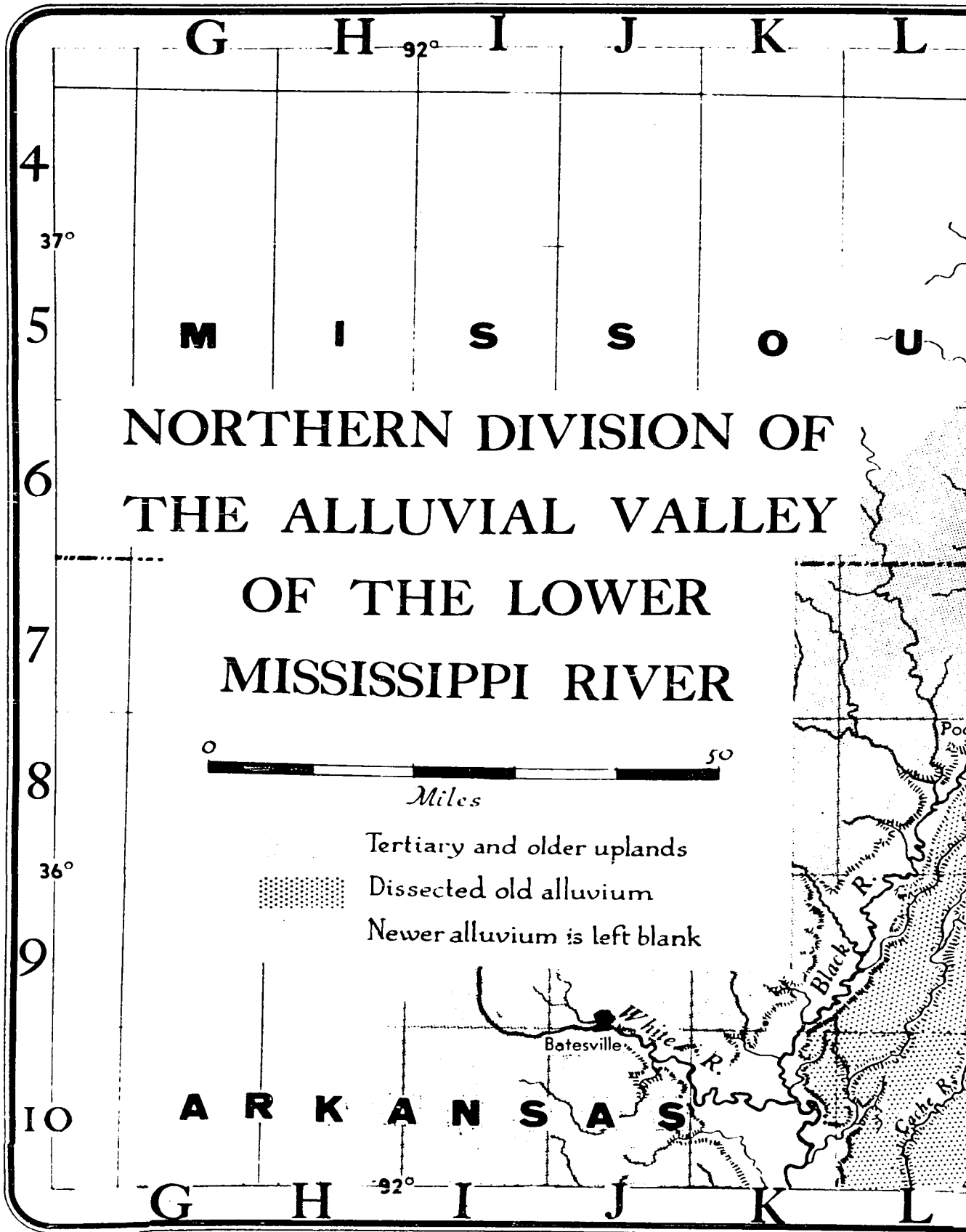
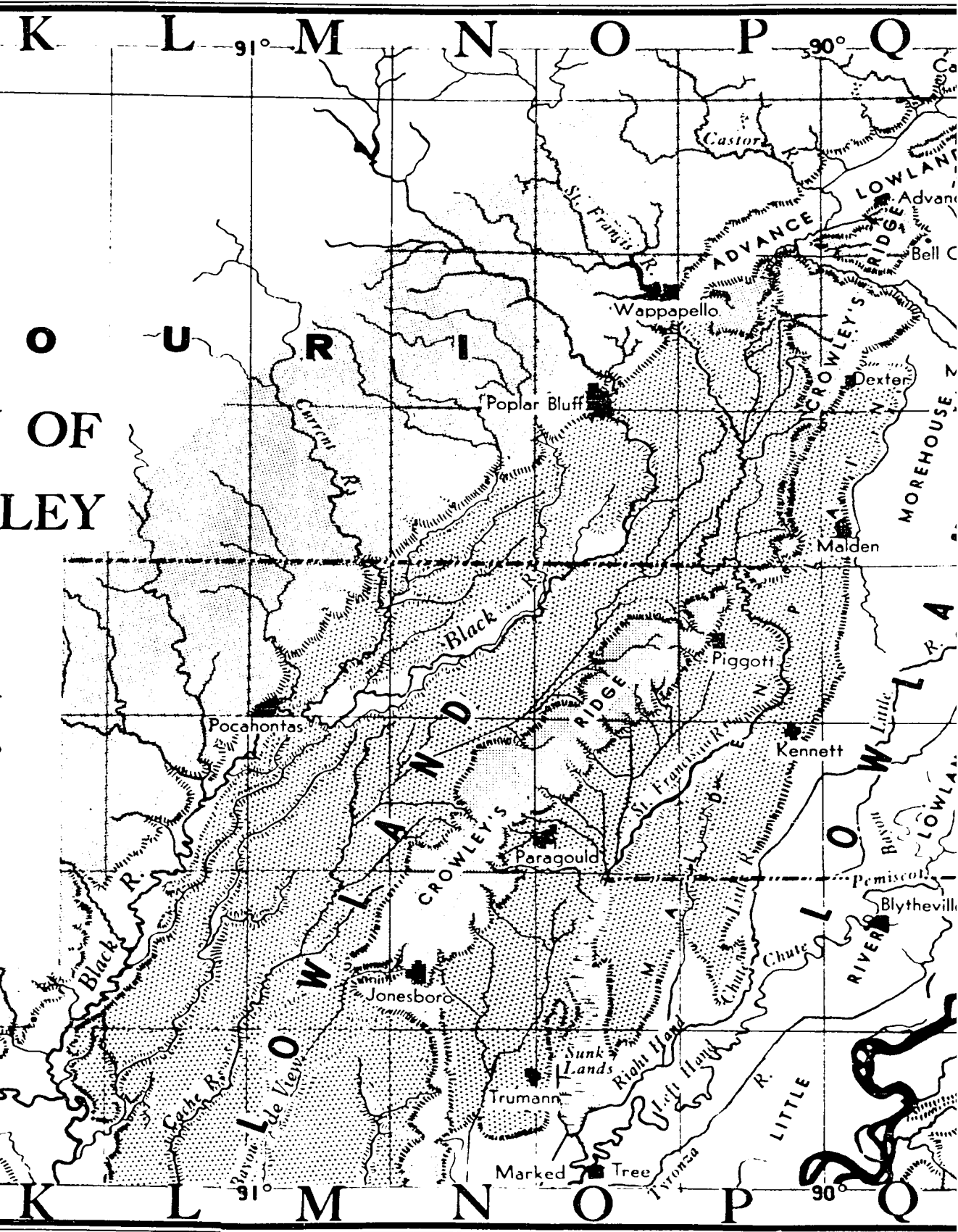
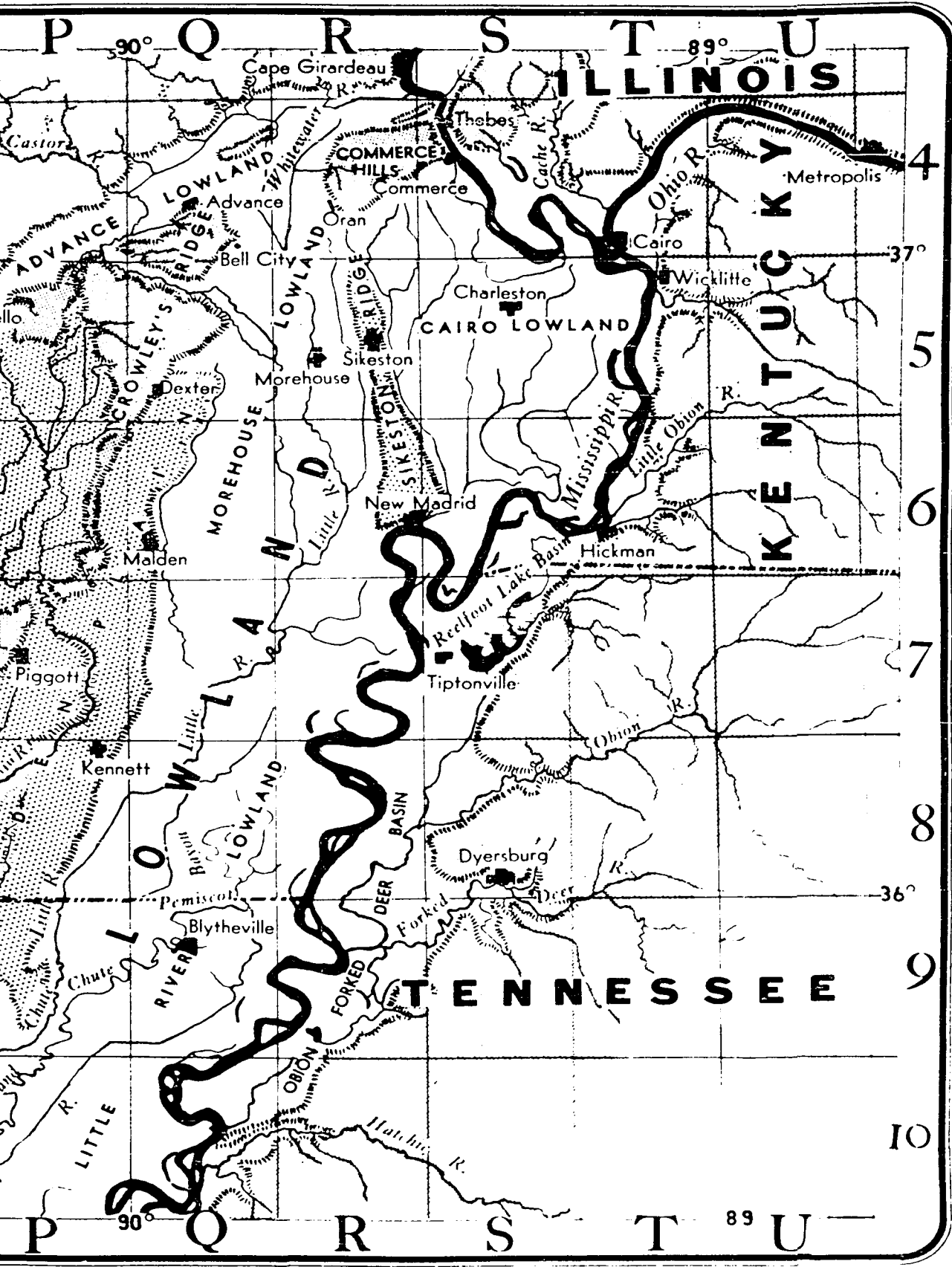


Fig. 2. Physiographic Map of the Northern Alluvial



northern Alluvial Valley.



far discussed but is more confined by high ground than the others.

Besides the Mississippi two other rivers are worthy of mention. These are the Little River and the St. Francis.

The Little River drains the Morehouse and Little River Lowlands and effectively cuts the Southeast Missouri Area in two parts. This division is of significance in the archeological period under consideration.

The St. Francis River forms the western border of the area and tends to divide the Malden Ridge. Whether this has any significance archeologically is not known to the writer since the archeology of that area of Arkansas is almost totally unknown.

Ecology

"The student of prehistory in the Lower Mississippi Valley must in fact ... attempt to reconstruct cultures that no longer exist in an environment that exists only in a profoundly modified state" (Phillips et al., 1951: 36). Today Southeast Missouri is a fertile farm land, well drained and almost completely cut over. Gone are the cane brakes and the giant Bald Cypress and gone also are the prairies and the park-like forests of a hundred and fifty years ago.

The area as a whole may be characterized as River Bottom Forest with patches of Prairie Grasslands. But such a characterization paints too simple a picture of the region for "few other forests present such a variety in composition as the

bottom-land forest of the South" (Shantz & Zon, 1924: 13).

The mixed nature of the area is a result of the varied topography of the flood plain which Phillips et al. (1951: 28) have divided into four zones: the ridges, the glades or bottoms, the deep swamps or backswamps, and the flats or sandbars. Each zone dependent on its elevation above general water level has a different flora. The prairies are of a somewhat different origin and will be considered separately.

The ridges support cane and hardwoods such as gums, oaks, hickory, red maple, and the like. The glades, which are subject to overflow and are under water part of the growing season, support a forest of cypress, tupelo, water ash, cottonwood, and bay. The deep swamps are made up mainly of cypress and tupelo gum and were generally under water throughout the year. The flats, mainly along the Mississippi, are covered with willow and cottonwood.

The prairies were covered with a variety of grasses and open groves of large hardwood trees. The only portions of the whole area which were readily adapted to human occupation were these prairies and the ridges. The swamps and glades made up a huge proportion of the total area, for Bratten (1926: 4) estimates nearly 80 per cent fell in this category before the drainage systems were set up. It is therefore little wonder that the early travelers looked on the region as quite unfavorable for settlement. Understandably, the first white settlement in the area took place in 1780 on Sikeston Ridge, which is one of the prairie areas. Favoring settlement was the fact

that the Ridge came down to the main river channel and soon it and the other prairie areas and ridges were inhabited. The glades and swamps were the last sections to be tackled by the white man, and these parts of the area are still under development today in contrast to ridge and prairie lands that have been farmed for 150 years.

Despite the heavy forest cover, it certainly was not impenetrable, especially if one took advantage of the difference in vegetation mentioned above. The Spanish laid out a Royal Road, "Camino Real," from New Madrid, at the south end of Sikeston Ridge, to St. Louis and the Commandant, Captain Foucher, said in 1789 that he could drive a coach-and-four to St. Louis through the open woods. Contrasting the conditions of the 1780's with the present situation, Biemann and Brenner (1951) have suggested that there has been a recent intrusion of true forest conditions into the Ozarks and into this area as well. Such may be the case for the highlands to the west and north, but it seems reasonable to believe that the glades, swamps, and ridges have had much the same cover for a time reaching back into the archeological past dealt with in this study.

There were huge trees of cypress, tupelo, and swamp hickory, some more than 100 feet tall. A great oak (species unknown to the writer) preserved in the Big Oak Park, Mississippi County, Missouri is well over this height. This tree is said to be the only one of its size left following the extensive lumbering operations.

Besides the varied forest species mentioned above there was a myriad of smaller plants such as persimmon, paw paw, and dogwood (see Appendix A for fuller list of flora of this area). Among the marsh plants was wild rice but its extent or possible use is not known to the writer.

Among the varied flora, there was an abundance of wild life of all kinds. The air was filled with birds and a quantity of animals roamed the swamps, forests, and prairies. The area is part of the great Mississippi flyway, so water fowl abounded, as did droves of passenger pigeons. Mingo Swamp in Stoddard County produced game for the commercial markets in St. Louis until after the turn of the century, and New Madrid was called the Greasy Bend because it was here that bear meat was obtained and shipped to forts along the Mississippi. It was, indeed, a hunters paradise, and there is some evidence that some big game such as bison and elk also was found in the area in the late prehistoric and early historic period.

The weather was one of extremes, with occasional winters being quite cold. Lows of minus twelve degrees have been recorded and summer highs above one hundred are not too uncommon. There was a long growing season with well over 100 frostless days and ample rainfall during the summer when it is needed. Actually the valley does seem to have an ameliorating effect, the weather being somewhat more sunny and warmer and wetter than in the adjacent areas. All in all, it's an excellent climate for agriculture and corn does very well despite the fact that this crop has given way to cotton in many places for

economic reasons. Corn was one of the first cash crops in the area and, along with timber, one of the area's biggest exports. The shift to cotton has been gradual and has taken place over the northern part of the area, in Scott and Mississippi counties, only in the past twenty years. Corn is, of course, still grown, as are some of the other cereals but cotton is now king --temporarily at least. With cotton prices down and labor costs up, other crops such as soy bean are now making headway as staples.

Geology

The construction of the Mississippi Alluvial Valley can be thought of in this manner: a large canyon filled with sand, gravel, and clay. Figure 3 shows a cross-section of the valley from Poplar Bluff to Wickliffe, which can be located on the preceding figure.

The major geological features are as follows: the Tertiary hard rock deposits which make up the underlying embayment were cut into during the Pleistocene Period but remnants, such as Crowley's Ridge, remain in the valley. This structure is overlain by Quaternary deposits of sands, gravels, and loess on the bluffs and remnants.

The embayment itself is filled with thick deposits of recent alluvium ranging up to more than 100 feet deep. Within this recent alluvium a distinction can be made between the older dissected alluvium which is the remains of alluvial fans such as the Sikeston Ridge and Malden Plain and the newer al-

luvium which makes up the rest of the flood plain.

Perhaps the most impressive single thing about it is the lack of stone within the valley proper. To be sure there are rock outcrops at the bluffs at either side and there are also older strata below the thick layer of alluvium, but the fact remains no outcrops of rock are to be seen for mile after mile of fine soil. There are some gravels in Crowley's Ridge and gravel bars along the river, but the over-all picture is one of only fine sediments. This point is hard to put across effectively but perhaps the situation can be pointed up by saying that in surface collecting in the alluvial plain one can conscientiously pick up every scrap of stone with the knowledge that it was purposefully brought there by the Indians for one reason or another or else is modern gravel or the like brought in for construction. The Mississippi Indians across the river in Kentucky and Tennessee often made stone slab graves for their dead but no such luxuries could be afforded in Southeast Missouri because of the scarcity of the necessary building materials.

One can make the following division as seen in Figure 3: the uplands and upland remnants, the older alluvial plains, and the present flood plain. Within the last area it is also helpful to note the difference between the "natural levee" lands and the back swamp. As shown in Figure 4 the natural levee areas surround the present meander belt of the river and are a result of deposition of silt during overflow conditions. The land here is actually higher than the surrounding terri-

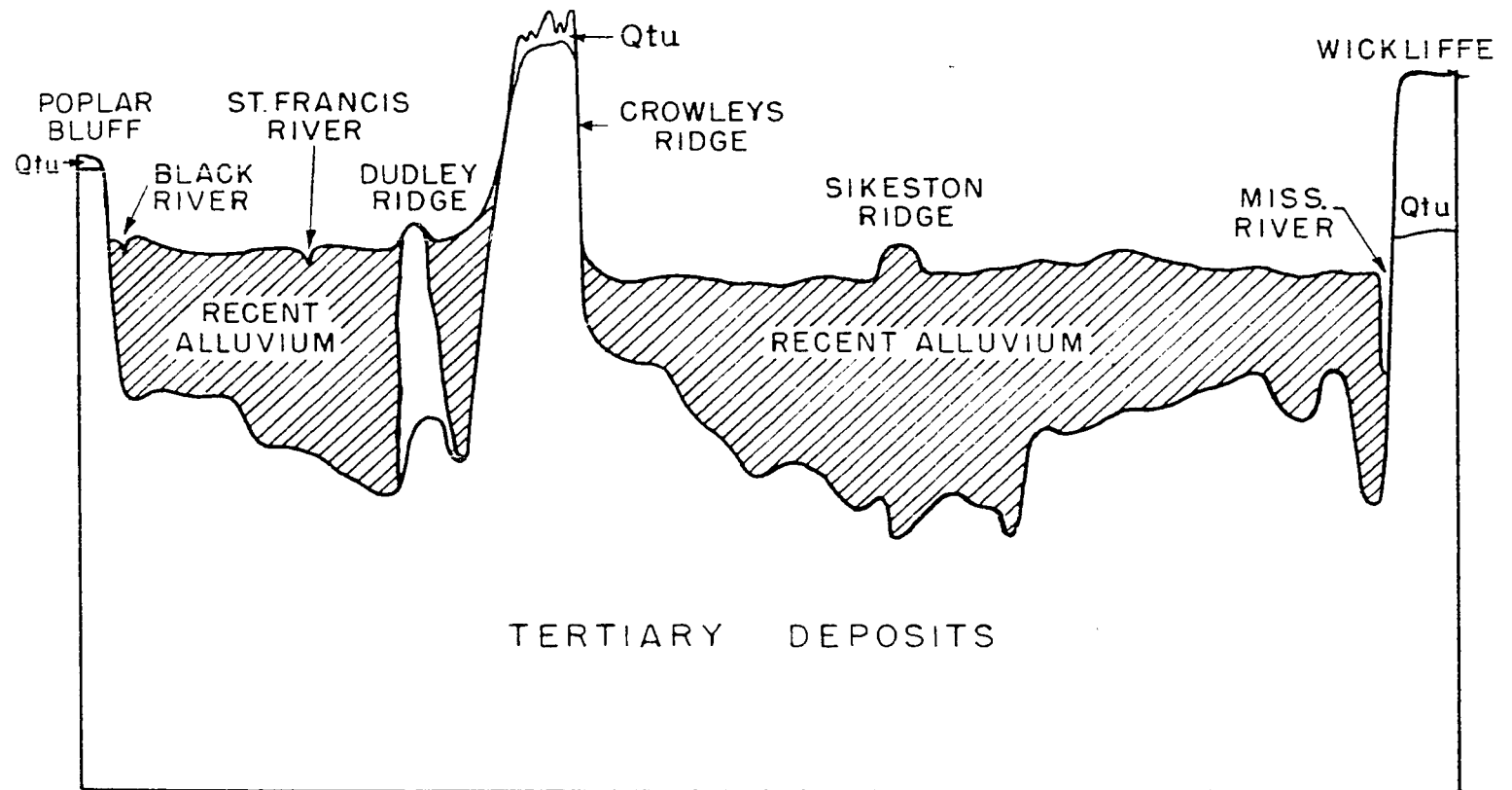


Fig. 3. Cross-section of the Alluvial Valley.

tory and is very easy to farm. The back swamp area is lower and under flood conditions acts as a settling place for the sediments not dropped on the natural levees. Since the silt and sand has already been dropped for the most part, the back-swamp areas receive the clays and similar materials. This results in soil differences to be discussed below. Within the meander belt several typical ox-bow lakes are shown.

The soils of the area reflect the rather complex geological situation presented above and affect the vegetation found on the various types of land in the area. Six zones are to be considered with regard to soils: the alluvial plains or prairies, the upland remnants, and the four divisions of the present flood plain--the ridges, the glades, the deep swamps, and the flats.

The alluvial plains are made up of soil derived from older alluvial fans and in Southeast Missouri are of Ohio River origin. These deposits are fine grained and can be classed in the Lintonia series. Marbut (1935) made these synonymous with the Olivier series, but there seems to be an important difference so the classification made by Miller and Krusekopf (1918) will be maintained since it was used in a more detailed study. There are five varieties in the Lintonia series and they are all brownish in color and light in texture, ranging from a very fine sandy loam to loamy sand. This kind of soil is easy to farm and is of good productivity for a considerable length of time under normal agricultural usage. The subsoil is a slightly lighter brown sand and these soils drain well as a

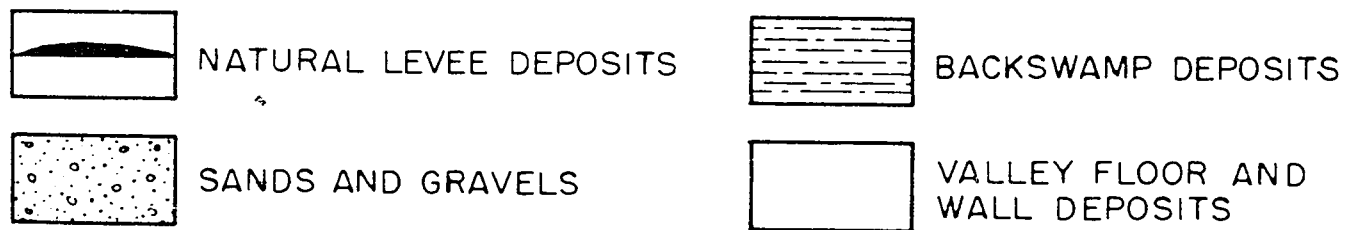
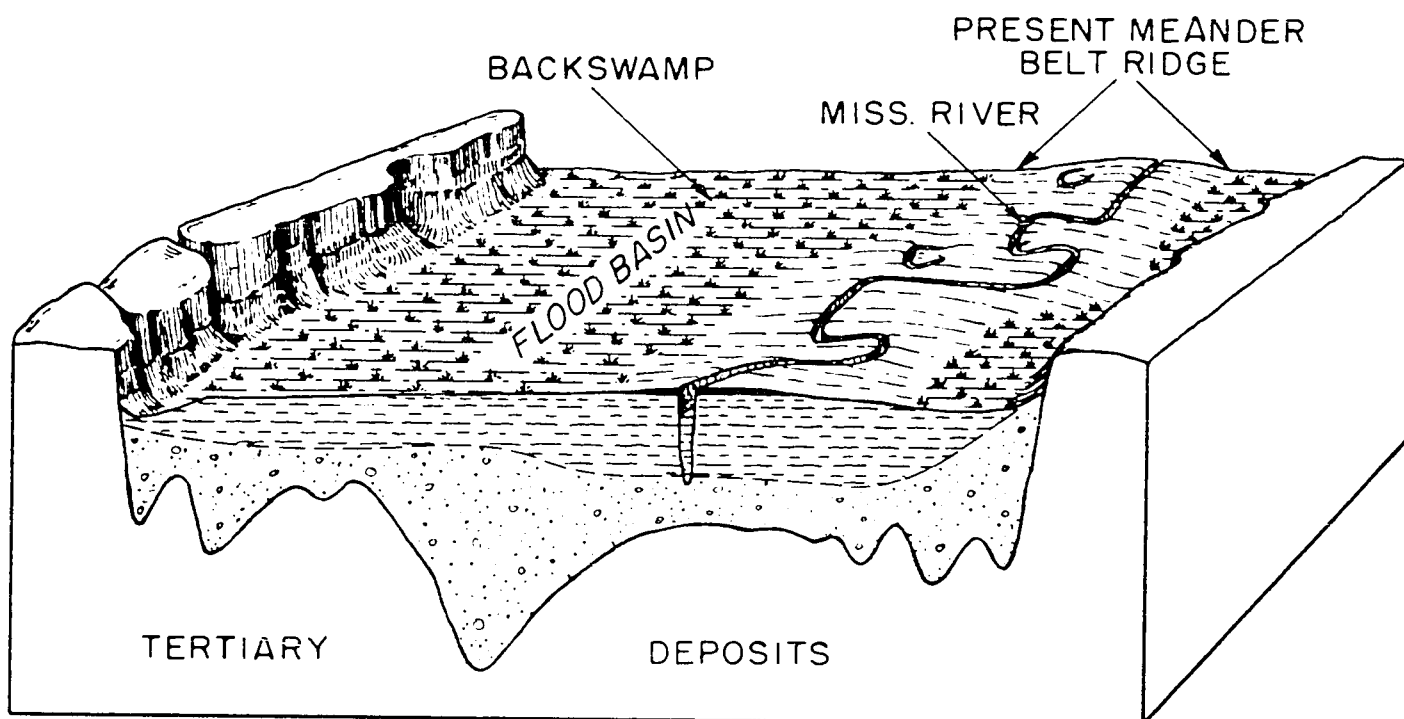


Fig. 4. Cross-section of Valley Development.

result. In contrast the Olivier soils are frequently underlain by clay, and artificial drainage is often required to make them usable. The regions of the area which have the Lintonia Series are mainly the Sikeston Ridge and the Malden Plain.

The upland remnants are covered with a mantle of loess and Olivier series soils, which includes salts, sands, and clays. Some of these types are arable but the farms of this region differ in crops from the low areas. Whether this difference is based on the soil difference or a cultural one is not known to the writer. Crowley's Ridge and the Commerce Hills are the regions which fall into this category of upland remnants.

The major soils types of the present flood plain are of the Sharkey and Sarpy series. The Sharkey types make up the glades and the backswamps. They are heavy, of high clay content, and are hard to work but fertile when drained and cultivated by heavy equipment. The Sarpy soils are the ridge lands of the natural levees and are light, loamy, and easy to till. The distribution of these two types is immensely complex. In simplified maps such as by Marbut (1924) most of flood plain is shown as of the Sharkey series with only small patches of Sarpy types. In detailed county surveys this situation is shown to be, at times, reversed. Only 21.1 per cent of Dunklin County is made up of Sharkey Clay. The glade-ridge situation requires in less detailed maps a resolution to either one general type and since the clay areas are often slightly more common, the whole section is classed as that. Without

going into endless detail it can be said that there is a general band of Sarpy soils along the present river meander belt. The interior areas such as the Little River and Morehouse lowlands are primarily Sharkey soil types.

The Advance lowland and other areas in the Black River Lowland to the west of Crowley's Ridge are made of Waverly and Crowley soils. These types are of derivation from the uplands and tend to be heavier and less productive than those to the east.

In summary it can be said that the soils of the ridges and older alluvial plains or prairies were the ones best suited to agriculture in aboriginal times and the distribution of sites show this to be the case (see Section 7).

Previous Archeological Research

Though Southeast Missouri abounded in artifacts and evidences of aboriginal occupation, the first recorded digging in the area did not take place till the winter of 1856-57. At this time Prof. G. C. Swallow undertook excavations at the Lilbourn site (Fig. 5) and dug into the main mound and a small burial mound nearby. He later sold his collection to the Harvard Peabody Museum (Putnam, 1875; Swallow, 1858, 1875).

Other people from St. Louis and the other larger cities to the north subsequently became interested in the remains that were coming to light in this area, and by 1875 there was a great deal of activity in digging for pots, which could be easily obtained from the burials since the soil was not diffi-

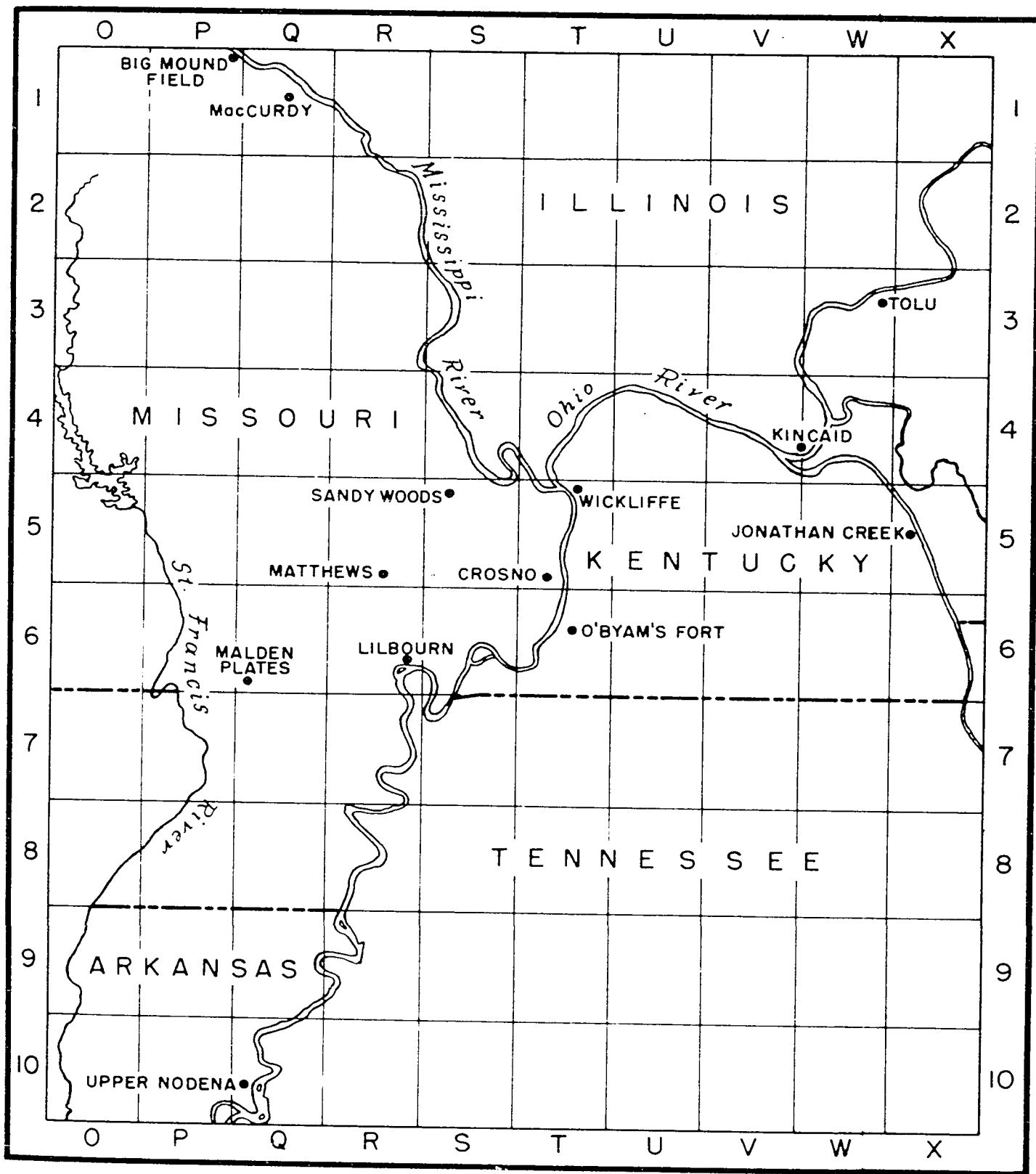


Fig. 5. Map of Some Sites Mentioned in Text.

cult to work.

Horatio N. Rust, a Chicago warehouseman, came into the area in the spring of 1876 and dug at the Sandy Woods site (Fig. 5) and at several others not positively identified (Rust, 1877). W. B. Potter of St. Louis was also carrying on excavations this same year, and the material from Sandy Woods was divided between Rust and Potter. Rust sold his collection to the Yale Peabody Museum, and Potter's material ended up at Harvard.

Potter's work was sponsored by the St. Louis Academy of Science and "As the result of the expedition to S. E. Missouri, carried on by the Section [of Archaeology], 326 specimens of pottery have been obtained, an engraved shell of great interest, 18 skulls, and a number of bones associated animals, besides a large amount of valuable information" (Potter, 1878). This work was carried out in 1876-78 and resulted in the first and only major publication on the archeology of the area: "Contributions to the Archaeology of Missouri by the Archaeological Section of the St. Louis Academy of Science, Part I. Pottery," 1880, by Prof. W. B. Potter and Dr. Edward Evers. This memoir has been the keystone for all the further summaries of the area (Phillips, 1939; Chapman, 1947; and Griffin, 1952).

It was divided into two sections with the first part, by Potter, dealing with the geography and site locations and descriptions, and the second section, by Evers, covering the pottery. The latter was based on nearly 4,000 specimens, the

majority belonging to the Academy, Dr. Engleman, and Prof. Potter. There were to have been further parts covering "Implements" and "Human and Other Animal Remains," but despite Putnam's favorable reviews of the work (1881, 1881a) they were never published.

Among those from St. Louis doing further work in the area were Col. Croswell (1878) and A. J. Conant (1878), and their excavations were of value in that they did describe what they had done. This was the great period of collecting in the area and Thomas says:

In 1879 and 1880 the people in the neighborhood of Charleston, Mississippi County, [Missouri] discovered that the pottery, in which the mounds of this region seem to have been unusually rich, had a considerable commercial value. A regular mining fever at once broke out and spread so rapidly that in some instances as many as twenty-five men, women, and children could be seen digging for pottery in one field at the same time.

The specimens obtained were taken to Charleston and sold to the merchants, who in turn sold them to various museums, scientific institutions, and relic hunters. It is said that this trade brought to town several thousand dollars (Thomas, 1891: 183).

The Harvard Peabody Museum obtained not less than fourteen separate accessions of material from Southeast Missouri between 1874 and 1895 which included more than 3,800 specimens, most of

which were pottery vessels. The Yale Peabody Museum got half a dozen accessions, including over a thousand pots. The American Museum of Natural History has the Terry Collection with hundreds of specimens from here, and undoubtedly other eastern museums do too.

Thomas Beckwith, of Charleston, Missouri, was another important amateur working at this time and by 1887 had amassed quite a collection which was added to till his death in the 1920's. This material now resides at the Southeast Missouri State College, Cape Girardeau, Missouri. His writings (Beckwith, 1887, 1911) are only useful in a very general descriptive way.

It is interesting to note that all the above work was confined to the Cairo Lowland region and because of this it remains the best known part of the area. However, the field workers of the Bureau of Ethnology ranged about the area and did touch some of the other regions. Their findings were published by Thomas (1891).

Shortly after the turn of the century Louis B. Houck began work on a three volume history of the state and sent out two men to do site survey work in the area. However, no excavations were undertaken and although a number of genuine sites were located, vast numbers of natural sand hills were also mapped as Indian mounds. Houck (1907) did establish the location of some of the previously known sites and his county maps showing the locations of Indian mounds are the most extensive of their kind to ever be published for the state. He

did consult the current literature for sites to be visited by his crew, but the maps and the text, unfortunately, contain a number of errors as will be shown below (see Sections 3 and 4).

Quite unaccountably Clarence B. Moore (1916: 501-506) made no more than a token visit to the area and did no extensive digging; the excavations he did make were very unsuccessful, and he moved on. Perhaps he felt that all the cream had been skimmed off. Certainly there was some basis for such an estimate for by 1881 Putnam could write "...there are now probably from fifteen to twenty thousand objects of pottery in public and private collections which were obtained from that region [Cairo Lowland]..." (Putnam, 1881a).

Gerard Fowke (1910) wrote of the famous Malden Plates which were discovered in 1901 (see Fig. 5 for location) and also presented a list of sites worth investigation. His trial excavations proved of little value as far as specimens were concerned, and he left the area with great disappointment.

During the 1930's the University of Missouri began an archeological survey of the state and did some work in this part of the state. Additional site data were gained from surface collections made by Prof. Jesse Wrench at this time.

As a Works Projects Administration project under the joint sponsorship of the Academy of Science of St. Louis and the Missouri Resources Museum, Winslow M. Walker and Robert McCormick Adams carried out a limited surface survey of the area in 1941 which culminated in the excavation of the Matthews site (Fig. 5). This work resulted in two publications (Adams and

Walker, 1942; Walker and Adams, 1946) which, with that of Potter and Evers, comprised the bulk of published archeological information on the area up to 1950.

Carl H. Chapman of the University of Missouri made certain other researches here too, which culminated in some test excavation at Crosno (Fig. 5) in the fall of 1948 (Anonymous, 1949).

Own Archeological Research

My research in the survey area began in the fall of 1948 when I undertook a study of a collection in the Yale Peabody Museum from the Sandy Woods site (Fig. 5). I visited the site in December of that year and made a surface collection there. I wrote up my findings as an undergraduate thesis (Williams, 1949).

An opportunity for further research in the area was afforded me while attending graduate school at the University of Michigan under the direction of Dr. James B. Griffin. I began the site survey in the field season of 1950 as part of the Central Mississippi Valley Archaeological Survey under his direction. While the main party was carrying out work in the St. Louis area and excavations at the Cahokia site (Griffin and Spaulding, 1952), the writer in conjunction with two other students from the University of Michigan, Edward G. Scully and Lothar P. Witteborg, carried out four weeks of field survey in Southeast Missouri, two weeks of museum study, and four weeks of laboratory analysis. The majority of the field survey was

done in the eastern side of the area in Pemiscot, New Madrid, and Mississippi counties. The museum work was carried out on the Beckwith Collection at the Southeast Missouri State College (Beckwith, 1897, 1911). In the later part of this field season five days were spent excavating at the O'Bryan Ridge and Weems sites (Fig. 6). These two sites yielded material of another cultural period than the one to be considered, and so the results will not be discussed extensively herein (Griffin and Spaulding, 1952: 1).

The following year, 1951, the survey was continued with grants from the Department of Anthropology at Yale and University of Michigan. The western part of the survey area was investigated and further research was done in the area covered the first season. This included mainly Stoddard, New Madrid, Dunklin, Scott, and Mississippi counties. About eight weeks were spent in survey and two in laboratory work.

The third field season was spent first in extending the survey into northeast Arkansas on a grant from the University of Michigan and secondly on intensive excavation at the Crosno site (Fig. 5) with funds from the Peabody Museum of Natural History and the Department of Anthropology, Yale University (see Section 3 for a description of this work).

Museum collections were studied at the Yale Peabody Museum; the Ceramic Repository, University of Michigan; and the Department of Anthropology, University of Missouri; in addition to the Beckwith Collection, Southeast Missouri State College, Cape Girardeau, Missouri. The latter is a collection

containing many typical and important pieces, mainly ceramic, from Southeast Missouri although there are no data on the locations of the majority of the material.

In addition to the collections mentioned above, considerable use has been made of collections of private collectors. They provided important data on the types of artifacts not easily found in a single surface survey of a site. These collections ranged in size from a few projectile points to those with several thousand catalogued specimens. Information on sites in the survey area was also willingly supplied by these collectors and proved most useful.

Space and Time Perspective

In dealing with archeological materials one finds three basic concepts which enter into all branches of the discipline. These are space, time, and form. Thus in any given context one is able to observe the form in relation to its spatial and temporal dimensions. In their recent article on method and theory Phillips and Willey (1953) have proposed an operational basis for culture-historical integration. An attempt will be made to use this scheme in the following pages. This trial run was made without any aid from the two proponents and is based solely on the published description of the method. It is, to the writer's knowledge, the first attempt to apply the method to an entirely new body of data which had not previously been ordered by another conceptual scheme.

The terms (op. cit., pp. 618-628) are defined as follows:

Spatial Units. (1) Locality--The smallest unit of area dealt with and ranges in size from a single site to a "community" and in which there may well be complete cultural homogeneity at any given time. In this study synonymous with site.

(2) Region--A considerably larger unit of area which is apt to coincide with minor physiographic subdivisions and is the unit which offers the most practical field for culture-environmental correlation studies. It roughly equals the "tribe" or "society" and at any given time has a high degree of cultural homogeneity. The Malden Plain and Cairo Lowlands are such regions.

(3) Area--A much larger unit than the region roughly equal to the culture area of the ethnographer and has physiographic implications of a fairly definite nature. Southeast Missouri is the area under consideration.

Formal Units. (1) Component--The manifestation of a series of traits of a phase at a specific site as used by the McKern system and may be either a site or a level within it. Here as in the two components at the O'Bryans' Ridge site.

(2) Phase--A space-time-culture unit possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived, whether of the same or other cultural traditions geographically limited to a locality or region and chronologically limited to a relatively brief span of time. Often initially defined on the strength of one component with the expectation that others will be found. In most cases, phase probably equals "society." In this study the Cairo Lowlands phase is based on a number of components in a region.

Temporal Units. (1) Local Sequence--Based on a series of components in vertical stratigraphical relationship in a single site or a composite series from several sites within a locality or arrived at by seriating components without benefit of stratigraphy. Its spatial dimension is not larger than the locality since it should be small enough that cultural differences reflect differences in time. Therefore, it equals a chronological series of components or phases within a locality. In this study as at the Crosno site. (2) Regional Sequence--This is a chronological series of phases within a region; here as in the sequence of phases within the Cairo Lowland region. (3) Period and Area Chronology--A higher level of abstraction than the preceding in which the space dimension is the area as previously defined and the temporal division is the period which may or may not be tied in with an absolute time scale. These periods must be contrasted with the stages of a developmental sequence, although they are often times used interchangeably.

Integrative Units. (1) Horizon Style--The wide distribution of a recognizable stylistic pattern of usually short time dimension. Thus, it is a concept which can be thought of in terms of a horizontal marker in culture history. (2) Tradition--This is a major large-scale space-time-cultural continuity occupying a relatively long interval of time with a quantitatively variable but environmentally significant space dimension.

These terms and their definitions have been presented as defined by Phillips and Willey and will not be sidcussed further at this time. They will, however, be examined in terms of their

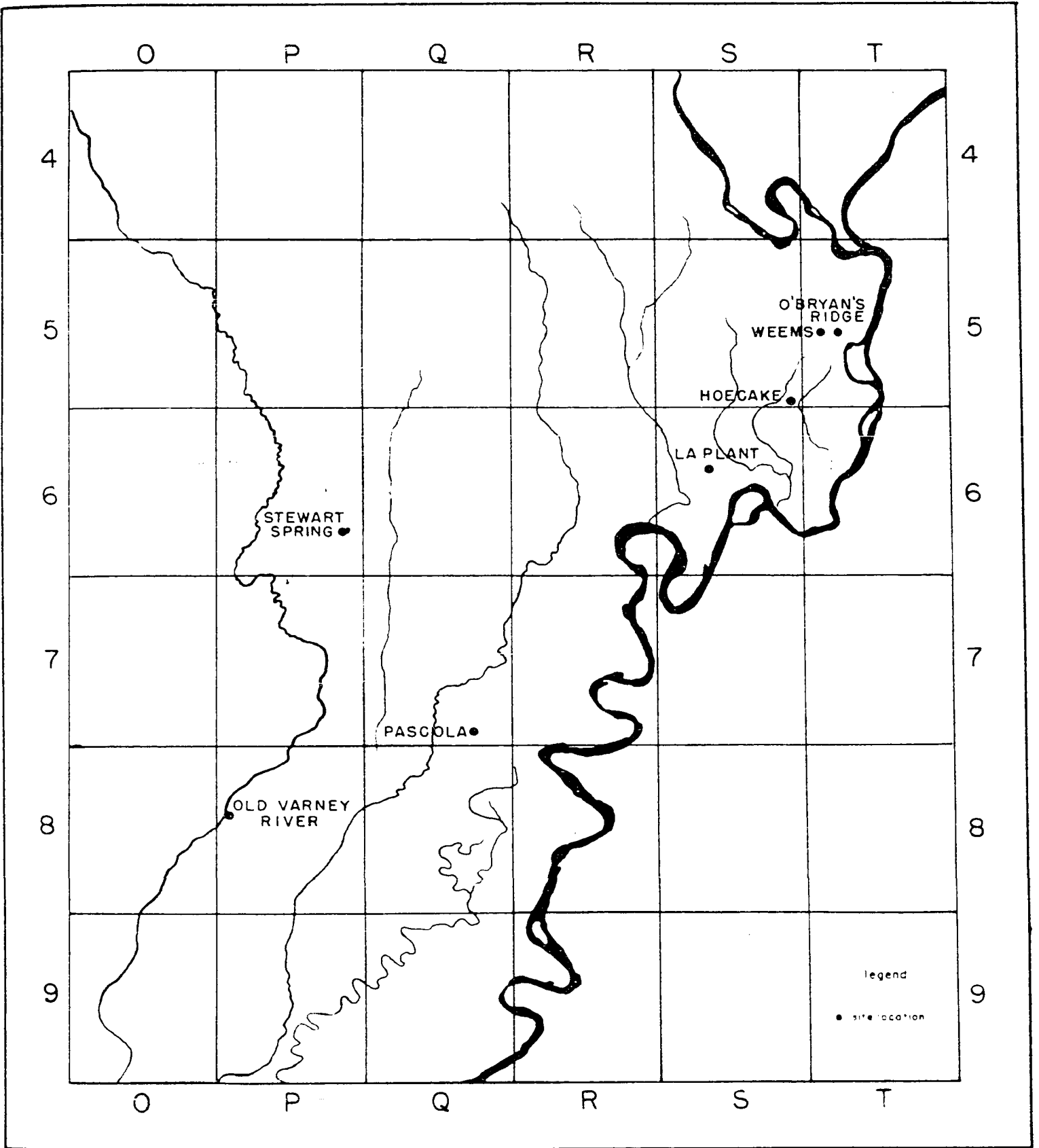


Fig. 6. Map of Some Sites of Preceding Periods.

application in the following pages.

The first order of complexity on the integrative scale is the local sequence as shown in Table 1. Here the data from four sites, three of which have been excavated by the writer, are presented. The O'Bryan's Ridge site (Fig. 6) contained two components, a pre-ceramic phase called O'Bryan's Ridge, characterized by stemmed projectile points and baked clay objects. These latter artifacts were biconical and spherical objects of clay which had been purposely fashioned and sometimes finished with considerable degree of care. This phase has its closest connections with the Jaketown site (Phillips *et al.*, 1951: 279-281) in Mississippi and the distribution of these Poverty Point objects is being studied at this time. The second component at this site is called the Burkett phase and refers to the ceramic materials found overlaying the component just described. The pottery types: Cormorant Cord Impressed, Withers Fabric Impressed and Mulberry Creek Cord Marked, are known to be stratigraphically quite early to the south, and some of the material resembles a Baumer material in southern Illinois (Griffin and Spaulding, 1952: 1). Further artifacts from this site such as bannerstones and a copper celt are known from private collections but their exact cultural affiliation cannot be determined at this time.

Two levels have been recognized at the Crosno site (Fig. 5). The early level with a predominance of loop-handled jars and some cord marked types shows an affiliation with the Obion culture to the east in Tennessee (Kneberg, 1952: 194-196). The

Table 1. Local Sequences of Components

O'BRYAN'S RIDGE	CROSNO	OLD VARNEY RIVER	LA PLANT	
	Late Crosno			
	Early Crosno			Malden Plain
		Dunklin		Barnes Ridge
				Hoecake
Burkett				
O'Bryan's Ridge				

late level is the typical highly developed Mississippi culture of the Cairo Lowland phase.

The Old Varney River site (Fig. 6) shows two components. The first is the Dunklin phase which is a local variant of the Woodland tradition in which the pottery is sand tempered and cord marked. The second component, the Malden Plain phase, is a variant of the general Mississippian tradition which is characterized by almost entirely plain shell tempered ware with handles rare to absent. Another characteristic most notable at this site was the Varney Red Filmed pottery type. This ware is characterized by large jars and salt pans with heavy red filmed interiors and sometimes exteriors.

The La Plant site (Fig. 6), although not excavated by the writer, presented in the surface collection a mixing of two components. The first is the Hoecake phase which is a representative of the early Baytown tradition in the area and characterized by clay tempered pottery and conical burial mounds. The Barnes Ridge phase is a representative of the intrusion of a Hopewellian type of culture into the area and is marked by the typical rocker-dentate stamped and zoned ware.

The sequences at these four sites is presented merely as an example of the first step in the method and is admittedly weak because of lack of stratigraphically excavated data. It does show, however, the way that such data could be utilized.

Next, we move to the regional sequences as shown in Table 2. Only four regions are defined since the data for other possible regions such as the Advanced Lowland is not sufficient

to really establish much except the existence of an occupation by peoples in the general Mississippian tradition. This four part division of such a small area may be considered a trifle extreme, but it seems better to start with a number of small areas and then lump them together later if future investigation requires. The history of most of the archeology of eastern United States can be generally viewed in terms of an opposite method in which large roughly defined areas have been later divided into smaller parts. A reversal of this tendency would seem to be in order.

Table 2 will be discussed by region beginning with the Cairo Lowland. The first four phases of this sequence have already been discussed in terms of the local sequences. However, the O'Bryans Ridge phase is not considered the first phase in the region, but since only very scattered remains seem to indicate a prior occupation, they will be discussed later. The Black Bayou phase is one characterized by the appearance of Wheeler Check Stamped, a clay tempered pottery type which seems to be a post-Hopewellian but pre-Mississippian culture marker (Griffin and Spaulding, 1952: 2). It is usually accompanied by other clay tempered pottery which has appeared earlier such as Mulberry Creek Cord Marked and Larto Red Filmed.

The Cairo Lowland phase is the typical Mississippian manifestation in this region and will be described at length in the pages to follow. The problem of connection of these pre-historic cultures with the Historic Indians is one which has so far not been thoroughly investigated. However, it is known

Table 2. Regional Sequences of Phases

CAIRO LOWLAND	LITTLE RIVER LOWLAND	MALDEN PLAIN	CROWLEY'S RIDGE
Historic	Historic	Historic	Historic
?	Nodena	?	?
Cairo Lowland	Pemiscot Bayou		Malden Plain
Black Bayou	Black Bayou	Dunklin	Dunklin
Barnes Ridge	Hoecake		?
Hoecake			
Burkett	Pascola	?	?
O'Bryan's Ridge	?		
?			
			Fluted Points

that refugee groups of Shawnee and Delaware entered the area as a whole around 1800 and some of these immigrants camped and spent a few years in the area.

The earliest material within the Little River Lowland region is that represented by the Pascola phase known from a single site in that area (Fig. 6). Here a low mound has been cut by a road and the sherds were a sand tempered type which Griffin (personal communication) considers similar to the Alexander series in Alabama (Griffin and Sears, 1950: 1). These sherds are plain and decorated with pinching, punctating and incising the main techniques.

The Hoecake and Black Bayou phases have been discussed under the local sequences. The Pemiscot Bayou phase is a local variation of the Mississippian tradition. It is set apart from the Cairo Lowlands phase by the presence of some Arkansas pottery types, especially Parkin Punctate, and the virtual absence of a number of other types such as the O'Byam, Kimmswick and Wickliffe wares. It will be discussed in greater detail in following sections.

The Nodena phase has three components in the area and it represents to the writer a late influence from the south which may be a result of more intense contact of the type which produced the Pemiscot Bayou phase. The late temporal position assigned to the Nodena phase is not based on local stratigraphy but on extrapolation from work done in Arkansas. See Figure 6 for the location of the site from which this phase derives its name.

In the Malden Plain region only two phases have so far been recognized. The Dunklin phase with its sand tempered pottery called the Barnes Complex is quite extensive. Numerous sites with low mounds were found. Just what connection this material has with similar pottery encountered in the Barnes Ridge and Pascola phases is not clear. Some Barnes ware also occurs sporadically in the Cairo Lowland region, and it may be that there was a sand tempered horizon throughout the whole area. This is, however, only speculation.

The Malden Plain phase, which has been mentioned above, is a regional variant of the Mississippian tradition which "feels" early. The lack of decorated wares and rarity of handles is suggestive in support of this hypothesis. Some of the vessel shapes are suggestive of this earliness and fit pretty well with the expectations of what this material should look like (Phillips et al., 1951: 288). The only Early Mississippi material found by the Lower Valley Survey was similarly on the St. Francis River.

Historic Indians settled near Kennett on the Malden Plain and some of their camp sites could probably be identified. These were mainly Shawnee.

Crowley's Ridge is a markedly different region and some of the archeology reflects this difference. A phase tentatively called Fluted Points is first recognized. As soon as a definite site can be found, the phase will be named after it. In a private collection two small fluted points were examined. They are not too far removed typologically from some of the

recently reported Eastern Fluted forms, if memory serves. Geologically, this is practically the only region old enough to have such material, and some fluted points from Scott County are probably from the Commerce Hills just north of the Cairo Lowland.

The Bloomfield Ridge phase is a preceramic manifestation which is well represented here. One of the characteristic projectile point types is the Dalton point which has been considered a part of the Archaic horizon elsewhere in the state.

The Dunklin phase also occurs here in scattered camp sites. The Stewart Spring phase is represented by one or more components (Fig. 6) and has a plain shell tempered ware which may be Mississippian and looks early. However, it may well be just a regional variant, and there is no good chronological evidence of any kind to support this hypothesis.

Table 2 shows, therefore, the general patterns of development in the area. A great deal of subjective judgment has been used in the vertical placement of these phases, and the table should be considered as very tentative.

One problem of dealing with this system may be mentioned at this time. Rouse (personal communication) is now preparing a manuscript discussing the methods used in correlating phases. This seems to be one of the weakest points in the scheme as described by Phillips and Willey. The integrative devices listed above by them are horizon style and tradition, and these are very valid concepts to be applied to culture history. The problem, however, is that these two concepts are

best applied after such a chart as Table 2 is set up rather than while it is being constructed.

In point of fact, these two concepts were not used in the construction of this table. The concept of horizon style is actually of limited application if a strict definition is adhered to. In Southeast Missouri, the Hopewellian rocker stamped and zoned pottery could, most likely, be referred to as a horizon style and it does tend to fix one site on the horizontal stringers of time to use Willey's simile. Further, the Walls Engraved style of pottery best known from Moundville also occurs in the area and seems to be a good marker for the Late Mississippi period.

In their article Phillips and Willey have caused some confusion in the writer's mind by using the terms "horizon" and "horizon style" interchangeably. It is assumed that the latter concept is the one they had in mind and it is the one they illustrate. The concept of horizon has a much broader definition in the writer's view and refers to cultural-temporal groupings such as the Archaic horizon or the Mississippian horizon.

These horizons tend to be simply manifestations of traditions. In Southeast Missouri at least six traditions can be defined. These are: Early Hunter, Archaic (preceramic), Poverty Point, Baytown, Mississippian, and Historic. With reference to these traditions it might be pointed out that the stipulation of occupying a relatively long time interval has not always been held to, as for example, the Historic

tradition of brief duration. Goggin's definition and use of tradition more closely sets the standard for such usage. These traditions, while very valuable in cultural history, do not seem too useful in integrating the basic units (phases) into a meaningful sequence.

Table 3 shows an attempt to formulate period chronology within the area. The period names are in great part taken from Phillips et al., 1951, but with certain redefinitions. As Phillips and Willey (1953: 625) have pointed out, periods are often confused with stages. Here the writer has attempted to keep the chronological implications foremost in his mind.

The Early Hunter period refers to the general Paleo-Indian time horizon and is certainly only scantily known in the area. Such material does exist though and more could probably be found with intensive investigation of Crowley's Ridge.

The Preceramic period is well established and further work at the O'Bryan Ridge site would make more complete definition of this period relatively easy. Tchula is the early ceramic period and two pottery traditions may well be represented by these two phases as one is clay tempered and the other sand.

The Early Baytown period has been (Phillips et al., 1951: 436) previously defined as referring to the Middle Woodland period but as used here it refers to the period at the beginning of the Burial Mound tradition which then reaches its climax in the Middle Baytown period with the Hopewellian manifestation in the area.

The Late Baytown period is one of decline for the Baytown

Table 3. Period Chronology

SOUTHEAST MISSOURI AREA CHRONOLOGY
Historic (Shawnee and Delaware)
Late Mississippi (Nodena)
Middle Mississippi (Cairo Lowland)
Early Mississippi (Malden Plain)
Late Baytown (Black Bayou)
Middle Baytown (Barnes Ridge)
Early Baytown (Hoecake)
Tchula (Burkett and Pascola)
Pre-Ceramic (O'Bryan Ridge)
Early Hunters (Fluted Points)

tradition, and the first impact of the Mississippian tradition is felt at the end of it. The Early Mississippi period sees the rise of this tradition and, in this area, almost complete replacement of the Baytown tradition.

The Middle Mississippi period is the climax of the tradition and represents the period of greatest cultural development in the area. During Late Mississippi times the area receives a late cultural intrusion from the south, but in most of the area, it is a period of decline preceding the Historic period. There is no evidence of contact in the area but some components of the Nodena phase in Arkansas do have trade goods associated with them.

The Historic period is brief and relatively unknown. There is as yet no archeological evidence for it, but reliable sources give enough data to warrant its inclusion.

Table 4 shows a series of phases from the area fitted into a developmental sequence proposed by Phillips and Willey. The criteria for the stages have not been published although the system was alluded to in their recent article. The scheme which is to be applied to the whole of the New World has two more stages: Classic and Post Classic, but these are not found north of Mexico.

The Early Lithic stage is self-explanatory. The Archaic is preceramic and preagriculture. The Preformative has some agriculture but differs in settlement pattern and political organization from the Formative. The Mississippian culture is a type-sample of the Formative stage.

Table 4. Developmental Sequence in the
Southeast Missouri Area

Stage	Phase
FORMATIVE	Cairo Lowland
PREFORMATIVE	Barnes Ridge
ARCHAIC	O'Bryan's Ridge
EARLY LITHIC	Fluted Points

To summarize this section it has been shown that the area was inhabited from Paleo-Indian times till the Historic period. This does not mean that the whole area was occupied continuously. In fact from what we know of the geological and ecological situation, this was very likely not the case.

However, in the middle time span between the Early Hunters and the Shawnee, it seems likely that some parts of the area were occupied at all times. With further study on this period it is probable that wider areal distribution will be shown for many of the phases, but that lies outside the scope of this study.

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SECTION 3

THE CROSNO SITE

THE CROSNO SITE

Environment

Location

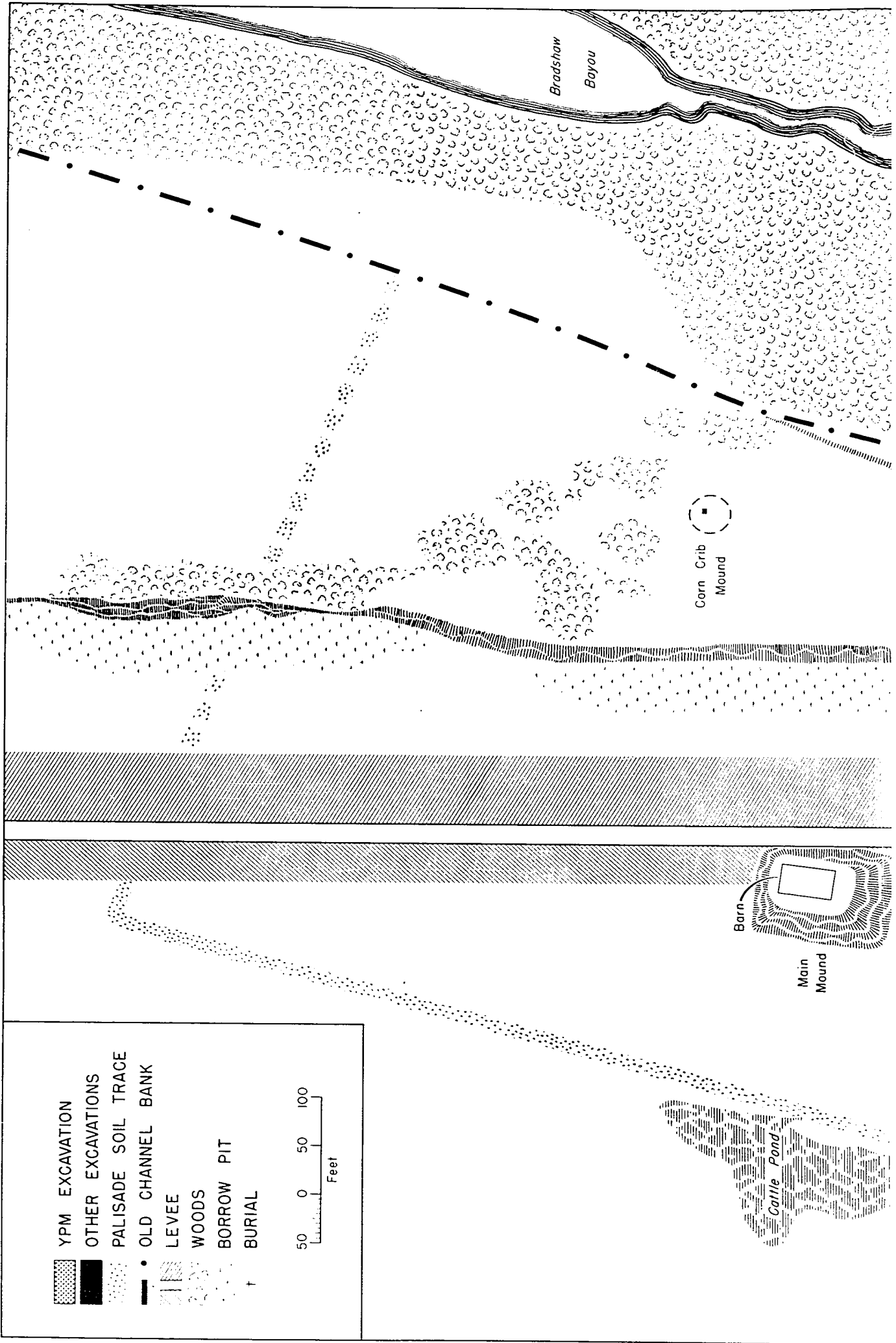
The Crosno site (5-T-1) lies in the NE 1/4 of the SE 1/4 of Section 26 and the NW 1/4 of the SW 1/4 of Section 25, Range 17 East, Township 25 North. This is near the eastern boundary of Mississippi County, Missouri, a mile south of the former Crosno postoffice.

It fronts on Bradshaw Bayou, and the Mississippi River is now more than a mile to the northeast at Lucas Bend. The closest gravel road is Mississippi County Road U which runs a half mile south and crosses over the main levee at this point on the way to the Columbus-Belmont ferry.

The land to the west of the levee that cuts through the site from north to south belongs to Mr. Charlie Roberts, and the land on the east side is the property of the Britt heirs, administered by Mr. Carl Britt.

Topography

The site lies on a slightly raised piece of ground about 310 feet above mean sea level. This elevation is not noticeable over the general gradual rise and fall of the flat alluvial plain. The location is, no doubt, on one of the "ridges" mentioned above (Fig. 7).



- YPM EXCAVATION
- OTHER EXCAVATIONS
- PALISADE SOIL TRACE
- OLD CHANNEL BANK
- LEVEE
- WOODS
- BORROW PIT
- BURIAL



Bradshaw Bayou

Corn Crib Mound

Barn

Main Mound

Cattle Pond

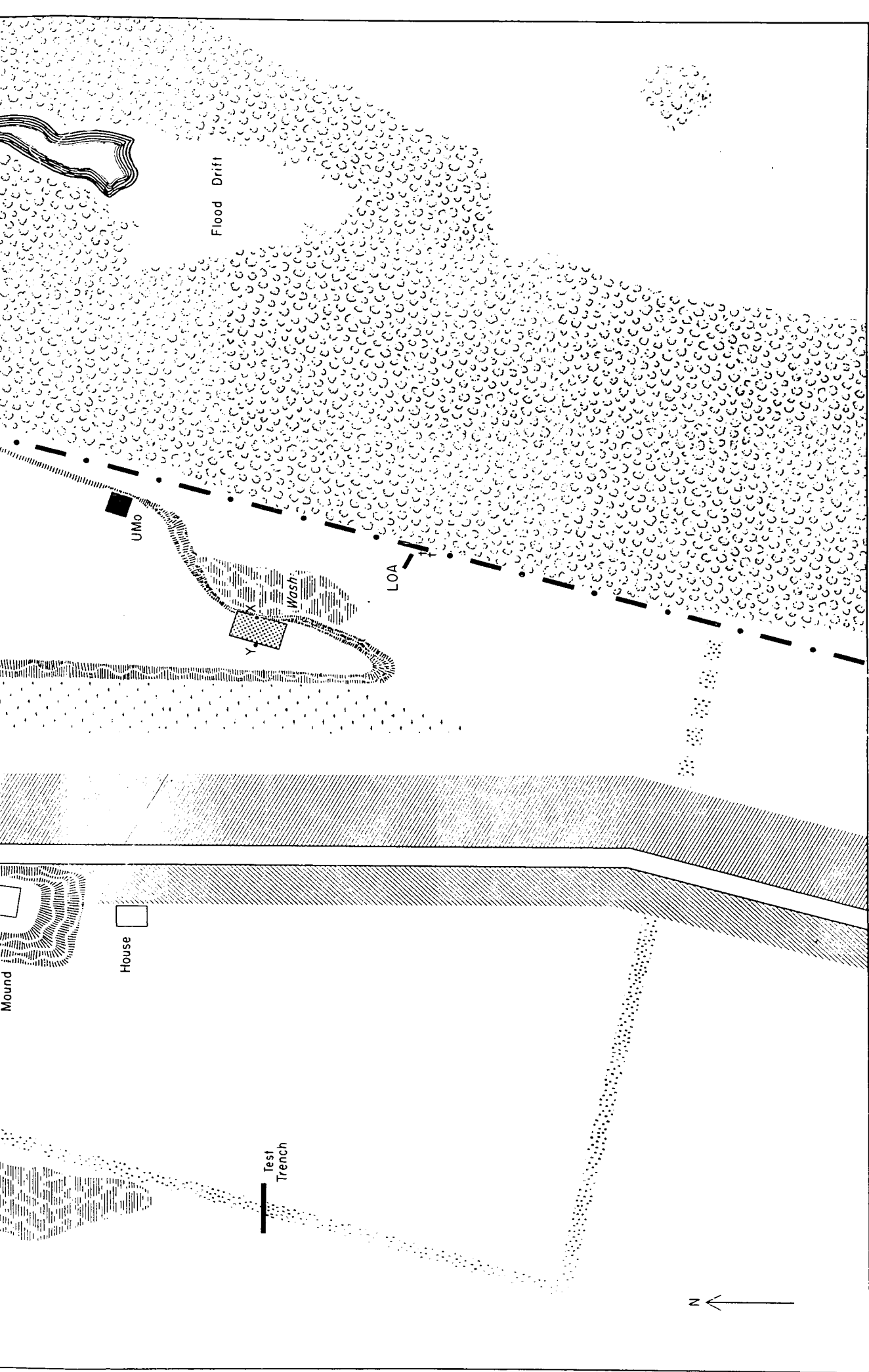


Fig. 7. Plan of the Grosno site.

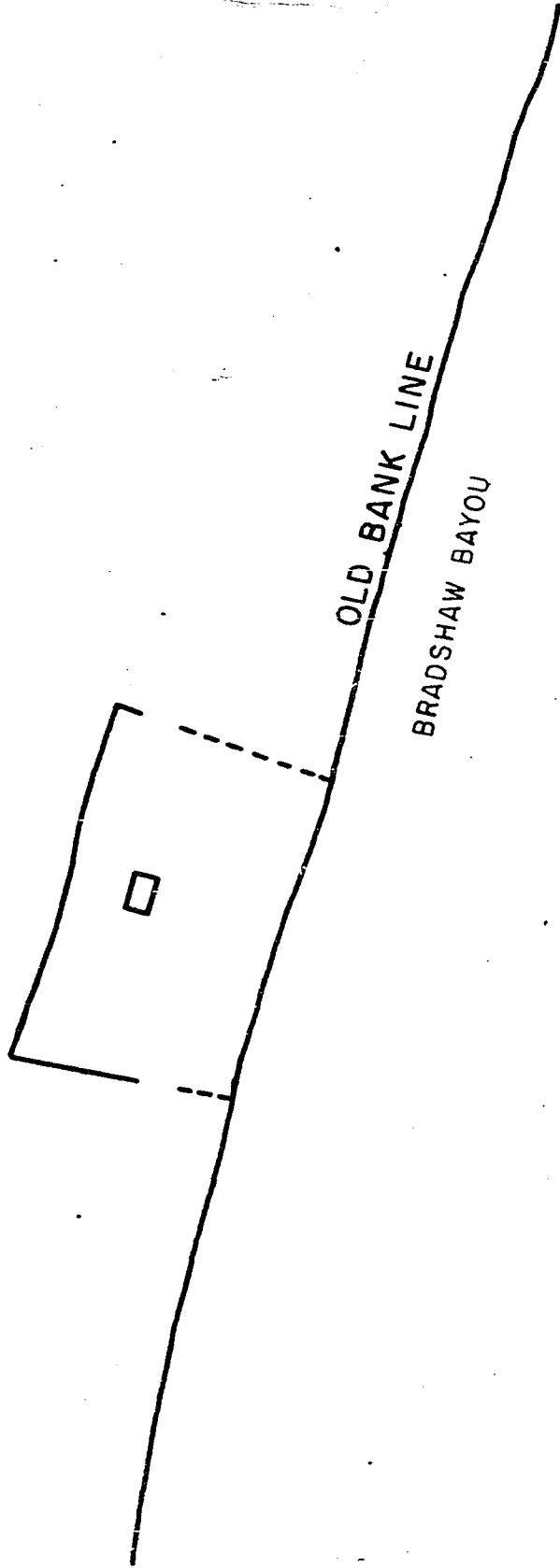
The main Mississippi levee runs through the site, and a certain amount of borrow dirt for levee maintenance has been taken from this area during the past 30 or 40 years. However, when the last major strengthening and rebuilding of the levee was undertaken in the fall of 1951, the U. S. Engineers, who are in charge of such operations, were asked by interested parties to refrain from obtaining further levee materials from the site. They graciously complied and helped preserve this bit of the archeological record. In expanding the levee at this time it was found necessary to join the main mound to the levee and run the local farm road on top of it. Previous to this (Fig. 8) the mound stood apart, and the road ran between it and the levee.

The main topographic feature now besides the mound and the levee is Bradshaw Bayou, which is locally called Bratcher Lake. This may either be a corruption of Bradshaw, an explanation the natives will not accept, or a result of convergence in that a man called Bratcher is said to have lived nearby. In any case, the name Bradshaw appears on the 1880 Mississippi River Commission map and thus would seem to have historic depth.

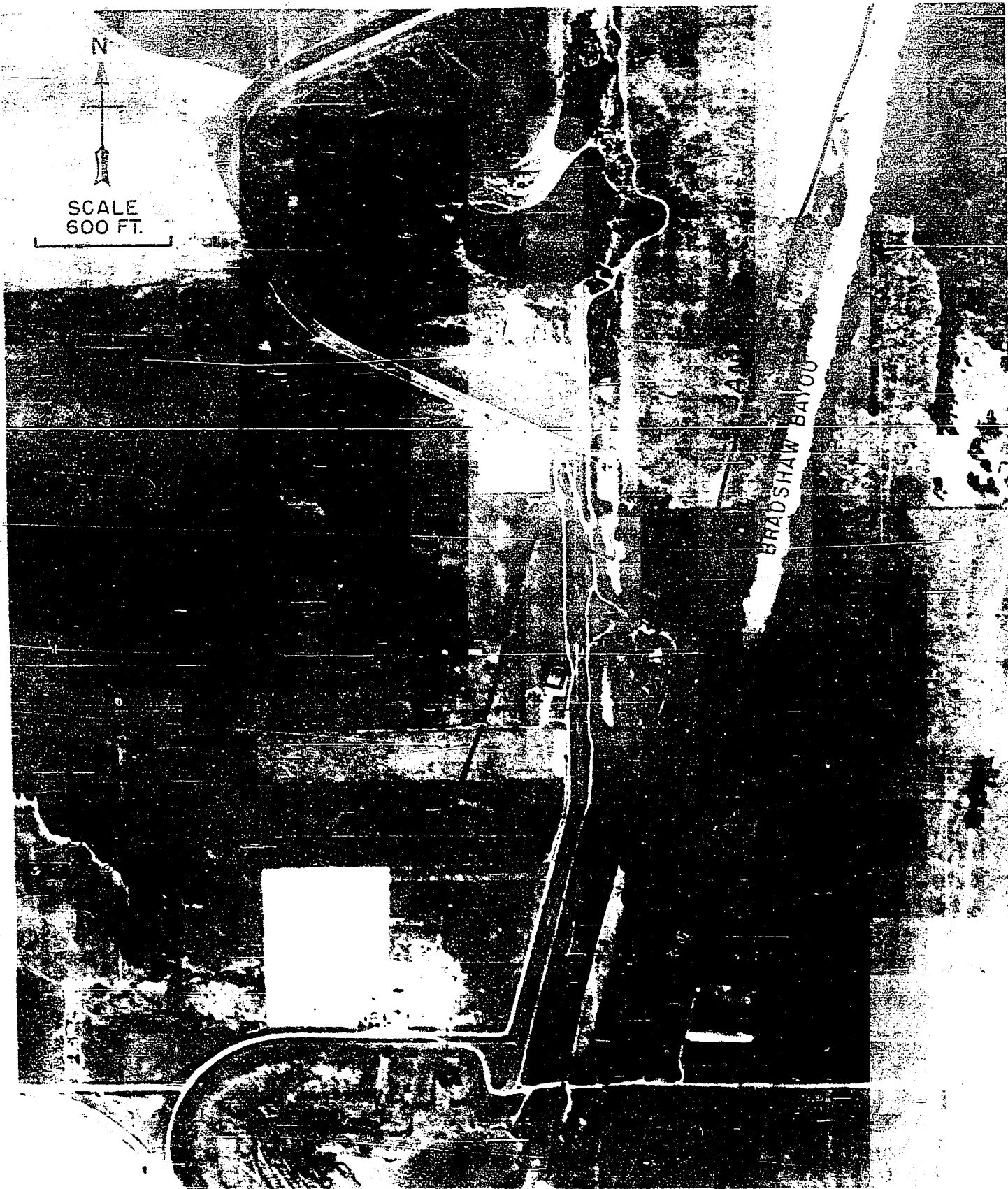
This body of water, whatever its correct name, is part of a cut-off chute. It is an old channel remnant of the Mississippi which was plugged at the north end centuries ago and has remained open water since that time with occasional sedimentation during flood times, which is slowly filling part of it up. A mass of flood drift has accumulated at the southern end during the periods of high water. In most cases the larger trees



SCALE
600 FT.



CROSNO (5-T-1)



CROSNO (5-T-1)

Fig. 8. Aerial Photograph of Crosno.

and pieces of lumber carried by the waters do not penetrate the woods that surround the Bayou, and these are caught and deposited in this dead end.

At present there are fish and other animals in its waters and these are replenished with the seasonal high water. Thus the lake survives and continues to provide the local inhabitants with food.

The major portion of the site to the east of the levee now appears to stand higher than the surrounding ground. This is not, in fact, the case. Before the advent of levee building, the site was quite level, but borrow pitting and recent erosion have caused it to stand out as a tongue of land. Heavy earth-moving equipment such as bulldozers and the like have worked over the area for some years, and because of subsequent erosion it is often hard to tell a natural feature from a man-made one.

One of the major features of this erosion is the wash area at the eastern edge of the site. Here the almost yearly high waters tear into the exposed edge of the village debris (Fig. 9) and spew the material forth leaving sherds, bone, and stone artifacts strewn over a large area. Needless to say collecting from this part of the site is both easy and rewarding. Likewise a ready-made profile of the village debris and underlying strata is available with a few strokes of the trowel (Fig. 10).

Vegetation

The area to the west of the levee is all farmland of one sort or another. Around Roberts' house and barn it is a reg-



Fig. 9. Bank along West Side of Wash.



Fig. 10. Exposed Profile of Bank.

ular barnlot with the rest given over to pasture and a corn field.

The land to the east of the levee is to a certain extent idle now. The Britt homestead once occupied the area to the west of the so-called "corn crib" mound in the grove of trees, but after the disastrous high water of 1937 the house and out-buildings were abandoned to the local ghosts said to haunt the area.

This higher area has large pecan, elm, and cottonwood trees at the north end and a thick cover of small cotton woods and willows at the south (Fig. 8). North of the old homestead site a corn field runs up to the edge of the bayou and this crop does fairly well.

The area around Bradshaw Bayou is covered with typical "glades" trees, and the most striking thing about it at present is the extent to which it is barren of small plants or shrubs. This situation contrasts with the heavy growth of numerous bushes, vines and grasses which crowd right up to edge of the trees. The explanation for this lies in the amount of time the area is under water in the spring. The ground as a result is covered with mud-caked leaves and small flood debris instead of plant life.

A reconstruction of aboriginal conditions can be strengthened to a certain extent with the knowledge that samples of cane, hickory, American elm and Osage orange were found during the excavations. The identification of the three types of trees was made by Dr. Arthur Koehler of the Yale Department

of Forestry.

The ridge undoubtedly supported a mixture of cane and trees with many of the same species that are found in the vicinity today. The cane was probably cleared along the ridge north and south of the site and the land planted to corn as it is today. Aboriginal corn was found during the excavation (see Section 8). The glades area was, no doubt, much as it is today.

Soils and Stratification

The topsoil is classified as Sharkey silty clay loam. This is a medium to heavy soil, dark brown in color, which is not too hard to farm and "in its virgin condition ... was heavily forested" (DeYoung and Wildermuth, 1926: 570).

This is the basic soil of the old natural levee and is underlain by two strata of sand, the first fine, and the second coarse. These two layers may be of sand-bar origin. These sands rest on top of a blue gray gumbo, probably Sharkey clay, which represents a backswamp cut by the later channels (Fig. 11).

There is little evidence of extensive floods in the soil profiles obtained. Some thin bands of sand were noted separating various levels of the village debris but there were no thick strata which tended to cover the whole excavation area. This is in contrast to the six-inch deposit of silt found on top of the profile which was probably mainly a result of the 1937 high water and subsequent floods. Under this deposit were numerous evidences of the barn lot which occupied the area before the

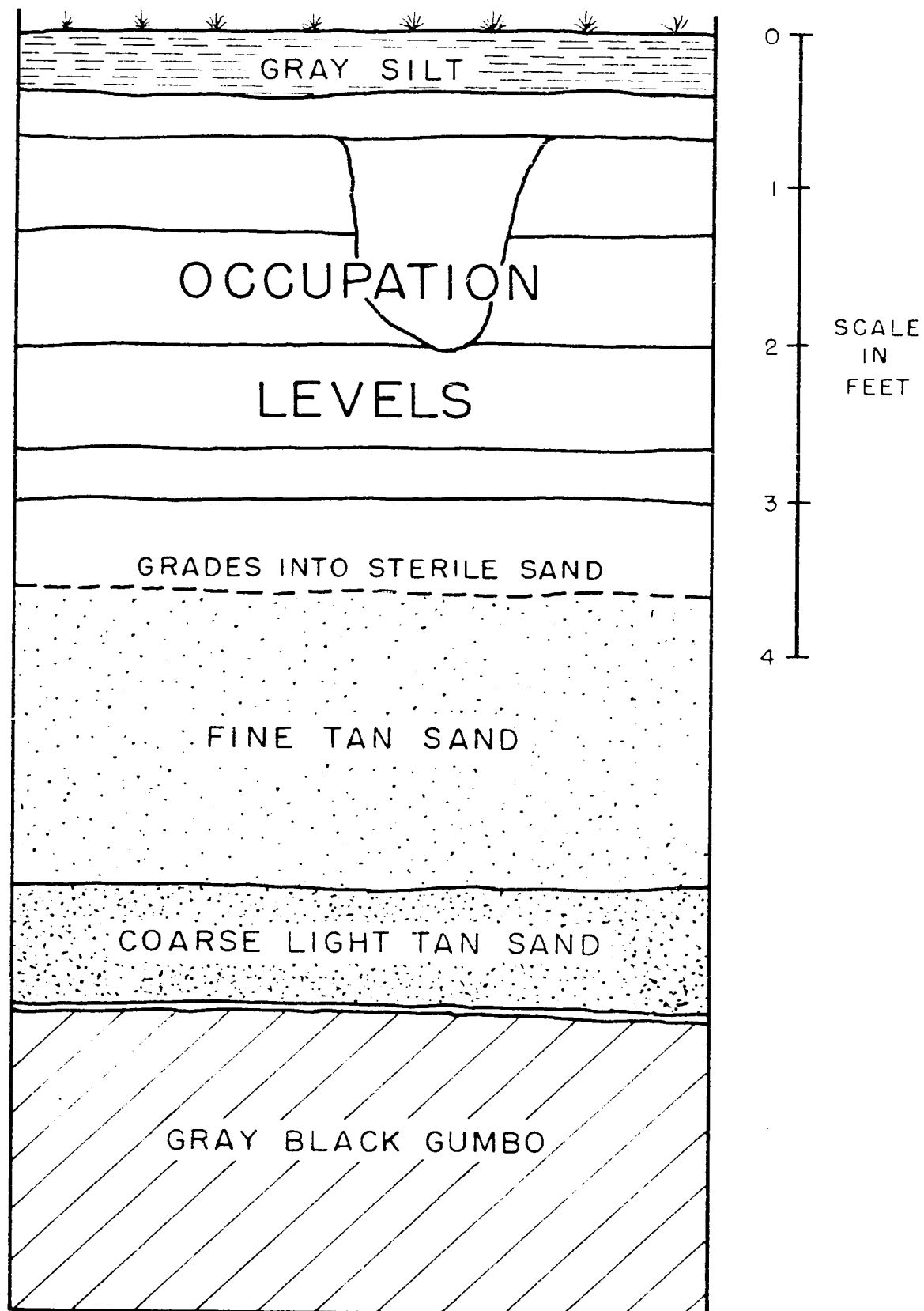


Fig. 11. Profile at Edge of Wash.

1937 flood.

This does not mean that there were not extensive floods in aboriginal times. The evidence at Kincaid (Cole et al., 1951: 15) showed a number of severe floods and there seems to be little to the old theory that recent floods are worse because of deforestation (Phillips et al., 1951: 32-33).

Channel Association

Bradshaw Bayou is a remnant of past Mississippi River meandering, and the site is situated on this old channel line. According to Fisk's (1944) chronology the channel is number 11. More detailed discussion of this type of correlation will be found in Section 7. To put it simply, Fisk has traced the meanderings of the Ohio and Mississippi rivers in the alluvial valley from Pleistocene times on the basis of data obtained from aerial surveys and soil testings. The present channel of the Mississippi is number 20, and his numbering system goes back to channel number one which is that formed when the Mississippi and the Ohio first met at Cairo, Illinois.

From the orientation of the site it appears that it was occupied during or after Channel 11 times. This can be deduced from the way the site, especially the surrounding wall, lines up with the old channel bank (Fig. 7).

In later times the river moved away from the site (Fig. 12) and left a cut-off chute, Bradshaw Bayou. This Bayou was undoubtedly open water at the time of the site's occupation and has not been completely silted in yet. Thus, one has the

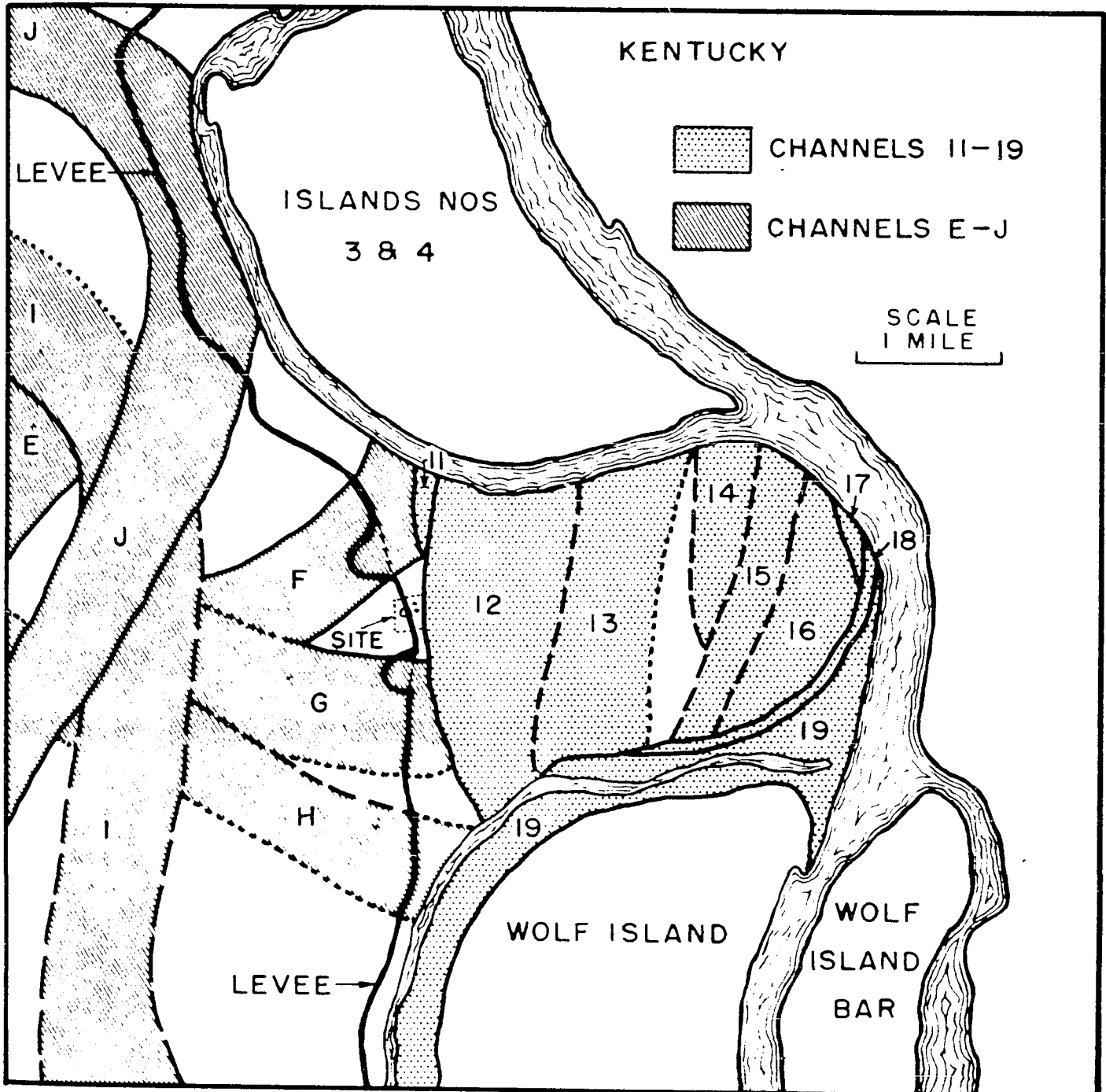


Fig. 12. Map Showing Ancient Channels near Crosno.

picture of the site either fronting on the main channel of the river or facing a fine lake. Which of the above conditions obtained is impossible to ascertain now.

The meaning of the site's correlation with this extinct channel can be stated as follows: (1) the site was in all probability not occupied before Channel 11 times and (2) the site was probably abandoned before excessive silting of the old channel or lake took place. It is notable that most of the Mississippian sites in the central part of the Lower Valley showed a similar correlation with Channel 11 or 12 (Phillips et al., 1951: 301).

Work Done

Early History of Site

The first definite mention of the site in the literature is made by Houck (1907: 62). There are some references by Foster (1864, 1873: 242; 1873a) to a site near Belmont that produced Mississippian pottery, but this was pretty certainly a site that has since been destroyed by the river.

Houck's description of the site is:

One mile south of Crossno [typographical error; on his map the name is spelled correctly with one "S"] post-office are four mounds, one very large called a fort, 225 ft. by 200 ft. and 30 ft. high, walls very steep, flat on top; from the n.e. corner of the large mound a wall or embankment 10 ft. high

at the mound runs north 150 ft., is 100 ft. wide and 10 ft. high; then the embankment runs east 150 ft., at the east end not more than 2 ft. high, then runs south 500 ft., then west 350 ft., then north 150 ft. to southwest corner of large mound. This last embankment at the south end is 2 ft. high and increases to 10 ft. high and 100 ft. wide as you approach the large mound; in Sec. 25, same twp. and range are two small mounds (Houck, 1907: footnote 63-4).

The map of the site as shown by Houck (Fig. 13) does not exactly fit the description above. It is not clear what this wall or embankment really was. Houck is the only authority for its existence, and no trace of it can be seen either on the ground or on the aerial photographs.

Houck's survey men, Lewis M. Bean and D. L. Hoffman, were not too accurate in all cases. As will be shown in Section 4, their site maps frequently fail to agree with maps done earlier or with the evidence as it exists today.

Houck's work is important in that it shows the three other small mounds now destroyed by levee construction. This despite the fact that it would be difficult to say much about these smaller mounds with Houck's data except by analogy with other sites of this phase.

Gerard Fowke (1910: 99) did not visit the site but lists it under "Reported Localities Possibly Worth Examining" as "Many relics have been found around the base of a large mound at Traverse, a mile south of Crosno, Mississippi County."

NE SE 26 25 17

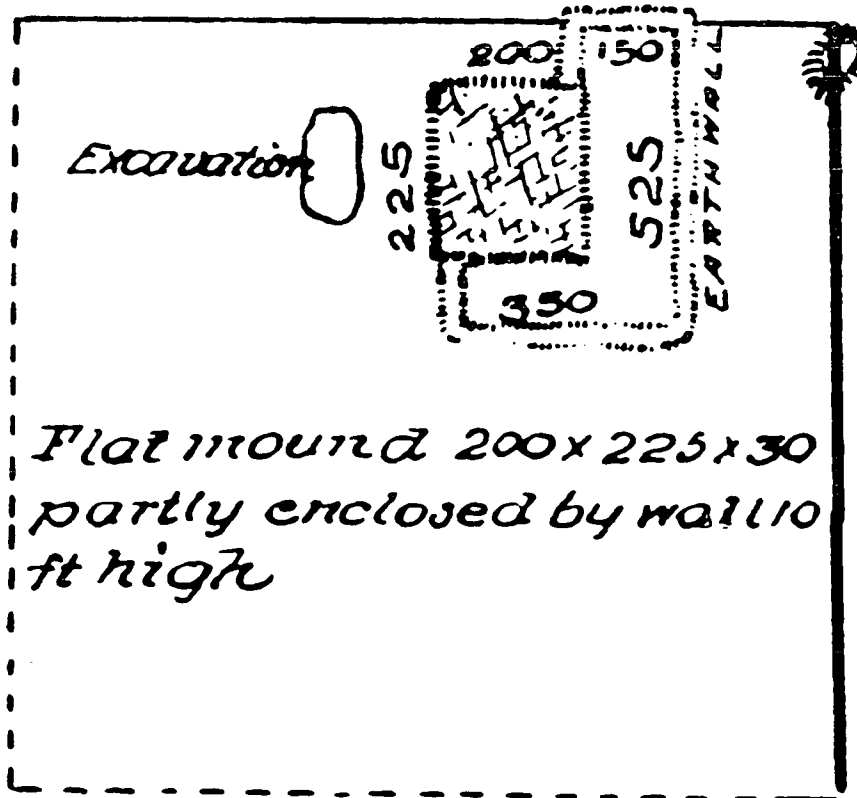


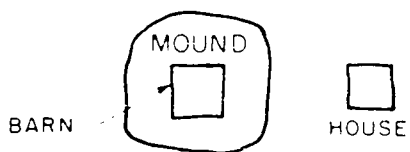
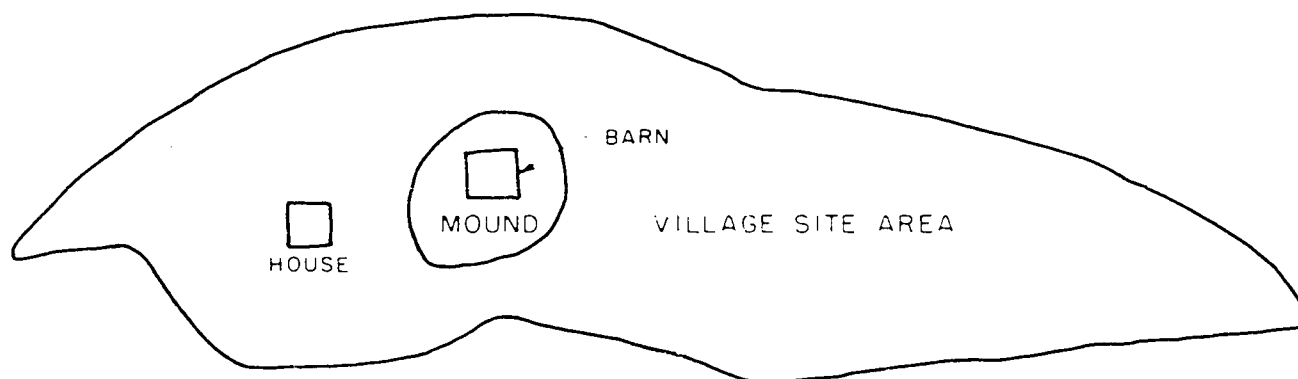
Fig. 13. Map of Crosno as Shown by
Houck (1907: 61)

It is sometimes said that the publishing of site locations is detrimental to further archeological work in the area since the local collectors then make depredations on these invaluable remains. This can hardly be the case in Southeast Missouri, for neither Houck's nor Fowke's works led to any such consequences. Actually, the Crosno site remained known only to the local farmers, since it is well off any main road, and to a few amateurs who did not learn of it from books. One of those amateurs, Bill Steele of Cairo, Illinois, came to know it in the execution of his job with the U. S. Engineers who maintain the levee. He has been familiar with the site since before 1920 and has made surface collections from it during the past 30 or more years.

Prof. Jesse E. Wrench of the University of Missouri had previously visited the site, probably following up Houck's reference to it, and in the summer of 1938 he returned with Carl H. Chapman and James L. Lowe. A sketch map was made (Fig. 14), and it was this map along with a letter which saved the site from destruction by the U. S. Engineers as they wrote into the levee contract that the site area was not to be used for a borrow pit (Chapman, personal communication).

Of course, the Britt family were well aware that they were residing on an Indian village and when a team of mules and a drag were used to create the "corn crib" mound, many pots and skeletons were turned up. Similar incidents took place during the various stages of levee construction.

CROSNO SITE
(23-MI-1)



N ←

SCALE 1"=80'(FEET)

0 40' 80'

PREPARED BY CARL H CHAPMAN
1938

Fig. 14. Sketch Map of Crosno.

Previous Excavation

It is possible that the site may have been probed by the avid collectors of the 1880's. Beckwith may have dug here since he owned land nearby and kept an eye out for likely spots. However, there is no record to the writer's knowledge of any previous excavations until the fall of 1948 when a group from the University of Missouri headed by Chapman did some exploratory work there. This dig came about as the result of the interest of Leo O. Anderson of Van Buren, Missouri, who learned of the site from Chapman and made some surface collections there. Anderson's descriptions of the site's condition made a field trip seem worthwhile, and thus in October, 1948 a small party spent four days at the site (Anonymous, 1949).

The party cleared and examined a profile of the strata at the wash (Fig. 15) and began the excavation of a burned house but could not complete it due to lack of time. Also a test pit was sunk into the "Corn Crib" mound to see if it were of modern construction as was locally stated. This test pit tended to show that the mound was of recent origin and not of aboriginal construction. These excavations are noted as UMo on Figure 7. Although they did not produce a great amount of new data because of lack of time, they did show some of the potential of the site.

Anderson continued to make surface collections from the site and in 1950 excavated two burials which had been exposed by the high water. These will be discussed later under the



Fig. 15. Profile at Wash cleared by Chapman.

general topic of burials. He also dug a test trench and ran into the fireplace of a house, but did not continue his excavations further. His work is labeled LOA in Figure 7.

Own Excavation

The writer first visited the site in early summer of 1950 and went away rather discouraged as it did not live up to expectations gained from seeing the Anderson collection. A few weeks later it was learned that the most productive part of the site, the wash area, had been completely overlooked because of high weeds. A second trip that same summer left the writer with a desire to do something about the site.

The site was revisited during the 1951 field season and plans for excavation at the site were made that winter. This project was accepted by the Peabody Museum and the Department of Anthropology as a part of the writer's program toward his doctoral dissertation.

The site was picked for excavation despite the fact that most of the previous archeology in the area had been limited to the same Cairo Lowland region. The reasons were these: (1) Despite the amount of material already dug, little or nothing was known of the general way of life of the aboriginal inhabitants. The opportunities at Crosno to fill out this picture were obvious in that preservation of bone and similar material was excellent in contrast to the situation at the previously excavated Matthews site and at nearby Kincaid (Fig. 5). (2) Because of the profile observable at the wash it was apparent that the

site had some stratigraphic depth which might provide an opportunity to study change - a situation either not recognized or non-existent at the Matthews site. (3) All the early work in the area had stressed the burial complex, and the data were overloaded on that side of the picture. Thus it was decided to try for all other features but burials. (4) The writer must confess that he had a tremendous personal wish to dig at this particular site based on all the above, and in the feeling that here was a wonderful opportunity being annually diminished by erosion. Also, as an inexperienced field excavator the situation looked fruitful with regard to the amount of information which could be gotten with a minimum of time and effort. This proved generally true, but it wasn't as easy as it looked.

The excavations were begun on August 1, and terminated on October 5, 1952. The field party consisted of the writer and William H. Barton, an undergraduate at Yale, who was field assistant till the beginning of the fall term required his return to the East. The digging was done by day laborers whose number varied from one to nine. The average number employed was five. These workers put in a total of 211 man-days.

After some rather hesitant attempts to redig some of the work started by the University and Anderson, which were unsuccessful, Trench 1 was laid out in an east-west direction near the wash, and excavations were begun in six-inch levels. After several levels had been excavated, Trenches 2 and 3 were also begun in an attempt to pick up some house patterns.

When charred posts were encountered in Trench 2, the ex-

cavation was extended to the north to uncover the complete structure. At the two-foot level, wall-trench patterns were discovered in Trenches 1 and 3 and these were extended to take in the structure encountered until the total area, 40 x 60 feet, was opened up to the limits shown in Figure 17. Inasmuch as this area fully took in all the structures so far revealed, it was decided to complete excavating within this area down to sterile soil. This objective was reached by the close of the field work.

Besides the work on the east side of the levee, a test trench 5 feet wide and 50 feet long was dug late in the field season on the west side of the levee in an attempt to locate the wall which showed up as a soil trace on the aerial photos. This work proved completely unsuccessful, but it must be admitted that sufficient time was not available to test the situation to any degree of certainty. It is quite possible that if a large square area in the vicinity of the northwest corner of the wall had been excavated, some more positive evidence would have been uncovered.

As to the methods used, the material was usually dug in six-inch levels and was horizontally located first as to trench and later in relation to the structures. In the laboratory work, the material was grouped into analysis units. The material was dug in larger units than six-inch levels only when time was short and certain of the structure patterns remained to be completely exposed.

Screening was attempted at first but did not seem worth-

while as many small artifacts were recovered without the use of this device. Shovels, hand methods, and trowels were used. One piece of additional equipment needs special mention--the hoe, which was extremely useful not only for cutting small brush and weeds, but also in scraping the various levels. When properly handled, the hoe was found capable of as fine work as that done with a hand trowel and was considerably faster.

Tarps were erected as sun shades and these proved useful in keeping the soil from drying out too fast. Despite these precautions a considerable amount of water was hauled to wet down the levels for, once the ground had dried, it was impossible to make out even the plainest wall-trench stains.

Nine-tenths of all the excavated material was washed and catalogued in the field in an abandoned house nearby. Inasmuch as there was a tremendous amount of animal bone, this material was all gone over in the field and all unidentifiable portions discarded at that time. All other material was kept.

Site Layout

Mounds

The main mound is the only identifiable aboriginal structure at the present time. It is 18 feet high and approximately 100 feet wide and 130 feet long. These figures are considerably under those given by Houck but are based on a plane-table survey of this area of the site.

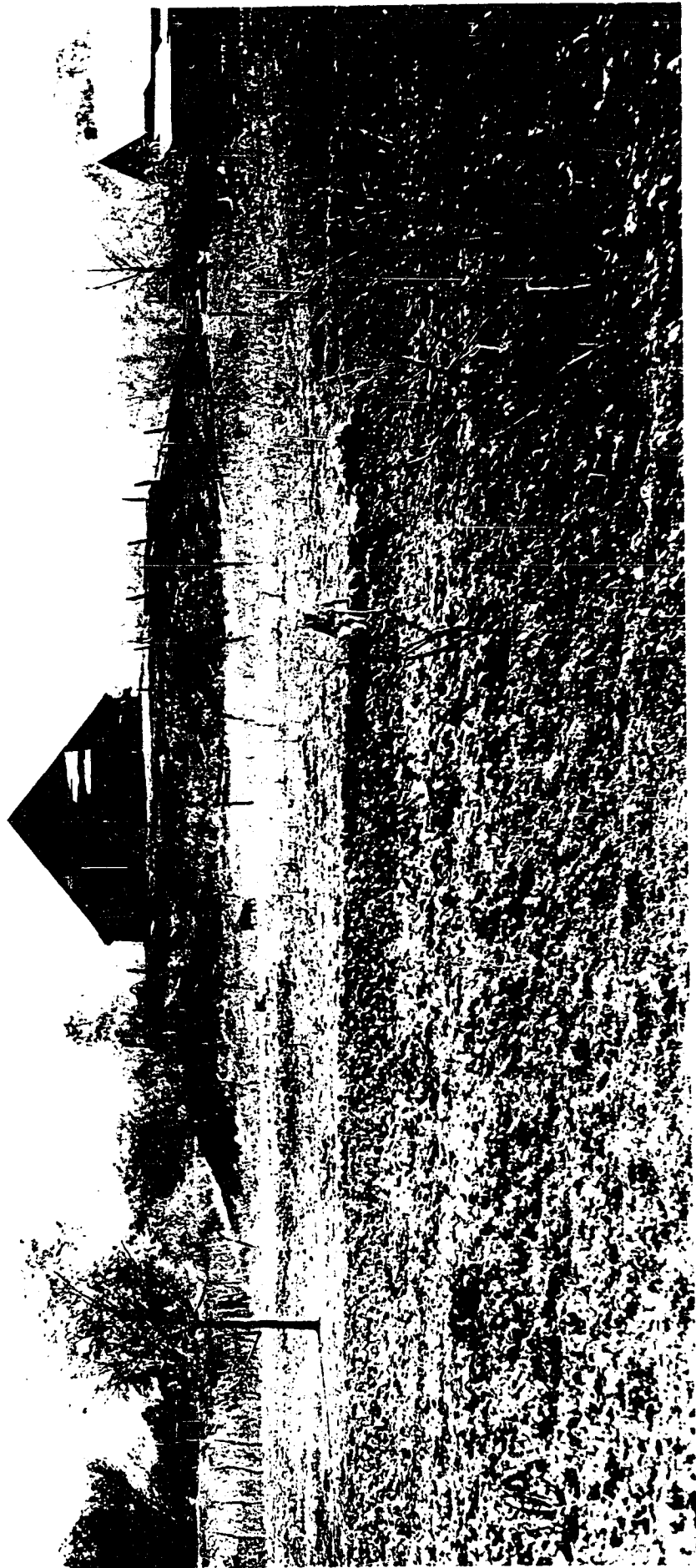


Fig. 16. Looking East at Main Mound.

A barn now crowns this structure and considerable erosion is taking place because of the cattle running over it (Fig. 10). There can be little question that it was a rectangular, flat topped pyramidal mound, which probably served as a sub-structure for a chief's dwelling or a temple. Whether or not there was an earthen ramp leading to the top cannot be ascertained on the basis of physical evidence at this time, but there probably was some manner of log stairs or the like, of which there is evidence from similar structures nearby.

Three smaller mounds are crudely shown by Houck, and these probably were low burial mounds such as are found at other components of this cultural phase. Their location toward the water's edge is also typical.

There is the possibility that one of these small mounds underlies the modern "corn crib" mound, as it would have been only natural to make use of the highest spot available, but as has been mentioned the greater part of this mound is thought to be of modern origin.

Wall

Although the negative results of the test trench must be considered, the evidence from the aerial photographs seems to indicate the existence of a wall and possibly a ditch around the village area. That walls and ditches were known at other similar sites is amply documented (Potter, 1880; Walker and Adams, 1946: 85), and these show up similarly on the aerial photographs.

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The wall has been shown on the map (Fig. 8) on the aerial photographs. The dashed part of the soil trace represents a reconstruction of the probable extension of the wall to the edge of the bayou. It should be noted that the west side of the wall almost exactly parallels the line of the old channel bank. This is one of the best pieces of evidence there is for site's being oriented along this former body of water.

The wall encloses an area of 18.5 acres, which is rather small compared to a number of the other villages of the phase. Some are more than twice as large.

Burial Area

Aside from the three small mounds mentioned above, no well-defined cemetery has so far been discovered. Normally, the adult burials were made not only in small mounds but also in plots throughout the village. No such areas have been located near the wash although some whole pots have been picked up after high water and probably indicate burials.

While obtaining dirt for the corn crib mound, a number of burials were exposed by the earth-moving equipment. With this information can be coupled the experience of the levee crews which also turned up burials in that general area. On the basis of this data it is supposed that the main burial area for the site lies in the space surrounding the corn crib mound.

Plaza

A characteristic trait of Mississippian villages is the plaza. This is a level area near the main mound where important functions took place. It was generally devoid of village debris although houses surrounded it. The plaza was often located to the southeast of the mound and was often over 100 feet long and more than 75 feet wide (see Sections 4 and 6).

If Crosno resembled the other Cairo Lowland sites in this respect, the plaza area is probably now destroyed by the levee (Fig. 7). There is no positive evidence for its existence, but the placement of the main mound suggests a plaza in this position.

Architectural Features

The Overall Layout of Structures

Nine identifiable architectural features were encountered in the area. Eight of these can be seen in Figure 17, which was drawn at the 2.5-foot level. Although some of them overlap, they all appear at the same level in this figure because of the fact that the wall-trenches and post holes from one structure penetrate into lower levels and earlier features. For example, the large circular structure's wall-trenches began at the 0.5 foot level and did not completely disappear till below the 3-foot level.

All the rectangular structures show a tendency for their walls to be oriented toward the cardinal directions rather than

the channel bank or the line of the palisade. The data for this orientation are limited to a small segment of the site but may well hold for the village as a whole since such is the case at other sites (Webb, 1952: 44).

Structure 1 (Fig. 18)

This structure was circular and the posts were set in a rather wide wall-trench. Its outside diameter was 21.5 feet and there was a large circular fireplace 4 feet in diameter almost directly in the center. An opening in the wall-trench on east was undoubtedly the doorway.

It can be stated with confidence that thick clay daub was an important building material in this structure, for it was covered with a mass of it. This layer of daub was nearly six inches thick in some places but no large whole fragments could be discovered, since they had been broken up by the barn-lot activity mentioned above. Fire had destroyed the structure as some of the posts were charred, but the combustion had been quite complete and no large timbers or thatch were found.

Sixteen post holes were located in the wall-trench, of these six had charred posts still in them. It is assumed that other posts were set in the wall-trench with about the same spacing as shown by these. There was some indication in the profiles that the wall-trench was not vertical but sloped slightly toward the center of the structure. Five interior post holes were located and these tended to be somewhat larger than those in the wall.

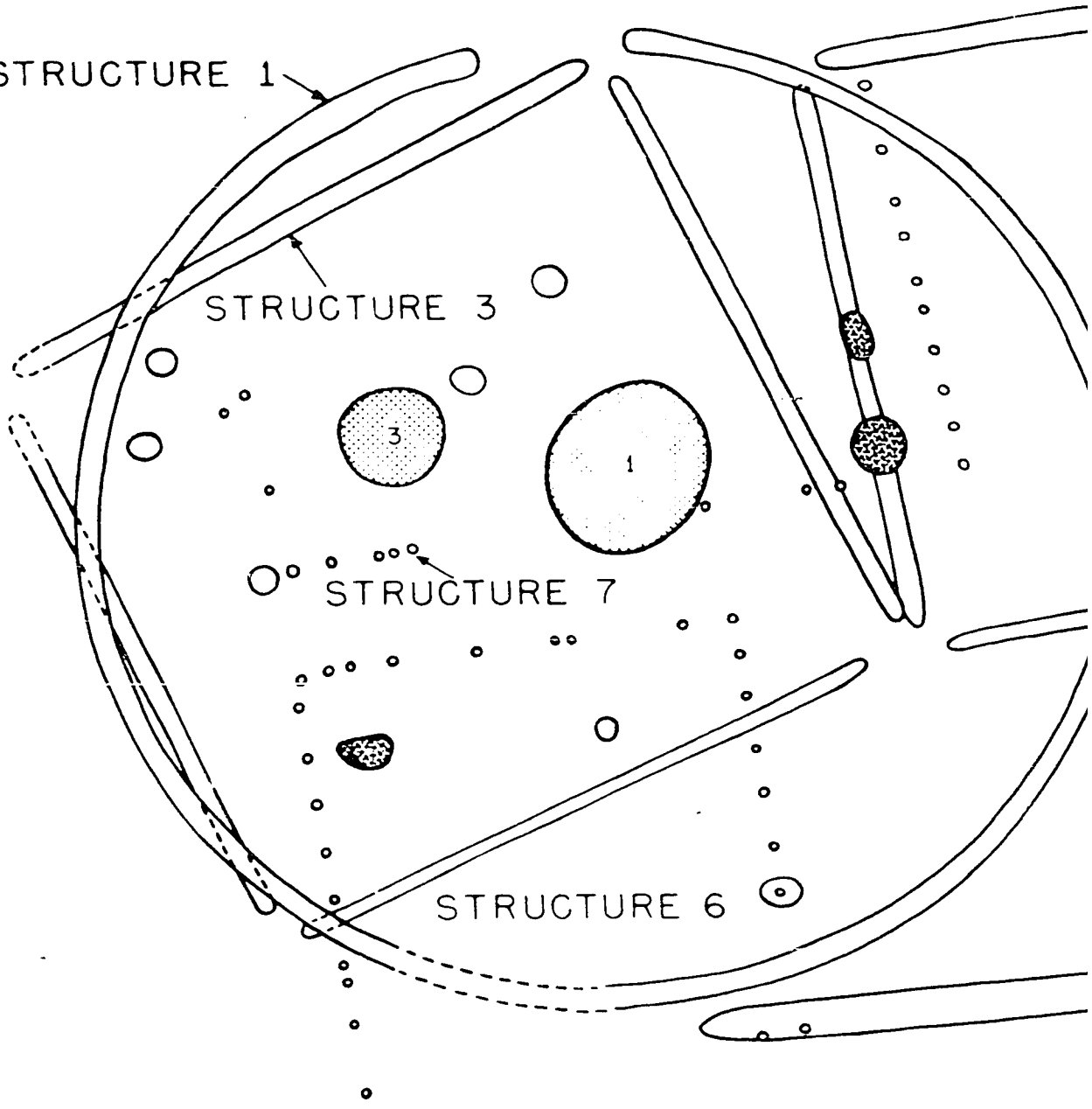
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STRUCTURE 1

STRUCTURE 3

STRUCTURE 7

STRUCTURE 6



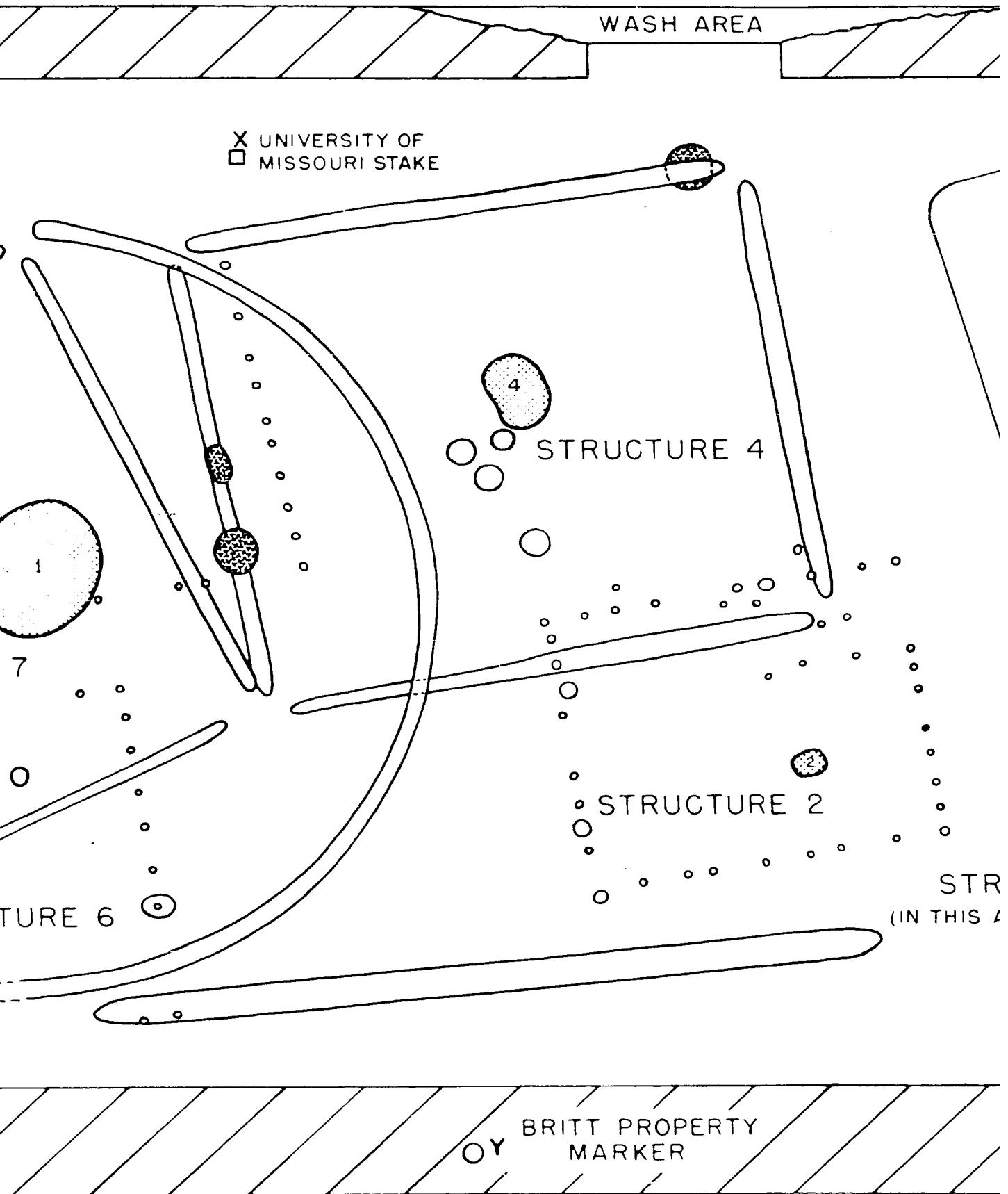
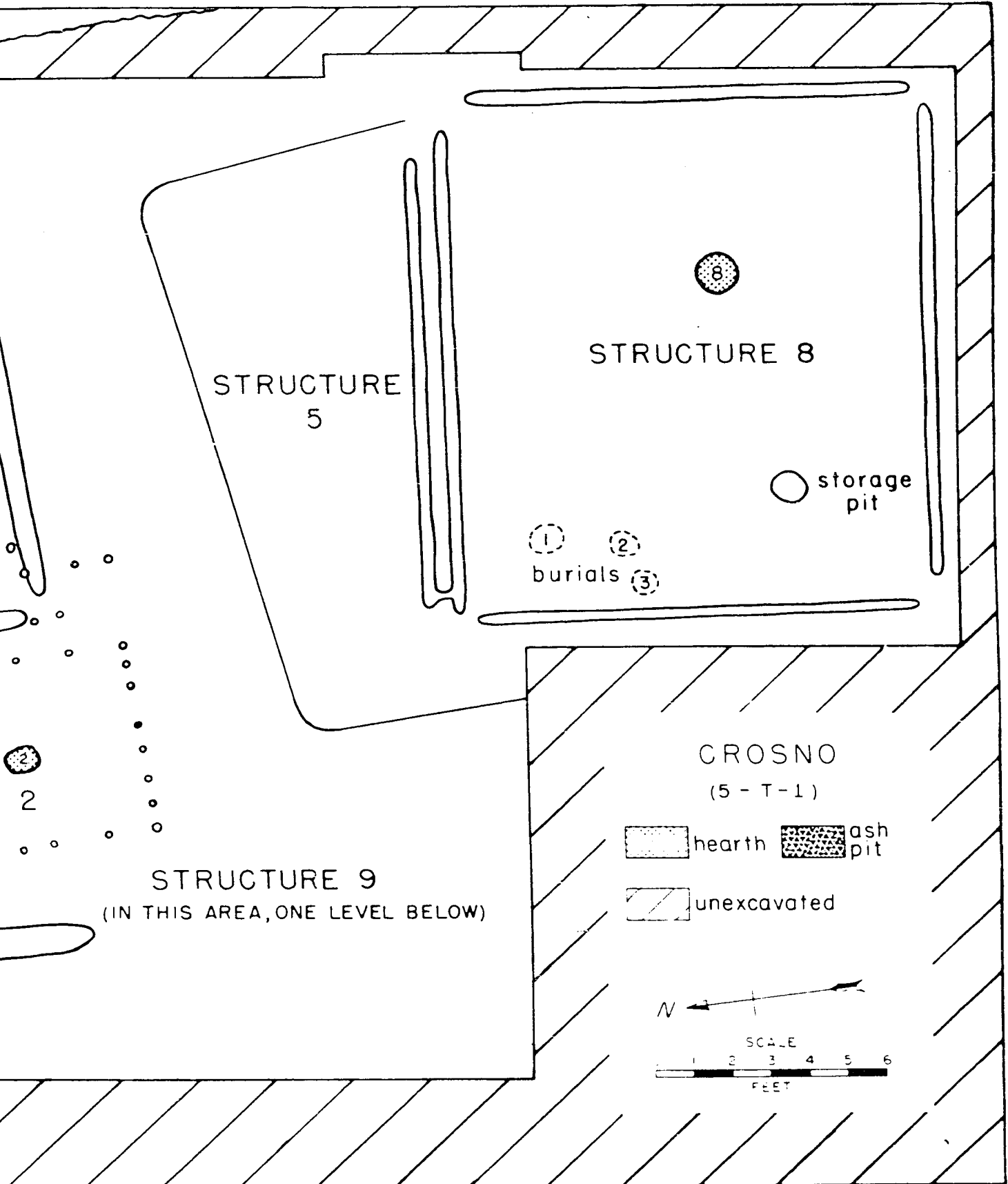


Fig. 17. Over-all Layout of Structures.



of Structures.

The fact that post holes were found in one wall-trench was unusual, since very few post holes were otherwise encountered in the wall-trenches. This situation is comparable to that experienced by Webb at Jonathan Creek, where every post hole is known for some wall-trenches while in others none were located. I do not believe that the lack of post holes in the wall-trenches at Crosno indicates any difference in construction methods. The posts had been there; that's why the trenches were dug; but the physical evidence for their existence either had disappeared or was overlooked.

There were numerous ash pits, filled with white ash mixed with small fragments of orange clay. They were of many shapes, but few were very deep. None were comparable to the main fireplace, which was over three feet deep and filled with similar ashes and clay. This fireplace had a clay lining which averaged an inch in width and at the very bottom several hickory legs, two to three inches in diameter, were found in place.

There are a number of problems surrounding this structure. First, there is the question of the great number of ash pits uncovered on the floor. What could so many have been used for? Second, is there any evidence that this building may have been partially semi-subterranean? Third, what was the function of this radically different shaped structure with its large central fireplace?

That the ash pits might well have been used in making steam for a sweat house is certainly a plausible suggestion. Such structures are known ethnologically in the Southeast, al-

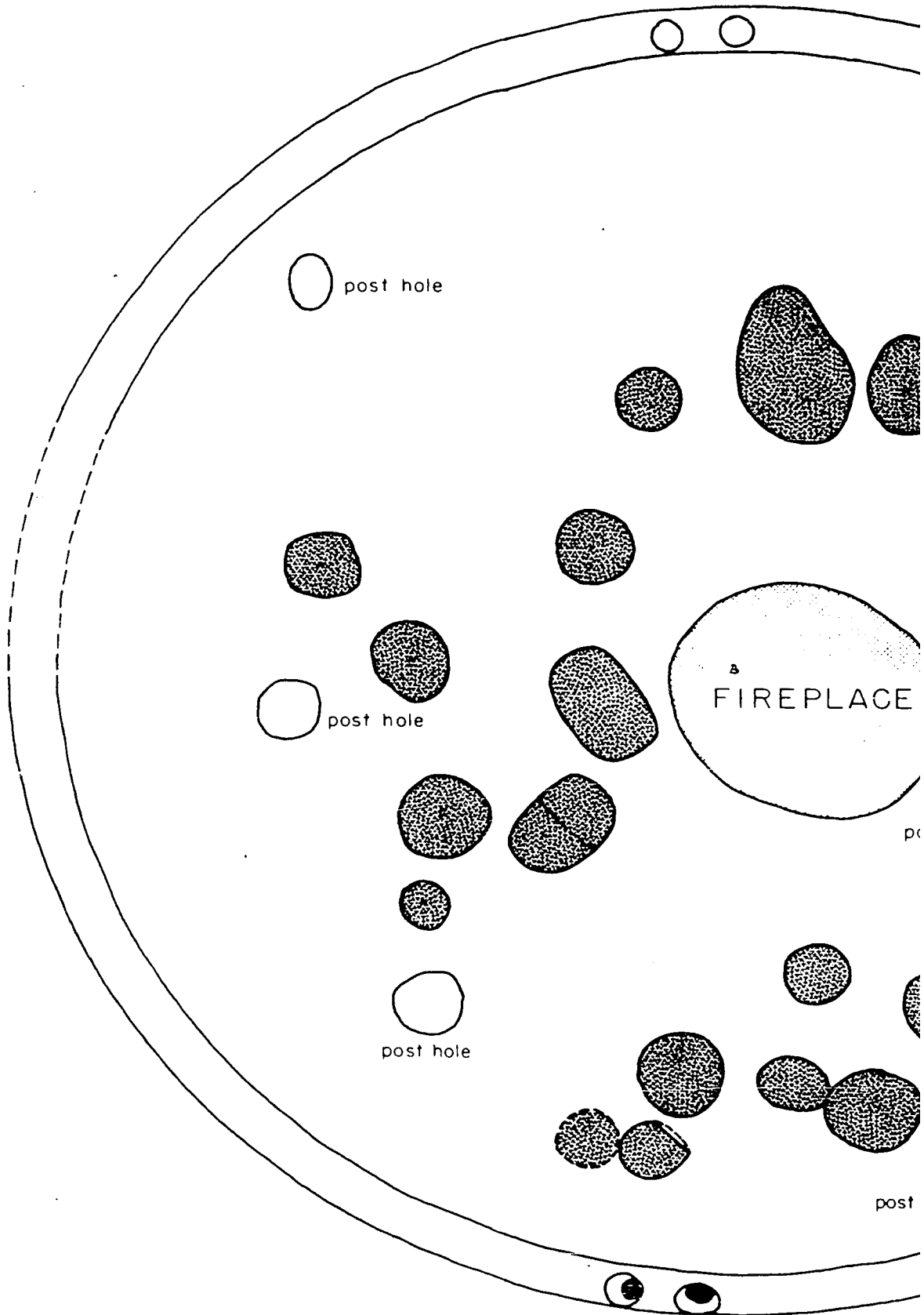
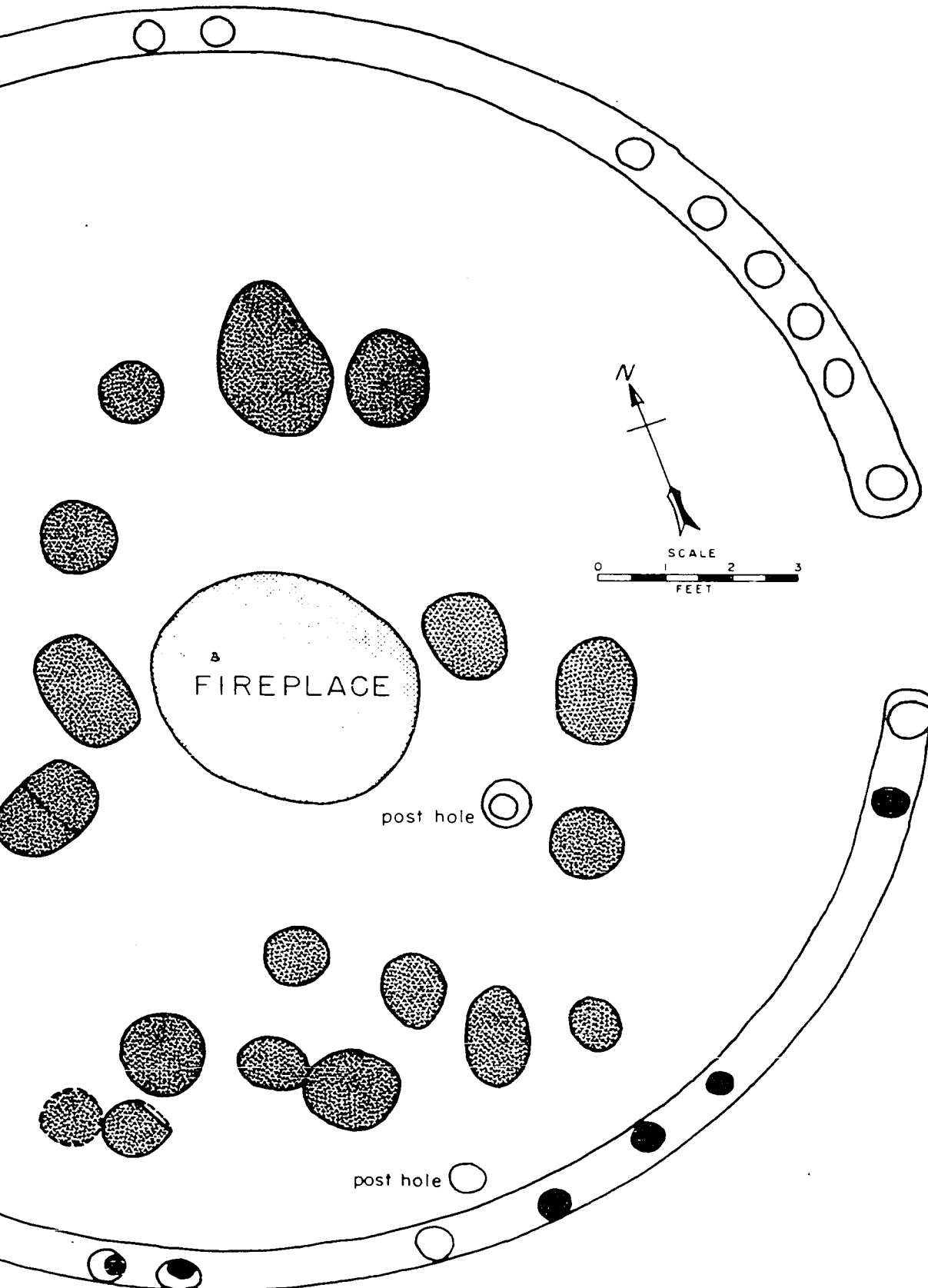


Fig. 18. Plan of Structure 1



18. Plan of Structure 1.

though their dimensions were usually considerably smaller. The lack of stones that could have heated for making steam might have been met with lumps of clay and, in fact, many crudely shaped masses of clay were found in the ashes. However, if all these 22 pits were used at the same time, there would certainly have been little room for the bathers inside the structure.

The extreme depth of the wall-trenches and the central fireplace made the writer consider the possibility that the structure was partially semi-subterranean, and its use as an earth lodge did not seem out of the question. However, no positive evidence could be found to substantiate such an idea.

The circular shape and great size of this structure set it apart from all the others at the site. Its function is in all probability tied in with some rather specialized activity. The suggestion that it was a sweat house has been made above, but perhaps all that can safely be said is that it is a special structure of ceremonial, religious, or communal function.

Structure 2 (Fig. 19)

There was a well defined fireplace near the center of this rather small building, which was only 7.6 feet wide and 9.4 feet long. The fireplace was a clay-lined basin 1.2 feet in diameter filled with white ash.

In this building the posts were set in individual holes. They were .2 feet in diameter and penetrated about .5 feet into the ground. Some of them were charred, indicating the

structure had burned down but, as with most of the houses uncovered in the writer's excavations, there was little to indicate the nature of the superstructure.

The profusion of post holes at the southeast corner seems to be a baffle at the door which may have kept the wind from blowing sparks about in this rather combustible structure. A small refuse pit in floor seemed definitely associated with this building.

This structure is the only complete example of the small separate post hole type and resembles Webb's Type-B" (1952: 55) to a remarkable degree in that some of his buildings also had a baffle at the door corner.

Structure 3 (Fig. 20)

This structure was cut into by the numerous features of Structure 1 but still provided some rather valuable data. Fire had destroyed it and the burning had preserved a small part of the roof and rafters. Its dimensions were 14.2 feet wide and 14.8 feet long. The walls were oriented fairly well with the cardinal directions, and there was a well defined hearth near the center of the floor. Four interior posts were located on the east side of the house.

On the west side of this structure a charred mass of material about 2 feet in diameter was uncovered and proved to be burned thatch; a cache of corn, shelled and on the cob; some small timbers; and a very small piece of cane matting. This would appear to be the remains of a cache of corn which had

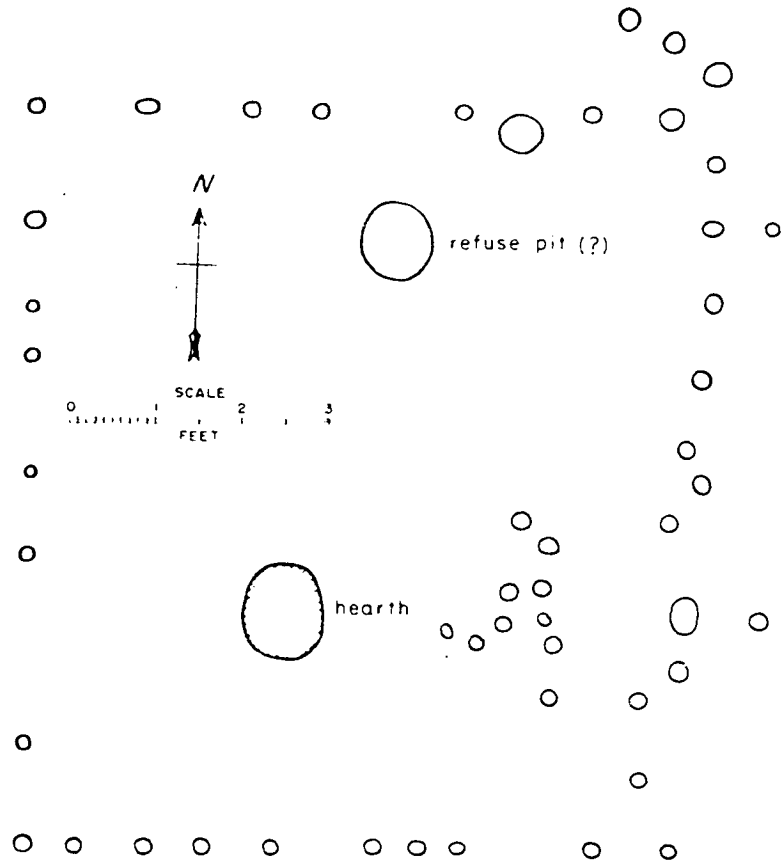


Fig. 19. Plan of Structure 2.

been stored on a small cane mat on the rafters under the thatched roof. Such a manner of storage was also found at Kincaid (Cole et al., 1951: 68). A discussion of the corn obtained here will be found in Section 9.

Structure 4 (Fig. 21)

This structure was very similar to number 3 in size and shape and appears to have been just slightly earlier. Notice the overlap of the wall-trenches at its northwest corner (Fig. 17). Its dimensions are 14.0 feet in the north-south direction and 13 feet in the east-west direction.

An ill-defined hearth area showed up near the center of the structure and four large post holes were found to the northwest of this hearth. The building's walls were oriented perfectly to the cardinal directions. The east wall-trench cut through a trash pit and a post hole was located in this corner. Two ash pits from Structure 1 cut into the north wall.

Structure 5

The evidence for this structure is scanty, but it is included because it may represent a different type not otherwise found at the site. At the 2.5-foot level a dark stain could be outlined, as in Figure 17. It was thought that more of the structure would be ultimately found but little else did come to light.

At this point it may be added that lower levels the south

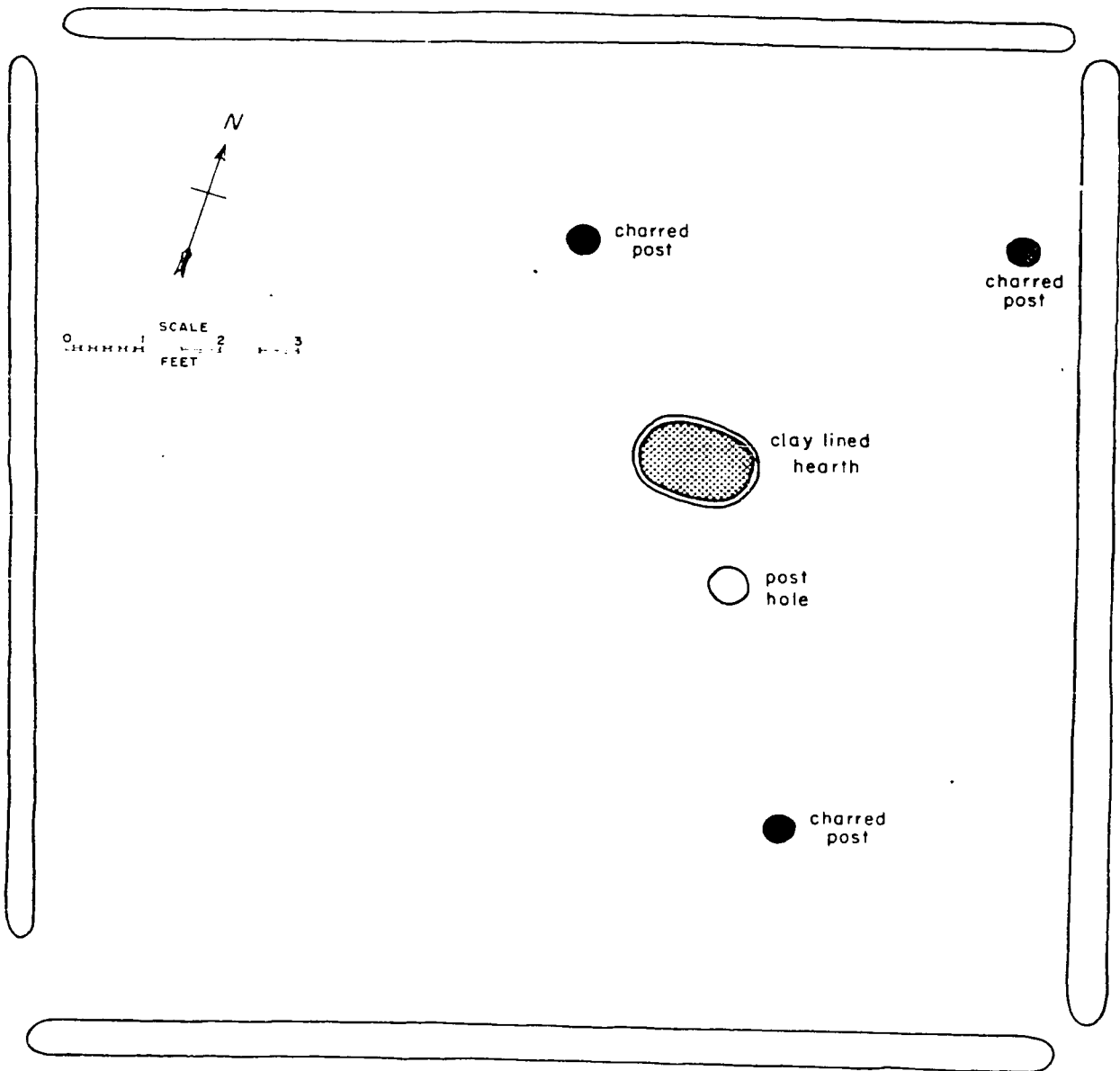


Fig. 20. Plan of Structure 3.

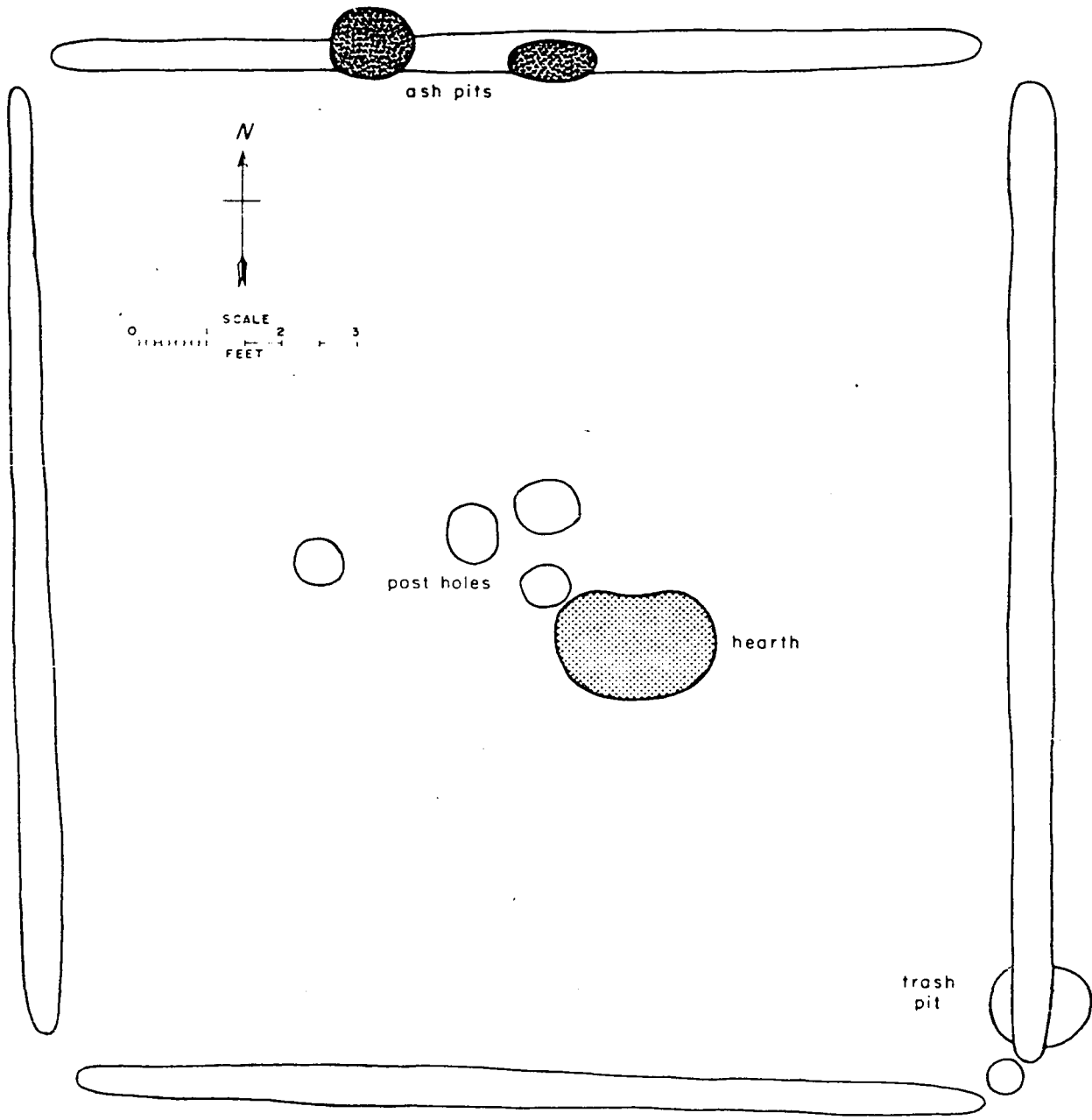


Fig. 21. Plan of Structure 4.

end of the excavation were of necessity rather hastily completed in the last two days of field work after the time allotted to it had been expended on three infant burials discovered under the floor of Structure 3. In the short time left, the south end below the 2.5 foot level was excavated rapidly to gain the artifactual material available but with little regard to the structural features which were sought so painstakingly in the rest of the digging. Just below this 2.5 foot level in the area of Structure 5, a stratum which may have been the structure's floor was encountered but passed by.

The evidence, such as it is, points toward a structure with a sunken floor something like Webb's Type-A" (1952: 51), since he found at least one rectangular house set in a rectangular pit. The stain mentioned above may have been the dark fill of such a pit.

Structure 6 (Fig. 22)

This building was of the small post construction and was very similar to Structure 2 in size. Its walls were oriented to the cardinal directions. Few interior features could be located. The ash pit is an intrusive one from Structure 1. A single, larger post hole is shown in the southeast corner. In the jumble of buildings it is possible that this feature too was intrusive.

No post holes could be located for the west wall. It is possible that the opening on the east side was a doorway.

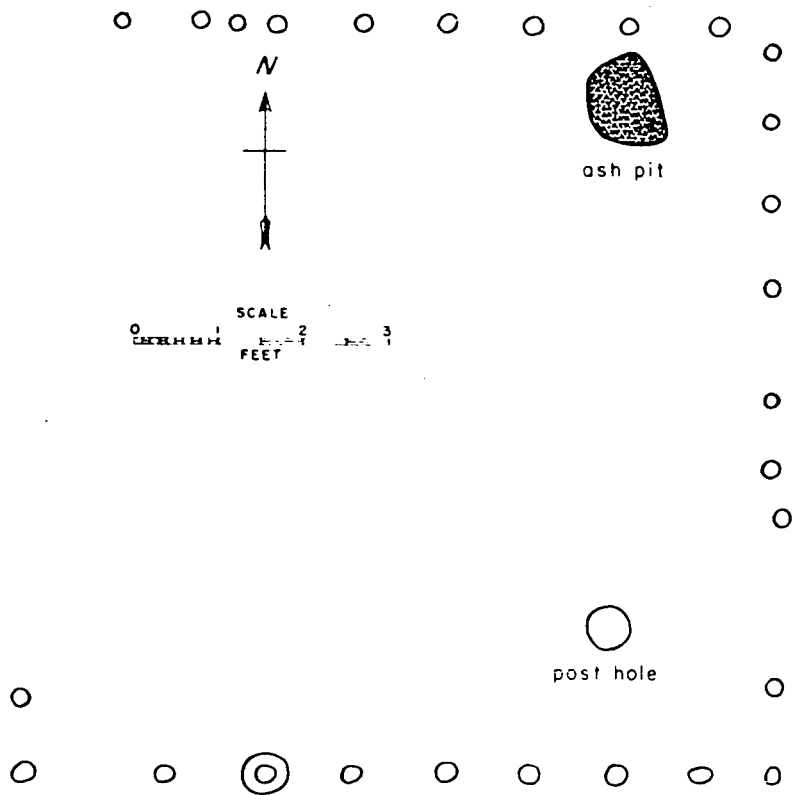


Fig. 22. Plan of Structure 6.

Structure 7 (Fig. 23)

Of all the features dignified with a number, this set of post holes is the least convincing. In restudying the plan (Fig. 17), the possibility that this unit may be connected with Structure 6 came to mind. Neither of the structures had fire hearths that could be located.

Perhaps the best thing to do would be to just admit that a series of post holes were found and that their plan is presented here. What the nature of this structure was is a matter for speculation.

Structure 8 (Fig. 17)

This structure is another of the rectangular wall-trench type but the double wall on the north side makes it unusual. This wall seems to be the only one of the four constructed double. Such walls are known at Kincaid (Cole et al., 1951: 18), but there all the walls of a structure were usually built in this manner. The presence of this construction at Crosno may simply be indicative of a need for strengthening the wall, rather than of the presence of the trait of dual walls. Its dimensions were 12.5 feet wide and 14.5 feet long.

The fire basin was well-made and consisted of a clay-lined pit .9 feet deep and 1.7 feet in diameter. Toward the southwest corner was a refuse pit which contained a few fragments of charred corn cobs. These cob fragments were so small that little could be saved, but what was will be discussed in Sec-

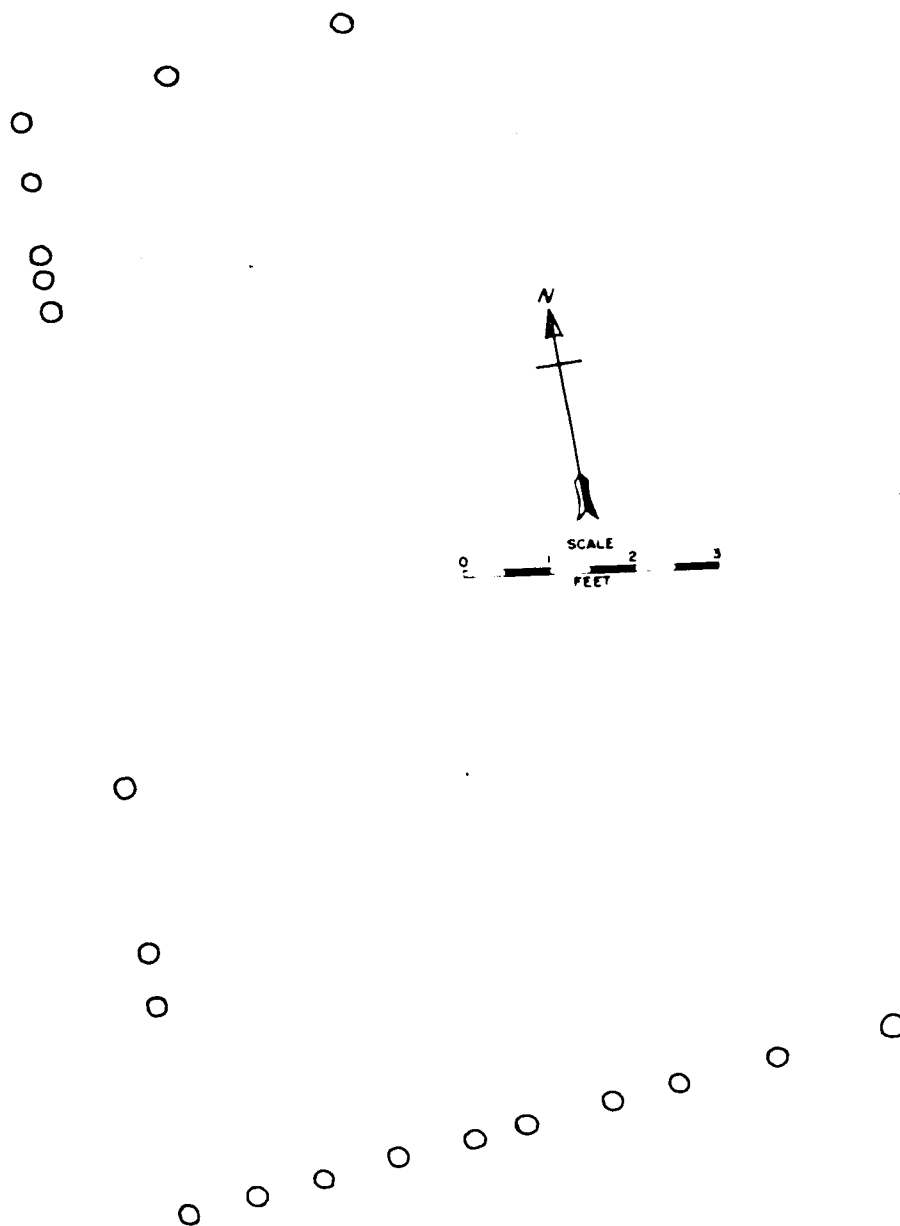


Fig. 23. Plan of Structure 7.

tion 8.

The only burials uncovered in the writer's excavation were beneath the floor of this structure as shown. These will be discussed more fully in the next subsection. They were of infants, had little or nothing buried with them, and followed a rather common Mississippian pattern of placing the bodies of small children under house floors.

Structure 9 (Fig. 24)

The last structure to be uncovered was in many ways similar to the other wall-trench buildings but since it was dug into sterile sand some additional details showed up, such as the post holes at the corners. Whether these were originally present in the other similar structures at the site is not known; they were looked for, since they are a common feature in this house type elsewhere, but were not found with the exception of one in Structure 4.

The dimensions are 15.5 feet north and south, and 14 feet east and west. The north and south walls present an unusual feature, an extra row of small post holes outside the wall-trench. The hearth was rather ill-defined and there seemed to be a number of interior supporting posts near or around it. The other scattered small posts are considered evidence of household structures such as racks.

The corner posts mentioned above, are an interesting feature of this structure. They resemble similar features at Kincaid (Cole et al., 1951: 77) and Hiwassee Island (Lewis

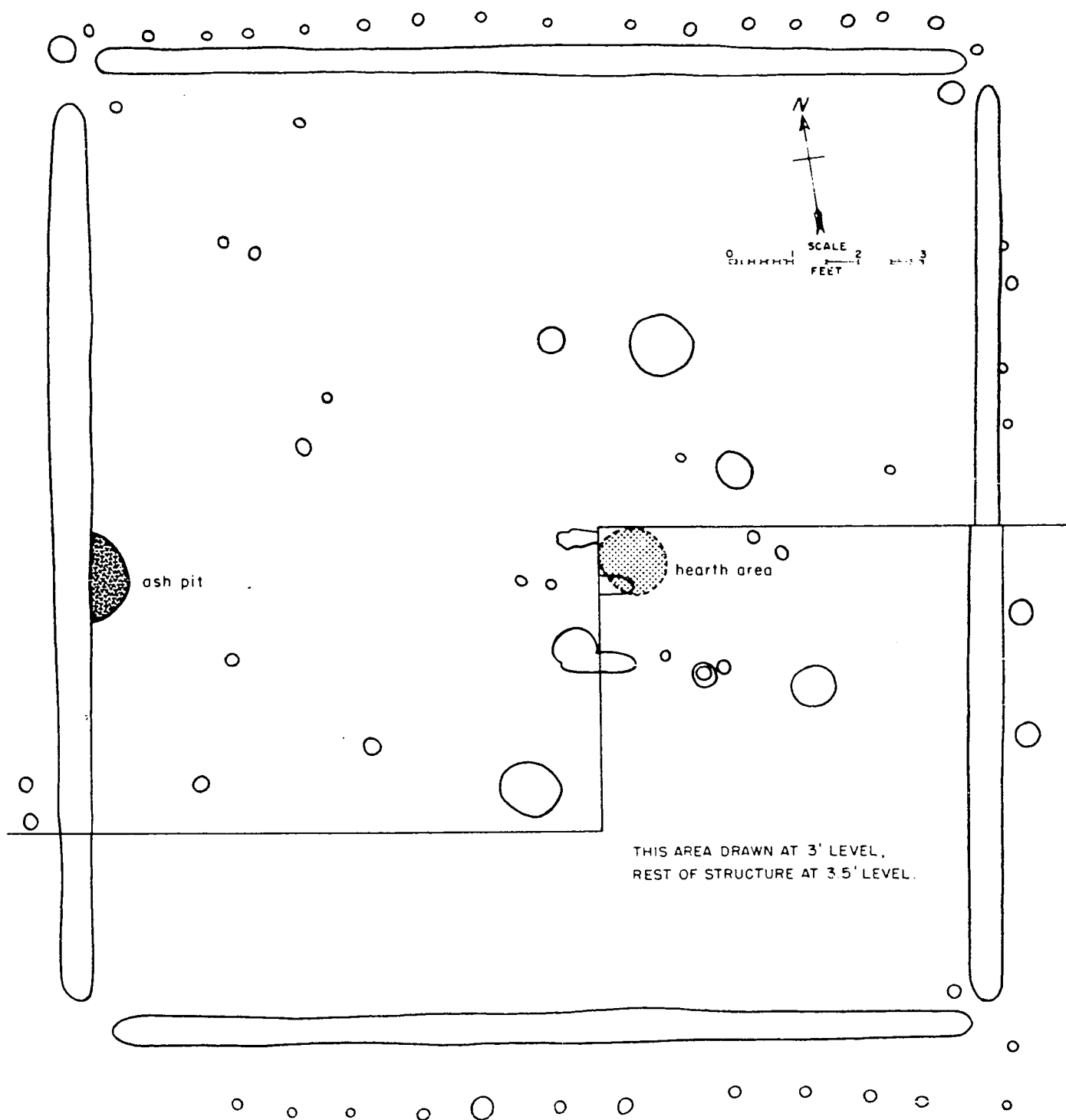


Fig. 24. Plan of Structure 9.

and Kneberg, 1946: 73), to mention only two other Mississippian sites. At Hiwassee Island the absence of a post at one of the four corners has been interpreted as a doorway. If this be true, the door of this structure was at the southwest corner. The writer is not convinced that this inference concerning corner doors is justified.

Other Possible Structures

A certain unexplained feature falls into this general category. Perhaps Structures 6 and 7 should have been placed here too, but since three sides of each were found they have been accorded individual status. By contrast, the large wall-trench on the west side of the excavation (Fig. 17) remains apart and unaccounted for. It is probable that this wall belonged to some structure farther west but that area was not investigated. The wall-trench was by far the largest encountered, being 1 foot wide and 20 feet long, and must have been part of some rather large piece of construction.

Anderson discovered part of a structure in his test trench (Fig. 7). He encountered a wall-trench and an ash-filled hearth, but did not continue his excavations. Chapman and his party uncovered a burned house. In it the superstructure had been preserved by the burning to a far greater extent than any structure the writer encountered. Much roof thatch and many small timbers were found but it was never fully excavated. The evidence pointed to a rectangular structure, and rafters indicated the possibility of a gabled roof.

Architectural Summary

This summary is based on the nine structures described above and on the information gathered by the University of Missouri and by Anderson. Data from the Kincaid, Angel, and Jonathan Creek sites is also utilized.

The structures are of three basic types: (1) Rectangular or square buildings with wall-trench construction--Structures 3, 4, 8 and 9. (2) Small, rectangular buildings with separate post hole construction--Structures 2, 6 and 7. (3) Circular with wall-trench construction--Structure 1.

Type 1 was the most frequent and was a rectangular to almost square building ranging in size from 14 feet square to 14 feet by 15.5 feet. The walls of this structure were made of poles set in a prepared wall-trench. Dirt of slightly different color was then tamped in around these poles, making the stains which were discovered by the archeologist.

Split cane was woven in between the poles to form wattle-work walls and clay daub was plastered over the wattle work. The roofs were thatched with grass. The question of whether the roofs were gabled or rounded cannot be answered with the information from Crosno. At Kincaid both forms were known, but the gable seems to have been the main type at the Angel site. Some interior posts seem to have been present for supporting the roof in most of the structures.

The other main building style, Type 2, was constructed with small posts set individually, without a prepared trench. Otherwise, the houses of this type were probably similar in

most external details to the wall-trench houses.

The large circular structure constitutes the third type. This did have a larger wall-trench but otherwise presents no great differences in construction details.

Hearths were generally well made and were located near the center of the structure. They were often lined with clay, although some were just ill-defined areas in the same location.

Stratigraphy and Sequence

The question of which structure was erected first or last in such a jumble of overlaying patterns is often difficult to answer. Below the layer of silt was an old ground surface which had been quite extensively broken up and eroded during the area's use as a barn lot. Whether it had ever been plowed is not known but there seems to be good evidence that the ground was disked to keep down weeds.

This the top level of village debris was well mixed and any features almost completely destroyed. In direct contrast, the lowest deposits were, of course, the best preserved. Even here, though, no well-defined floors could be located to give an exact vertical position to the structure in the profile.

The method of excavation used was to dig in arbitrary levels until a pattern or significant feature showed up and then to clear a considerable area to expose the structure which was encountered. Because of the nature of the evidence, namely faint colored traces in the soil rather than charred posts or the like, some of the structures were partially cut through

during the excavations. It is impossible to do otherwise since one must dig into the structure before it can be recognized, and great care was used to keep such destruction at a minimum.

One of the most positive signs of a structure was the discovery of a fireplace or hearth. Whenever one was encountered, an attempt was made to discover its top edge since this was usually a good indication of the old floor level. Because of the central position of these hearths, it was quite easy to assign them to the proper structure. Well-defined fireplaces or hearth areas were found in six of the nine structures uncovered.

The sequential position of only two of the structures is absolutely clear and without question. Structure 1 was the last to be built, cutting through Structures 3 and 4, and probably 6 and 7 as well. The walls and fireplace of this structure penetrated into the topmost level of the culture-bearing strata and the floor, if any, had been destroyed by the disturbances mentioned above.

Structure 9 was found below the 3-foot level under Structures 2 and 4. It was well preserved and not cut into by other patterns.

The sequential positioning of the rest of the structures can be worked out on the basis of certain wall-trench overlaps, as in the case of Structures 3 and 4, and the intrusion of posts into wall-trenches. A chart showing their stratigraphic position follows:

Late	1	Not placed
	2, 7	6
	3, 8	
	4	
	5	
Early	9	

Type 1 is a familiar one in Mississippian times and occurs at both the Jonathan Creek and Matthews sites. Type 2 is similar to Webb's Type-B (1952: 55-58) at Jonathan Creek and not unrelated to buildings at the Matthews site (Walker and Adams, 1946: 82, 106). Type 3 is not, it would seem, too common in the general area. At least one such structure is reported at Kincaid (Cole et al., 1951: 66), and Black (personal communication) states that two have been found at the Angel site, Vanderburgh County, Indiana. Webb (1952: 58) lists three circular structures, but these were of the single small post, not wall-trench, construction.

At the Jonathan Creek site Webb (1952: 67-74) showed to his satisfaction the priority of the wall-trench structure (our Type 1, his A) over the small separate post hole structure (our Type 2, his B). Because of the fact that not a single Type-A house intruded into a Type-B house, while the reverse often occurred, he postulated a primary occupation using Type-B structures. The site was not deep and no significant stratigraphic differences were noted in support of this sequence.

From the data presented by Walker and Adams (1946: 82-

83), it would appear that a similar situation obtained at the Matthews site. The only structure illustrated by a drawing is the small post hole type which was set in a shallow circular depression. The village sites in the Cairo Lowland area were known to be dotted with these hut rings, one to two feet deep, in the 1870's before agriculture destroyed them. Thus it would seem that the latest house type in the area was that discovered in the top levels at the Matthews site. "House sites in the north end of the village were similar structures [small separate post holes], but at deeper levels they showed wall posts set into trenches which left definite dark stains in the yellowish clay" (op. cit., p. 83). This evidence, along with a picture (their Plate IX, B, p. 110), would seem to indicate that the structures in the lower levels were of the wall-trench type, which were succeeded by the small post hole structures described above. It must be stressed that this interpretation is entirely the author's based on the internal evidence in the report; in the trait list one finds only the notation "some walls set in trenches."

At Crosno the situation is not so clear cut. Only one of the three post hole structures is really complete and it does appear to be later than all other structures except number 1. Structure 1 and the attendant disturbance of soil that its construction caused makes it difficult to say anything very definite about Structures 6 and 7. There was, moreover, no evidence of any of these structures having a sunken floor as did those at the Matthews site.

Therefore, although it can be said that small post hole structures were not the first type to be built, evidence in the form of Structure 1 indicates that a type of wall-trench structure was still being built at the end of the occupation. At Kincaid "some structures lacking wall-trenches [occurred] in all stages" (Cole et al., 1951: 155). Despite this evidence it would seem based on the data from the three other sites mentioned above that the wall-trench type of structure appeared first in this area and, then was, at least, partially replaced by the small post hole type in Late Mississippi times.

Burial Features

Burials Excavated

Burial 1. This infant burial was the first of three found under the floor of Structure 8. The child was very young, probably less than a year old, and had been rather unceremoniously stuck head down in a small hole not more than eight inches in diameter. A large sherd had been placed in the hole before the burial took place and formed a partial surrounding container for the small body. The depth of the burial was 3.2 feet.

Burial 2. This infant was even younger than the preceding one and may represent a still birth. The body had been buried in the same position as the preceding one with its head down in the small hole. The depth of the burial was 3.4 feet.

Burial 3. The infant in this burial was about the same age as number 1 but had been placed with its feet down and the

head up. It was at a depth of 3.1 feet.

Summary. The three burials in this one house are all remarkably similar. A sherd found with the first burial was the only grave object with any of them. This method of disposition of very small infants is matched by a single instance at the Matthews site (Walker and Adams, 1946: 86) and several at Kincaid (Cole, et al., 1951: 54), in marked contrast to the care that was taken with children and adults in most other cases in this area.

Other Data on Burials

The only other burials which have been excavated at the site are the two salvaged by Anderson. These had been exposed by erosion and then further deranged by local curiosity seekers before he studied them. The evidence that was left was scanty but indicated that the remains of two adults had laid extended on the bank with their heads oriented to the north. No grave goods remained at the time of Anderson's work, but since both skulls were missing, it may be that the pottery usually placed near the head had been destroyed or removed.

The burial mounds mentioned above no doubt contained a goodly number of the deceased adults and children. This method of disposition will be discussed in later sections where the data are more complete.

Non-Ceramic Artifacts

Bone

Bone artifacts were common at Crosno and were well preserved. On the basis of the situation encountered at this site, it seems likely that bone was a very common material used for a variety of different purposes. If one were to judge from the evidence from some sites nearly like Kincaid where bone objects were rare, one might get exactly the opposite impression. Thus absence or variety of relatively perishable material like bone can never be listed as a positive phase trait until one has a very good sample from a number of different sites.

Deer bone was the most common raw material but a wide range is noted since turkey, panther, raccoon and dog bones were also utilized. Deer antler presented a tough but relatively easily worked material which was most frequently made into projectile points and flakers used in chipping stone. The deer ulna awl was one of the most frequent tools, and there was a number of splinter awls made out of various materials including bird bone.

Fish hooks are known from the site and one was recovered in excavation. They are all of relatively delicate construction and do not possess the thickening at the base of the hook as found in some sites in the Southeast.

A number of bone rings were found and one pair would seem to be a set of bone ear spools. One piece of carved

bone was recovered and one other artifact is known in the Anderson collection. The specimen from the excavation is an animal head very carefully modeled, and the Anderson artifact is a human profile cut from a very thin section of bone.

Shell

Shell artifacts were scarce and none were recovered in the excavation. Anderson has several shell spoons made from a fresh water mussel which have cut edges. Also in his collection are several small disk beads. A few unworked shells were recovered but these were in poor condition, which is odd since the bone material is so well preserved.

Stone

Chipped. Artifacts of this material were not too common and the most common form was small projectile points. These were either side-notched or plain triangles, and were not too well made. A very few plain drills were found. Two fragments from large blades were found. A frequent part of the village debris were flakes that had been struck off the large agricultural implements. These could be distinguished by the polish on one side, that is so characteristic of the hoe blades. These chips were, no doubt, struck off when the tool was sharpened as they got dull fairly easily. A large hoe was found on the surface and its blade was polished and in need of such sharpening. Worked flakes and used chips were

also found.

Ground. Chipped and ground celts were found infrequently. Actually only parts of such artifacts were found. Anderson also has a number of small ground celts made out of hard material which he has picked up on the surface. Some fragments of such artifacts, most typically the bit ends, were found in the excavation.

Rough. The majority of this type of stone was in the form of whetstones and hammerstones. The latter were often almost spherical, and the whetstones were either made of volcanic tuff or sandstone. Some few anvils and fragments of larger artifacts, possibly grinding stones of some sort were also found.

The over-all picture of stone artifacts is limited and this is not surprising considering the lack of stone in the immediate area.

Miscellaneous Cultural Items

Galena. A few cubes of this lead ore are present in the Anderson collection. These appear to have been rubbed or polished. One is triangular in cross-section.

Cannel Coal. A few unmodified fragments of this material were found in the excavation. Anderson has a number of pieces, some of which have been worked. Among these is a labret.

Hematite. One small piece of this mineral was excavated and Anderson has a number of unmodified pieces from his surface collecting. These pieces are very red, quite soft, and might be classed as material for paint.

Cane Matting. The only remains of truly perishable material that was found was a small fragment of cane matting which had been carbonized. This piece hardly an inch square showed a simple over-and-under weave, and was found in Structure 3 with the corn cache. It is presumed that this matting was laid on the rafters and the corn placed on top in a perishable container like a basket. This bit that was recovered might even have been a part of a woven cane basket.

Ceramics

Pottery Types Found

Potsherds were the most common ingredient at the village midden excavated. Some 12,000 were recovered and more than 2,000 more have been analyzed from surface collections made by Anderson and by Scully and the writer. These sherds can be tabulated as follows:

Table 5. Anderson Surface Collection

Baytown Complex:	
Baytown Plain	296
Mississippian Complex:	859
Mississippi Plain	251
Bell Plain	33
Old Town Red Filmed	1
Nodena Red and White	2
Angel Negative Painted	175
Wickliffe Series	40
Kimmswick Plain	51
Kimmswick Fabric Impressed	94
O'Byam Incised and Engraved	47
Beckwith Incised	10
Mound Place Incised	31
Manly Punctate	5
Crosno Cord Marked	2
Unidentified Punctate	60
Unidentified and Provisional Incised	
Total	<u>1958</u>

Table 6. Sherd Types and Totals of Own Material

	Surface	Excavation	Total
Baytown Complex:			
Baytown Plain	32	16	48
Mulberry Creek Cord Marked		22	22
Mississippian Complex:			
Mississippi Plain	145	10,403	10,548
Bell Plain	11	728	739
Old Town Red Filmed	2	21	23
Angel Negative Painted		4	4
Wickliffe Series			
Wickliffe Cord Marked		39	39
Wickliffe Plain	6	596	602
Wickliffe Punctate		3	3
Wickliffe Incised	9	226	235
Kimmswick Series			
Kimmswick Plain		159	159
Kimmswick Fabric Impressed	4	260	264
O'Byam Incised	4	11	15
O'Byam Engraved	7	34	41
Walls Engraved		1	1
Beckwith Incised		33	33
Mound Place Incised		4	4
Manly Pungtate		2	2
Crosno Cord Marked		30	30
Misc. Provisional and Unident.	1	72	73
Total	221	12,664	12,885

This material is presented in two tables because the Anderson material was not sorted in quite the same manner, as for example, the entire Wickliffe Series was counted together.

These types represent at least two ceramic traditions. The Baytown Complex is clay tempered and belongs to a generalized Woodland Tradition which is replaced at Crosno by the Mississippian Complex with shell tempering. In the major plain types Baytown Plain, Mississippi Plain and Bell Plain, there seems to be some evidence for continuity of culture in that Bell Plain sherds often show quite a bit of clay tempering which may be a carry-over from Baytown Plain. Mississippi

Plain is the shell tempered utilitarian ware that serves in many parts of the southeast to mark the arrival of the Mississippi tradition in the area.

The Kimmswick and Wickliffe series are a special problem and will be discussed later. Sufficeth to say at present that they are utilitarian types of a rather specialized nature and form an excellent criteria for phase definition.

The decorated wares, such as the O'Byam types, are rather rare but also seem to serve an important function in terms of segregation of components and phases. Painted wares were extremely rare and the suggestion that almost all were trade material certainly seems quite plausible.

Several new types were formed on the basis of the material found here. They are Crosno Cord Marked, Wickliffe Cord Marked and Wickliffe Punctate. The first is a type based on a small sample but since it may represent a transitional stage in the blending of the two ceramic traditions, it was given provisional status.

It will be noted that considerable weight has been given the difference in tempering material. This procedure is not as arbitrary as it may sound since it has been shown in the Lower Valley (Phillips et al., 1951) and elsewhere in the Southeast (Willey, 1950) that changes in temper often reflect changes in time or space.

Shapes

A rather wide variety of vessel shapes was found in the material from the site. The greatest number of forms are found in the pottery of the shell tempered Mississippi tradition in contrast to the limited kinds of Baytown shapes. No whole vessels were excavated, except for one miniature vessel. The shape classification is based on museum specimens and will be dealt with more completely in Section 5.

Bottles. Although a common shape in museum collections, only a very few sherds identifiable as bottles were found. They suggested a form with a flattened globular body and they were Bell Plain in pottery type.

Bowls. Plain bowls with rounded and flaring sides were fairly common. Both rounded and beveled lips occurred. They were generally small, under 7 inches in diameter, and usually slightly wider than high. Bell Plain was the majority ware although some few were classed as Mississippi Plain. A very few were Old Town Red Filmed.

Rim effigy bowls. This type of bowl is treated separately for convenience since there are so many variations in appendages in this category. The bowl shape is similar to those described above and the ware is Bell Plain. The effigy heads attached to the rim are either animal, human, or bird. The latter is the most common and a conventionalized duck is the most frequent representation. Occasionally incised lines are drawn around the bowl just under the rim and the sherds from this type fall into the Mound Place Incised category.

Effigy bowls. Another specialized type of bowl is that which is altered to form some sort of effigy. Conch shells were often imitated and several sherds of this type were found. Fish and animal effigies were also made.

Hooded bottles. This very peculiar bottle is so called because the opening is at the side of the neck with the top hooded over. Sherds of this shape were very rare, but at the University of Missouri one large sherd from the surface is to be noted. The hood was over three inches high and indicated a vessel of this type of the largest size known to the writer.

Jars. The "standard jar" of Phillips (1939) has a globular body, a straight or recurved rim and two or more handles. It, together with the bottle, rim effigy bowl, and hooded bottle are the four most characteristic shapes of the Mississippi tradition in the Southeast.

Jars were generally of Mississippi Plain paste and the type Beckwith incised and Manley Punctate are found associated with this shape. These jars are small, being less than seven inches tall, and were probably small cooking vessels.

Plates. This shape was very common at Crosno and was always made in Bell paste. The rims were quite often either incised or engraved with rectilinear designs giving rise to the O'Byam series. Angel Negative Painted also occurred on this shape.

Funnels. The Wickliffe series is based on this strange shape elsewhere called a "juice press" (Walker and Adams, 1946; and Griffin, 1952). The funnel was common here and must

have served some rather common function. On the basis of the lack of any ethnographic data supporting the pressing of fruits or berries for juice anywhere in the Southeast (Swanton, 1946), the term juice press has been rejected for this shape. Its least complex functional interpretation is use as a funnel and therefore this terminology has been adapted.

Salt pans. Large vessels of this type are common and are classed as the Kimmswick series. Whether their actual function was in making salt by evaporation is not known. They occurred both fabric marked and plain.

Large jars. These resemble the small jars but are so much larger that they may be separated as a distinct type. They were common and had large handles and/or lugs.

Miniature vessels. A few of these vessels were found. Generally any one less than three inches tall was put in this category although most were smaller.

Cord marked vessels. These were globular jars with constricted necks and often an out-curving rim. Some of the Crosno cord marked sherds indicate a rim which was markedly recurved.

Trade Sherds

Evidence of trade was noted in the occurrence of a number of sherds which seem to reflect outside influences. The most conspicuous of these are the seven Angel Negative Painted sherds. Five were found in the excavation and two are from the Anderson collection. Negative painted sherds are frequent at the Angel site and present at Kincaid (Phillips et al.,

1951: 175-6) and also at Wickliffe (materials in the Ceramic Repository, University of Michigan). The sherds of Angel Negative Painted at Crosno are in all respects similar to those at the type site, and trade seems to be the logical explanation for their occurrence here.

There is one sherd of Nodena Red and White in the Anderson collection and its vessel form is a plate. Since this shape is one never found in the Arkansas area in which the type was defined, perhaps it is unwise to use the same name. However, one sherd is not enough to base a type on so the Nodena name has been retained. Unless this sherd is from a vessel made in Arkansas expressly for export to Southeast Missouri, one must look elsewhere for its origin. Red ware in general was uncommon in the Cairo Lowlands Region but more frequent in the Malden Plain region, so it is possible that sherd was derived from the west. It has been suggested (Phillips et al., 1951: 131) that a red and white painted vessel in the Caddo area of Southwest Arkansas is an importation from this area and there are some few whole vessels in Museum collections to support this view. However, so far as the writer knows, no other red and white plates have ever been found either in Arkansas or Southeast Missouri.

One sherd of Walls Engraved ware was found. The head of an eagle with open beak and a weeping eye design was engraved on a finely smoothed dark surface. The eagle resembled the ones portrayed in the copper Malden Plates to be discussed in Section 5. This pottery type is almost a horizon marker for

the Moundville phase and three specimens of this engraved ware were also recovered at Kincaid. One of these sherds also carried an eagle motif and shows again the close ties between Crosno and Kincaid.

At Kincaid a considerable number of trade sherds from Cahokia to the north were identified, but only one sherd at Crosno seems to show this influence. The sherd is one which the writer has tentatively identified as Ramey Incised. The curvilinear design on the shoulder resembles the type and the general vessel shape suggested by the sherd is in the Cahokia tradition and unlike other large jars at Crosno. This sherd was found in Analysis Unit 20.

Another obviously foreign sherd was a large cord marked sherd which has a very whitish color. It was mainly clay tempered with a small admixture of shell and seems quite surely to be related to similar wares in the Obion River area of Tennessee. Here the local clays have a definite white color and contrast quite markedly with the grays and browns of the regular Crosno types.

Other Ceramic Objects

Clay was used for quite a variety of manufactures probably due to the lack of stone. Pottery trowels were made with shell tempering and had rounded or bifurcated handles. Small labrets were also made of clay.

Pottery discoidal of small size and ear spools were found. These were made in imitation of stone forms. A number

of pottery disks, other perforated, occurred. Some of these were fashioned from sherds but quite a few were made as separate artifacts. Their use is unknown. Anderson has two pottery beads which also simulate stone forms.

A number of fragments of fired clay was found in the excavation. Often these fragments had at least one smooth side and seemed to be a part of larger artifact. Anderson has two fragmentary artifacts of fired clay which may be the type of thing these excavated pits come from. Anderson's specimens are crudely shaped masses of clay which have a perforation a half inch in diameter running through them. These have been called torch holders at Kincaid (Cole et al., 1951: 126). This functional terminology is not based on any known evidence of use.

Ceramic Seriation

This seriation is based on 12,394 sherds out of the total of 12,664 that were excavated. The 270 sherds not used were either unidentified or represented a type of such minor importance that it was not charted.

The material was excavated as previously described. The material was allocated to three sections as shown in Figure 25. These sections were made up of the material which was first excavated by 5 trenches as indicated in the figure and later by the structures as they were worked out.

After the material had been located by section, a series of 23 analysis units (see Appendix B for contents of these

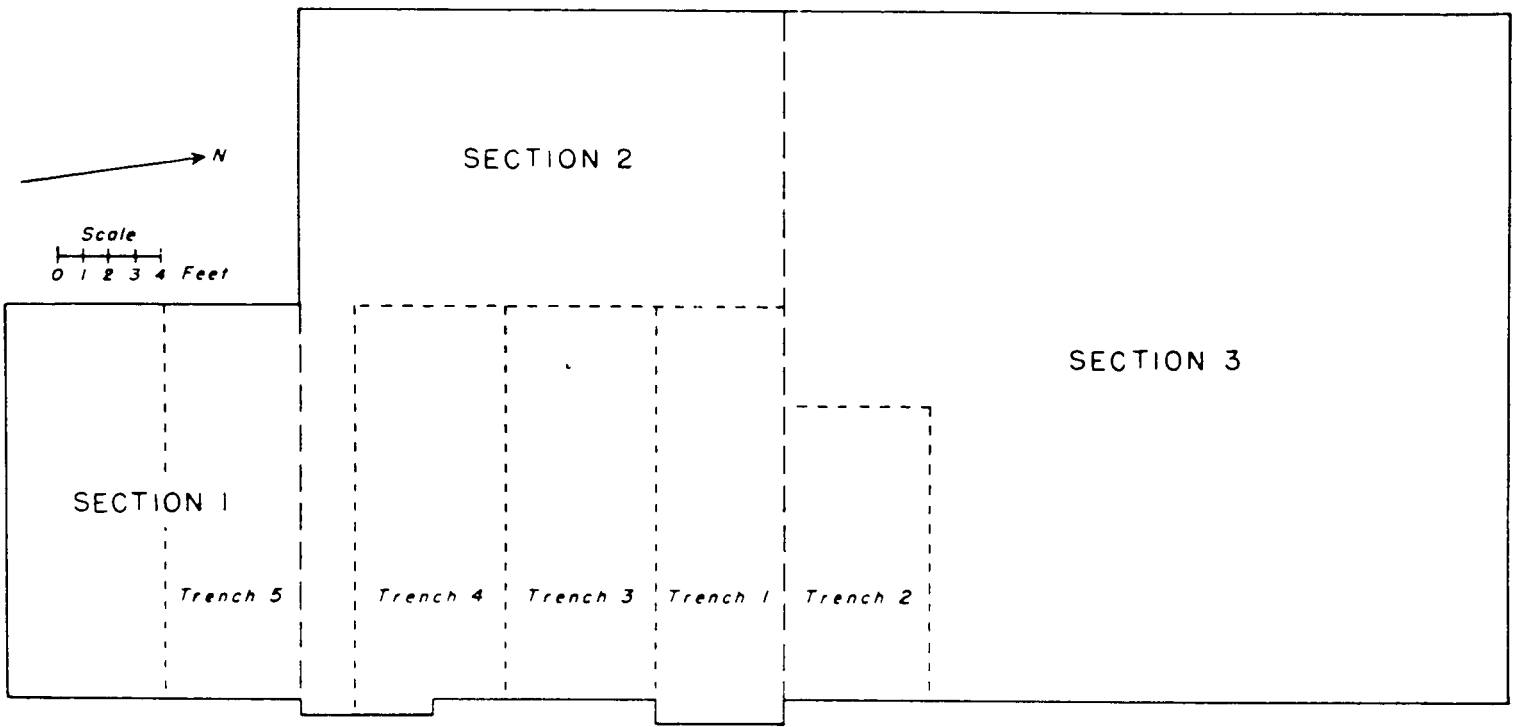


Fig. 25, Layout of Sections in Excavation.

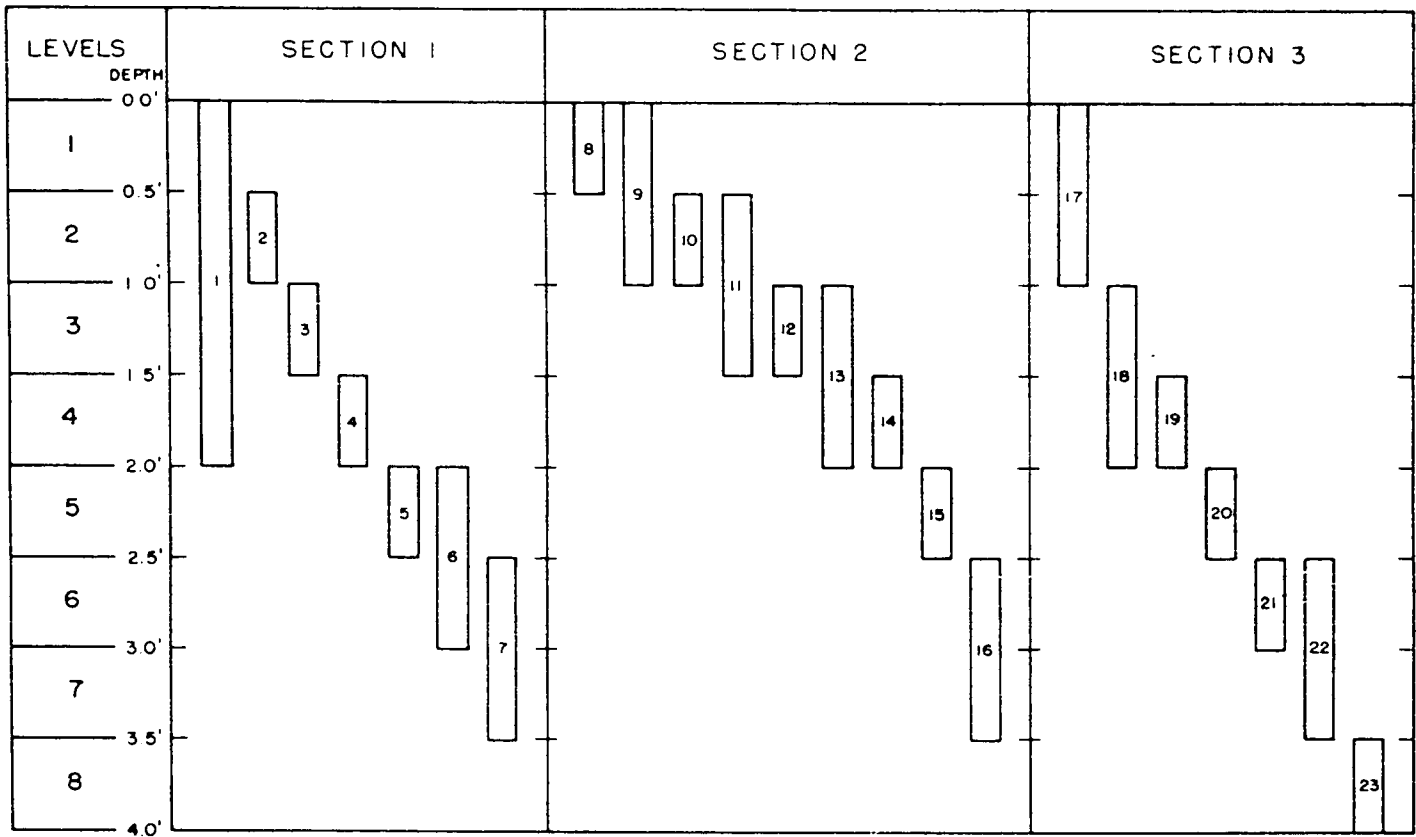


Fig. 26. Chart of Analysis Units

units) were set up based on the levels from which the material had come as shown in Figure 26. These units are not of equal size and do not follow always in stratigraphic sequence. This is a result of the way the material was excavated.

Figure 27 shows the seriation of the Mississippi Plain sherds. This was the dominant type in all units, sometimes running as high as 90 percent. Sections 1 and 3 tend to show a slight decrease in popularity of this type through time although this situation is reversed in Section 3. This occurs in the other seriation and it would seem that some more mixing occurred in this central section to throw the seriation off. Therefore, in most of what follows the data used will be that

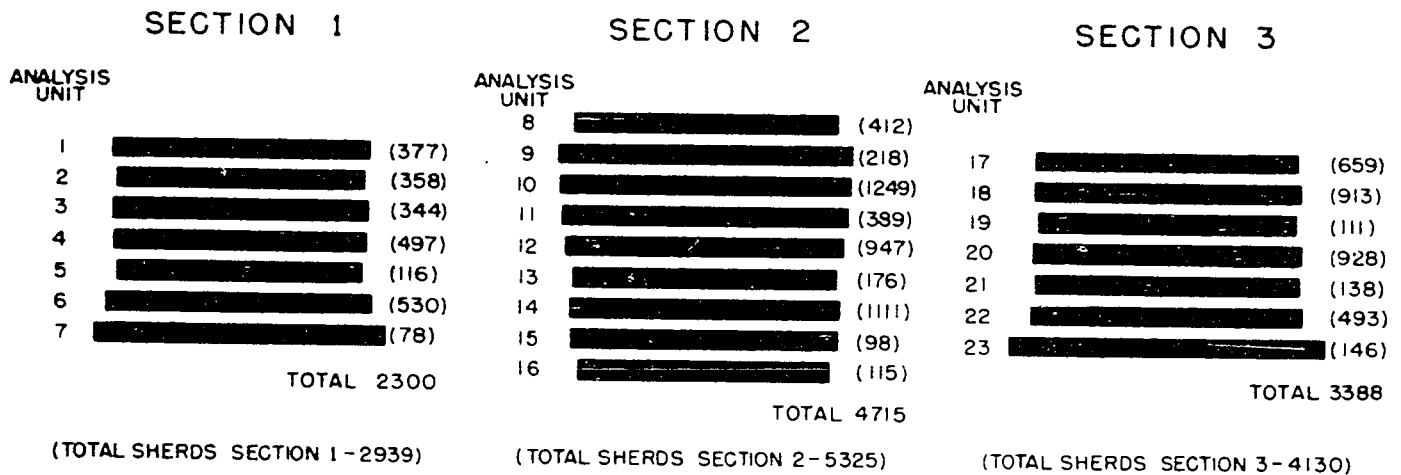


Fig. 27. Seriation of Mississippi Sherds

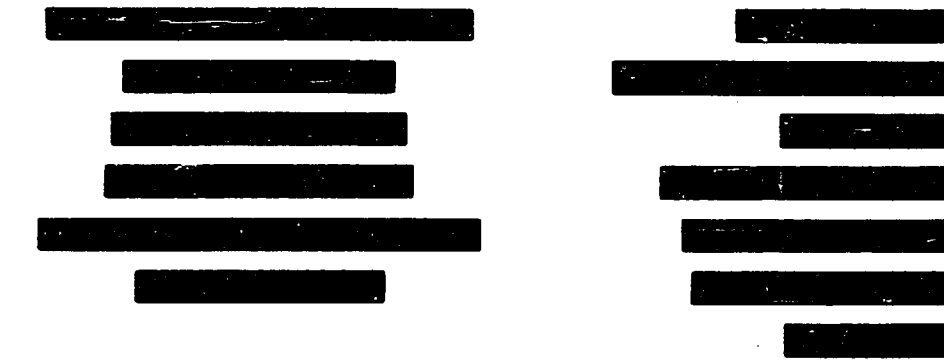
obtained in Sections 1 and 3 and they tend to show similar results. This may sound rather presumptuous but it seems to be the only solution. It might be added that the site was dug for architectural features and artifacts rather than ceramic stratigraphy so that this section is admitted not too strong.

Figure 28 shows the seriation of the minor types. The scale of this figure is nearly ten times that of the previous one and thus helped to bring out slight changes in these types.

Bell Plain shows a slight tendency to increase in frequency, and this may be at the expense of Mississippi Plain. The Wickliffe Series as a whole tends to increase except for the cord marked variety which does decrease. The Kimmswick Series remains relatively staple throughout.

Of the Incised wares, O'Byam Incised appears to be a bit earlier than Beckwith, while O'Byam Engraved appears to be later. Broad Line Incised is just a temporary category and

ANALYSIS UNIT
SECTION 1
1
2
3
4
5
6
7



SECTION 2
8
9
10
11
12
13
14
15
16

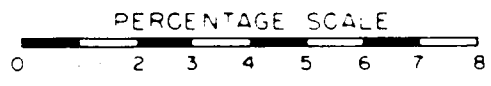


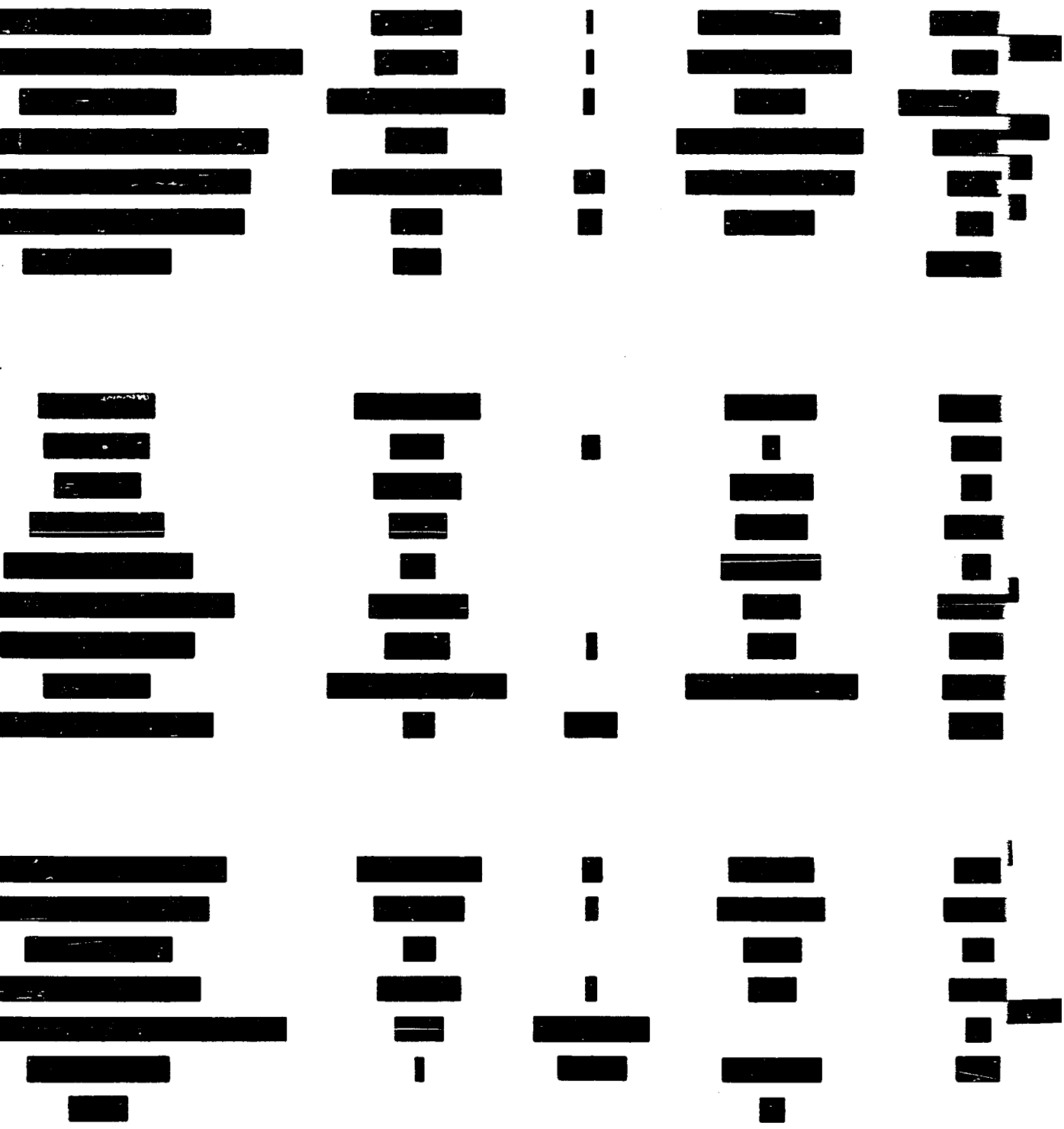
SECTION 3
17
18
19
20
21
22
23



BELL PLAIN

WICKLIFFE P





WICKLIFFE PLAIN

WICKLIFFE
INCISED

WICKLIFFE
CORD MARKED

KIMMSWICK
FABRIC MARKED

KIMMSWICK
PLAIN

Fig. 28. Seriation of

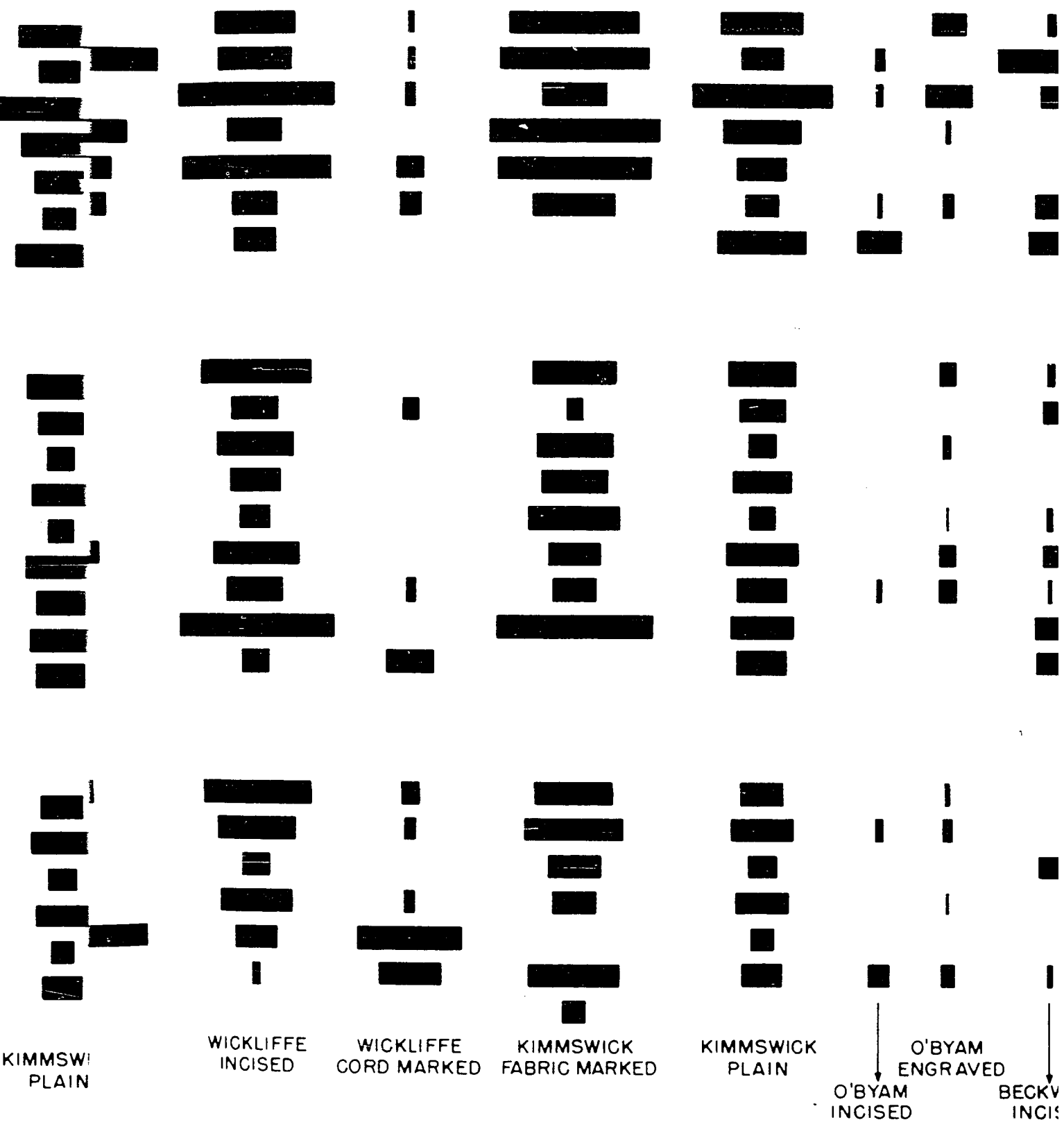


Fig. 28. Seriation of Minor Types.



BYAM GRAVED
 ↓
 BECKWITH INCISED
 BROAD LINE INCISED
 ↓
 UNIDENTIFIED INCISED
 CROSNO CORD MARKED
 ↓
 MULBERRY CREEK CORD MARKED
 BAYTOWN PLAIN
 ↓
 ANGEL NEGATIVE PAINTED
 OLD TOWN RED FILMED

might well have been included with the unidentified material.

Crosno Cord Marked appears definitely early as does the clay tempered Mulberry ware. Baytown Plain is early as well, while Angel Negative Painted and Old Town Red Filmed are late.

Because of a certain dissatisfaction with these results and the feeling that the ceramic situation might be charted better some other way, Figure 29 was created. It is based on limited data. In Section 1 Analysis Units 1 and 6 were not used. In Section 2 Units 9, 11 and 13 were not used. This selection was made in an attempt to employ data which was more precisely level by level.

In the figure, a white square means that one sherd of the type is known from that Level and Section. A blackened square means more than one sherd. This method was used for some of the sherd types were very scarce. A further word of explanation is required concerning the first two types charted. These are rims only whereas in all other cases both rim and body sherds were totaled.

As usual Section 2 tends to give a somewhat different picture than the other two. However, by inspection the following can be adduced: in Levels 5-8 these types were most prevalent Kimmswick Fabric Impressed rim sherds, Wickliffe Cord Marked, Mulberry Creek Cord Marked, Baytown Plain and Crosno Cord Marked. In Levels 1-4, the types most common were Kimmswick Plain rim sherds, Wickliffe Incised, Angel Negative Painted, and Old Town Red. This shows only the relationship between these nine types. It may be alleged that these types were picked

LEVELS	SECTION 1	SECTION 2	SECTION 3
1		■ ■ ■ ■	■ ■ ■ ■ ■ ■
2	■ □ ■ □	■ □ ■ □ □	■ ■ ■ □ ■ ■
3	■ □ ■ □ ■	■ ■ ■ ■	■ ■ ■ □ ■ □
4	■ □ ■ □ □	■ ■ ■ ■	■ ■ ■ □ ■ □
5	■ ■ ■ ■ ■ ■ □	■ □ ■ ■	■ ■ ■ □ ■ ■ ■
6	■ ■ ■ ■ ■ ■ ■	□ ■ □ ■ ■	□ ■ ■ ■ ■ ■ ■
7	□ □ □ □ □	□ ■ □ ■ ■	□ ■ ■ □ ■ ■ ■
8			
POTTERY TYPES	KIMMSWICK PLAIN RIMS KIMMSWICK FABRIC RIMS WICKLIFFE CORD MARKED WICKLIFFE INCISED ANGEL NEGATIVE PAINTED OLD TOWN RED FILMED MULBERRY CREEK CORD MARKED BAYTOWN PLAIN CROSNO CORD MARKED	KIMMSWICK PLAIN RIMS KIMMSWICK FABRIC RIMS WICKLIFFE CORD MARKED WICKLIFFE INCISED ANGEL NEGATIVE PAINTED OLD TOWN RED FILMED MULBERRY CREEK CORD MARKED BAYTOWN PLAIN CROSNO CORD MARKED	KIMMSWICK PLAIN RIMS KIMMSWICK FABRIC RIMS WICKLIFFE CORD MARKED WICKLIFFE INCISED ANGEL NEGATIVE PAINTED OLD TOWN RED FILMED MULBERRY CREEK CORD MARKED BAYTOWN PLAIN CROSNO CORD MARKED

Fig. 29. Presence or Absence Chart of Some Minor Types.

to prove a point and answer to this allegation is in the affirmative. These types looked as if they would show differences based on the original sorting and this chart is presented to show these differences.

When excavations were undertaken at the site, the writer was unaware of any Mulberry Creek Cord Marked having come from the site. From Anderson's and our surface collection the samples looked pure Mississippian, for although Baytown Plain was present, it must be admitted that the Baytown tradition is mainly based on the presence or absence of the cord marked type.

The discovery of the Mulberry Creek Cord Marked at the site, while not surprising when considering the general picture in the area (Section 4), was an added bit of data which was welcome. Welcome too was its early stratigraphic position despite the fact that only 22 sherds of this type were found, certainly indicating a brief occupation.

The Crosno Cord Marked sherds, of which there were 30, also indicated a situation not looked for when the excavation was begun. The possibility that this type represents a transitional stage from the clay tempered Baytown Complex to the shell tempered Mississippian while retaining the cord marking pattern must be considered. If this be true, what is seen at Crosno must reflect a situation taking place elsewhere in an area where this shift could be better delineated. Kneberg's Obion Focus (19r2) seems to be a good candidate for the region, and geographically this hypothesis is reasonable since the Obion River flows into the Mississippi not many miles below Crosno.

Another phase of the ceramic study was the analysis of the shift in handle types. Loop handles (round in cross-section) were most common in the lowest levels although a few strap (flat in cross-section) handles occurred here too. Intermediate handles occurred through the deposit while strap handles were the most common in the upper levels.

Faunal Remains

The number of faunal remains encountered was large and these have been carefully studied by Robert M. Goslin who worked on the mammals, turtles and birds and Richard Adams who identified the fish.

Table 7 gives a list of the species identified.

Table 7. Faunal Remains

MAMMALS		no. of bones
Opossum (<u>Didelphis virginiana</u>)		15
Raccoon (<u>Procyon lotor</u>)		117
Mink (<u>Mustela vison</u>)		21
Skunk (<u>Mephitis mephitis</u>)		2
Dog (<u>Canis familiaris</u>)		141
Bobcat (<u>Lynx rufus</u>)		4
Cougar (<u>Felis concolor</u>)		2
Striped Spermophile (<u>Citellus tridecemlineatus</u>)		1
Gray Squirrel (<u>Sciurus carolinensis</u>)		109
Fox Squirrel (<u>Sciurus niger</u>)		24

	no. of bones
Beaver (<u>Caster canadensis</u>)	48
Muskrat (<u>Ondatra zibethica</u>)	166
White-footed Mouse (<u>Peromyscus</u> sp.)	47
Rice Rat (<u>Oryzomys palustris</u>)	211
Cotton-tailed Rabbit (<u>Sylvilagus floridanus</u>)	154
Swamp Rabbit (<u>Sylvilagus aquaticus</u>)	451
Virginia Deer (<u>Odocoileus virginianus</u>)	2084
Prairie Mole (<u>Scalopus aquaticus</u>)	1

TURTLES

Box Turtle (<u>Terrapene carolina</u>)	100
Red-eared Turtle (<u>Pseudemys scripta</u>)	196
Painted Turtle (<u>Chrysemys picta</u>)	9
Musk Turtle (<u>Sternotherus oderata</u>)	11

BIRDS

Common Loon (<u>Gavia immer</u>)	1
Pied-billed Grebe (<u>Pedilymbus podiceps</u>)	2
Great-blue Heron (<u>Ardea herodias</u>)	3
Canada Goose (<u>Branta canadensis</u>)	55
Black-crowned Night Heron (<u>Nycticorax nycticorax</u>)	11
Mallard or Black Duck (<u>Anas platyrhynchos</u>) or <u>Anas rubripes</u>)	61
Blue-winged Teal (<u>Anas discors</u>)	20
Shoveller Duck (<u>Spatula clypeata</u>)	4
Wood Duck (<u>Aix sponsa</u>)	19
Ring-necked Duck (<u>Aythya collaris</u>)	10

	no. of bones
Lesser Scaup Duck (<u>Aythya affinis</u>)	10
American Golden-eye Duck (<u>Bucephala clangula</u>)	6
Hooded Merganser (<u>Lophodytes cucullatus</u>)	6
Red-breasted Merganser (<u>Mergus serrator</u>)	3
American Merganser (<u>Mergus merganser</u>)	1
Prairie Chicken (<u>Tympanuchus cupido</u>)	36
Bobwhite (<u>Colinus virginianus</u>)	10
Wild Turkey (<u>Meleagris gallopavo</u>)	101
Sandhill Crane (<u>Grus americanus</u>)	62
King Rail (<u>Rallus elegans</u>)	1
American Coot (<u>Fulica americana</u>)	2
Wilson's Snipe (<u>Capella gallinago</u>)	3
Passenger Pigeon (<u>Ectopistes migratorius</u>)	87
Great-horned Owl (<u>Bubo virginianus</u>)	2
Barred Owl (<u>Strix varia</u>)	4
Saw-whet Owl (<u>Aegolius acadicus</u>)	1
Hairy Woodpecker (<u>Dendrocopos villosus</u>)	1
Flicker (<u>Colaptes auratus</u>)	1
Crow (<u>Corvus brachyrhynchos</u>)	8
Green Heron (<u>Butorides virescens</u>)	1

FISH

Short or Longnosed Gar (<u>Lepisosteus</u> cf. <u>osseus</u>)	
Freshwater Drum (<u>Aplodinotus grunniens</u>)	
Channel Catfish (<u>Ictalurus lacustris</u>)	not counted
Bullhead Catfish (<u>Ameiurus</u> sp.)	
Dogfish or Bowfin (<u>Amia calva</u>)	

Carp suckers and Sucker family (Catostomids)

Carp family (Cyprinids)

Totals:

Identified Mammal Bones	3447	
Unidentified Mammal Bones	<u>136</u>	
	Mammals	3583
Identified Turtle Bones	316	
Unidentified Turtle Bones	<u>98</u>	
	Turtles	414
Identified Bird Bones	522	
Duck, species not identified	37	
Goose, species not identified	17	
Unidentified Bird Bones	<u>196</u>	
	Birds	<u>772</u>
Total - all counted Bones		4769

All these creatures are known to have been resident in the state in the historic past. Some, such as the passenger pigeon, are now extinct but list does give some indication of the ecological situation which these people faced. These materials were also sorted into Analysis Units and investigated to see if any important shifts in varieties took place. This was not found to be the case so the data are not presented although the raw data were in Appendix B.

No attempt will be made to discuss each animal but a few things should be noted. The deer was the most common of 18

mammals and its bones ran from 55 to 90 per cent of the material in each analysis unit. Rabbits were important, but the high number of rice rat bones must be considered in the light of the fact that a number of almost complete individuals were found, as if they had died in their holes. If the Indians had half the trouble the writer encountered with these little beasts in his tent, they probably killed them at every opportunity. No really large mammals were positively identified although several pieces of antler were tentatively listed as Elk by Goslin. The most surprising absence is that of bears. Accounts of early voyagers tell of numerous bears but not a bone was found. The explanation for this lack must have been cultural as the animals were certainly in the region.

The turtles were quite numerous but no artifacts of turtle shell have been found although they doubtless exist. All four of these turtles are termed edible by modern scholars.

The thirty kinds of birds give a cross-section of the avian life although it is surprising that not many small birds occur in the list. These would have served as good sources of colorful feathers although some of the varieties on the list have bright plumage. The wild turkey, passenger pigeon and sandhill crane lead the list in popularity. The writer was surprised by the strange food habits of these Indians which seemed to put the crane so high on the list until he read an historical account of hunting in the Dakotas and found that the bird was hunted regularly by the inhabitants of that area as late as 1890.

The fish show quite a range in type. Additional material in the nature of fish scales was obtained but has so far not been identified.

The over-all faunal picture would seem to give some idea of the living conditions. The Prairie Chickens were no doubt obtained on nearby prairie lands, but the number of aquatic birds and also animals which like water such as mink, certainly indicate the swampy nature of most of the area.

Cultural Position

The Crosno site is a component of the Cairo Lowland phase. Two levels may be defined within this component: an Early Crosno which has traces of the Baytown tradition, and a Late Crosno which is the classic expression of the Mississippian tradition in the area with negative painted pottery and strap handles.

Temporally, the Early Crosno level is in a transitional position between the Early Mississippi period and the Middle Mississippi period. The Late Crosno level is of the Middle Mississippi period. None of it is in the Late Mississippi period as herein defined.

As to external relations, Table 8 shows its great ceramic similarity with Kincaid and Wickliffe (Fig. 5). Perhaps the most telling comparison is on the basis of the Wickliffe Incised, since this type has a very limited distribution outside the Southeast Missouri area.

Table 8. Pottery Types at Crosno, Kincaid and Wickliffe

	Crosno	Kincaid	Wickliffe
Baytown Complex:			
Baytown Plain	X	X	
Mulberry Creek Cord Marked	X		
Mississippian Complex:			
Mississippi Plain	X	X	X
Bell Plain	X	X	X
Old Town Red Filmed	X	X	X
Nodena Red and White	X		
Angel Negative Painted	X	X	X
Wickliffe Series			
Wickliffe Cord Marked	X		
Wickliffe Plain	X	?	X
Wickliffe Punctate	X		
Wickliffe Incised	X	X	X
Kimmswick Series			
Kimmswick Plain	X	X	X
Kimmswick Fabric Impressed	X	X	X
O'Byam Incised	X	X	X
O'Byam Engraved	X	?	X
Walls Engraved	X	X	
Matthews Incised		X	X
Mound Place Incised	X	?	X
Manly Punctate	X	X	X
Crosno Cord Marked	X	?	

The sequence at Kincaid (Cole et al., 1951) is duplicated in many ways at Crosno. The following sherd percentages from Kincaid compare quite closely with those at Crosno:

	%
Kincaid Plain	67
Kincaid Wet Impressed	20
Kincaid Polish	3
Kincaid Red Slipped	4
Kincaid Negative Painted	<u>.4</u>
	103.4

There are similarities in architecture as has been pointed out and also in non-ceramic artifacts. But there is a difference in culture type for Kincaid is a big site, a metropolis, perhaps, whereas Crosno is still a village.

The similarities with Wickliffe (Lewis, 1937; King, 1932) are even more striking as well they might be since the Mississippi River was surely no barricade to these people who lived almost surrounded by water. A collection in the Ceramic Repository is the source of the data presented in Table 8. Two visits to the site and a reading of what little has been written on this well-known site has convinced the writer of almost complete cultural identity between the two sites.

For those unfamiliar with this area it might be mentioned in passing that this site is the famous "Ancien Buried City" which is operated commercially as a tourist attraction. Excavations have been made and preserved here and the main attraction is a burial mound with 153 skeletons exposed in it.

Parts of two other mounds have been excavated. One was a temple mound which showed three construction periods and two structures within it. The other is called the chief's mound and a post hole pattern was uncovered which showed a structure 21 feet by 25 feet. This gives some idea of what one might find if the main mound at Crosno were excavated.

Crosno, is; therefore, a classic example of the Cairo Lowland phase which has time depth enough to indicate some cultural changes and some external relationships through time.

Section 4

SURVEY OF SITES WITHIN AREA

SURVEY OF SITES WITHIN AREA

Nature and Purpose

The survey carried out by the writer and Scully attempted to cover the entire area in both time and space. Sites ranging from the Preceramic period to the Mississippian were recorded although nearly half the more than one hundred sites located were related to this latter period. This preponderance of late sites is, no doubt, due to the fact that they are easier to find but every attempt was made to find early sites. The sample is likewise probably weighted in favor of large sites, for they tend to be the best known and to have the larger mound groups. However, small sites of all periods were also found. With regard to space, more time was spent in the Cairo and Little River Lowlands with the result of more complete coverage of these regions and a larger number of sites recorded but the other parts of the area were sampled with some success. Undoubtedly, only the larger and easiest to find sites were located in these other sections but since these are mostly of Mississippian period, the coverage of the area for the period under consideration may be termed adequate.

The method of site surveying was dual in nature: first, use of locations obtained from the University of Missouri and the literature; second, local inquiry about aboriginal remains and further information gained from the few amateur collectors.

This last named group, though small, was uniformly friendly and very helpful, and their aid is hereby gratefully acknowledged.

Site designation was carried out in the field by the Smithsonian method widely used in the southeast such as 23 Du 10, with the initial number referring to the state, the letters to the abbreviation of the county, and the final numbers to the site as found sequentially in the county, so that the site listed above is the tenth one located in Dunklin County, Missouri. This method is the one employed by the University of Missouri, and the system was retained by the University of Michigan in this particular piece of research.

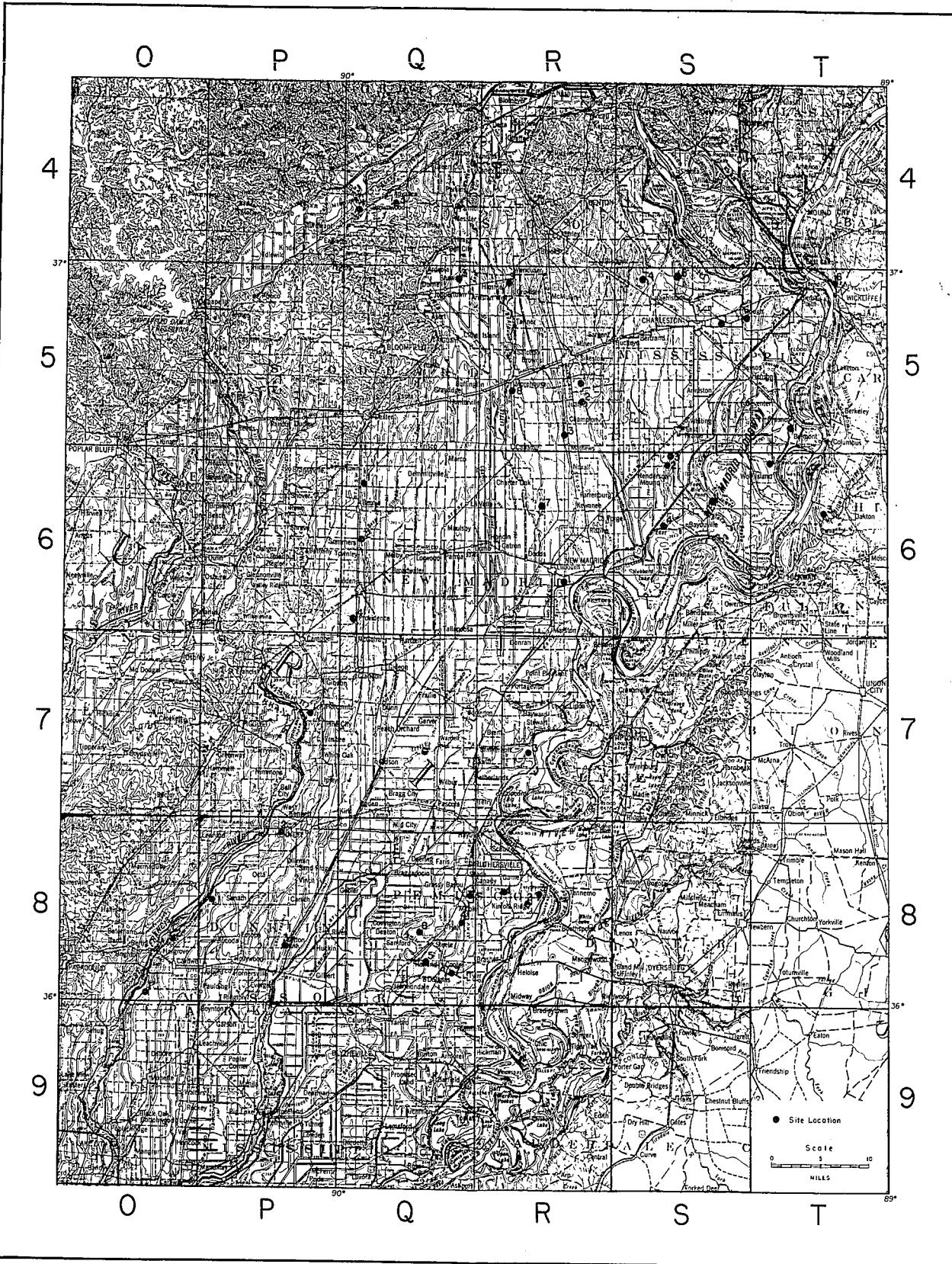
However, the writer has in his more recent work shifted to a method of site designation used by the Lower Mississippi Valley Survey at the suggestion of Dr. Philip Phillips. In this system the whole valley has been divided into quadrangles of fifteen degrees of longitude and latitude which correspond to the geological quadrangle maps at the Mississippi River Commission, which has mapped most of the area. These quadrangles have been given alphabetical and numerical coordinates and sites have been numbered sequentially within each quadrangle. Thus a typical site designation reads as follows 6-R-1, meaning that it is the first site located in the quadrangle 6-R. This method exactly duplicates that used by the University of Arizona except for the manner of quadrangle designation, and there seems to be some real inherent advantages in using a system of quadrangles of this size,

especially when one has published maps of the proper scale available. This situation is not uncommon as most of the U.S.G.S. quadrangle maps are of this size, although a new series covering one quarter of the fifteen degree area is now being turned out by this agency.

In order to prevent confusion, both systems of site designation have been retained on the survey cards but only the latter method will be used in this study. There follows a list of sites which have special reference to the Mississippian period in the area, and a map (Fig. 30) shows their location. These are not, by any means, all the sites located by the survey, since those of the earlier periods were to have been dealt with by Scully and have no direct bearing on the problem under consideration. After the list, the sites will be discussed by physiographic regions.

Table . List of Sites in Area

No.	Name	County, State	Location
4-Q-1	Peter Bess	Bollinger, Mo.	Probably SW $\frac{1}{4}$ S20 or NW $\frac{1}{4}$ S39 T28N R10E
4-Q-3	Lakeville Settlement	Stoddard, Mo.	NE $\frac{1}{4}$ S23 NW $\frac{1}{4}$ S24 T28N R10E
5-Q-3	Durnell	Stoddard, Mo.	SE $\frac{1}{4}$ SE $\frac{1}{4}$ S13 T27N R11E
5-R-1	Sikeston	New Madrid, Mo.	SE $\frac{1}{4}$ NE $\frac{1}{4}$ S5 T25N R14E
5-R-2	East Lake	New Madrid, Mo.	SE $\frac{1}{4}$ SE $\frac{1}{4}$ S5 T25N R14E
5-R-3	Matthews	New Madrid, Mo.	SE $\frac{1}{4}$ SE $\frac{1}{4}$ S31 T25N R14E
5-R-8	Morehouse	New Madrid, Mo.	SE $\frac{1}{4}$ SE $\frac{1}{4}$ S6 T25N R13E
5-R-9	Vanduser Mound	Scott, Mo.	NE $\frac{1}{4}$ SW $\frac{1}{4}$ S18 T27N R13E



Map of Area Showing Site Locations

No.	Name	County, State	Location
5-S-1	Charleston	Mississippi, Mo.	SE $\frac{1}{4}$ S3 T26N R16E
5-S-4	Sandy Woods	Scott, Mo.	NE $\frac{1}{4}$ NE $\frac{1}{4}$ S20 T27N R15E
5-S-5	Lusk Chapel	Scott, Mo.	NE $\frac{1}{4}$ NE $\frac{1}{4}$ S14 T27N R15E
5-S-6	Meyer's Mound	Mississippi, Mo.	NE $\frac{1}{4}$ NW $\frac{1}{4}$ S6 T26N R17E
5-T-1	Crosno	Mississippi, Mo.	NE $\frac{1}{4}$ SE $\frac{1}{4}$ S26 T24N R17E
5-T-6	Wickliffe	Ballard, Ky.	SE S31 T26N R18E
6-Q-1	Rich Woods	Stoddard, Mo.	E $\frac{1}{2}$ S22 T24N R10E
6-Q-2	County Line	Stoddard, Mo.	SE $\frac{1}{4}$ S15 T23N R10E
6-Q-4	Wulfing Plate	Dunklin, Mo.	SW $\frac{1}{4}$ NW $\frac{1}{4}$ S27 T22N R10E
6-R-1	Lilbourn	New Madrid, Mo.	Survey 711 28, 712 T22N R14E
6-R-7	Otter Slough	New Madrid, Mo.	E $\frac{1}{2}$ E $\frac{1}{2}$ S34 T24N R13E
6-S-1	Barker	Mississippi, Mo.	NW $\frac{1}{4}$ NW $\frac{1}{4}$ S34 T24N R16E
6-S-2	Spanish Grant	Mississippi, Mo.	SW cor. Survey 3187
6-S-3	Survey Site	Mississippi, Mo.	NE cor. Survey 3187
6-S-4	East Bayou	New Madrid, Mo.	S2 T23N R15E
6-T-1	Beckwith's Fort	Mississippi, Mo.	NW $\frac{1}{4}$ SE $\frac{1}{4}$ S29 T24 R17
6-T-3	O'Byam's Fort	Hickman, Ky.	T23N R18E
7-P-1	Holcomb	Dunklin, Mo.	SE $\frac{1}{4}$ S11 T20N R9E
7-Q-1	Wardell	Pemiscot, Mo.	SW $\frac{1}{4}$ NW $\frac{1}{4}$ S26 T20N R11E
7-R-3	Estes	Pemiscot, Mo.	SE $\frac{1}{4}$ SE $\frac{1}{4}$ S28 T20N R13E
8-0-1	Cockrum Landing	Dunklin, Mo.	NW $\frac{1}{4}$ S19 T16N R7E
8-0-2	Wilkins Island	Dunklin, Mo.	SW $\frac{1}{4}$ S22 T17N R7E
8-P-1	Old Varney River	Dunklin, Mo.	NW $\frac{1}{4}$ S5 T18N R8E
8-P-2	Kennett	Dunklin, Mo.	SW $\frac{1}{4}$ NW $\frac{1}{4}$ S4 T18N R9E
8-P-3	Langdon	Dunklin, Mo.	S28 T17N R9E

No.	Name	County, State	Location
8-Q-3	Canady	Pemiscot, Mo.	SW:SE $\frac{1}{4}$:SW:SE $\frac{1}{4}$ S34: 33 T18N R12E
8-Q-4	Persimmon Grove	Pemiscot, Mo.	SE $\frac{1}{4}$:NE $\frac{1}{4}$ S17 T17N R12E
8-Q-5	Holland	Pemiscot, Mo.	SE $\frac{1}{4}$:NE $\frac{1}{4}$ S3 T16N R11E
8-Q-7	Cooter	Pemiscot, Mo.	NE $\frac{1}{4}$:NE $\frac{1}{4}$ S7 T16N R12E
8-Q-8	Frakes	Pemiscot, Mo.	SW $\frac{1}{4}$:NE $\frac{1}{4}$ S22 T17N R11E
8-R-1	Caruthersville	Pemiscot, Mo.	NW $\frac{1}{4}$:SW $\frac{1}{4}$ S31 T16N R12E
8-R-2	Kinfolk Ridge	Pemiscot, Mo.	NW $\frac{1}{4}$:SE $\frac{1}{4}$ S4 T17N R13E
8-R-3	Chute	Pemiscot, Mo.	SW $\frac{1}{4}$:SE $\frac{1}{4}$ S34 T18N R13E

Eastern Lowland

Cairo Lowland

The eastern part of this region lies within the recent meander belt of the Mississippi River while the western boundary is the Sikeston Ridge. There are several other fragments of old alluvial fans within the region, forming the Matthews and East prairies. The natural levee ridges and these prairies almost literally formed islands in a sea of back swamp and glades. The sites are found on the edges of these "islands."

Charleston (5-S-1). This is a rather large site with the remnants of at least four mounds still visible. One is, no doubt, the so-called "Canada Mound" from which Beckwith (1887:) reportedly took a lump of native copper. Highway

60 now runs along its south edge and most of the mounds are under cultivation except for one used as a part of the local golf course. The collecting conditions at the time of the survey were not too favorable and the material is separated into two groups. The first from the eastern part of the site near the golf course and the second from the mounds to the west.

Sherds in Collection 1:

Baytown Complex:

		%
Baytown Plain	143	63.83
Mulberry Creek Cord Marked	1	.44
Larto Red Filmed	3	1.33

Mississippian Complex:

Mississippi Plain	53	23.66
Bell Plain	19	8.48
Kimmswick Fabric Impressed	1	.44
Matthews Incised	3	1.33
Unidentified Incised Red Filmed	<u>1</u>	<u>.44</u>
Total	224	99.95

Sherds in Collection 2:

Barnes Complex:

		%
Barnes Plain	3	6.5

Baytown Complex:

Baytown Plain	32	69.5
Wheeler Check Stamped	1	2.2

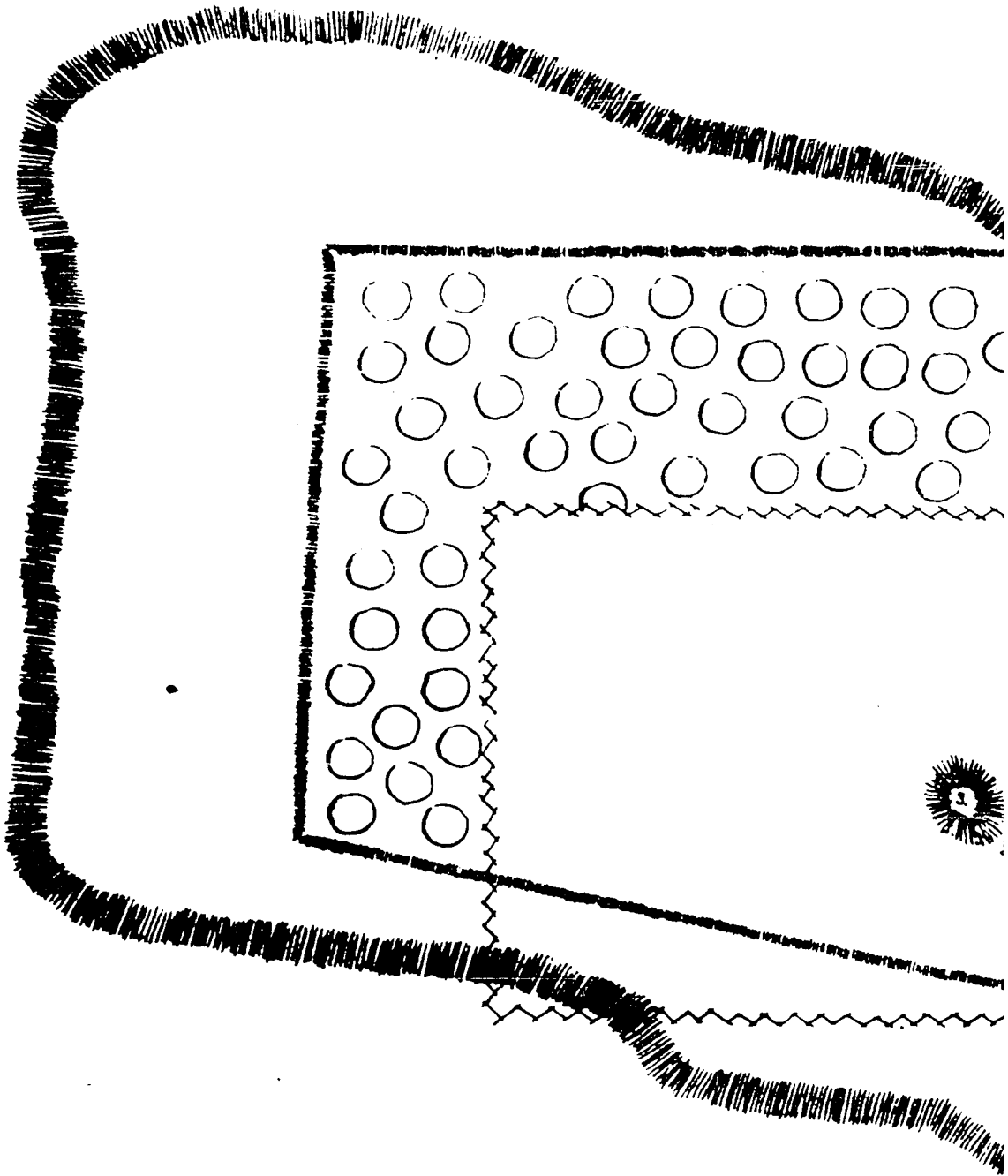
Mississippian Complex:

Mississippi Plain	7	15.2
Bell Plain	<u>3</u>	<u>6.5</u>
Total	46	99.9

The impression received from this material is one of a mixed occupation or at least one during an early part of the Mississippian period because of the preponderance of clay tempered wares. The fact that Beckwith presumably got much of his collection from this site, which he owned, as well as two others to be discussed shortly makes it seem apparent that there is a good chance that there was a more extensive Mississippian occupation than these surface collections indicate. There is a small conical mound some four to five hundred yards to the northeast of the main group and the present owner has picked up a number of stemmed Woodland type projectile points around it. Thus the probability of dual occupation is strengthened. The problem of what the Baytown pottery Complex means when found on sites with external characteristics of the Mississippian culture will be elaborated on later.

References: Beckwith, 1898; Houck, 1907: 26; Adams and Walker, 1942: 6.

Sandy Woods (5-S-4). Situated on a low ridge besides North Cut ditch, this site was the first one visited by the author in the inception of his study of the archeology of the area. It was an auspicious beginning for it is a classic site and a number of its outstanding features were still present at that time. Figures 31 and 32 show Potter's map of the site and an aerial photo confirming most of the

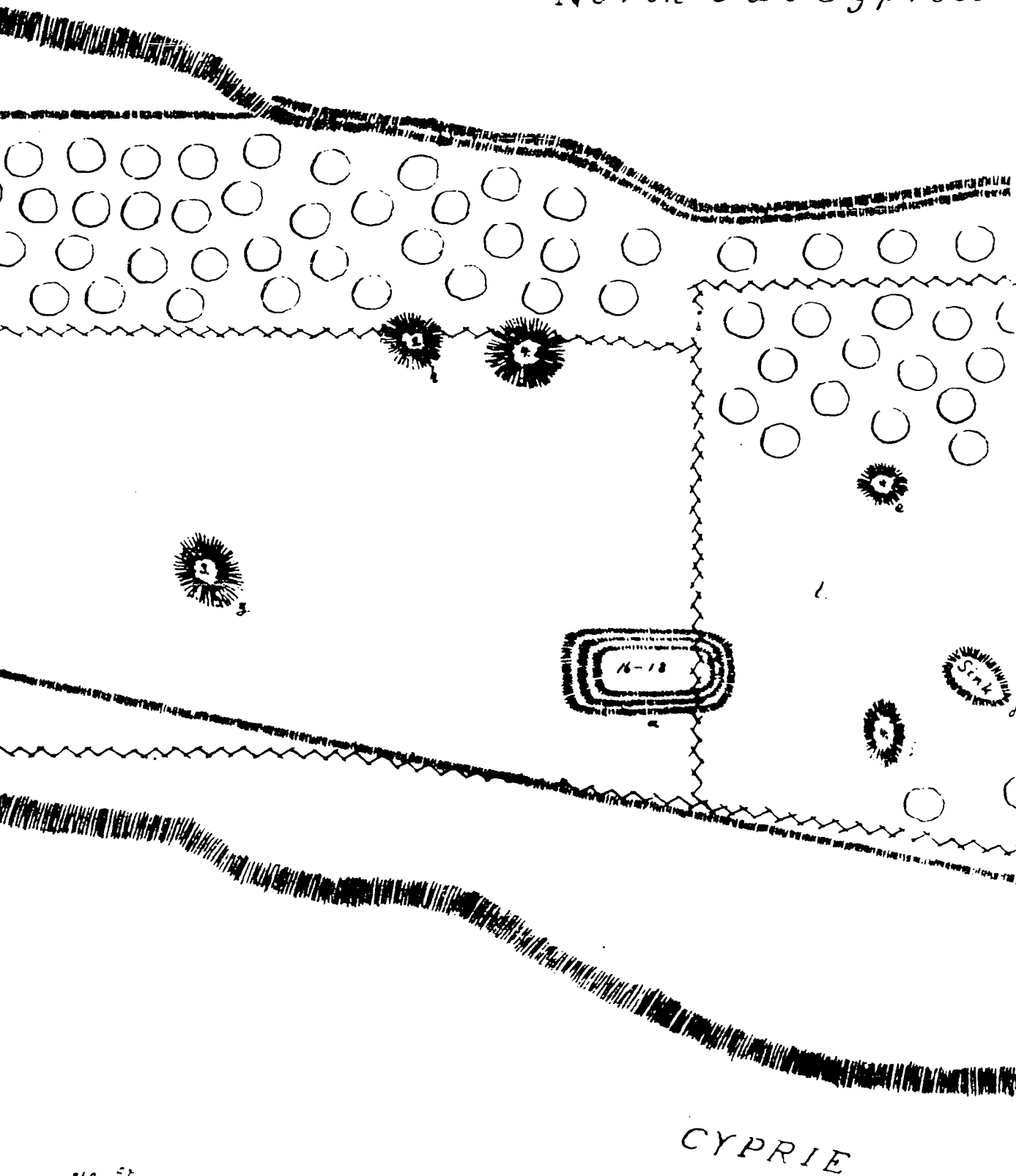


The numbers indicate elevation
in feet above general level of high land



H. Meisler, del.

North Cut Cypress



960 ft.

Fig. 31. Map of Sandy Woods (after Potter

North Cut Cypress

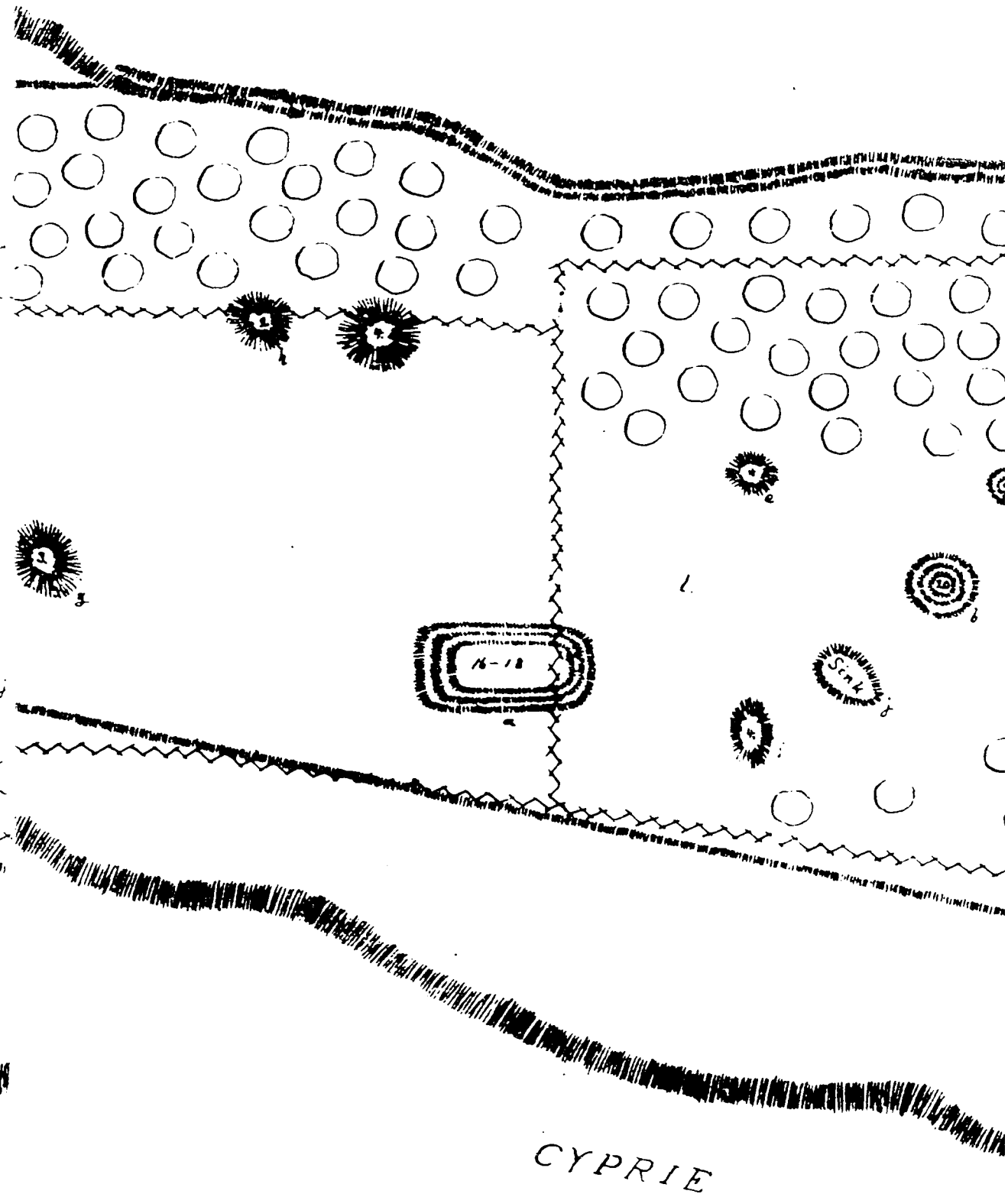
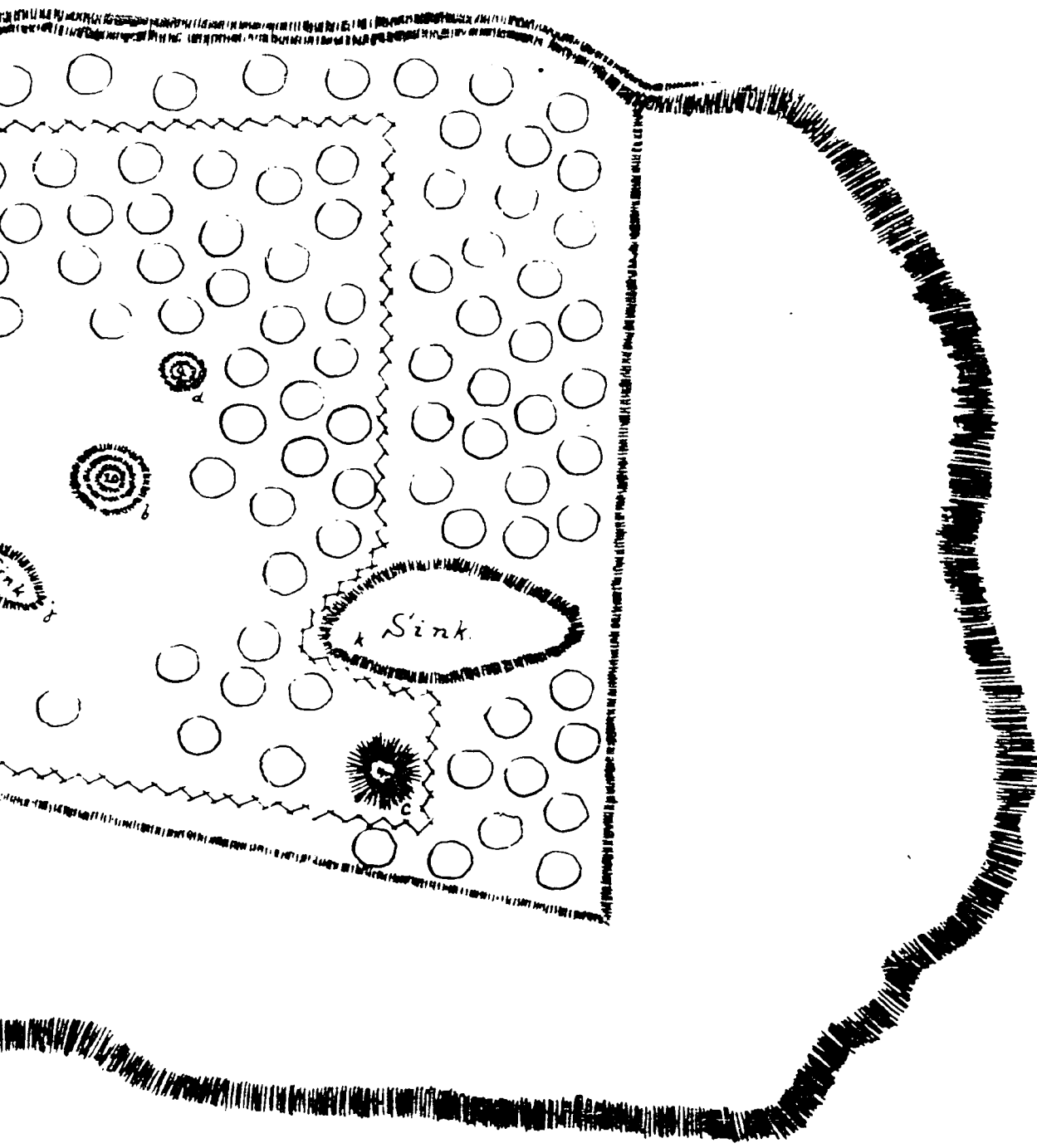


Fig. 31. Map of Sandy Woods (after Potter, 1880)

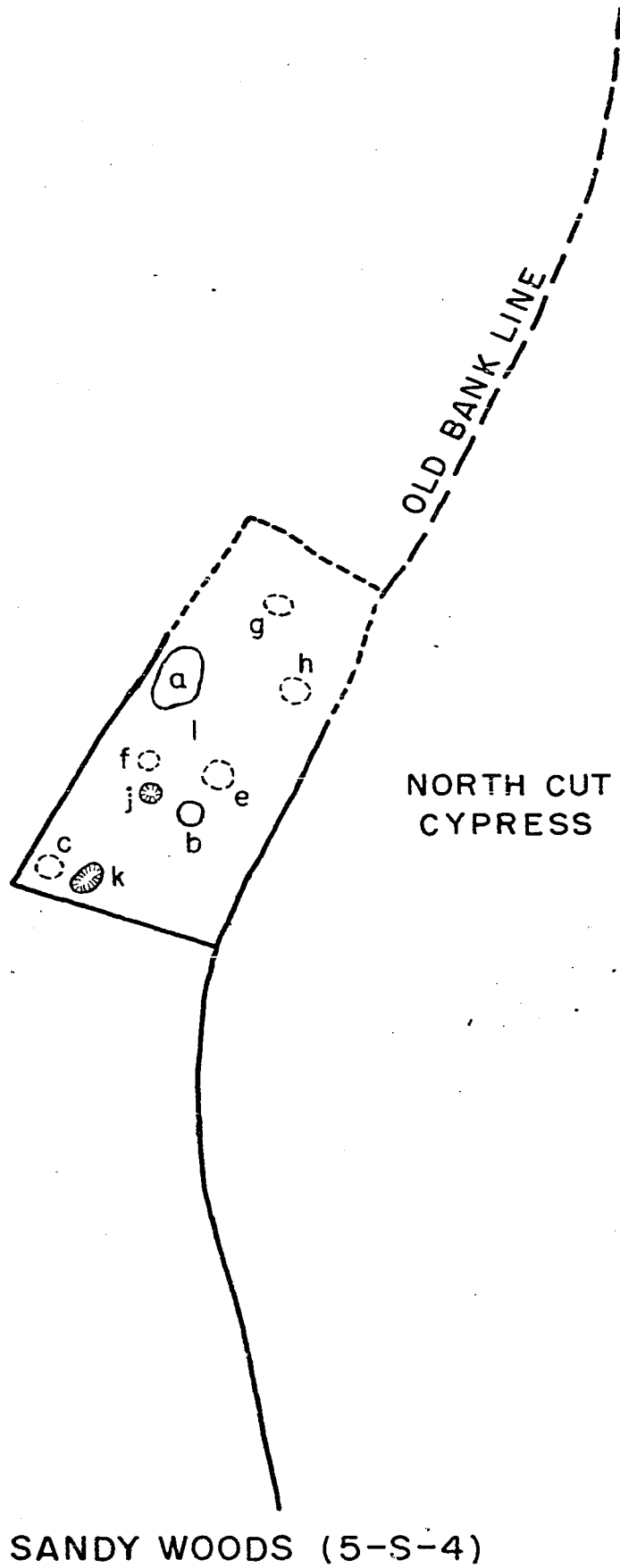
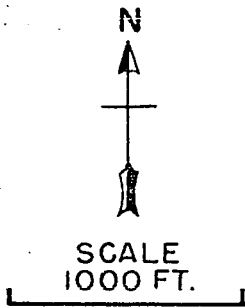


details drawn by him. A wall and ditch surrounded the village on three sides and enclosed nine mounds and some 40 acres. These included a rectangular pyramid mound (a) on the west side, a conical mound (b) and seven low burial mounds. Two barrow pits (j and k) were formed by excavation for the mound construction.

Five to six hundred burials were taken from the site and the Peabody Museum of Yale and Harvard share the pottery dug here. The Yale collection includes 500 pots, some few stone and bone implements and a repousse copper gorget. The two surface collections made during the survey show quite different percentages and were made in different areas to see if such was the case.

Sherds in Collection 1:

Barnes Complex:		%
Barnes Plain	50	22.32
Barnes Cord Marked	32	14.29
Decorated Sand Tempered	1	.45
Baytown Complex:		
Baytown Plain	10	4.46
Mulberry Creek Cord Marked	25	11.16
Mississippian Complex:		
Mississippi Plain	76	33.93
Bell Plain	2	.89
Wickliffe Plain	7	3.12
Wickliffe Incised	1	.45
Mound Place Incised	1	.45
Unidentified sand-shell tempered	<u>19</u>	<u>8.48</u>
Total	224	100.00





SANDY WOODS (5-S-4)
Fig. 32 Aerial Photograph of Sandy Woods

Sherds in Collection 2:

Barnes Complex:		%
Barnes Plain	18	7.03
Barnes Cord Marked	10	3.91
Baytown Complex:		
Baytown Plain	20	7.81
Mulberry Creek Cord Marked	34	13.28
Mississippian Complex:		
Mississippi Plain	163	63.67
Bell Plain	8	3.12
Wickliffe Plain	1	.39
Kimswick Plain	1	.39
Varney Red	1	.39
	<u>1</u>	<u>.39</u>
Total	256	99.99

Collection 1 was made in a low area to the southeast of the village where a former lake had once washed against the bank and eroded out material from presumably lower levels of village debris. The surprising amount of the Barnes Complex is striking and represents the largest amount of this ware encountered in the Cairo Lowland, as it is almost exclusively a Malden Plain ware. This Barnes material differed slightly in that it was the most heavily sand tempered of any of the type found anywhere and had a gray color throughout, which set it off from the other sherds at the site.

The conical mound was destroyed by the former owner and the writer was present at the time and was able to watch part of the work. The earth of which it had been constructed was completely sterile and this leads one to the conclusion that the mound was constructed early in the site's history

or it might well have contained village debris. No information as to the nature of any burials or other materials found when the destruction of the mound was completed could be obtained.

The site is a type site for the Cairo Lowlands phase but undoubtedly has an earlier Baytown component too.

References: Rust, 1877; Potter, 1880; Chapman, 1946: 65; and Williams, 1949.

Lusk Chapel (5-3-5). This is an unusual site for it consists of a large conical (?) mound 18 feet tall and nothing else. No additional material could be found at the time of the survey and the sherd collection was made on the mound itself. The mound has been elongated and much disfigured by the road which passes on either side. It has been included because if the channel correlation arrived at is correct, it is one of the latest mounds in all of Southeast Missouri. The mound is also one of the largest known in the area. The sherd collection is small and very nondescript, as follows:

Barnes Plain		¢
Barnes Cord Marked	1	5.55
Grit Tempered Plain	1	5.55
Baytown Plain	4	22.22
Mulberry Creek Cord Marked	3	16.67
Withers Fabric Impressed	4	22.22
Mississippi Plain	1	5.55
	<u>4</u>	<u>22.22</u>
Total	18	99.98

The cultural position of this site must await further investigation.

Reference: Houck, 1907: 66.

Meyer's Mound (5-3-6). Located not far from the Charleston site, this site has two of the best preserved mounds in the area. The largest is terraced, the highest portion being some 15 feet in height, as shown in Figure 33. Thomas worked at the site for the Bureau of American Ethnology and obtained some whole vessels. The burial area is still occasionally dug into and has produced some fine pots. The surface collection was made in two areas as follows:

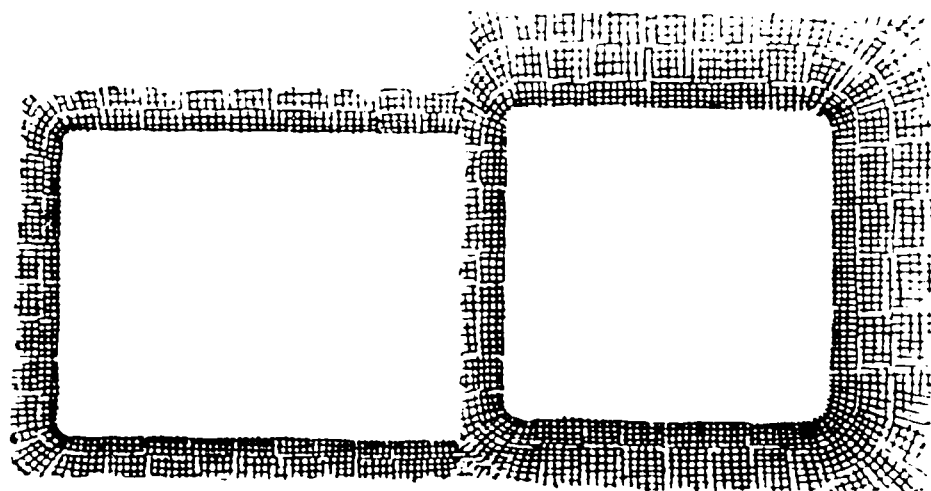
Sherds in Collection 1:

Baytown Complex:		%
Baytown Plain	36	28.34
Mulberry Creek Cord Marked	79	62.20
Mississippian Complex:		
Mississippi Plain	4	3.14
Bell Plain	7	5.51
Matthews Incised	1	.78
Total	127	99.97

Sherds in Collection 2:

Baytown Complex:		%
Baytown Plain	174	60.62
Mulberry Creek Cord Marked	85	29.61
Mississippian Complex:		
Mississippi Plain	24	8.36
Kimmswick Fabric Impressed	3	1.04
O'Byam Incised	1	.34
Total	287	99.97

Collection 1 was made on the large mound and seems to indicate that considerable village debris was mixed in the construction materials. The high percentage of Mulberry



PLAN



SECTION

Fig. 33. Plan and Section of Meyer's Mound
(Thomas, 1894: 193)

Creek Cord Marked contrasts with that of Collection 2 taken from a village area to the east of the mound. The whole vessels known from the site are typical of Mississippian period and include a fine Bell Plain carafe necked water bottle with tripodal support of hollow bulbous legs.

The site is assigned to the Cairo Lowland phase with the suggestion that it may be, in part, an early component of this phase. A Baytown component is also recognized and is undoubtedly earlier and probably separate.

Reference: Thomas, 1894: 192-193.

Crosno (5-T-1). See Section 3 for a description of this typical Cairo Lowland site.

Barker (6-S-1). On the bank of St. James Bayou there are two low rectangular mounds with a third low, possible burial mound nearby. The area is now a farm lot with a barn on the largest mound and the collection was made in a small truck garden behind the house where the possible burial mound was located. Whole vessels have been taken from the site and were donated to the Beckwith Collection. One recently found was a carafe-necked water bottle. The material from the burial area appears to be Mississippian but the surface collection shows a high percentage of Mulberry Creek Cord Marked as follows:

Baytown Complex:		%
Baytown Plain	113	19.12
Mulberry Creek Cord Marked	319	53.98
Cord marked with cord design	2	.34

Mississippian Complex:		%
Mississippi Plain	138	23.35
Old Town Red Filmed	2	.34
Wickliffe Cord Marked	1	.17
Kimmswick Plain	1	.17
O'Byam Engraved	7	1.19
Thin Ware	5	.85
Brown Slip	2	.34
Unidentified Punctate	1	.17
Total	591	100.02

The site seems to be Cairo Lowland phase with a strong admixture of the Baytown Complex.

Spanish Grant (6-S-2). In the southeast corner of the old Spanish Grant on the edge of Black Bayou there is a small mound and an area of village debris. The mound may be burial since some human (?) bone fragments were found on the surface of it. A small surface collection was made as follows:

Baytown Complex:		%
Baytown Plain	18	10.11
Mulberry Creek Cord Marked	29	16.29
Mississippian Complex:		
Mississippi Plain	88	49.43
Bell Plain	41	23.03
Matthews Incised	2	1.12
Total	178	99.98

The collection indicates a Cairo Lowland phase occupation with some Baytown material also present.

Survey Site (6-S-3). Also on Black Bayou in the north-east corner of the Spanish Grant there is a small area of village debris which yielded a small collection as follows:

		%
Barnes Plain	5	8.19
Baytown Plain	23	37.70
Mississippi Plain	24	39.34
Bell Plain	<u>9</u>	<u>14.74</u>
Total	61	99.97

These few plain sherds tend to make an cultural allocation difficult but the site probably belongs within the Mississippian period.

East Bayou (6-S-4). On the edge of old Eagle West Lake, now called East Bayou, there is a quantity of surface material but no mounds are in evidence at present. The collections show great variation in makeup. Some have a considerable number of types of the Mississippi Complex but others show rather large percentage of the Baytown Complex. On the basis of surface material in the Anderson Collection, especially projectile points and other stone artifacts, this site was tentatively selected for further testing since it appeared to show a mixture of the Baytown period with some Mississippian pottery types which appeared to be late, such as Nodena Red and White. Also there appeared to be an areal difference in the distribution of the various types on the surface, but the surface collections do not make this situation completely clear. They were as follows:

Sherds in Collection 1:

Barnes Complex:

Barnes Plain

1

Baytown Complex:

Baytown Plain	79
Mulberry Creek Cord Marked	159
Unidentified Clay Tempered Incised	2
Unidentified Clay Tempered Cord Marked Incised	1

Mississippian Complex:

Mississippi Plain	106
Bell Plain	11
Old Town Red Filmed	4
O'Byam Incised	2
Matthews Incised	4
Total	<u>369</u>

Sherds in Collection 2:

Baytown Complex:

Baytown Plain	4
Mulberry Creek Cord Marked	29
Unidentified Clay Tempered Incised	1
Unidentified Clay Tempered Punctate	1

Mississippian Complex:

Mississippi Plain	43
Bell Plain	3
Old Town Red Filmed	7
Matthews Incised	2
Manly Punctate	1
Unidentified Shell Tempered Incised	1
Total	<u>92</u>

Sherds in Collection 3:

Baytown Complex:

Baytown Plain	9
Mulberry Creek Cord Marked	31

Mississippian Complex:

Mississippi Plain	34
Old Town Red Filmed	5
Total	<u>79</u>

Sherds in Collection 4:

Baytown Complex:

Baytown Plain	7
Mulberry Creek Cord Marked	33
Larto Red Filmed	1

Mississippian Complex:

Mississippi Plain	34
Bell Plain	1
Old Town Red Filmed	7
Nodena Red and White	1
Wickliffe Incised	2
O'Byam Engraved	3
Matthews Incised	1
Mound Place Incised	1
L'eau Noir Incised	1
Total	<u>92</u>

These sherds were classified and counted at Michigan by Scully, and the writer does not have information locating the four collection areas. However, within the material, taken as a whole, are definite types assigning one component of the site to the Cairo Lowland phase. The amount of Old Town Red Filmed is surprising and cannot be readily explained in terms of the type's distribution as now recognized by the writer. There is also most definitely a rather strong Baytown component, and this impression is strengthened by the stonework mentioned above.

Beckwith's Fort (6-T-1). On the east end of Pinhook Ridge this well preserved site remains today as one of the most impressive of numerous aboriginal remains in the area. Thomas (1894: 186-88) visited the site for the Bureau of Ethnology and published a map of the site (Fig. 34). An aerial photograph (Fig. 35) shows Thomas' plan to be correct

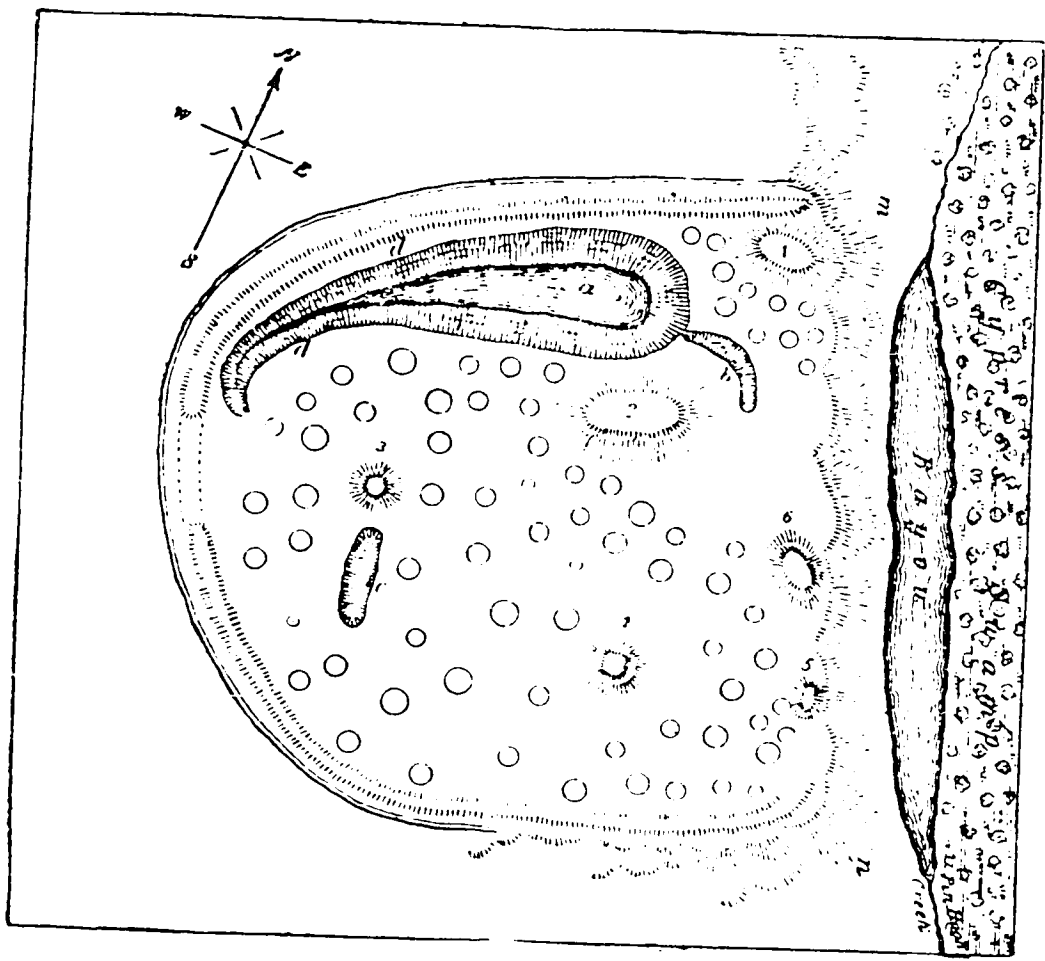


Fig. 34. Map of Beckwith's Fort
(Thomas, 1894: 185)

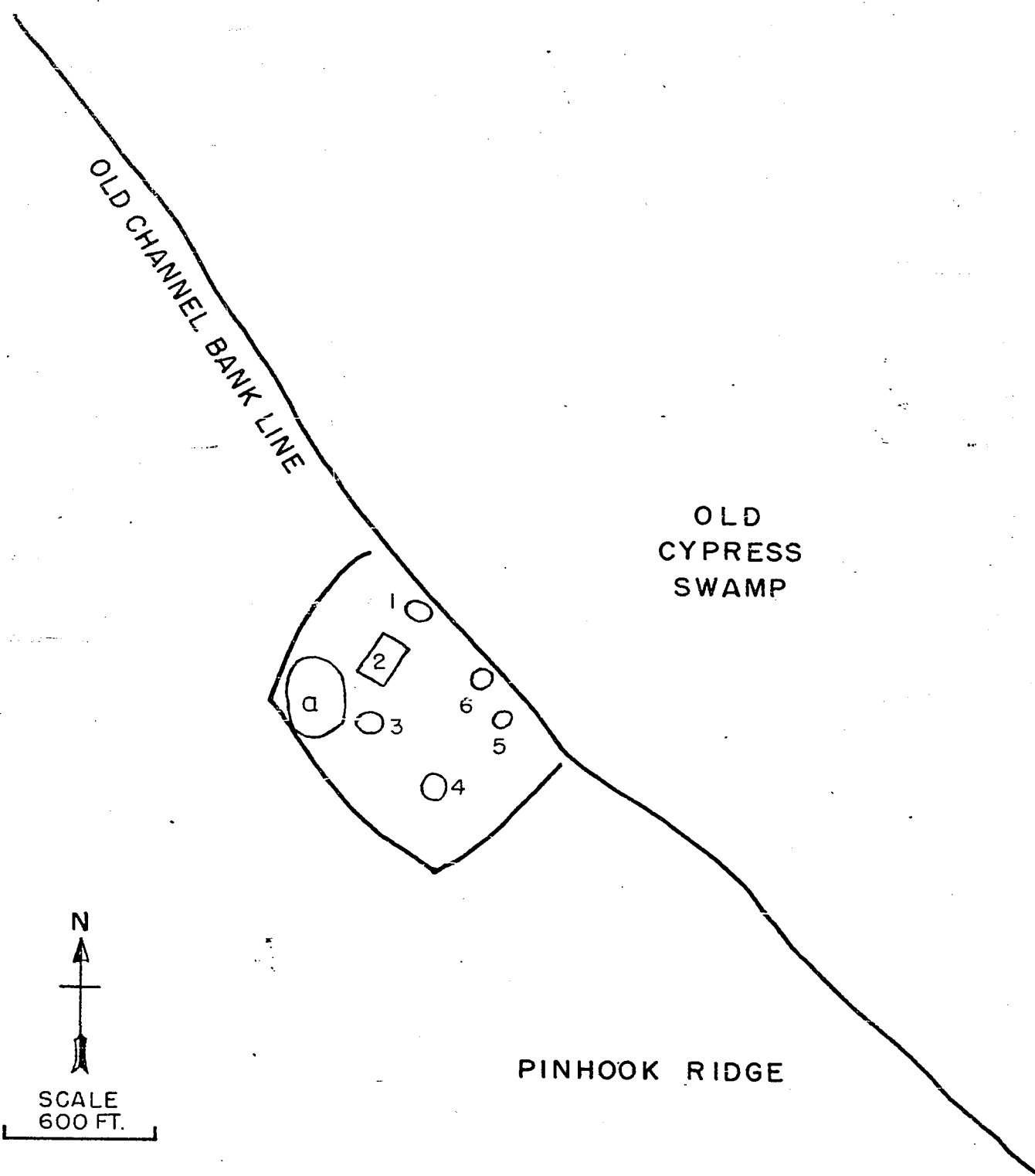
in most details and his numbering of the mounds will be retained in this discussion.

Six mounds were noted and these all are still visible despite cultivation over mounds 1, 3, 5 and 6. Mound 2 is a large rectangular pyramidal mound about 20 feet in height, 110 feet wide and 160 feet long. A ramp on the southwest side is reported by Houck (1907: 62), and the mound has retained its rather steep sides and flat top very well being covered with vegetation. Southeast of this mound there is a plaza area surrounded on all sides rather imperfectly by mounds.

Mound 4 is the other major mound of the group. It stands some 12 feet high and is roughly 40 feet in diameter. The top is flat and there seems to be good indications it was once a square mound, but cultivation has rounded the corners.

Mound 1 is about 6 feet high and approximately 100 feet in diameter. Its surface has been much altered by pot hunting and subsequent cultivation. Whether it was a burial or substructure mound could not be ascertained as Thomas was not permitted to excavate.

Mound 3 was 8 feet high and 75 feet in diameter at the time Thomas observed it, but it now stands in the midst of the cultivated field and has been spread and leveled till it is now less than 3 feet tall. A fireplace, charcoal and



OLD CHANNEL BANK LINE

OLD CYPRESS SWAMP

PINHOOK RIDGE



SCALE
600 FT.

BECKWITH'S FORT (6-T-1)

OLD CHANNEL-BANK-LINE



SCALE
600 FT.

TINHOOK RIDGE

BECKWITH'S FORT

Fig. 35. Aerial Photograph of Beckwith's Fort.

ashes were found in the mound so it would seem to be a substructure mound of some type rather than a burial mound.

Mound 5 was 10 feet high and 90 feet across the top. It was flat on top and was composed of black swamp mud and blue clay. Thomas found several fire-beds, some stone chips, mussel shells, and sherds in it. This mound seems to be a substructure mound like number 3.

Mound 6 measured 75 by 100 feet at the base and 8 feet high. A cabin was situated on top, so Thomas could not excavate and determine the nature of the mound. Between mounds 5 and 6 was a low burial mound.

Three barrow pits, marked a, b, and c, were noted and two of them still remain today, overgrown with trees and containing water most of the year. A wall and ditch shown on both the map and the aerial photograph surrounded the village and enclosed some 22 acres. The village site was well chosen, as Thomas states that it was the only land in the area for many square miles not covered by the great flood of 1832.

"Hut rings," the circular pits into which the rectangular houses were set, covered almost the entire area inside the wall with the exception of the plaza area mentioned above. These pits were from 30 to 50 feet in diameter and up to 3 feet deep. Firehearths were usually discovered in the center of these circles.

Thomas dug some whole pots here and Beckwith collected a copper awl, square in cross section (Houck, 1907: 62), which the writer observed at Cape Girardeau. He, likewise, dug many pots here and this site was probably one of his main sources of supply. Village debris is now most plentiful at the south and southwest edge and considerable material was collected by the survey team and by Anderson.

The latter has a pottery elbow pipe in his collection from this site. Our surface collection was sorted as follows:

Baytown Complex:

		%
Baytown Plain	658	59.43
Mulberry Creek Cord Marked	13	1.17
Larto Red Filmed	1	.09
Unidentified Clay Tempered Punctate	1	.09

Mississippian Complex:

Mississippi Plain	201	18.15
Bell Plain	166	14.98
Wickliffe Incised	23	2.07
Kimmswick Plain	3	.27
Kimmswick Fabric Marked	3	.27
O'Byam Incised	1	.09
O'Byam Engraved	23	2.07
Matthews Incised	13	1.17
Unidentified Shell Tempered Punctate	1	.09
Total	1107	99.85

The very high percentage of Baytown Plain seems to set this site apart, especially since there are so few cord-marked sherds. The fact that clay tempering persisted in Southeast Missouri during Mississippian times has been mentioned above in Section 1. This site gives good evidence of this trait in that many of the decorated sherds listed under

the Mississippian Complex have been sorted as being clay-tempered but are otherwise indistinguishable from the shell-tempered sherds and the two varieties have been lumped together.

On the basis of the large amount of clay-tempered sherds found here the site must be classed an early component of the Cairo Lowland phase.

References: Thomas, 1894: 186-188; Houck, 1907: 62, 64; Moore, 1916: 505-506; Adams and Walker, 1942: 7.

Beckwith's Ranch (6-T-9). Efforts to locate this site exactly have proved unsuccessful so far. Thomas (1894: 189-192) describes it as being less than two miles from the Fort just described but it still has not been found. The main reason for introducing it into this study is that it seems to represent a different type of site in some respects. There were no pyramidal mounds, only low burial and dwelling mounds several feet high. The latter were long, oval and of darker soil. They contained hearths, charcoal, ashes and animal bones. Sherds were common throughout and several levels of hearths were noted to a depth of four feet.

The burial mounds were circular and low with sometimes as many as three layers of skeletons in them. The individuals were extended on their back or side and had from one to three pottery vessels buried with them. Thomas, with Beckwith's help, dug some 45 to 50 pots, which they divided between themselves. Beckwith's were of course added to his

collection without any provenience data, but Thomas figures some rather well-made effigy pots from the site.

From the illustrated material and description of the excavations it seems probable that this site belongs to the Cairo Lowland phase. Just how close it is culturally to the nearby fort cannot be determined at this time, but the suggestion that this may represent an outlying hamlet closely associated with the nearby ceremonial center which did have pyramid mounds certainly seems plausible.

Reference: Thomas, 1894: 189-192.

Sikeston Ridge

This sand ridge was a prairie in the early historic period dotted with groves of oak trees. It was bordered on both sides by swamps and bayous. The water to the east was known variously as St. James Bayou, or East Lake; that to the west as West Lake. Figure 36 shows Potter's map of the lower part of it and gives some indication of number of aboriginal sites along its borders. The four settlements marked A, B, C, and D will be discussed in the following pages. The other indications of occupation noted by cross hatching on the map were checked in a limited way and turned out to be almost entirely Baytown period mounds and village debris.

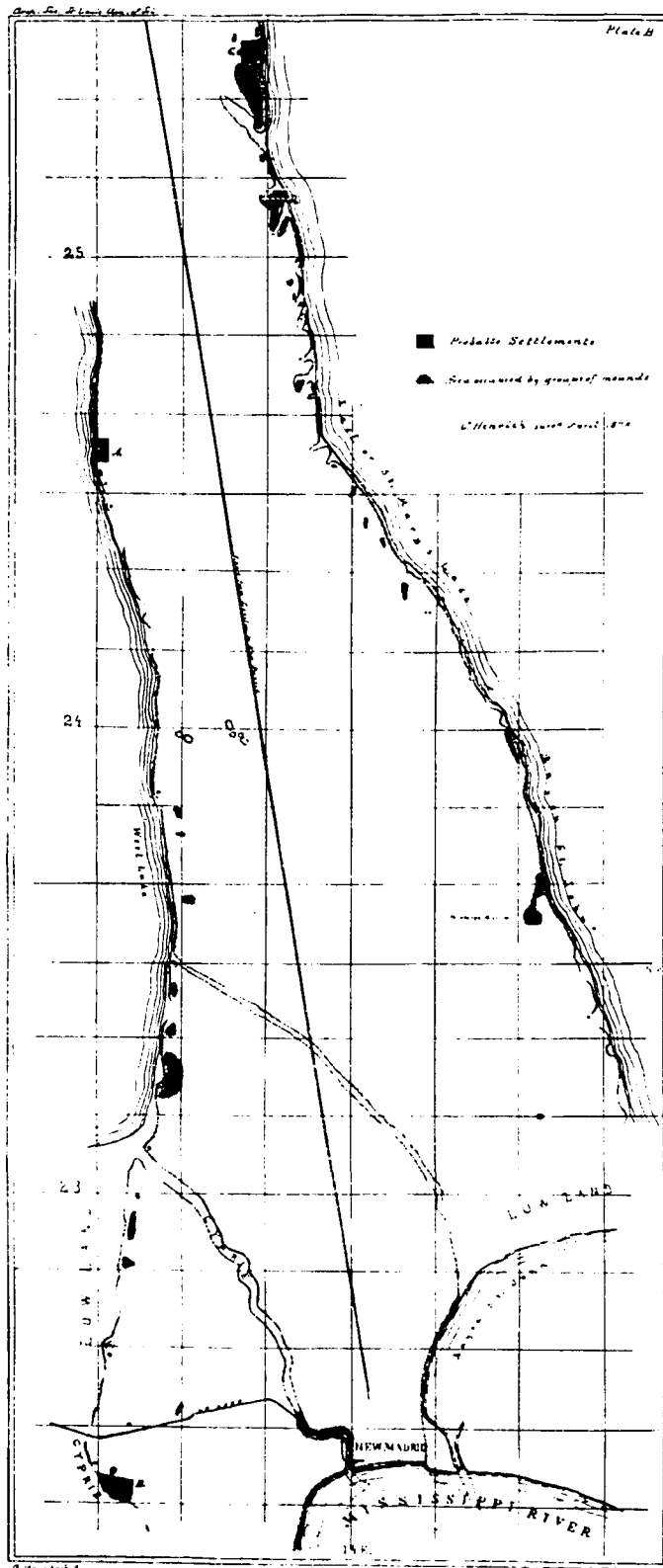


Fig. 36. Potter's Map of Eikeston Ridge.

Sikeston (5-R-1). Settlement "C" of Potter (1880: 15) is some two and one-half miles south of Sikeston on the bank of East Lake. It was the best preserved of four village sites located by Potter but the mounds have been much lowered by cultivation at present.

A wall and ditch enclosed three sides with the swamp forming the fourth as shown in Figure 37 and took in about 39 acres. The plaza area was well-defined and the main mound lies on the west side of this area. The mound was 230 feet long and about 120 feet wide. It was 11 feet high at the north end and 7 feet high at the south. Across the plaza an eleven foot circular mound was found as well as five other small mounds within the enclosure. These last were undoubtedly burial mounds as Potter remarks on skulls and pottery found scattered about on some of them. The other mounds shown on Potter's map of this site were investigated but little could be learned of their nature from direct observation. The ceramic situation at this site as shown in the following collection does seem to shed some light on these mounds.

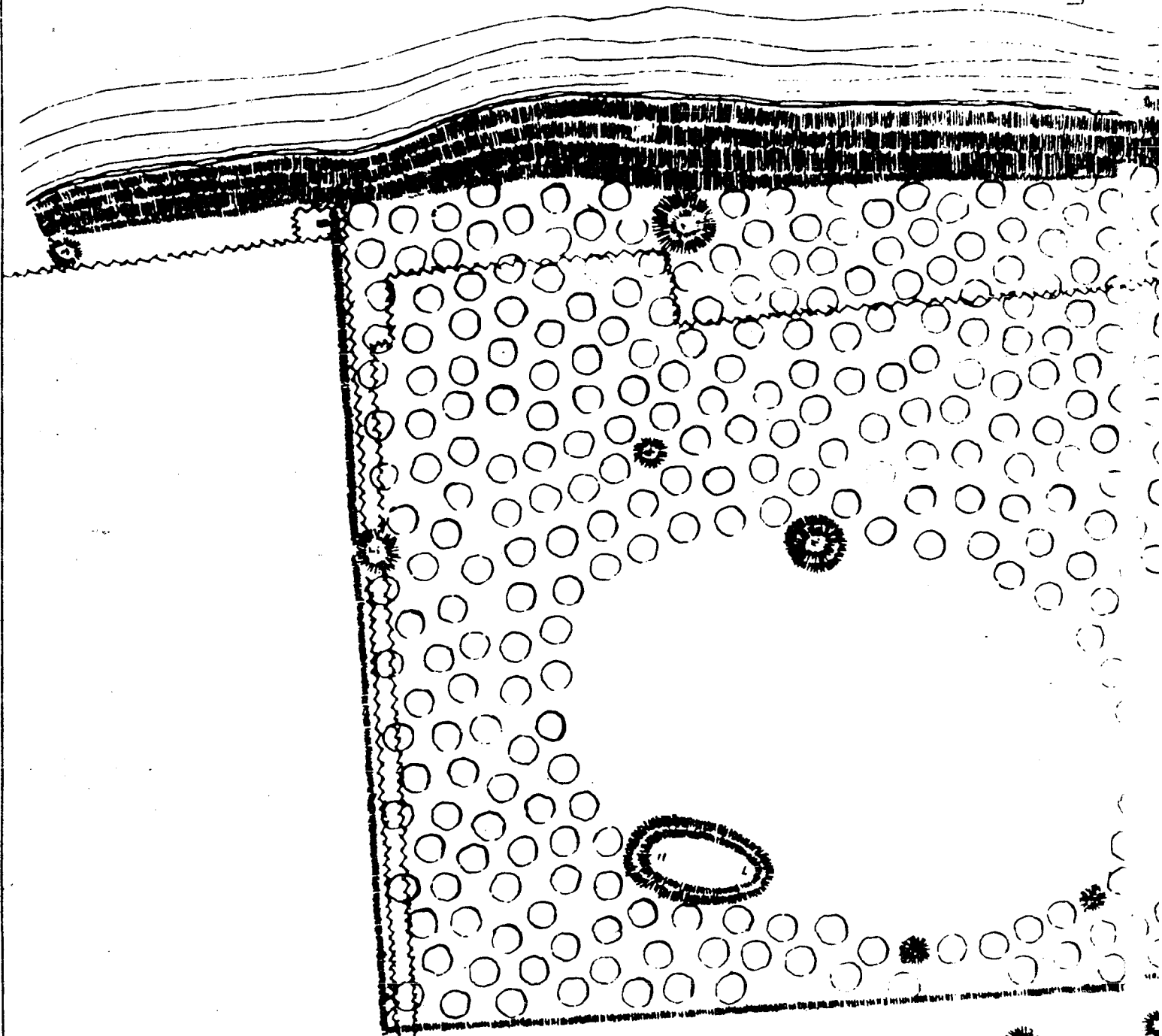
Sherds in collection:

Barnes Complex:

Barnes Plain	9	1.56
Barnes Cord Marked	6	1.04

Baytown Complex:

Baytown Plain	71	12.28
Mulberry Creek Cord Marked	283	48.96



1922

Andy Mathew's Farm

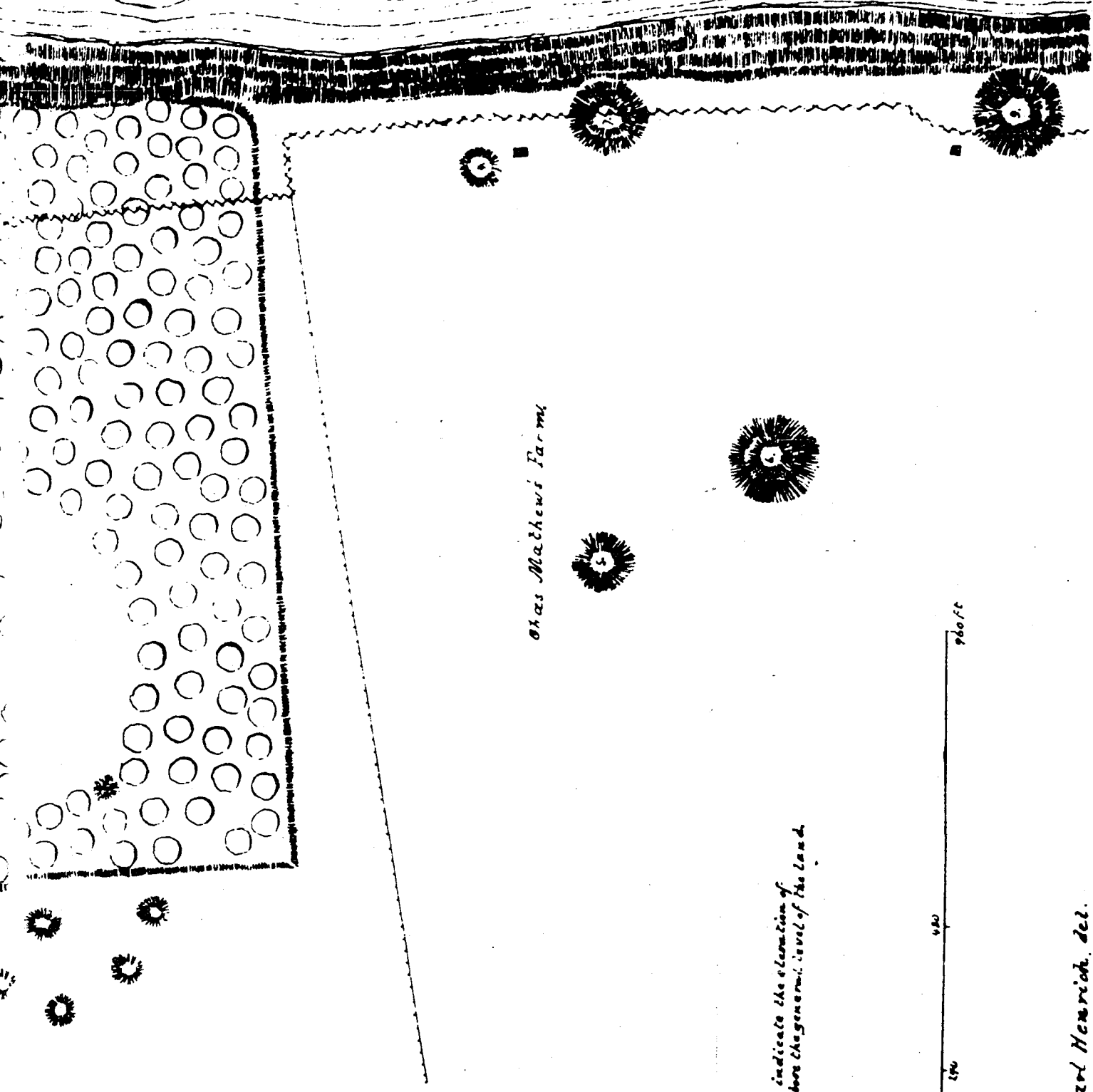
Plate E. Salllement G.



Fig. 37. Map of Sikeston Site.

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EAST LAKE



Olas Mathew's Farm

The figures indicate the elevation of
the mounds above the general level of the land.



Carl Heinrich, del.

Mississippian Complex:

Mississippi Plain	184	31.83
Bell Plain	15	2.60
Wickliffe Plain	2	.35
Wickliffe Incised	1	.17
Kimmswick Plain	1	.17
Thin ware (shell tempered)	6	1.04
Total	578	100.00

This collection was made exclusively along the old lake bank and hog wallows on the flats below the bank were most productive. No material was obtained from the area within the enclosure as it had been freshly ploughed making collecting impossible. Adams and Walker (1942: 8-9) made a collection from the village section but found the plaza area devoid of surface material. The very strong showing of the Mulberry Creek material as well as the few rare Barnes sherds seems to point a definite dual occupation explanation at this site with the numerous nearby conical mounds explained as the products of the first habitation during the Baytown period.

The Mississippian Complex of sherds is a result of a second component which included the walled village, flat topped mound, plaza and house pits. Stratigraphic testing would appear in order at this site, the second component of which is put in the Cairo Lowland phase.

References: Potter, 1880: 15; Adams and Walker, 1942: 8-9.

East Lake (5-R-2). A few miles south of the site just considered lies Potter's Settlement "D", the smallest of

the four major sites on the Ridge. It is on a small promontory and was surrounded on three sides by a wall and ditch. At the southwest corner of the wall there was a low flat-top mound 4 feet high and 60 feet in diameter. A second mound, 65 feet in diameter and 4 feet, 6 inches high stood in the village area surrounded by the house pit depressions and Potter says it resembles the usual burial mounds.

A plaza area, free of house pit depressions, 120 feet by 90 feet was also noted by Potter and he remarks that the site is remarkable in not having the usual flat-topped rectangular mound. There were a number of small mounds scattered along the edge of the ridge ranging in size from 25 to 90 feet in diameter and from 2 to 4 feet in height. Some of these mounds still remain and although quite altered and would seem to be remnants of the earlier Baytown occupation as suggested at the last site just discussed.

Collecting conditions were not good and the sample is small. A clay-tempered human effigy head was obtained from a local farm boy.

Sherds in Collection 1:

Barnes Complex:		‰
Barnes Plain	13	14.44
Baytown Complex:		
Baytown Plain	24	26.67
Mulberry Creek Cord Marked	42	46.67
Mississippian Complex:		
Mississippi Plain	10	11.11
Old Town Red Filmed	<u>1</u>	<u>1.11</u>
Total	90	100.00

Sherds in Collection 2:

Baytown Complex:		\$
Baytown Plain	37	32.17
Mulberry Creek Cord Marked	65	56.52
Mississippian Complex:		
Mississippi Plain	10	8.70
Bell Plain	<u>3</u>	<u>2.61</u>
Total	115	100.00

These two collections would seem to indicate a light Mississippian occupation but here again I think the surface collection does not accurately date the site. Certainly the absence of any main mound points to some interesting hypotheses. One is that the site was occupied only a relatively short time by Mississippian people who did not have time to build such a mound or else this is another case of a subsiding settlement which held ceremonies connected with a main mound at one of the nearby larger villages, but it is to be noted that there was a plaza area, which very likely had ceremonial significance.

The site is part of the Cairo Lowland phase. A second Baytown period component is likewise present.

References: Potter, 1880: 16; Adams and Walker, 1942: 9.

Matthews (5-R-3). On the west side of Sikeston Ridge, this site was called Settlement "A" by Pottery and NM^V3 by Walker and Adams who excavated here in 1941-42. As a result this site with Sandy Woods, Crosno and Lilbourn (to be discussed next) are the four best known sites in the whole area.

Of these only Crosno and Matthews have been excavated in recent times.

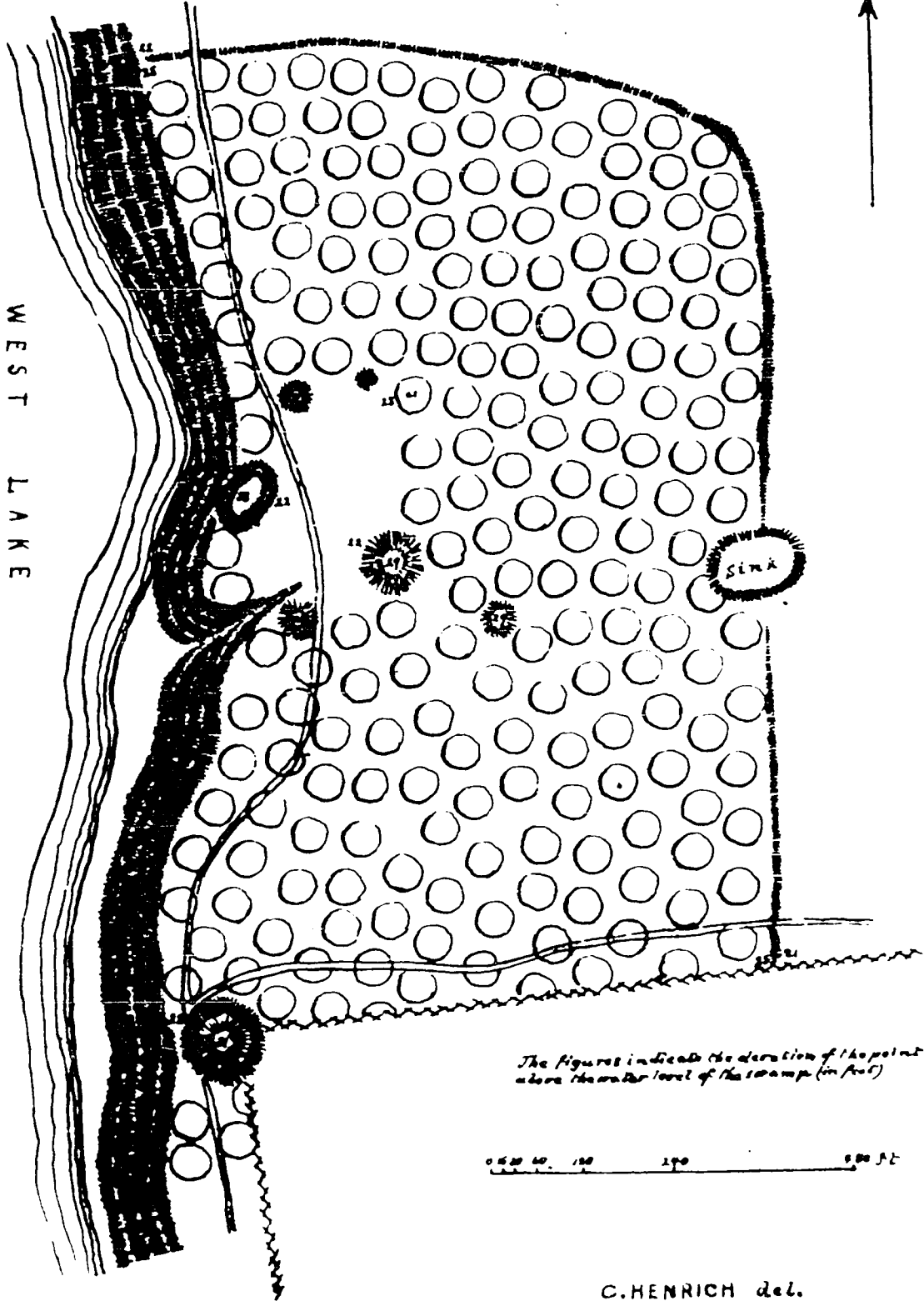
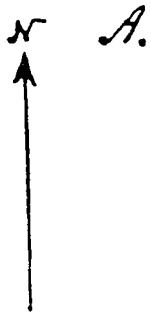
The site lies on the bank of West Lake and there were seven mounds within the wall and ditch (Fig. 38). The main mound was 110 feet long, 70 feet wide, and 11 feet high. The long axis ran roughly parallel to the old water course and east of this mound there was a plaza area which was partially surrounded by small mounds, most of which were burial. The rest of the enclosure was filled with house pit depressions.

The wall and ditch were particularly well-defined at this site. The earthen wall was three to three and one-half feet high and surrounded by a palisade, the post holes of which Walker and Adams discovered (Fig. 39c). The ditch was on the outside and from a foot and a half to two feet deep. More than 22 acres were enclosed by this wall.

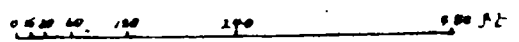
The excavations carried out by Walker and Adams were hampered by a number of things. First, the job was started in the waning days of the W.P.A. and finished after war had been declared and the program abandoned in 1942. Secondly, the field work was broken into two sections with an initial period of work in the spring of 1941 and the final period in late fall, winter, and early spring of 1942. This last session was during rather inclement weather. Lastly, probably too much was tackled at one time, for burials, house patterns, stratigraphy and mound construction were all investigated with a somewhat limited crew.

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Plate C. Settlement A



The figures indicate the elevation of the point above the water level of the swamp (in feet)



C. HENRICH del.

G. Hamrah fec

Fig. 38. Map of Matthews Site.

The results (Walker and Adams, 1946) were published in a small report and certainly leave many questions unanswered. The writer has studied some of the excavated material now in the possession of the St. Louis Academy of Science and there follows a list of pottery types found at the site.

Baytown Complex:

Baytown Plain
Mulberry Creek Cord Marked

Mississippian Complex:

Mississippi Plain
Bell Plain
Old Town Red Filmed
Nodena Red and White
Wickliffe Plain
Wickliffe Incised
Kimmswick Plain (?)
Kimmswick Fabric Impressed
Manly Punctate
Matthews Incised
Beckwith Incised
O'Byam Incised

No surface collection was made by the writer.

The main mound was cut into and profiled. It showed evidence of at least two and probably three construction stages and some post holes were noted indicating structures built on top of mounds. A small inner mound of hard sand was found and it had a fireplace centrally located on top of it.

Mention of the house types has already been made in Section 3 and Figure 39a shows a cross-section through one of the hut rings or house pits. Figure 39b shows a plan

A CROSS-SECTION THROUGH HOUSE PIT

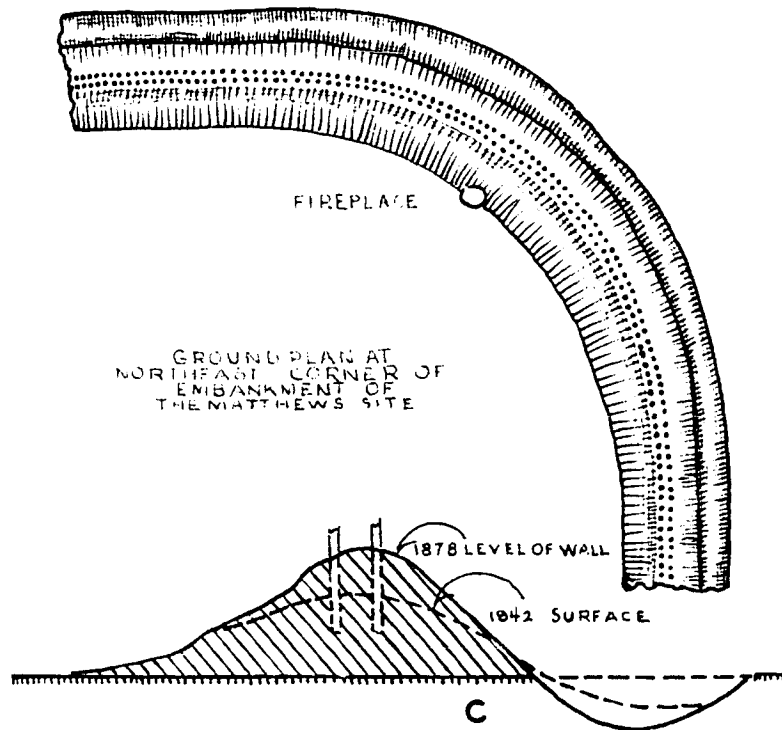
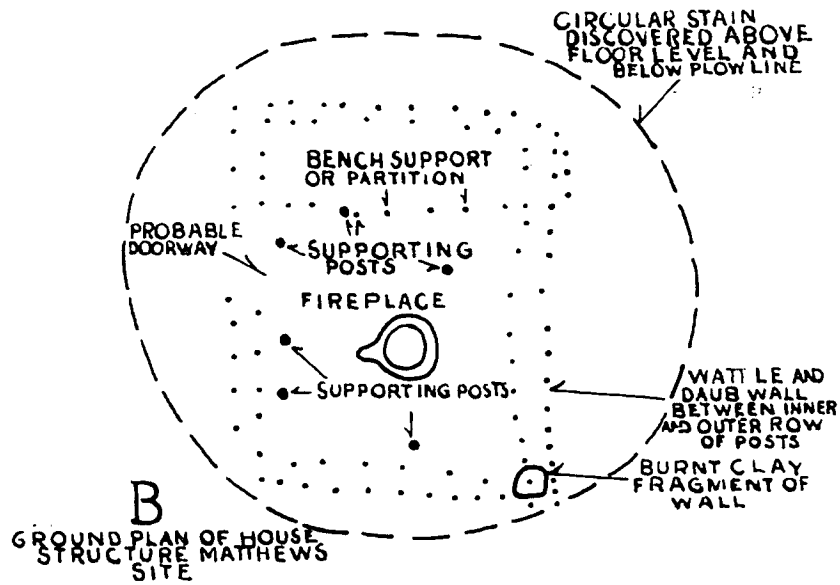
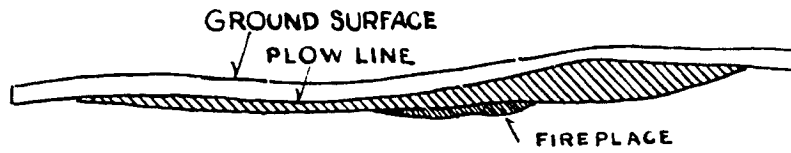


Fig. 39. House Type and Wall Construction at Matthews Site.

of this same structure. This small post type of building was also accompanied by wall-trench type structures and their possible chronology has been discussed.

Sixteen burials were uncovered in the excavations. Most of them were extended with pots placed at the head or waist. These burials were mainly found in small plots near the houses although some of the low mounds certainly were burial mounds too.

A number of test trenches were also dug but these failed to convince the investigators that any vertical stratigraphy existed despite a depth of at least three feet in the village debris. However it is stated that plain shell tempered ware (Bell and Mississippi Plain) was most abundant at the surface and diminished in frequency in the lower levels. Also, it is stated that decorated grit tempered ware (Mulberry Creek Cord Marked) was abundant in the middle levels, decreasing at the lowest level. Based on these data it would seem that some ceramic stratigraphy did in fact occur.

There are other data to indicate quite a time span at this site since 7 Poverty Point objects were found in the fill of the main mound as well as a number of projectile points which are chronologically early elsewhere.

The site is placed in the Cairo Lowland phase with the recognition of perhaps two earlier components of the Poverty Point and Baytown traditions.

References: Potter, 1880: 11-13; Adams and Walker, 1942: 9; and Walker and Adams, 1946.

Lilbourn (6-R-1). On the southwest corner of the Sikeston Ridge at the edge of an old channel lies the largest site in the Cairo Lowlands. More than 48 acres are enclosed by its walls and eight mounds (Fig. 40) still show up on the aerial photograph (Fig. 41). Potter's map also shows long mound north of the wall but no trace of it could be found on the ground and it does not show up on the aerial photograph.

The main mound is large, 21 feet high, 280 feet long, and from 140 to 210 feet wide, it being wider at the north end. It was a large rectangular flat-topped mound and Swallow (1875) cut a trench into it in 1856. He moved a good deal of dirt and the results of his work are still visible. He claims to have cut completely through the mound to ground level but this seems a bit hard to believe because of the primitive equipment available at the time. Also there is the difficulty of making a 21 foot face remain stable while you examine the interior of the mound. A further feature of his excavations was the chamber which he discovered inside with painted walls and everything nicely in place on the floor, although he admits the roof had fallen to the floor. The question of whether this actually was a chambered mound is hard to answer. One answer which might serve is that what he actually found was the well preserved remains of one of the structures formerly atop the mound which had been destroyed and laid flat. Then when he uncovered it, the nature of the construction was so plain that Swallow

Plate II.

Settlement at B.

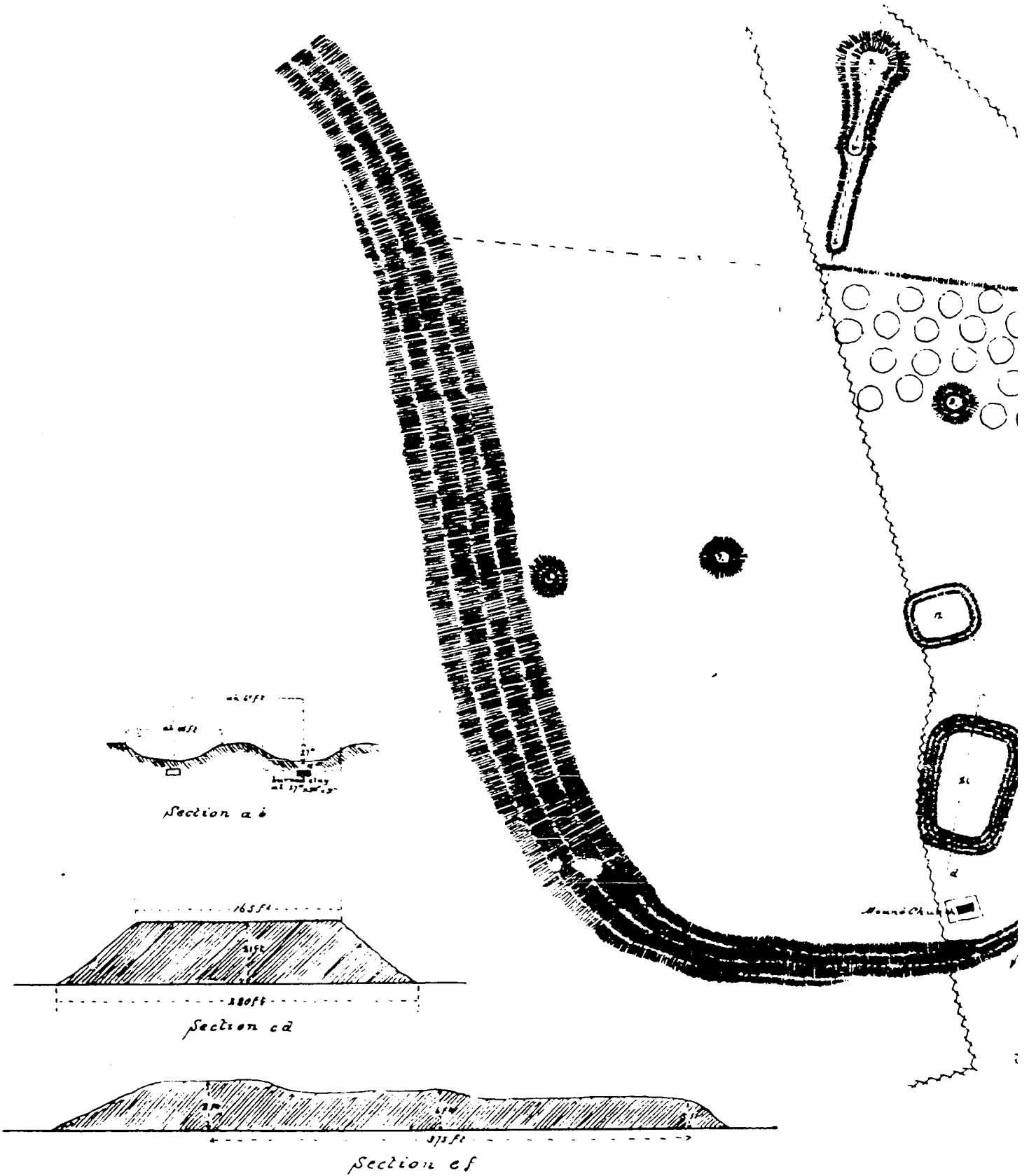
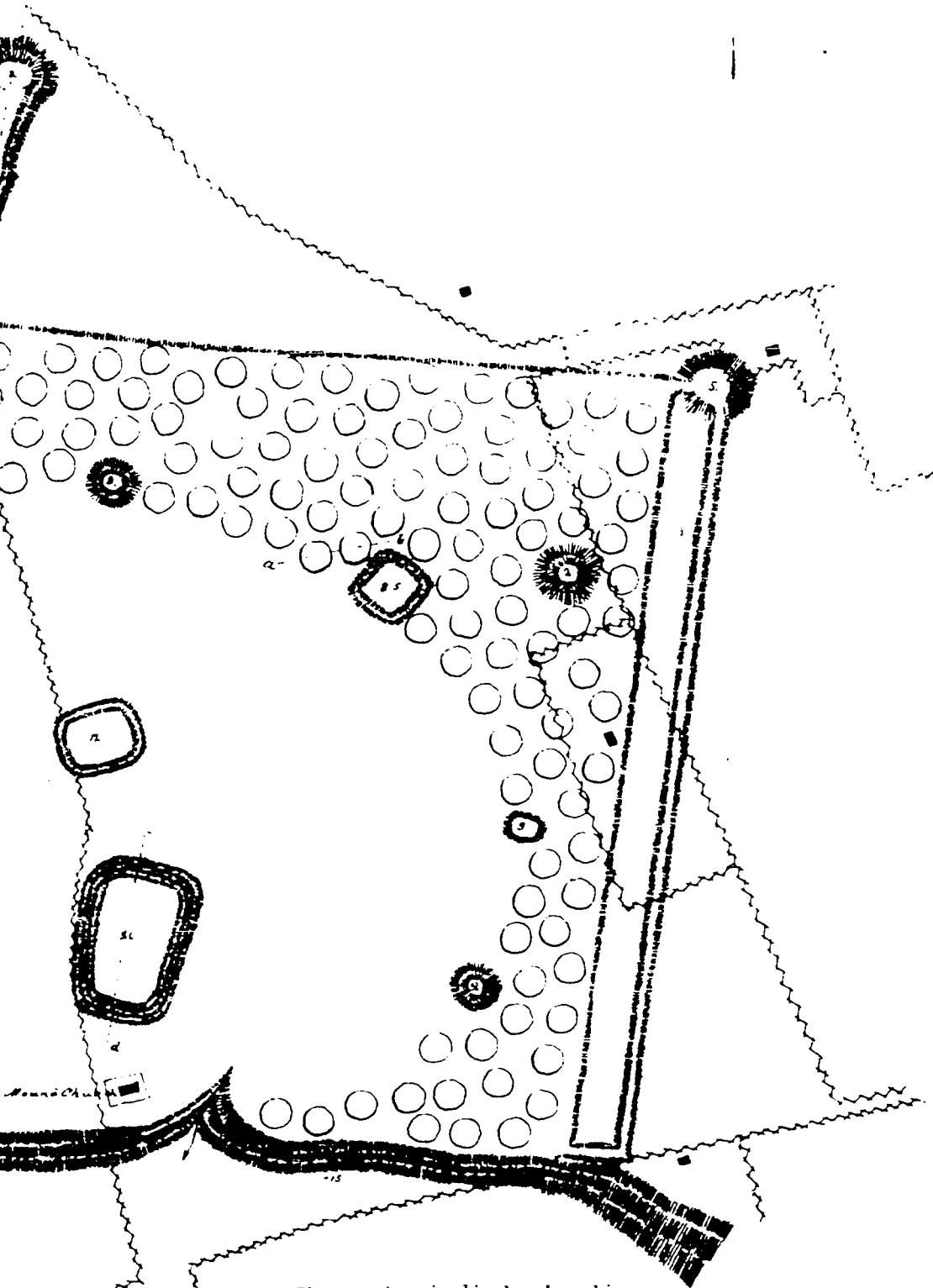
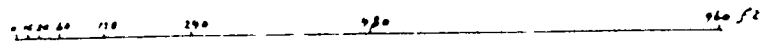


Fig. 40. Map of Lilbourn Site.

B.



The numbers indicate elevation
in feet above general level of high land



C. Henrich surv^d April 1878.

merely reconstructed it in his mind's eye and produced the inner chamber.

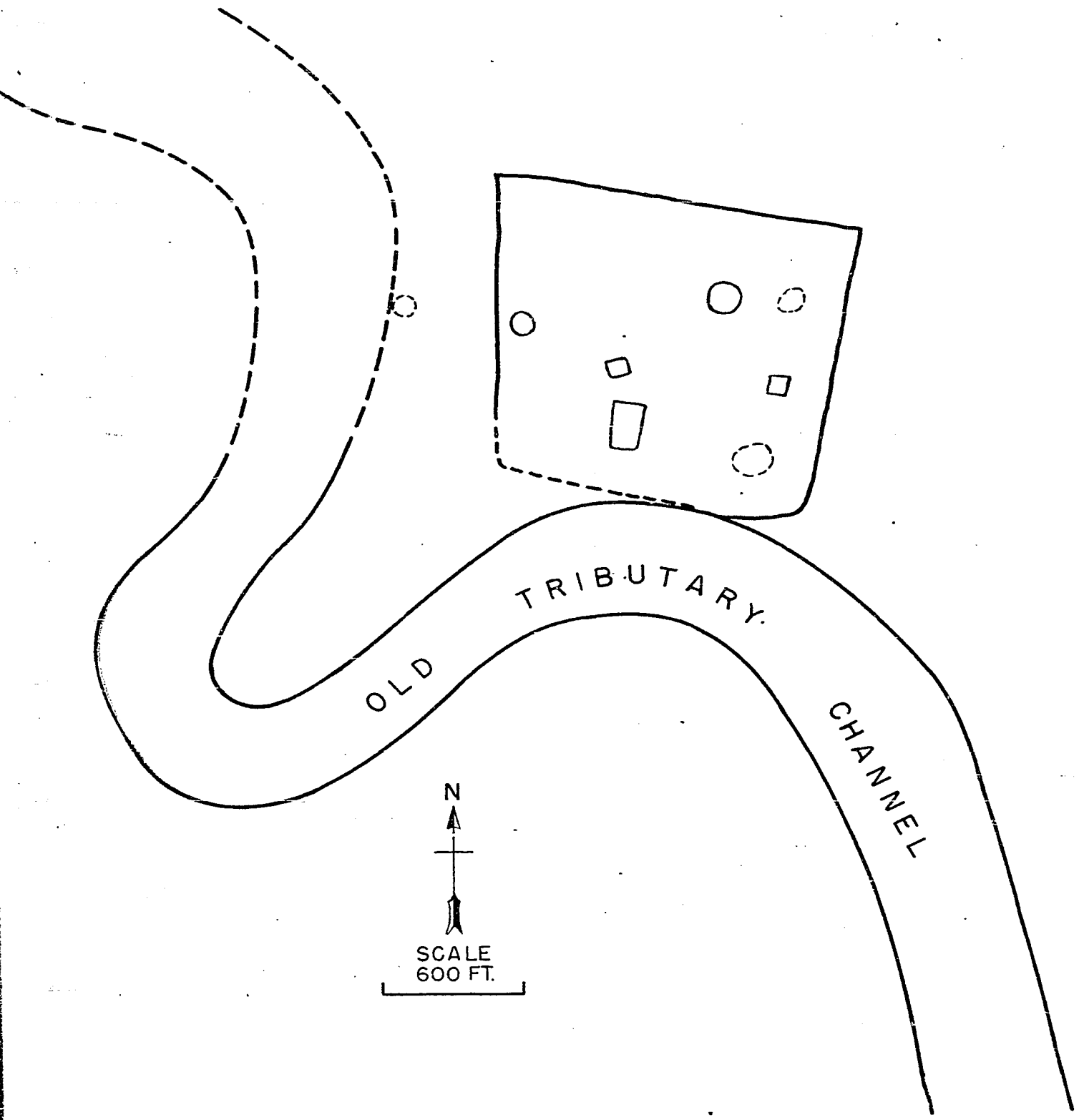
Swallow also excavated the burial mound in the south-east corner of the site and got a great quantity of pottery from it. There were two other pyramidal mounds, one 11 feet high and the other 8.5 feet. The plaza area shows well on Potter's map and even is faintly discernable on the aerial photograph. The interesting double east village wall also shows up and is unique as is the termination of the wall at a mound as occurs at the northeast corner.

The rest of the mounds were probably for burial. Potter's map likewise shows an interesting cross-section a-b through some of the typical house depressions with a clay hearth in the center of each. Houck (1907: 59) shows a map of this site but it fails to agree with either of the two shown herein. This discrepancy with two reliable sources shows the weakness of some of his work.

A surface collection made along the east side of the site shows the following material:

Baytown Complex:		%
Baytown Plain	26	4.15
Mulberry Creek Cord Marked	34	5.43
Mississippian Complex:		
Mississippi Plain	458	73.16
Bell Plain	70	11.18
Old Town Red Filmed	2	.32
Angel Negative Painted	1	.16
Wickliffe Plain	16	2.56
Wickliffe Incised	12	1.92

SIKESTON RIDGE



LILBOURN (6-R-1)



Fig. 41. Aerial Photograph of Lilbourn Site.

		%
Kimmswick Fabric Impressed	2	.32
O'Byam Incised	1	.16
Manly Punctate	1	.16
Polished Brown	1	.16
Unidentified Incised	1	.16
Unidentified Punctate	<u>1</u>	<u>.16</u>
Total	626	100.00

Ninety percent of this is Mississippian Complex and the collection shows a good range of typical Cairo Lowland phase sherd types. One disconcerting thing about the site is the fact that a Poverty Point object occurs in the Swallow collection now at Harvard. There would seem to be another component responsible for this artifact although the Baytown Complex was only very lightly represented.

References: Putnam, 1875; Swallow, 1857, 1876; Potter, 1880: 13-14; Houck, 1907: 58-59; and Adams and Walker, 1942: 7, 11.

Morehouse Lowland

Through this lowland flows the Little River which is joined by the Castor. The area is lower than the Sikeston Ridge to the east and the Malden Plain to the west. The only evidences of occupation were found near or on the Little River where its natural levees were probably favorable for settlement.

Morehouse (5-R-8). A few miles south of the town of Morehouse not far from the Little River's old course there is a small site. A low mound about 2 feet high is all that

is visible but a number of pots including a frog effigy bowl were dug here about 25 years ago. Enough evidence to place the site in the Mississippi period was obtained but that is all.

Vanduser Mound (5-R-9). A low mound was located here but no cultural material was found. The site is not far from Crowder and may well be the one from which the Ceramic Repository, University of Michigan, has a small collection. This included the following sherd types:

Mississippi Plain
 Bell Plain
 Kimmswick Fabric Impressed
 O'Byam Incised
 Beckwith Incised

There is also some material in this collection which looks suspiciously like Arkansas-type pottery, but such types as the O'Byam series surely are from Southeast Missouri.

Otter Slough (6-R-7). The stream for which the site is named is a tributary of the Little River. The survey failed to locate any surface material from this site, but the former owner, Mr. Twitty, had obtained at least two triple-notched Cahokia type projectile points from here. These may have been stray finds but there is a possibility of a small occupation area overlooked by the survey crew.

Durnell (5-Q-3). This site is located on the west side of the lowland on a low ridge. It is included in the study because of the presence of some shell tempered pottery and

one strap handle, an appendage which is characteristic of the Middle Mississippi period.

Sherds in collection:

Barnes Complex:

Barnes Plain	28
Barnes Cord Marked	71
Barnes Fabric Impressed	4
Barnes Punctate	2
Barnes Pinched	2

Baytown Complex:

Baytown Plain	5
Mulberry Creek Cord Marked	12
Withers Fabric Impressed	1

Mississippian Complex:

Mississippi Plain	21
Bell Plain	2
Total	<u>148</u>

The great majority of this material is of another tradition and time period than the one under consideration. The site was brought to local attention by the recent ploughing out of a burial. This may have been a Mississippian one, as skeletal material from other periods is virtually unknown.

Malden Plain

This sandy ridge forms the western boundary of the lowland area which is cut off from the western lowland by Crowley's Ridge. In historic times a swamp and various lakes and rivers bordered its entire eastern side.

Rich Woods (6-Q-1). This is the largest site in the whole Southeast Missouri area with some 35 mounds stretched for nearly a mile along East Swamp. These mounds were mapped by Thomas (1894) and were both conical and pyramidal. Figure 42 shows the general layout of the site. It is well that Thomas made his survey when he did for fewer than a dozen of these mounds are now visible due to excessive treasure hunting and continuous cultivation. A few hut rings were discernable in the 1890's, and a number of other interesting features such as ramps surround compound mound 3 and 6. Thomas had this to say of the site and the ramps and graded ways on the mounds:

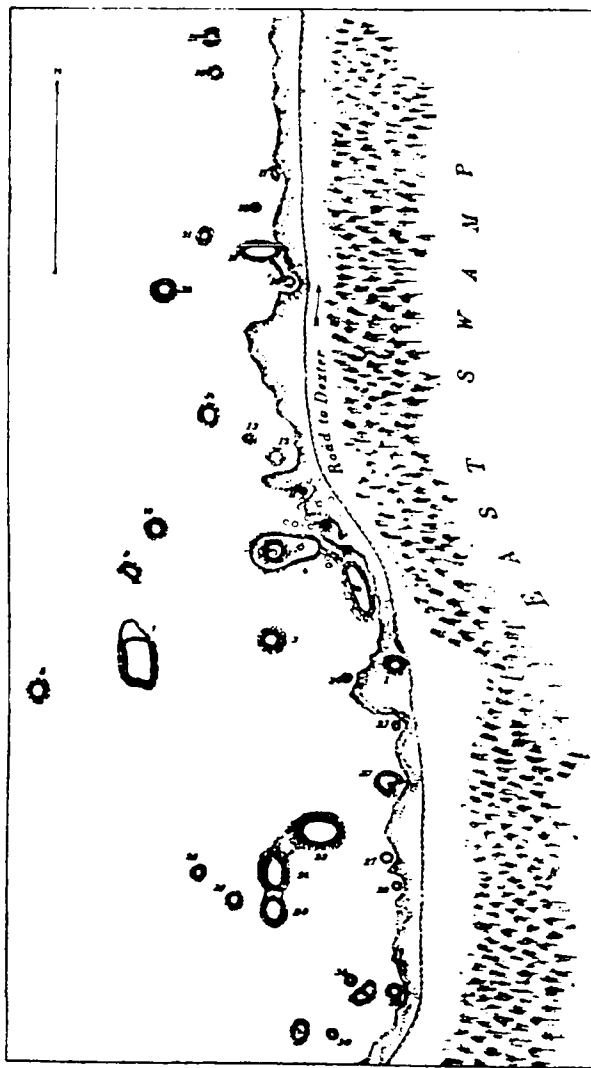


Fig. 42. Rich Woods.
(from Thomas, 1894)

The best examples of these appendages are seen in a group in Stoddard County, Missouri, known as the "Rich Woods mounds" ... which is, in some respects,

one of the most remarkable groups in the entire district. The very large number of mounds it contains, the fact that three different series of these are united by ramps, the various forms presented (one of which is unique) and the large area over which the group extends, render it exceedingly interesting and worthy of more careful study. The only true crescent-shaped mound observed during the exploitation carried on by the Bureau, is found here.

(Thomas, 1894: 589)

This is surely one of the most important sites in the area, but has not yet, some 70 years later, been carefully studied. The layout of the mounds suggests a plaza arrangement of the largest mounds but aerial photographs of this site have not been checked for such information.

Despite the size of the site very little surface material was found on the upper levels of the village debris. Surface collections were made along the bank and are as follow:

Sherds in Collection 1:

Barnes Complex:		%
Barnes Plain	4	2.00
Barnes Cord Marked	19	9.50
 Mississippian Complex:		
Mississippi Plain	157	78.50
Old Town Red Filmed	6	3.00
Fine ware	2	1.00
Thin ware	11	5.50
Unidentified Incised	<u>1</u>	<u>.50</u>
Total	200	100.00

Sherds in Collection 2:

Barnes Complex:		%
Barnes Plain	40	11.20
Barnes Cord Marked	41	11.48
Mississippian Complex:		
Mississippi Plain	228	63.87
Bell Plain	2	.56
Old Town Red Filmed	3	.84
Nodena Red and White	1	.28
Wickliffe Plain	4	1.12
Kimmswick Plain	1	.28
Thin ware	32	8.96
Brown slip	2	.56
Unidentified Incised	<u>3</u>	<u>.84</u>
Total	357	99.99

Sherds in Collection 3:

Barnes Complex:		
Barnes Plain	6	10.53
Barnes Cord Marked	1	1.75
Mississippian Complex:		
Mississippi Plain	45	78.95
Bell Plain	3	5.26
Wickliffe Plain	1	1.75
Kimmswick Plain	<u>1</u>	<u>1.75</u>
Total	57	99.99

Sherds in Collection 4:

Barnes Complex:		
Barnes Plain	15	6.64
Barnes Cord Marked	2	.88
Mississippian Complex:		
Mississippi Plain	194	85.84
Bell Plain	9	3.98
Old Town Red Filmed	1	.44
Kimmswick Plain	1	.44
Fine Ware	<u>4</u>	<u>1.77</u>
Total	226	99.99

All four collections were from the bank but show some areal differences in distributions. Both Barnes and Mississippian complexes are represented in all collections.

One of the most extraordinary things is the lack of decorated wares, especially incised types. There are only 4 unidentified incised sherds out of a total of 840. In contrast, there are 10 Old Town Red Filmed sherds and 1 Nodena Red and White sherd. This last type is considered late by workers to the south. Its occurrence here with all these plain types poses a problem. It might well indicate a synchronism with the areas to the south which all have a number of incised types along with Nodena Red and White. On the other hand it may be earlier on the Maoden Plain than it is in the south.

The conical mounds are undoubtedly part of a Dunklin component while the major occupation is classed as Malden Plain phase.

References: Thomas, 1894: 175-183; Adams and Walker, 1942: 6.

County Line (6-Q-2). This site is located on the line of Stoddard and Dunklin counties. Thomas describes it as being in an oak opening on West Prairie. As shown in Figure 43 a ditch some 10 feet wide and three feet deep surrounded it. Nearly the whole area of about 15 acres was dotted by hut rings. The only nearby mound was the one

north of the ditch and was 4 feet high and over 100 feet in diameter.

Sherd materials were rare on the Plain and could only be found on the old bank. Both Barnes and Mississippian pottery complexes were found. The present owner of the site has a small ground stone celt and a very fine polished stone spud (ceremonial object) which he picked up on the surface.

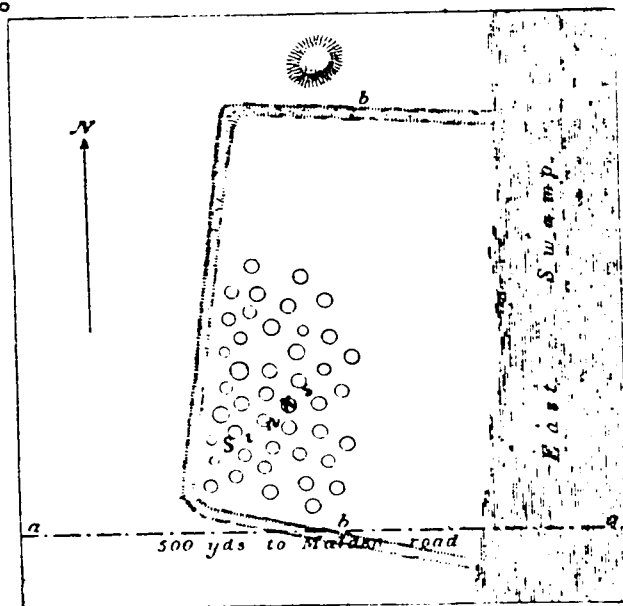


Fig. 43. County Line Site.
(from Thomas, 1894)

This site is a component of the Malden Plain phase.

Reference: Thomas, 1894: 174.

Wulfing Plates (6-Q-4). In a field two and one-half miles south of Malden, Mr. Ray Groomes in 1906 ploughed up the 6 copper plates which are the most elaborate Southern Cult artifacts found in the area. These repousse copper

plates have been intensively studied by Mrs. V. D. Watson but she did not know the exact location of the site which Walker and Adams had visited.

The location of the find was checked through the widow of Mr. Groomes, the discoverer, and the county records were checked to verify if the land investigated had in fact belonged to Mrs. Baldwin as Fowke stated and this was substantiated. The area is completely devoid of any signs of occupation and was searched practically on hands and knees. Two tiny sherds as big as a thumb nail were found.

The site must have been just a single cache of the plates. The nearest village site is some 5 miles away (see Fig. 30). The artifacts have been called both the Malden and Wulfing Plates, the last name in honor of the man who bought them and took them to St. Louis where they are now on exhibit at the St. Louis Art Museum. The latter name has been used as the site name since it was the term used by Watson in her comprehensive study.

References: Fowke, 1910: 98; Watson, 1950.

Holcomb (7-P-1). Located on a ridge, near an old slough, this site has 4 mounds. The main mound is now about 12 feet high and 300 feet across. It has been cut into and ploughed down a good deal but was probably a flat-topped pyramidal originally. Several small mounds surround it and two of these were probably burial mounds.

Surface material was abundant around and between the mounds and the collection was as follows:

Barnes Complex:		%
Barnes Plain	29	3.36
Barnes Cord Marked	41	4.75
Mississippian Complex:		
Mississippi Plain	761	88.08
Bell Plain	2	.23
Old Town Red Filmed	20	2.31
Nodena Red and White	5	.58
Wickliffe Plain	1	.12
O'Byam Incised	2	.23
Hollywood White Filmed	1	.12
Varney Red	1	.12
Unidentified Incised	1	.12
Total	864	100.02

Again incised wares were rare but a rather high percentage of red filmed and painted wares is to be noted. The site is a component of the Malden Plain phase.

This site is the nearest to the place of discovery of the Wulfing Plates. There is nothing in the above data to either support or reject an association of this site with the Plates in any way. Taking chronological factors into account though, it is the writer's opinion that this site may well have been occupied at the time of burying of the Plates.

Old Varney River (8-P-1). The site was on the bank of the Old Varney River, a tributary of the St. Francis, but now a drainage ditch has been cut through the middle of it

exposing quantities of sherds and similar material. The site is quite extensive but no mounds remain. A low burial mound was dug out some years ago and produced painted pottery, including bottle forms.

A surface collection was made with the aid of some of the native folk and was sorted as follows:

Barnes Complex:		%
Barnes Plain	9	1.05
Barnes Cord Marked	108	12.54
Mississippian Complex:		
Mississippi Plain	620	72.01
Varney Red	123	14.29
Unidentified Cord Marked	<u>1</u>	<u>.12</u>
Total	861	100.01

Then too, as the material was literally falling out of the banks of the ditch some excavations were done in an afternoon and the results were as follows in Excavation 1:

Level 1 - 0-3"

Barnes Complex:		%
Barnes Cord Marked	1	2.44
Mississippian Complex:		
Mississippi Plain	31	75.61
Varney Red	<u>9</u>	<u>21.95</u>
Total	41	100.00

Level 2 - 3-6"

Mississippian Complex:		
Mississippi Plain	30	73.18
Varney Red	<u>11</u>	<u>26.83</u>
Total	41	100.01

Level 3 - 6-9"

Barnes Complex:		¢
Barnes Plain	1	1.35
Mississippian Complex:		
Mississippi Plain	9	12.16
Varney Red	<u>64</u>	<u>86.49</u>
Total	74	100.00

Level 4 - 9-12"

Barnes Complex:		
Barnes Plain	9	34.61
Mississippian Complex:		
Mississippi Plain	8	30.77
Varney Red	<u>9</u>	<u>34.61</u>
Total	26	99.99

Level 5 - 12-15"

Barnes Complex:		
Barnes Cord Marked	6	15.00
Mississippian Complex:		
Mississippi Plain	10	25.00
Varney Red	<u>24</u>	<u>60.00</u>
Total	40	100.00

This excavation was roughly 5 feet square and was carried down only 15 inches till sterile soil was encountered.

Excavation 2 was made next to it by the local people but they did not keep their levels separate so the material is presented as follows:

Sherds in Excavation 2 (all levels):

Barnes Complex:		¢
Barnes Plain	2	.95
Barnes Cord Marked	27	12.80

Mississippian Complex:

Mississippi Plain	117	55.45
Varney Red	<u>65</u>	<u>30.80</u>
Total	211	100.00

Close by an ash pit with a lot of mussel shells was evident in the bank and this area was dug out. The sherds from this excavation were sorted as follows:

Excavation 3 (all levels)

Barnes Complex:

Barnes Cord Marked	1	1.79
--------------------	---	------

Mississippian Complex:

Mississippi Plain	15	26.79
Varney Red	<u>40</u>	<u>71.43</u>
Total	56	100.01

A total of 1350 sherds were thus available for study and the most striking thing about this material is the absolute lack of incised ware of any kind. In fact besides the Barnes Complex, all there remains is Mississippi, Plain and Varney Red Filmed. The last type is a new one and is distinguished by its thick red film and its general thickness. This contrasts with the Old Town Red Film ware which is usually quite fine in texture.

The high percentage of the red filmed ware is not too surprising when it is realized that somewhat similar figures are known from along the St. Francis in Arkansas. However, the distribution is discontinuous and more red filmed sherds were found at this site than at all other sites in Southeast Missouri combined.

The site is a component of the Malden Plain phase.

Kennett (8-P-2). Also on Old Varney River, this site has one large mound, 12 feet high and approximately 150 feet square. The village area surrounds this mound. Collecting conditions were not good but the following sample was obtained:

Barnes Complex:		%
Barnes Plain	5	1.45
Barnes Cord Marked	15	4.34
Mississippian Complex:		
Mississippi Plain	313	90.47
Bell Plain	6	1.73
Kimmswick Plain	3	.87
Kimmswick Fabric Impressed	1	.29
Unidentified Incised	<u>3</u>	<u>.87</u>
Total	346	100.02

This collection differs markedly from the one just discussed with its complete lack of red filmed ware. The writer feels that this collection does not reflect the whole picture at the site but still places it in the Malden Plain phase.

Langdon (8-P-3). Of all the sites on the southern end of the Malden Plain, this is the most extensive and covers approximately 27 acres. Figure 44 shows the layout of the site as mapped by Scully and the writer. The mounds surround a plaza area which was flat and devoid of artifacts or sherds. Elsewhere on the site surface materials were numerous and both the Barnes and Mississippian pottery complexes were found.

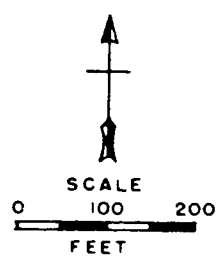
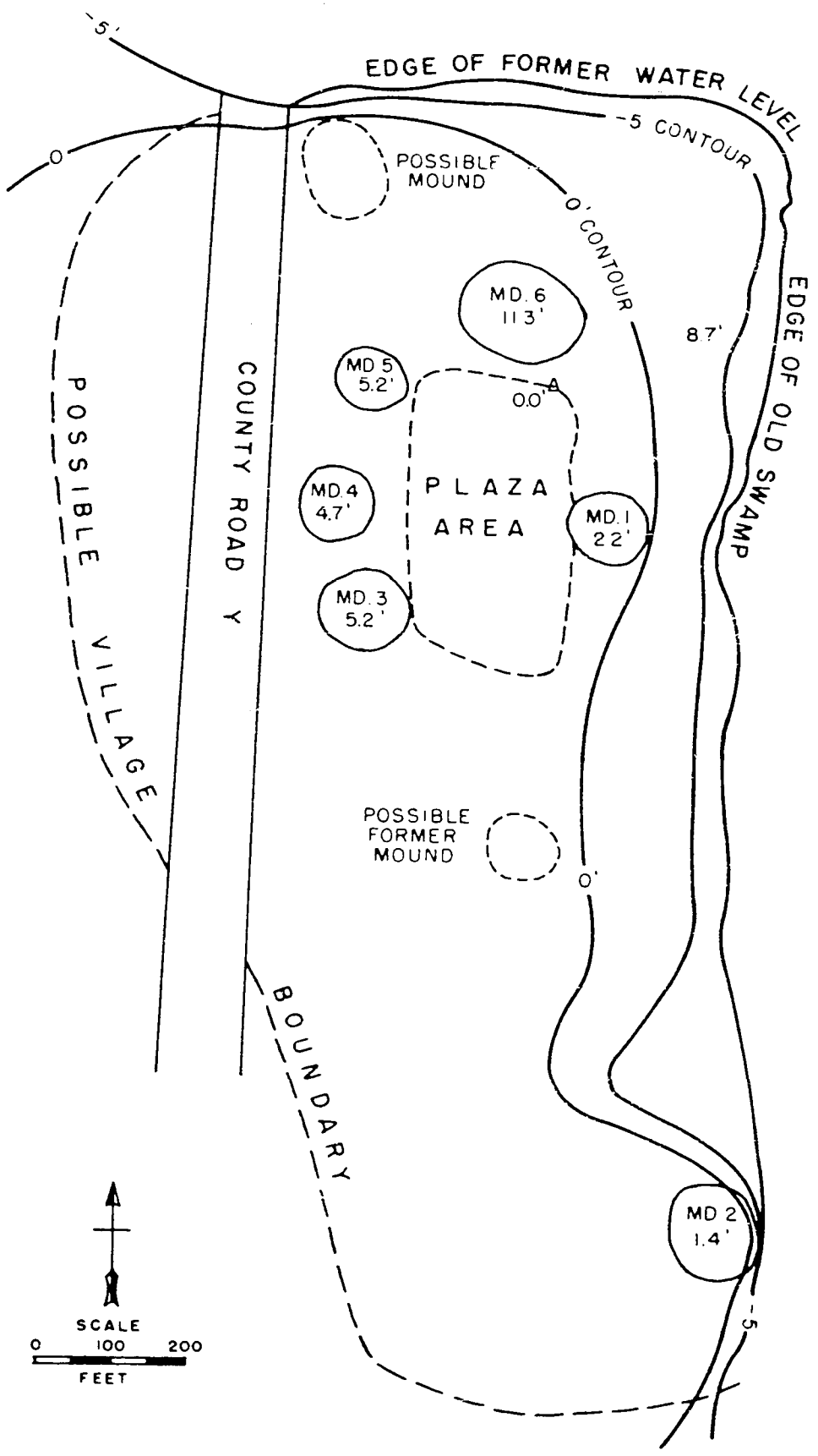


Fig. 44. Map of Langdon Site.

The Missouri Historical Society has a collection of whole vessels from this site which ought to be studied since nine-tenths of all the whole pots in collections from the area come from the Cairo Lowland region and few are known from the Malden Plain, although one is mentioned as being in the Titterington collection (Phillips et al., 1951: 168). A comparison of shapes for the two regions would be very interesting, as the vessel mentioned above is an Arkansas type identified as coming from this site.

Reference: Adams and Walker, 1942: 7.

Cockrum Landing (8-0-1). At this landing on the St. Francis River there is quite a large site, most of which is covered with sterile overburden up to one and a half feet deep. A new ditch and levee has recently been cut through it and an Indian mound was torn down in the process, and there are no visible remains of it left.

In the flats where the overburden has been bulldozed out for levee construction, the cultural debris is being washed out and quite a bit of material was found in place including hearths and broken pots. On one bank a profile of village debris is visible and charcoal deposits were found. A surface collection was made.

Sherds in Collection 1:

Barnes Complex:

Barnes Plain	22	3.51
Barnes Cord Marked	289	46.17

Mississippian Complex:			%
Mississippi Plain	307		49.04
Wickliffe Plain	2		.32
Kimmswick Plain	2		.32
Varney Red	<u>4</u>		<u>.64</u>
Total	626		100.00

Sherds in Collection 2:

Barnes Complex:

Barnes Plain	40		9.76
Barnes Cord Marked	168		40.98

Mississippian Complex:

Mississippi Plain	200		48.78
O'Byam Incised	1		.24
Unidentified Cord Marked	<u>1</u>		<u>.24</u>
Total	410		100.00

These two collections show an almost perfect 50/50 split of the Barnes and Mississippian complexes. The large amount of cord marked ware is unusual. An interesting feature of a number of these sites is the frequency of Barnes Complex sherds used as whetstones. With their sandy paste, these sherds must have been a good abrasive.

The site is a component of the Malden Plain phase.

Wilkins Island (8-0-2). Further north on the St. Francis River, this site is named for the island it once occupied. Now, the whole area is dry land, but the old names persist and are helpful in showing the land which was habitable before drainage.

Mounds were known at the site but have all been leveled.

The collections were sorted and counted at Michigan by Scully and are as follows:

Sherds in Collection 1:

Barnes Complex:

Barnes Plain	95
Barnes Cord Marked	542
Barnes Pinched	1

Baytown Complex:

Baytown Plain	11
---------------	----

Mississippian Complex:

Mississippi Plain	175
Old Town Red Filmed	<u>33</u>

Total	857
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Sherds in Collection 2:

Barnes Complex:

Barnes Plain	33
Barnes Cord Marked	194

Mississippian Complex:

Mississippi Plain	15
Old Town Red Filmed	<u>10</u>

Total	252
-------	-----

Sherds in Collection 3:

Barnes Complex:

Barnes Plain	10
Barnes Cord Marked	106

Mississippian Complex:

Mississippi Plain	20
Old Town Red Filmed	<u>2</u>

Total	138
-------	-----

Since the writer has not had an opportunity to look over this material himself, it is not known whether those sherds here termed Old Town Red Filmed would now be called Varney because of the new classification.

The site is included to show some of the range of sites found in the area. The small amount of Mississippian Complex sherds contrasts with the 50/50 situation described above. This difference may well be temporal although the situation in the Cairo Lowland belies such a simple explanation in as much as some sites showed high Baytown Complex sherd percentages without showing other signs of being early in the sequence. As a result, this site will be left unplaced as to phase.

Little River Lowland

These lowlands are cut by the Little River and an important tributary, Pemiscot Bayou. Both follow ancient drainage patterns carved out by other rivers. In this region only the natural levees along the Little River or in the present meander belt of the Mississippi were habitable with the rest of the region being glades and backswamps.

Wardell (7-Q-1). Located on a bend of the Little River, this site has two mounds and may well be surrounded by a wall and ditch although an aerial photograph of the site was not available to check on this feature.

A surface collection was made as follows:

Baytown Complex:		%
Baytown Plain	5	.97
Mississippian Complex:		
Mississippi Plain	489	95.32
Old Town Red Filmed	13	2.33
Nodena Red and White	1	.19
Unidentified Incised	<u>5</u>	<u>.97</u>
Total	513	99.78

This shows a pure Mississippian Complex situation as the less than 1 percent Baytown sherds are not considered significant. The site falls between two stools in location and content. All the Pemiscot Bayou phase sites lie to the southeast in the recent meander belt (Fig. 30) but there are no good sherd types linking it to the Malden Plain phase either. In some ways it seems to be more like the Cairo Lowlands in site layout.

The site is tentatively considered a component of the Pemiscot Bayou phase.

Reference: Houck, 1907: 54.

Estes (7-R-3). A low mound stands on ground higher than the bayou bottom nearby. A small surface collection was made in the area around it as follows:

Barnes Complex:		%
Barnes Plain	1	.64
Baytown Complex:		
Baytown Plain	26	16.66
Mulberry Creek Cord Marked	8	5.12

Mississippian Complex:		%	
Mississippi Plain	107	68.58	
Bell Plain	<u>14</u>	<u>8.96</u>	
Total	156	99.96	

This site is also somewhat transitional in location and content but is included in the Pemiscot Bayou phase.

Canady (8-Q-3). A road cuts north and south through the site and collections were made on both sides of it. A number of low mounds were still in evidence although much lower than previously known. A burial mound was also present.

Sherds in Collection 1:

Barnes Complex:		%	
Barnes Plain	4	1.23	
Barnes Cord Marked	3	.92	
Baytown Complex:			
Baytown Plain	79	8.66	
Mulberry Creek Cord Marked	439	73.06	
Larto Red Filmed	1	.30	
Wheeler Check Stamped	13	2.78	
Mississippian Complex:			
Mississippi Plain	40	5.57	
Bell Plain	4	1.23	
Old Town Red Filmed	31	5.57	
Matthews Incised	2	.60	
Unidentified Brush Marked	<u>2</u>	<u>.60</u>	
Total	618	100.52	

Sherds in Collection 2:

Baytown Complex:			
Baytown Plain	28	14.3	
Mulberry Creek Cord Marked	145	74.0	
Wheeler Check Stamped	3	1.5	

Mississippian Complex:	%	
Mississippi Plain	12	6.1
Bell Plain	2	1.2
Old Town Red Filmed	<u>6</u>	<u>3.1</u>
Total	196	100.2

These two collections show a strong Baytown component with only 10 to 12 percent of the Mississippian Complex. The Wheeler Checked Stamped sherds show the Baytown component to be late in the Baytown period.

The site is classed as being a Black Bayou phase component and an early Pemiscot Bayou phase component.

Persimmon Grove (8-3-4). Not far from Pemiscot Bayou there was a small mound 6 feet high and 50 feet in diameter. Since the survey was made, this mound has been destroyed. A good collection was obtained north of the mound as follows:

Baytown Complex:	%	
Baytown Plain	12	2.81
Mississippian Complex:		
Mississippi Plain	294	68.85
Bell Plain	80	18.73
Old Town Red Filmed	4	.93
Matthews Incised	3	.70
Rhodes-like	2	.46
Wallace Incised	2	.46
Parkin Punctate	24	5.64
Unidentified Punctate	1	.23
Unidentified Noded	1	.23
Unidentified Incised	<u>4</u>	<u>.93</u>
Total	427	99.97

This collection shows for the first time some of the Arkansas types definitely associated with the Pemiscot Bayou phase. Here a large percentage of Parkin Punctate is seen. This is one of the important phase determinants.

Thus, this site is a component of the Pemiscot Bayou phase.

Trakes (8-Q-8). This site was reported to the survey crew by a local collector. Our collecting attempts were not successful although the owners did tell us of mounds there which had been leveled. The local collector did give us a single Old Town Red sherd of fine quality which he had obtained here.

Caruthersville (8-R-1). This site contains the largest mound in the whole Southeast Missouri area. It is 30 feet high, 300 feet long and 100 feet wide. These figures are considerably under those given by Houck, but he does add that a ramp at the south end was visible at the time. It no longer is.

There is a small mound to the east of the large mound and best collecting was around it.

Sherds in Collection 1:

Baytown Complex:		%
Baytown Plain	56	24.03
Mulberry Creek Cord Marked	12	5.15
Wheeler Check Stamped	4	1.71
Mississippian Complex:		
Mississippi Plain	109	46.78
Bell Plain	47	20.17
Old Town Red Filmed	1	.42
Matthews Incised	1	.42
Parkin Punctate	3	1.28
Total	233	99.96

Sherds in Collection 2:

Baytown Complex:

		%
Baytown Plain	57	21.42
Mulberry Creek Cord Marked	21	7.89
Wheeler Check Stamped	6	2.25
Unidentified Plain Grit	1	.37

Mississippian Complex:

Mississippi Plain	136	51.12
Bell Plain	32	12.02
Old Town Red Filmed	3	1.12
Wickliffe Plain	2	.75
Matthews Incised	1	.37
Parkin Punctate	3	1.12
Unidentified Punctate	2	.75
Polished Shell Ware	2	.75
Total	266	99.93

These collections show again a Black Bayou phase component, but here there is a very well-represented Pemiscot Bayou phase component too.

Reference: Houck, 1907: 54.

Kinfolk Ridge (8-R-2). Two mounds are present on this site. One has skeletons being ploughed out of it so it is assumed to be a burial mound. A very adequate sherd sample was obtained as follows:

Mississippian Complex:

		%
Mississippi Plain	411	80.90
Bell Plain	40	7.83
Old Town Red Filmed	11	2.16
Wickliffe Plain	1	.19
Matthews Incised	2	.39
Parkin Punctate	38	7.48
Unidentified Punctate	4	.78
Unidentified Noded	1	.19
Total	508	99.92

An unusual aspect of this collection is the fact that only one pottery complex is present. This then seems to be a pure site, without any admixture of other traditions.

One further comment might be appropriate at this time. In a number of these Little River Lowland sites a few sherds in many of the collections has classified it as Matthews Incised. On the basis of present knowledge, this type seems to be primarily a Cairo Lowland type, but since it was not too precisely defined in the beginning the writer now wonders if he'd still sort them as this type. Unfortunately, no opportunity to go over all the collections has been available to the writer.

The same criticism might also be leveled at some classifications of Arkansas types with which the writer is now more familiar with, but such are the vagaries of research. If one waited till one had all the data at hand, one would never write a word.

The site is a component of the Pemiscot Bayou phase.

Holland (8-2-5). This site is located on high ground along Pemiscot Bayou. The remnants of 5 small mounds are still visible. Surface materials were plentiful especially stone artifacts and a number of willow leaf projectile points were first noted here. These are a type common in some regions of Northeast Arkansas.

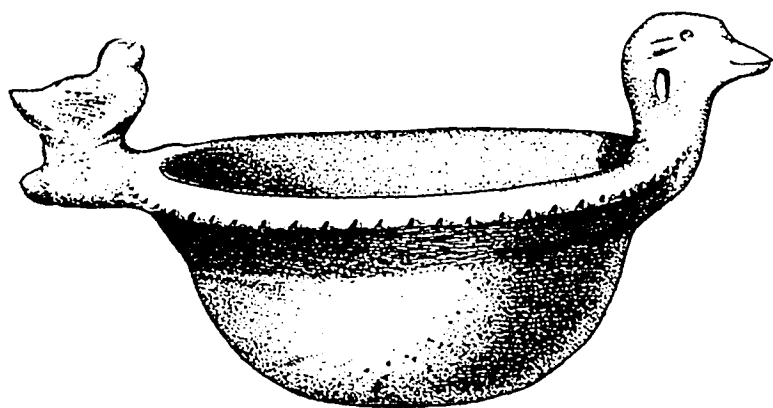
Pottery types such as Fortune Noded and Vernon Paul Applique were also found. These types along with the willow leaf projectile points and small snub-nosed scrapers form an artifact complex which is distinctive of the Nodena phase in Missouri.

Cooter (8-9-7). This site has the remains of a small mound about 6 feet high and 100 feet in diameter and the field around it is rich in village debris. The survey's collection is as follows:

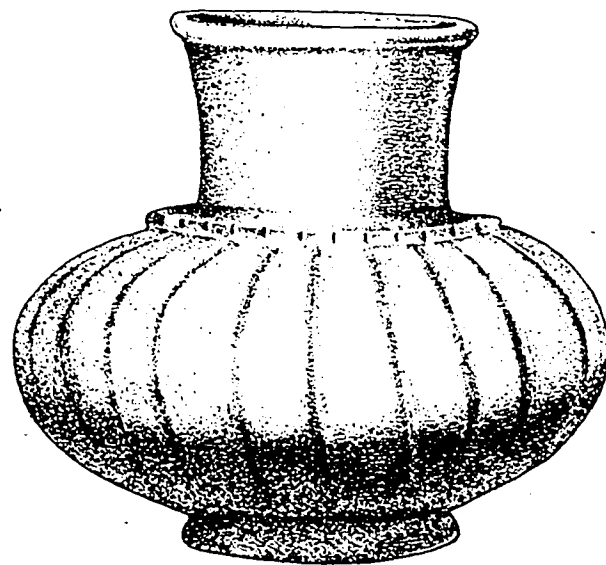
Mississippian Complex:		%
Mississippi Plain	282	73.05
Bell Plain	83	21.50
Nodena Red and White	3	.77
Ranch Incised	7	1.81
Kent Incised	2	.52
Parkin Punctate	7	1.81
Unidentified Punctate	2	.52
Total	386	99.98

At this site too a number of willow leaf points were found. Since our work, Anderson has visited the site a number of times and excavated 17 burials. His surface collections contain a large number of snub-nosed scrapers and Arkansas pottery types, especially Vernon Paul Applique, and Ranch Incised.

The pots he excavated (Fig. 45) are typical of North-east Arkansas and are very different from those in Southeast Missouri. The difference is not in kind, but in execution.



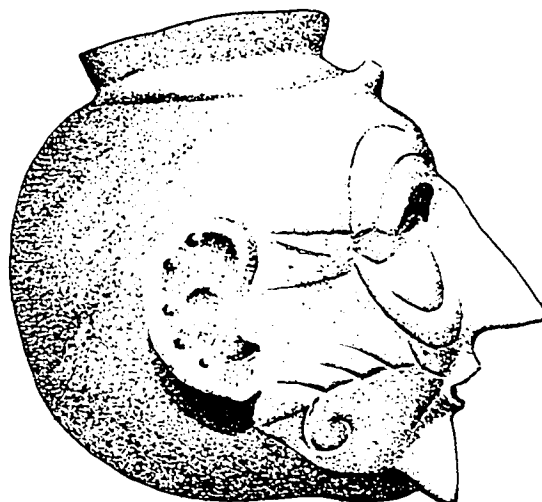
a



b



c



c'

Fig. 45 Vessels from Cooter Site.

Figure 45a is a rim-effigy bowl with a tail-riding effigy. This is strictly an Arkansas form as is Figure 45b, a gad-rooned bottle with a ring base. The neck treatment and general properties are very different from the usual Missouri kind of bottle which has a carafe neck, and usually ovoid, rather than globular, body Figure 45c, c' is a brand new example (excavated January, 1954) of the famous Pecan Point head pot in Nodena Red and White. Southeast Missouri head pots are quite different as will be shown in the next section.

Another interesting trait known from the Anderson collection is a finely ground stone adze. Anderson has parts of four of these distinctive artifacts, all made from the same black stone.

This site is a component of the Nodena phase.

Chute (8-R-3). A mound 6 feet high and 100 feet in diameter stands on level ground in a cultivated field. The survey crew was hard put to find much in the way of surface materials and their collection is as follows:

Mississippian Complex:		%
Mississippi Plain	57	85.07
Bell Plain	6	8.95
Old Town Red Filmed	1	1.49
Parkia Punctate	3	4.47
Total	<u>67</u>	<u>99.98</u>

In contrast to our poor pickings Anderson has visited the site often and has a fine collection from here. Among these pieces are over 15 fragments of a Catlinite (red pipe stone) disk pipe which he has picked up in his numerous visits.

He also has willow leaf points, shub nosed scrapers, and

these Arkansas pottery types: Parkin Punctate, in great quantity and variety; some Vernon Paul Applique; and a sherd tentatively identified as Fortune Noded. Other artifacts in his collection include a number of chipped and ground celts of light brown chert and some finely chipped drills which are straight without any special hafting area. This site is the third component of the Nodena phase in Southeast Missouri. These three last sites are very homogeneous in content and certainly represent a late influence from the south.

Crowley's Ridge

No sites which can certainly be classed as Mississippian were found in our survey at this hilly region although Stewart's Spring (Fig. 6) may be a good candidate. Other evidences, less certain, mostly in the form of scattered finds are also known from this region. Sufficient survey work here might produce more promising results as it seems likely that the area was occupied during this period.

Advance Lowland

This northern Lowland was not well investigated but one interesting Missippian site was surveyed.

Lakeville Settlement (A-Q-3). On a narrow ridge Thomas located this site which was well preserved in his days. Today a main highway runs through it in a north-south direction. Almost all the features shown in Fig. 46 are now completely

destroyed. The walls and mounds are gone but there is quite a log of surface material still available.

A number of local collectors have dug here but none of material was available for inspection. Stone slab graves were reported by some informants.

Our collection shows the following material; it was obtained

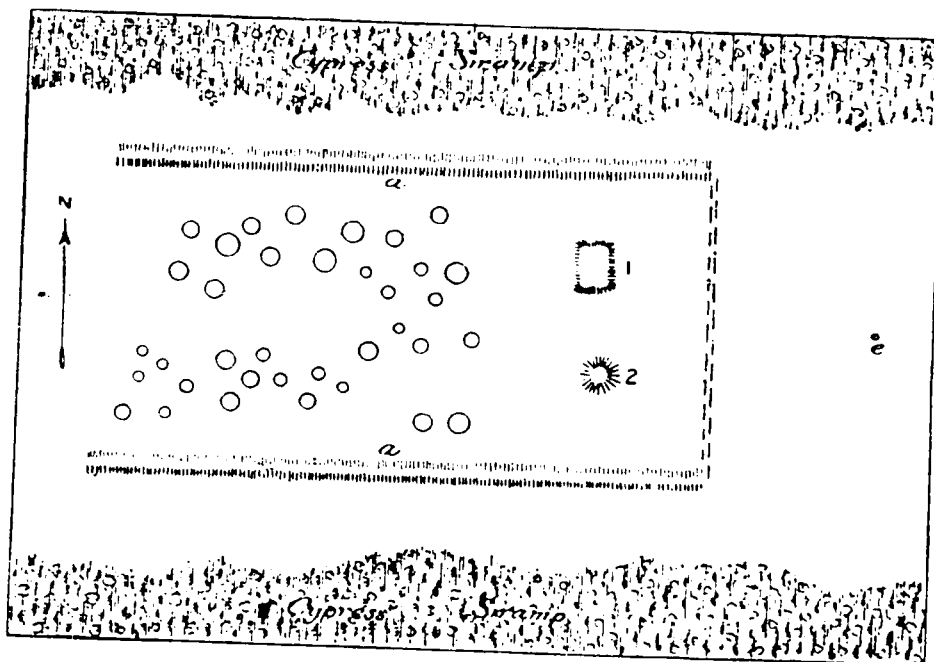


Fig. 46. Lakeville Settlement (from Thomas, 1894).

entirely from the west end of the site:

Mississippian Complex:		4
Mississippi Plain	563	87.01
Wickliffe Plain	42	6.49
Kimmswick Plain	7	1.08
Thin ware	6	.93
Polished Brown	1	.15
Fine ware	28	4.32
Total	647	99.98

These sherds would seem to indicate a single occupation and Thomas found a sandstone pipe in his excavations of some

of the hut rings.

The material offers some problems in classification. It most closely resembles some of the material in the Malden Plain. It is therefore classed tentatively as a component of the Malden Plain phase.

Reference: Thomas, 1894: 173-174.

Peter Bess (4-Q-1). This is a small site of about 12 acres enclosed by a wall on the bank of the Caster River. It was not visited by the survey but Thomas gives a good description of it and Figure 47 shows its plan.

Two stone graves were found by the former owner, and one had a red stripped, gourd shaped bowl in it. This bowl was filled with ground lead ore. Thomas found other painted sherds on the surface.

It is interesting to note these last two sites have stone graves reported at them. Perhaps their location closer to where suitable construction materials is the explanation for the appearance of this trait here, but nowhere else in the area.

References: Thomas, 1894: 172-173; Houck, 1907: 70; Fowke, 1910: 99.

Western Lowland

St. Francis Drainage. In this area to the west of Crowley's Ridge, no sites of this period were located. Some sites of the earlier periods were found, and perhaps more intensive

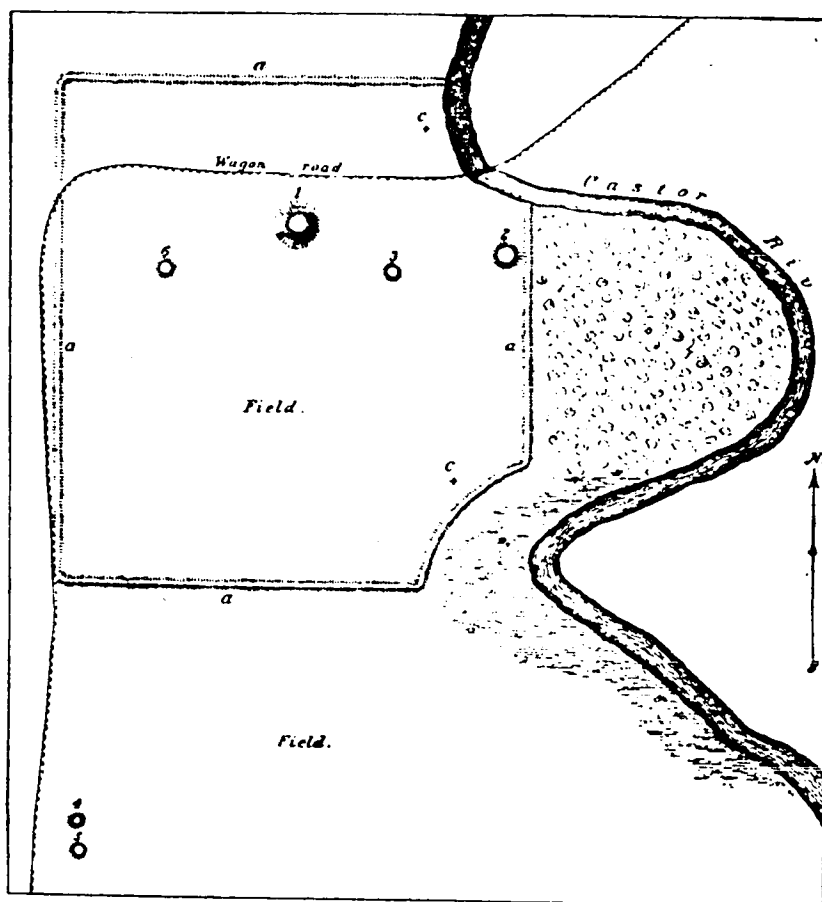


Fig. 47. Peter Bess Site.
(from Thomas, 1894)

survey work in this region would turn up some Mississippian sites.

Black River drainage. No sites were located in this region and only one is known from the literature and it appears to be pre-Mississippian. These negative results from these two regions are included as a contrast to the other areas considered. It would seem that these areas were somehow less favorable for occupation. Even today they have not been occupied very densely by the modern inhabitants.

In concluding this section on sites it is noted that 14 collections from 27 sites totaling 14,421 sherds have been studied. This is about one-half the total material collected by the survey.

SECTION 5

C L A S S I F I C A T I O N O F A R T I F A C T S

CLASSIFICATION OF ARTIFACTS

Methodology

In terms of method the material was classified in rather standard ways current in the area of research. A statement of methods of ceramic classification which outlines the general problems in this area is to be found in Phillips et al., 1951 (pp. 61-68). There are places where I must disagree, however. One such instance is on the concept of type. Dr. James A. Ford originally wrote the section in that volume, but it was reworked by the co-authors. As such it presents sort of a schizophrenic picture for two opposing views are upheld almost in the same breath. Ford conceives of a type as a theoretical abstraction taken from the data at hand, which bears little resemblance to a cultural or natural reality. Phillips, on the other hand, in the next paragraph states that the criteria used for classification are certain to have a correspondence with "characters that might have served to distinguish one sort of pottery from another in the minds of the people to made and used it" (op. cit. p. 63).

The classifications used herein are attempts to follow this second kind of thinking and also to keep in mind that whole vessels are in fact being categorized by these types. That latter matter is made easier in this area where so many whole vessels are available for study.

In the classification of the other artifacts a simple descriptive terminology is used. Seldom were there sufficient

quantities of this kind of data to warrant more elaborate procedures. With respect to giving these artifacts function names, great care has been taken to avoid unwarranted appellations not based on some good evidence. This is not a negation of functional terminology for the writer is fully in accord with such methods and has attempted herein to use the technique where the data was available.

Pottery Types

The pottery types discussed in the following pages are not entirely my own creation. Some of the original classification was set up by Dr. Griffin in the Laboratory in the summer of 1950. Since then certain additional types have been added by myself and by Dr. Griffin and Mr. Scully.

The description of the sand tempered wares (Barnes) in the area will be left in the main to my co-worker Mr. Scully who was to have dealt with that cultural and temporal area. The clay tempered wares (Baytown) have in general been taken care of in the Lower Valley Survey report (Phillips et al., 1951), but I imagine Mr. Scully has some additional comments on local variation to add to the published descriptions from farther down the valley.

Actually it was only in the Mississippian wares that any great number of new types were encountered. These are not new in the sense that they have not been known before, but the following classification is the first attempt to order this material in manner now so prevalent in Eastern United States.

Most of the new types are decorated ones which did not occur further south and at least two, the Wickliffe and the Kimmswick series, are based on shapes not found in that area.

Within the Mississippian wares the Plain Ware types follow to a large extent those of the Lower Valley. A new type, Mississippi Plain, is proposed. This is the general shell-tempered utilitarian ware which is widespread over the Southeast in Mississippian times. This type has many typological companions, and it is hoped that the name will not be too confusing. It was suggested by Dr. Griffin and has been used in the field work during the past three years.

On inspection of the sherds of Neeley's Ferry Plain from the Lower Valley, a great similarity was seen with Mississippi Plain and there is, on the surface, continuous distribution. However, the Lower Valley type is one which definitely needs breaking down into finer divisions (op. cit., pp. 109, 237-8). Therefore the setting up of a new type for this ware is not a typological exercise. However, it must be confessed that while some of the Baytown wares of the Lower Valley appear on inspection to differ from those called by the same name in Southeast Missouri, there was fundamental agreement in color and texture between Neeley's Ferry Plain and Mississippi Plain. There do seem to be some variations in this latter type within the area which may well have areal and chronological significance and these will be mentioned later.

Barnes Complex

There are sand tempered types encountered in the area including zoned and dentate stamped, and pinched, punctated and incised varieties. However, these all occur on sites allocated to a different cultural and temporal periods than that under discussion (see pages 33-34).

An interesting distributional note should be mentioned at this time: these sand tempered wares are in fairly complementary distribution with the clay tempered wares. The Barnes wares tend to have a westerly distribution along the St. Francis River on the Malden Plain while the Baytown wares are most important along the Mississippi. This is not a hard and fast rule but the purest sites of each type seem to lie at these extremes.

At Sandy Woods Site (5-T-4) there is a heavily sand tempered variation of this ware. Here it occurs with the regular Barnes ware and Baytown wares also. It is almost distinctive enough to be allotted a separate name, but since it has been recognized at only one site in the whole area, these sherds have been kept in the Barnes Type. This variation may well occur elsewhere within the Survey Area, but the uniqueness of this type was recently noticed and has not been checked with the mass of material in this general category which is at Michigan.

Barnes Plain

This is a finely tempered plain ware in which the sand particles although numerous in some specimens are quite small. The texture is such that in running one's fingers over the surface the sandy nature of the temper is immediately noticed. This description of the temper and texture holds for all the Barnes' wares. The shapes are similar to those of Baytown Plain (Phillips et al., 1951: 77-78).

Barnes Cord Marked

This cord-marked variety goes hand in hand in distribution with the plain ware and like it resembles its clay tempered counterpart, Mulberry Creek Cord Marked, to a considerable extent. The cord marking tends to be quite fine in some cases. The shapes follow those of Mulberry Creek Cord Marked, and there is occasionally a folded or added firm strip.

Baytown Complex

The types making up this pottery complex are all clay tempered and are substantially the same as those of the Lower Valley. Mention has been made of the importance of the tempering sequence in the area in showing the shift from the Baytown tradition to the Mississippian. Such a reliance on an obvious trait can result in an oversimplification of the situation. Especially at the time of transition or blending of the tra-

ditions, such traits as the temper used in the pottery will be less useful than a study of the shapes. This is decidedly the case in Southeast Missouri where many of the typical Mississippian shapes occur with a fine clay temper. This tempering is usually distinguishable from that of the kind used in a more typical Baytown ware such as Mulberry Creek Cord Marked in its fineness and the color of the cross-section more nearly approximates that found in the Mississippian complex.

As has been mentioned above in the discussion of the situation at Crosno and elsewhere, it seems that the two types of this complex with roughened surfaces, Mulberry Creek Cord Marked and Wheeler Check Stamped, are the most important criteria for phase definition.

Baytown Plain

Type as described in reference (a), except as noted below.

Discussion. This is the basic plain clay tempered type. "In southeast Missouri, a comparable type was tentatively called Matthews Plain (Adams and Walker, 1942). This is in all respects equivalent to Baytown Plain, except that the known time depth in this area is not equal to that obtained farther south." (ref. a: 31).

It can safely be said that now a nearly similar time depth has been shown for the type in the area, and the tentative type name has been dropped in favor of the more fully described one. This type does seem to continue in certain parts of the area until somewhat later, and this is in line

with a general tendency for the use of clay tempering to persist into Mississippi times in the northern part of the Lower Valley.

Bibliography. (a) Phillips et al., 1951: 76-82).

Mulberry Creek Cord Marked

Type as described in reference (a) except as noted below.

Discussion. This is the type known in reference (b) as Korando Cord-marked but Griffin suggests that the name be abandoned for that used above. This has been done. There is continuous distribution of the type from Arkansas to Missouri.

On looking over the material from the Lower Valley it would seem that the cord marking tended to be somewhat finer in Southeast Missouri although in color and texture there is close similarity.

Bibliography. (a) Phillips et al., 1951: 82-87), (b) Walker and Adams, 1946.

Wheeler Check Stamped

Type as described in reference (a), except as noted below.

Discussion. The occurrence of this type "which is a marker for the post-Hopewell but pre-Mississippi cultures in the western Tennessee River Valley and in the Memphis area. is a valuable indication of the close connection of this area with the southeastern United States, a relationship which is marked in the Mississippi period which follows." (ref. b:2)

Bibliography. (a) Phillips, Ford and Griffin, 1951: 102-105, (b) Griffin and Spaulding, 1952:2.

Larto Red Filmed

Type as described in reference a, except as noted below.

Discussion. This is the first painted ware in the area and seems to be limited to the eastern regions as it is seldom found along the St. Francis River.

Bibliography. (a) Phillips et al., 1951: 102-105.

Mississippian Complex

These are the shell tempered types which are characteristic of the Mississippian tradition in the area. As has been noted some of them also occur with clay temper and these will be indicated. These variations in temper were taken into consideration when the initial analysis of the surface material was made, but has not been retained in the text. For example, Bell Plain was found with shell and fine clay tempering. These types were sorted into different piles called Bell Plain-shell and Bell Plain-clay. However they appear in the lists in Section 4 as simply Bell Plain. This is not a negation of the original classification, but the writer felt that the data were best presented in the simpler form.

Mississippi Plain

Type is identical with that described in reference a, as Neely's Ferry Plain except as noted below.

Discussion. This type was named by Griffin for the county in the area which is called Mississippi. At this late date in the study it would seem impossible to change the name to something less confusing. All of Griffin's proposed names have not been retained but this one will be with the readers' indulgence. The problem of this type's name is of some importance since it is such a common type in the whole Southeast during the Mississippi Period. Of course, shapes do change but a plain body sherd of shell tempered pottery from Georgia looks very similar to a sherd of Mississippi Plain as defined here.

This plain type is the most frequent of all those of the complex. It is the utilitarian ware and large jars with lug or strap handles are the most common shape. This type is synonymous with Kincaid Plain in reference b.

Bibliography. (a) Phillips et al., 1951: 105-110, (b) Cole et al., 1951: 145-146.

Bell Plain

Type as described in reference a, except as noted below.

Discussion. This is the finer plain ware type. It has a smooth surface which at times can be classed as polished. Bowls are the most common shape and a good deal of the fancy effigy ware is this type.

This type occurs with a fine clay tempering in the area and often it is hard to note the shell tempering because it is so fine. Synonymous with Kincaid Polished in reference b.

Bibliography. (a) Phillips et al., 1951: 122-126, (b) Cole et al., 1951: 147.

Old Town Red Filmed

Type as described in reference a, except as noted below.

Discussion. This is the main red ware in the area but it is not too common anywhere. It is defined as having a fine paste resembling Bell Plain, but it is noted that a variant with a coarser paste was finally included (ref. a: 131). In this study an attempt has been made to separate the two. Therefore that called Old Town Red Filmed has a fine paste while Varney Red Filmed has a coarse paste more like Mississippi Plain. This type is synonymous with Kincaid Red Slipped in reference b.

Bibliography. (a) Phillips et al., 1951: 129-132, (b) Cole et al., 1951: 147-148.

Varney Red Filmed

Type not previously described.

Paste and Surface Finish. Same as Mississippi Plain.

Color. Same color range as Old Town Red Filmed.

Form. Vessel Shape. Large simple curved-sided bowls, shallow or deep are very common. This is the shape often called the "salt pan." Another common shape is the large jar with a recurved rim.

Thickness. Same as Mississippi Plain, significantly thicker than Old Town Red Filmed.

Rim. Rims are recurved on the jars as shown in Figure 48, but very simple and slightly thickened in the pans.

Appendages. No appendages are known for this type.

Relationship Within Area. At present distribution is limited almost exclusively to the Old Varney River site (8-P71) where the type is very common.

Relationship Outside the Area. The relation of this type to the coarse variant of Old Town Red Filmed mentioned above is obvious. Unfortunately, no data on shape was included, so a comparison can not be made on that characteristic.

Chronological Position. Appears in the Malden Plain phase and therefore seems to be generally earlier than Old Town Red Filmed.

Nodena Red and White

Type as described in reference a, except as noted below.

Discussion. This painted ware is definitely scarce throughout the area although more common in the southern part than the northern regions such as the Cairo Lowland. It does occur infrequently in museum collections usually in effigy forms. The plate form noted at Crosno is a new shape for this type.

Bibliography. (a) Phillips et al., 1951: 133-134.

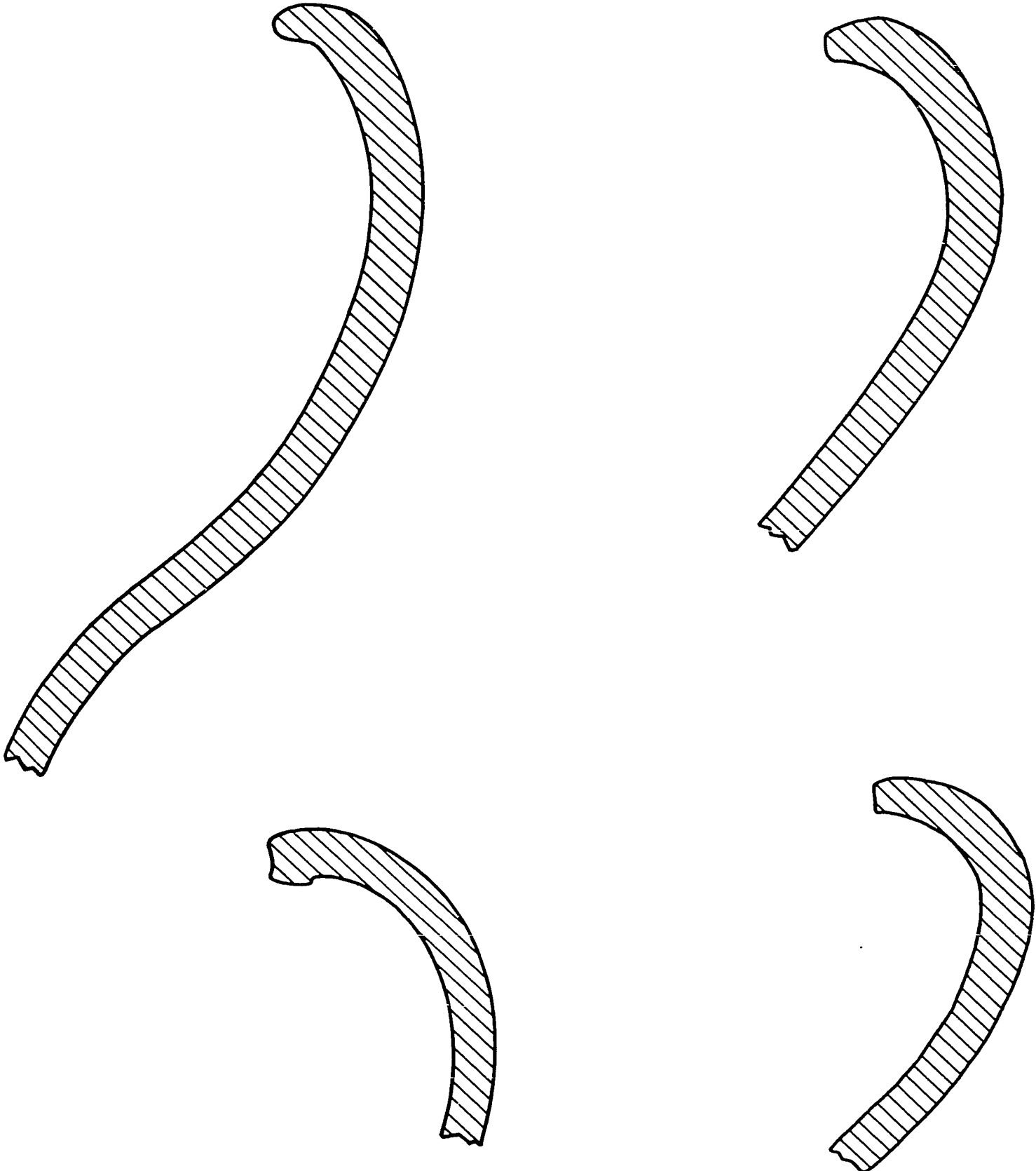


Fig. 48. Rim Profiles of Varney Red Filmed.

Sikeston Negative Painted

Type as described in reference a, except as noted below.

Discussion. This is a type which has produced some difficulty in classification as some of the vessels in the area have both negative and positive painting on them. This type has been created to take care of this situation. Figure 49 shows two excellent examples from the Beckwith collection. The quadruped has its decoration entirely done in the negative technique with a black stain over a light buff. The human effigy's torso is decorated with a negative design of white over buff, but there is a red area below the waist done in a positive paint. The symbols on the back of the torso are the familiar Ogee of the Southern Cult.

Bibliography. (a) Phillips et al., 1951: 176-177.

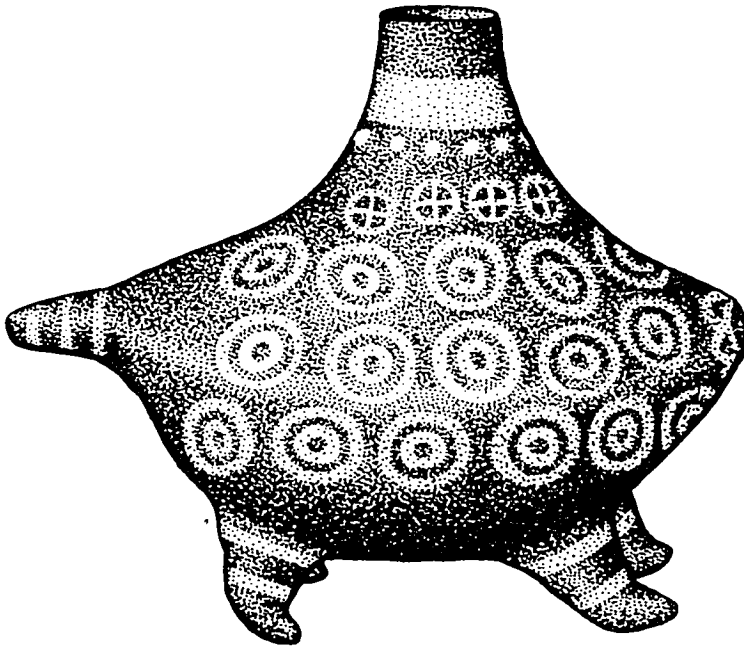
Angel Negative Painted

Type as described in reference a.

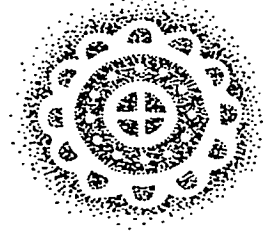
Discussion. This type is found mainly near the mouth of the Ohio where it may well be a trade ware from the Angel site. Certainly some pieces found at Crosno were virtually identical with those known from that site. Plates are a characteristic form in this type and this contrasts to the Sikeston Negative Painted which is most often found as bottles. Synonymous with Kincaid Negative Painted (ref. b).

Bibliography. (a) Phillips et al., 1951: 175-176.

(b) Cole et al., 1951: 148



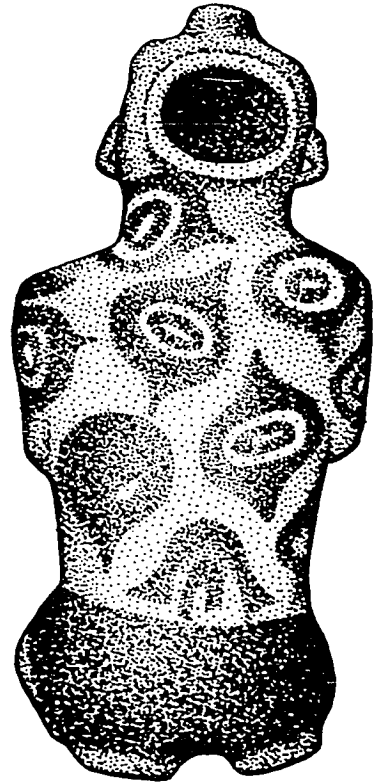
a



a'



b



b'

Fig. 49. Sikeston Negative Painted Vessels.

Wickliffe Series

This is the name which has been given to the sherds from the "juice press" or as the writer prefers, the funnel. Griffin applied the type-name King to this series but this has not appeared in print so a change has been made to a site name rather than a personal name.

Wickliffe Plain

Type not previously described.

Paste. Temper. Predominantly coarse to fine shell with the majority of the material definitely coarse, with some admixture of clay.

Texture. Coarse and lumpy with very rough edges at the break.

Color. Tan, to deep brown and various shades of light gray.

Thickness. Average about 10 mm with a range from 7 or 8 mm to as much as 30 mm. Quite a bit of variation within the same vessel with bases tending to be quite thick at times.

Surface Finish. Though there is quite a bit of variation generally, the exterior surface is fairly well smoothed but because of the coarse texture of the paste never becomes very smooth. Some with finer paste approaches the surface finish of Mississippi Plain. The interior surface is very often crudely finished with tool marks scouring the interior.

Form. Vessel Shape. The shape is that of the so-called "juice press" or funnel. There is an opening at the base as shown in Figure 50.

Rim. Often incurved as shown but sometimes straight.

Lip. Flat or slightly rounded.

Base. This part is always identifiable because of the hole which usually has a raised lip around it.

Relationships inside the Area. This variety of the series is the most widespread and occurs occasionally on the Midden Plain. However the whole series is mainly a Cairo Lowland type.

Relationships Outside of Area. Occurs at Wickliffe and probably at Kincaid although not illustrated for that site. Very limited in distribution not occurring to the south in Northeast Arkansas or north in Missouri.

Wickliffe Incised

Type not previously described.

Discussion. Similar in all ways to the plain type just described, it has crudely incised lines on it as seen in Figure 51b. These two vessels shown in this figure are from the Beckwith collection and are the only two whole pots of this series known to exist although restorations have been made at the Wickliffe and Matthews sites.

This variety is limited almost exclusively to the Cairo Lowlands area and the adjacent Wickliffe and Kincaid sites.

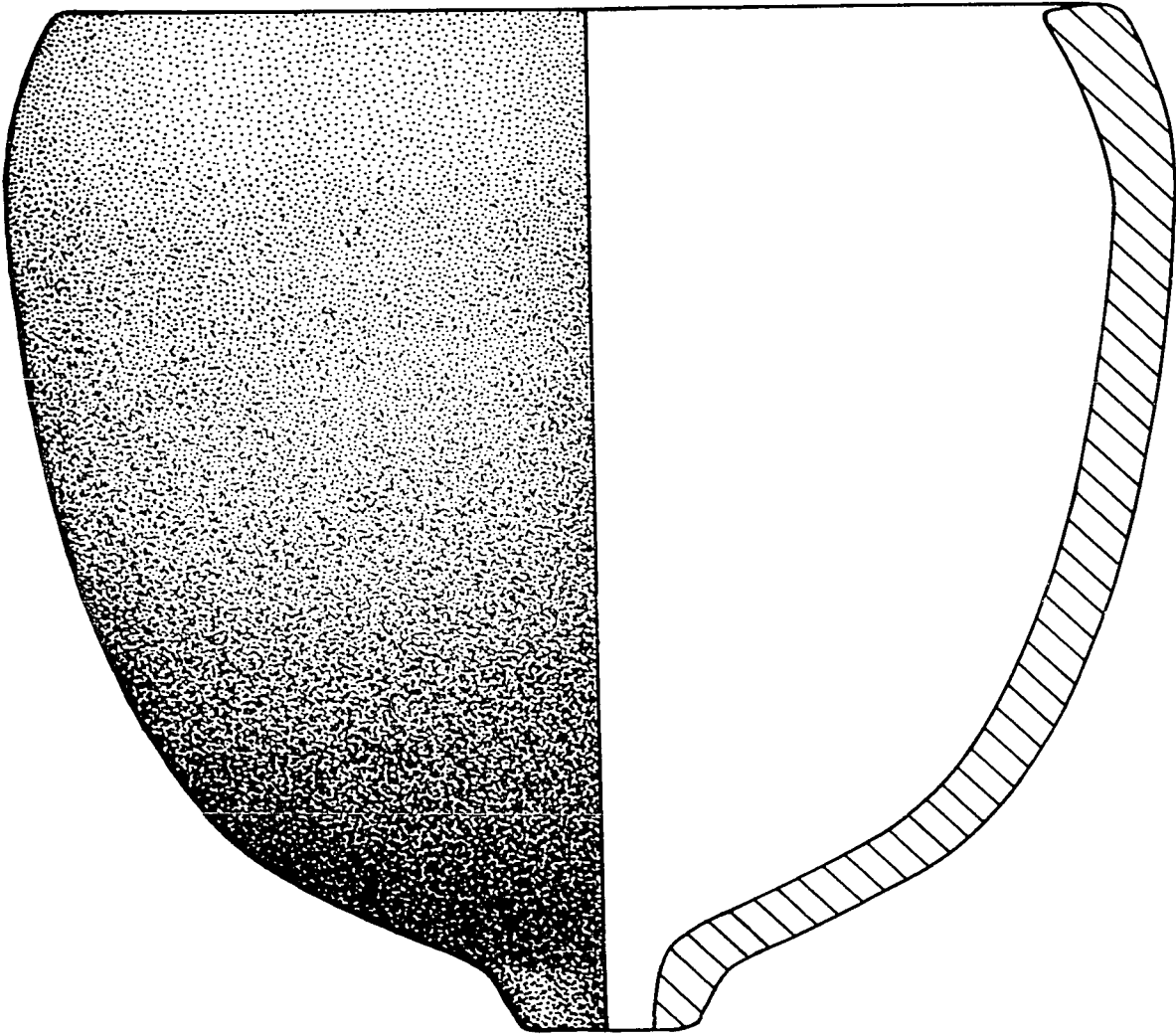
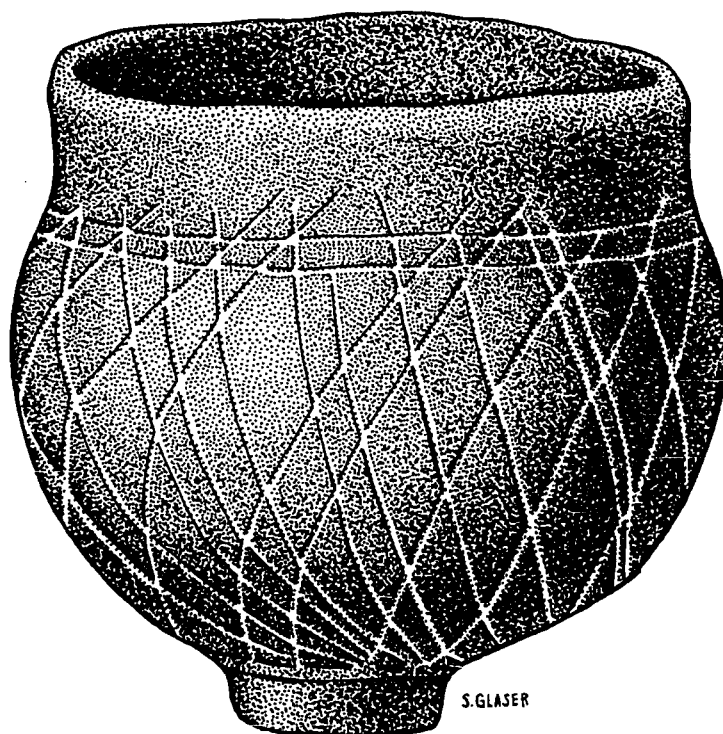


Fig. 50. Wickliffe Plain Vessel (Restored).



S. GLASER

Fig. 51. Wickliffe Series Vessels (Beckwith Collection).

Wickliffe Cord Marked

Type not previously described.

Discussion. Same as Wickliffe Plain except for cord marking which is applied sparingly to the exterior. The cord is large, often 3 to 5 mm in diameter. Stratigraphically it was early at Crosno although the Plain and Incised types occurred in the same levels. The type may indicate another transition in ceramic technique the older idea of cord marking being applied to a new shape. It has been found only at Crosno.

Wickliffe Punctate

Type not previously described.

Discussion. Same as Wickliffe Plain except for crude punctations at random on the body. This type was rare at Crosno and has not been recognized elsewhere. It is merely a rare variant of the series.

Kimmswick Series

Fabric marked pottery has attracted the attention of archeologists in America since its first discovery in the middle of the last century. Holmes (1903) brought together a considerable amount of information on the subject and dealt to a great extent with the pottery found at Salt Springs in various localities of the eastern United States.

Bushnell (1914) excavated a series of sites in St. Genevieve County, Missouri, in the first decade of this century

and one of these was the Kimmswick site for which this series is named.

Salt springs lead to the term "salt pan" for these large vessels or shallow pans but whether they were actually used in all cases for salt making is open to question. Wells and Funkhouser (1931) and Orr (in Cole et al., 1951: 316-318) have discussed methods of manufacture of these large vessels, as well as analyzed the type of weaves encountered in the textile impressions.

Kimmswick Plain

Type not previously described.

Paste. Temper. Coarse shell, but does occur with clay, too.

Texture. Coarse, not unlike Mississippi Plain in some cases.

Thickness. Varies from 10-15 mm.

Surface Finish. Fairly well smoothed in most cases.

Forms. Vessel shape. Large salt pans. Very low and wide.

Rim. Flaring and occasionally incurving.

Relationship Within Area. Mainly found within the Cairo Lowland but sporadically to the west on the Midden Plain. Very rare south of this region.

Relationship Outside Area. The salt pan is known from many Mississippi sites throughout the Southeast and its distribution should be studied more carefully to trace the spread of one trait of the Mississippi tradition.

Bibliography. (a) Cole et al., 1951: 316-318.

Kimmswick Fabric Impressed

Type not previously described.

Discussion. Similar to Kimmswick Plain except for Fabric which has been placed against it and left an impression. This member of the series appears to be even more widely distributed than the plain ware. At Crosno a variant of this type requires mention. The body of the pan is fabric marked but there is a smoothed rim as shown in Fig. 52. In a lot of this type at the site the fabric impressing came right up to the rim. Figure 29 showed that these fabric marked rims were earliest being replaced by the smoothed rims; since in sorting these sherds with the smoothed rims they were classed as plain. This resulted from the fact that the type tended to fracture at bottom edge of the surface where it thinned out as shown in cross-section in Fig. 52b.

This type is synonymous with Kincaid Net Impressed in reference a.

Bibliography. Cole et al., 1951: 140-147.

O'Byam Series

This is another type which has only one vessel shape. As was mentioned earlier this type of classification was made whenever possible.

The O'Byam Series, Engraved and Incised, is found only

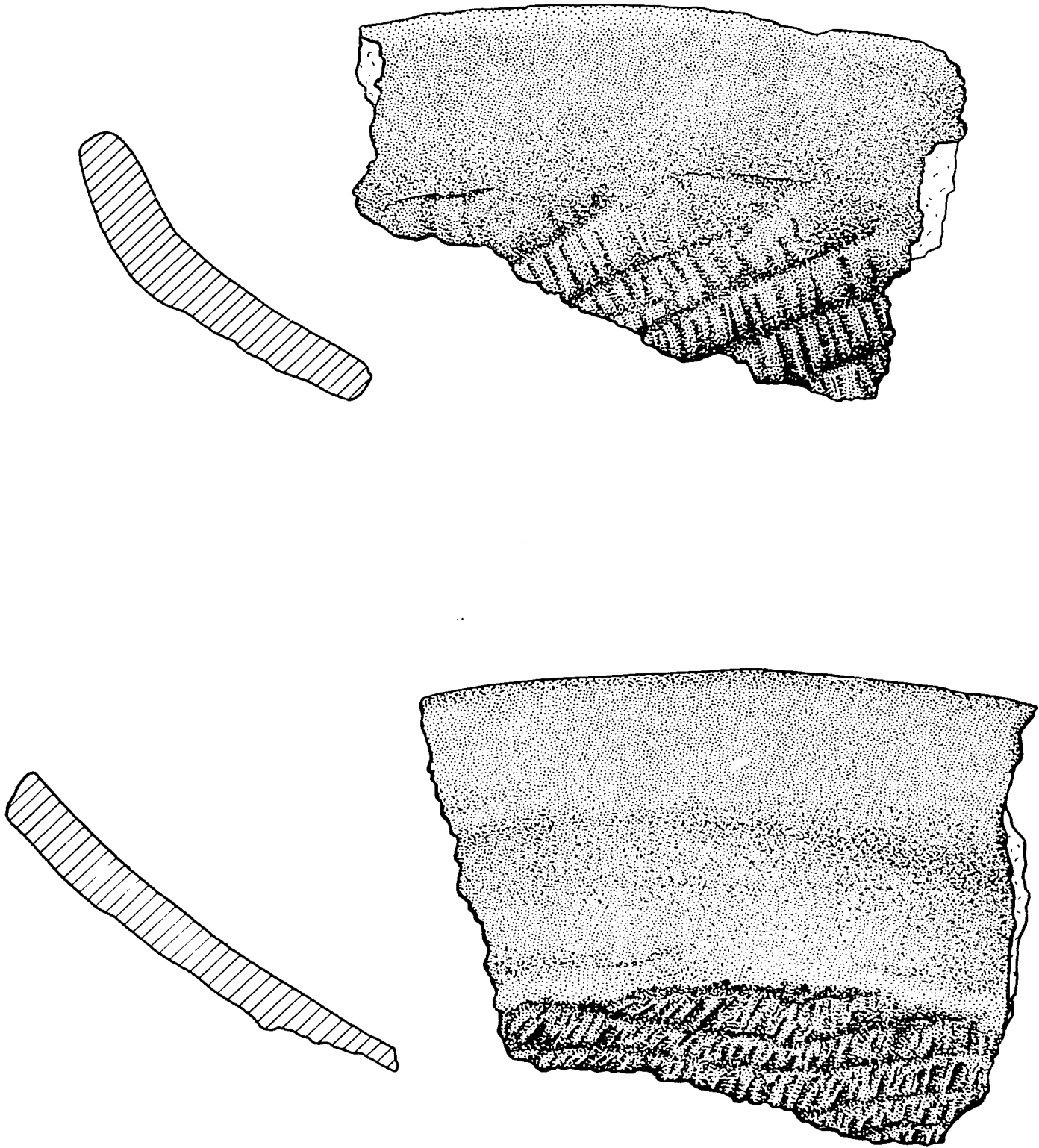


Fig. 52. Kimmswick Fabric Impressed Rim Sherds.

S. GLASER

on plates. These plates are a very distinctive form and have a limited distribution being primarily a Cairo Lowland type although it does occur rarely in the other regions.

O'Byam Incised

Type not previously described.

Paste: Temper. Fine shell like Bell Plain although occasionally coarse.

Surface Finish. Same as Bell Plain.

Decoration. Treatment. Incising, sometimes rather fine, but more often quite broad.

Design. Line-filled triangles.

Placement of Design. On the plate rim.

Form. Vessel shape. Resembles a regular soup plate with broad flat rim (see ref. a, Fig. 9 p. 340, for illustrations of this type.

Rim. Flat, but sometimes at an angle away from the horizontal lip. Rounded.

Relationship Within Area. Confined mainly to Cairo Lowland region.

Relationship Outside the Area. Type is named for the O'Byam site (ref. b) in Kentucky. Also common at Kincaid. Definitely not found in Northeast Arkansas.

Bibliography. (a) Cole et al., 1951: 338-339, (b) Webb and Funkhouser, 1933.

O'Byam Engraved

Type not previously described.

Discussion. Same as the incised type in shape and design except that the decoration is engraved rather than incised. This distinction is not always made elsewhere so it will be defined. Incised decoration is put on while the clay is still plastic, whereas engraving is done after the pot has been fired with a very sharp implement. This distinction was not made at Kincaid where presumably it was also found.

Beckwith Incised

Type not previously described.

Paste. Temper. Medium fine shell, but rarely fine clay.

Surface Finish. Medium to coarse, often approximating Mississippi Plain.

Decoration. Treatment. Incised with a fairly fine pointed implement.

Design. Rectilinear and curvilinear guilloche (see ref. a, Fig. 5 v, y, and z, p. 323 for illustration of this type)

Placement of Design. On neck above the jar shoulder.

Form. Vessel shape. The standard jar with handles and occasionally found on the large jars too.

Relationship Within Area. A distinctive type which is found almost exclusively within the Cairo Lowland.

Relationship Outside the Area. Also found at Kincaid and other sites around the north of the Ohio. Does not go

south into Arkansas.

Bibliography. (a) Cole et al., 1951: 322, also see Potter, 1880, Plate 12, for another illustration of this type.

Matthews Incised

Type as described in reference a.

Discussion. This type is rather broad and includes one, two and three curvilinear incised lines on the shoulders of jars. It has a rather wide distribution in the area although originally defined in the Cairo Lowland region. One peculiar thing about its distribution is its absence at Crosno. This is one of the very few types not shared by Crosno with Kincaid and Wickliffe.

Bibliography: (a) Cole et al., 1951, see Fig 6 i, j and k and also Potter, 1880: Plate 10, for illustrations of this type.

Mound Place Incised

Type as described in reference a, except as noted below.

Discussion. This was a provisional type in reference a, but occurs frequently enough in this area to be given full status here. It is characterized by three incised lines on the side of a rim effigy bowl.

Bibliography. (a) Phillips et al., 1951: 147-148.

Manly Punctate

Type as described in reference a, except as noted below.

Discussion. This was another provisional type now given full status on the basis of work in this area. It is characterized by punctates on the shoulders of jars; these rows of punctations may also have incised lines enclosing them. See Potter, 1980: Plate 10, for illustrations of this type which is also found at Kincaid.

Bibliography. (a) Phillips et al., 1951: 147. (b) Cole et al., 1951: Figs. 5 aa and bb, and 6 k pp. 323-324.

Thin Ware

This is a provisional type which was recognized late in the sorting and has not been given a name. It is a thin shell tempered plain ware which is somewhat coarser than Bell Plain and lacks the characteristic smoothness and hardness of this type.

It was found only on the Malden Plain and Figure 53 shows a reconstruction of a vessel from Old Varney River (8-P-1). Shapes beside this jar form included a vessel with an incurved rim. This type probably has a fairly close relation to the "thin" Neely's Ferry Plain found at the Rose Mound (Phillips et al., 1952: 233). This type was stratigraphically early there and a somewhat similar chronological position is assumed for the thin ware in Southeast Missouri

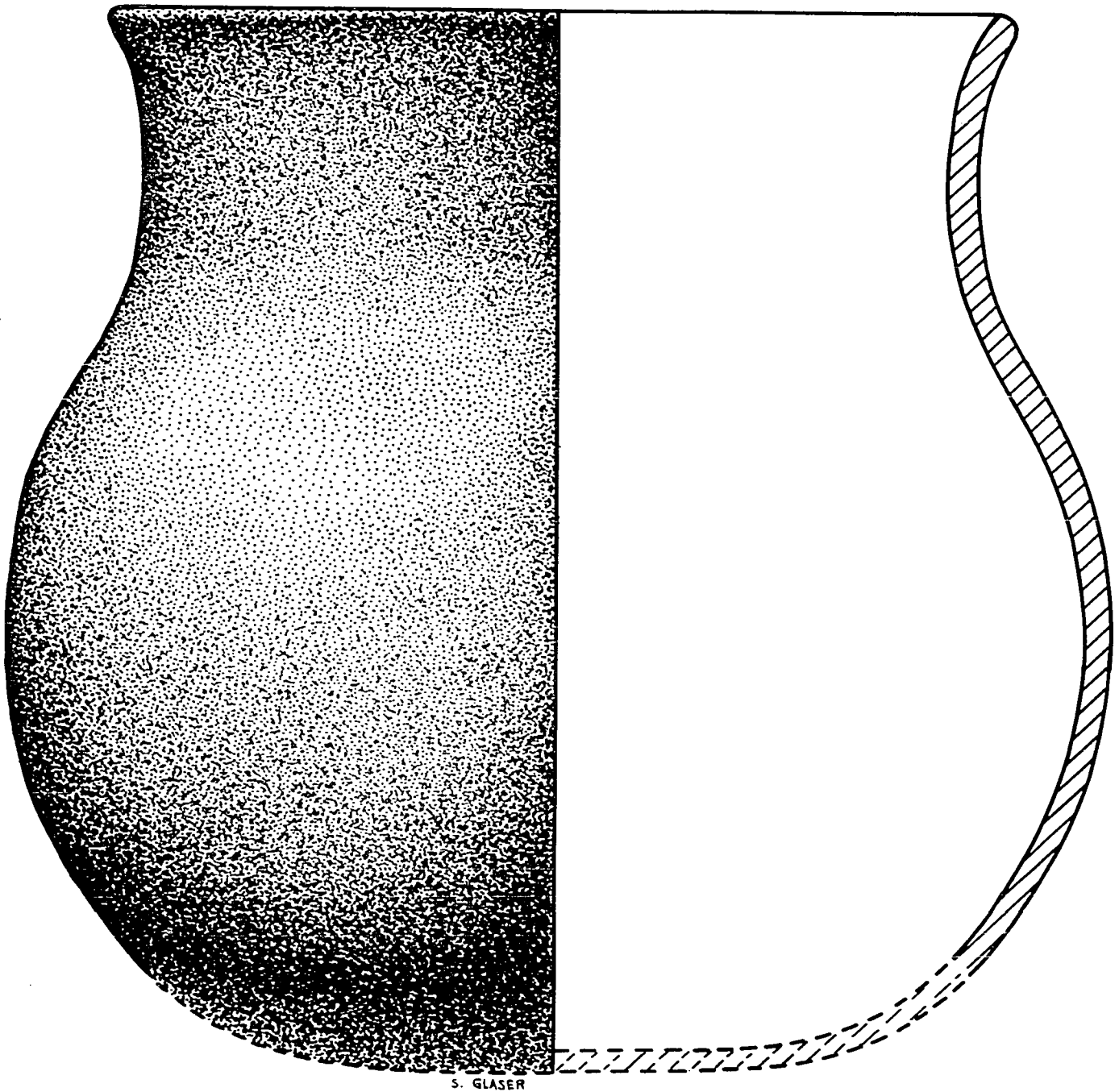


Fig. 53. Thin Ware Vessel. (Restored)

Nodena Phase Types

Types as described in reference a.

Walls Engraved (ref. a: 127-129).

Ranch Incised (ref. a: 119).

Kent Incised (ref. a: 126-127)

Parkin Punctate (ref. a: 110-114).

Vernon Paul Appliqué (ref. a: 120).

Fortune Noded (ref. a: 120-122).

Bibliography. (a) Phillips et al., 1951 as cited.

Pottery Shapes

Forms

The shapes in the ceramics of Southeast Missouri are interesting and of great variety. Scarcely anywhere else in the United States do the vessels have so many forms. As one who has spent a number of years immersed in the archeology of the area, the writer feels that most of the vessels are esthetically pleasing and hopes the reader will agree.

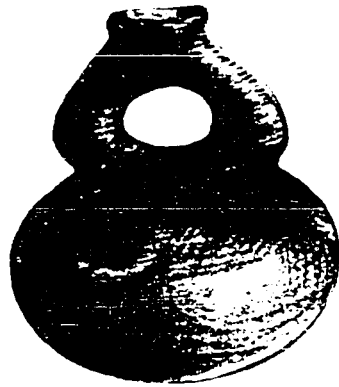
Bottles. The carafe necked bottle (Fig. 54a) with an ovoid body is the most frequent shape category in the area. The incurving carafe neck is characteristic of bottles in Southeast Missouri and sets these bottles apart from those of Northwest Arkansas (Fig. 45b). A rare body treatment of appliqué strips is seen in Figure 54b and c of the same figure illustrates one of the rare stirrup necked bottles from this area. The perforated annular base (Fig. 54d) is a fairly



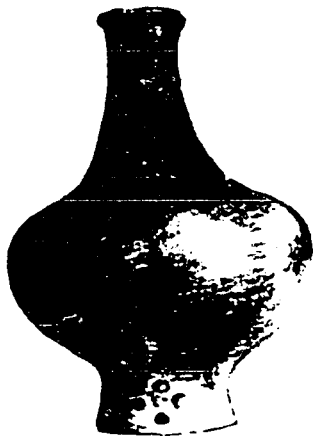
a



b



c



d



e

Fig. 54. Bottle Forms. (from Griffin, 1952)

common basal treatment as is the bulbous legged tripod (Fig. 54e).

These bottles almost exclusively Bell Plain but negative painted treatment also occurs as seen in Figure 55 a, b and c. Besides the carafe neck, a tall slender neck is not infrequent as seen in a and b of this figure. Another neck treatment which is very common is that which has been termed wide-mouthed short-necked and d is a poor example of this. Somewhat similar forms occur in Arkansas but bottles of this type from the two areas can be distinguished,

Figure 55d presents a very unique effigy bottle which reportedly comes from Scott County. If this be true, it certainly is a trade item for no pot made in Southeast Missouri ever had an Arkansas neck on it as this one does.

Other forms of effigy bottle include the Charleston type head pot (Fig. 56a) and quadrupeds such as Figure 56b, b'. The head pot contrasts with that shown in Figure 45c, c' and the difference indicates a difference in phase since the latter comes from a Nodena phase component while the Charleston type is characteristic of the Cairo Lowlands phase. Figure 56c, c' shows a rare fish effigy bottle.

Jar. The standard jar is a common form and receives a majority of the decoration (Fig. 57). Matthews Incised and Manly Punctate types are illustrated in this figure. The globular body and handles are the basic attributes of this shape and it does not vary much. Sometimes a second set of lugs or handles will be added.



a



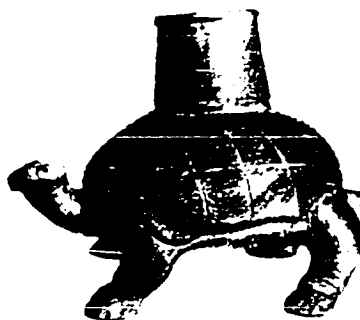
b



c



d



e

Fig. 55. Negative Painted Bottles.



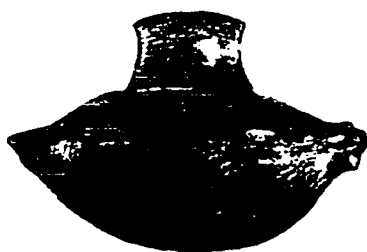
a



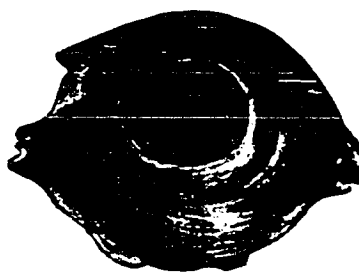
b



b'

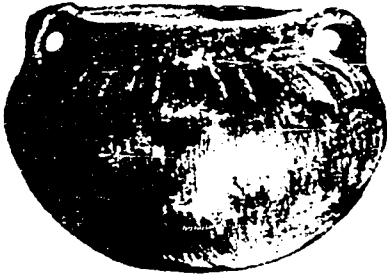


c



c'

Fig. 56. Head Pot and Animal Effigy Bottles.



a



b



c



d



e

Fig. 57. Jars

The large jar is this same form only enlarged many times. It is the main utilitarian shape and the hundreds of Mississippi Plain sherds encountered everywhere are from this large jar.

Hooded Bottle. This strange form is more frequent in the area than anywhere else in the Southeast. This is its homeland in terms of sheer bulk of numbers and also in variations on the basic shape. Figure 53a, b, and c shows three of these types. The first is a gourd effigy and may have been the prototype for this pottery form. Certainly the Indians of the Southeast made wide use of gourds and sometimes cut them in much this same way (Speck, 1940).

The owl effigy, b, is also common as is the blank face, c, which merely has little ears and no face. The human effigies are a further elaboration on this basic shape (Fig. 58 d and 59 a).

Bowls. This basic shape also lends itself to many elaborations as seen in the bottom row in Figure 59. The basket handled vessel, e, is absolutely unique for the area, whereas the gourd, f, and the conch shell, g, effigies are not as common. Somewhat simpler bowls are shown in Figure 60. The middle row of rim effigy bowls are an important variation on the form. Figure 61a shows a well modeled human head and rim effigies from Crosno are shown in Figures 62 a-c', and 63 c-e.

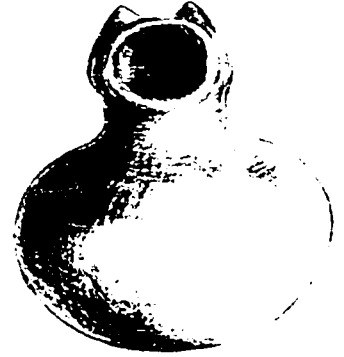
Some of the effigy heads are modeled in the round, while others are flat. A further variation in bowls is seen in the bottom row of Figure 60. The scalloped edge, the stepped rim, and the fish are all rather common and show a nice sense of



a



b



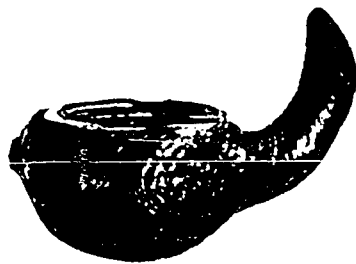
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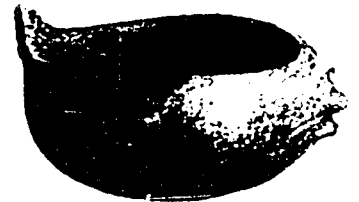
d



e



f



g

Fig. 58. Hooded Bottles.



a



b

Fig. 59. Vessels from Beckwith's Ranch.

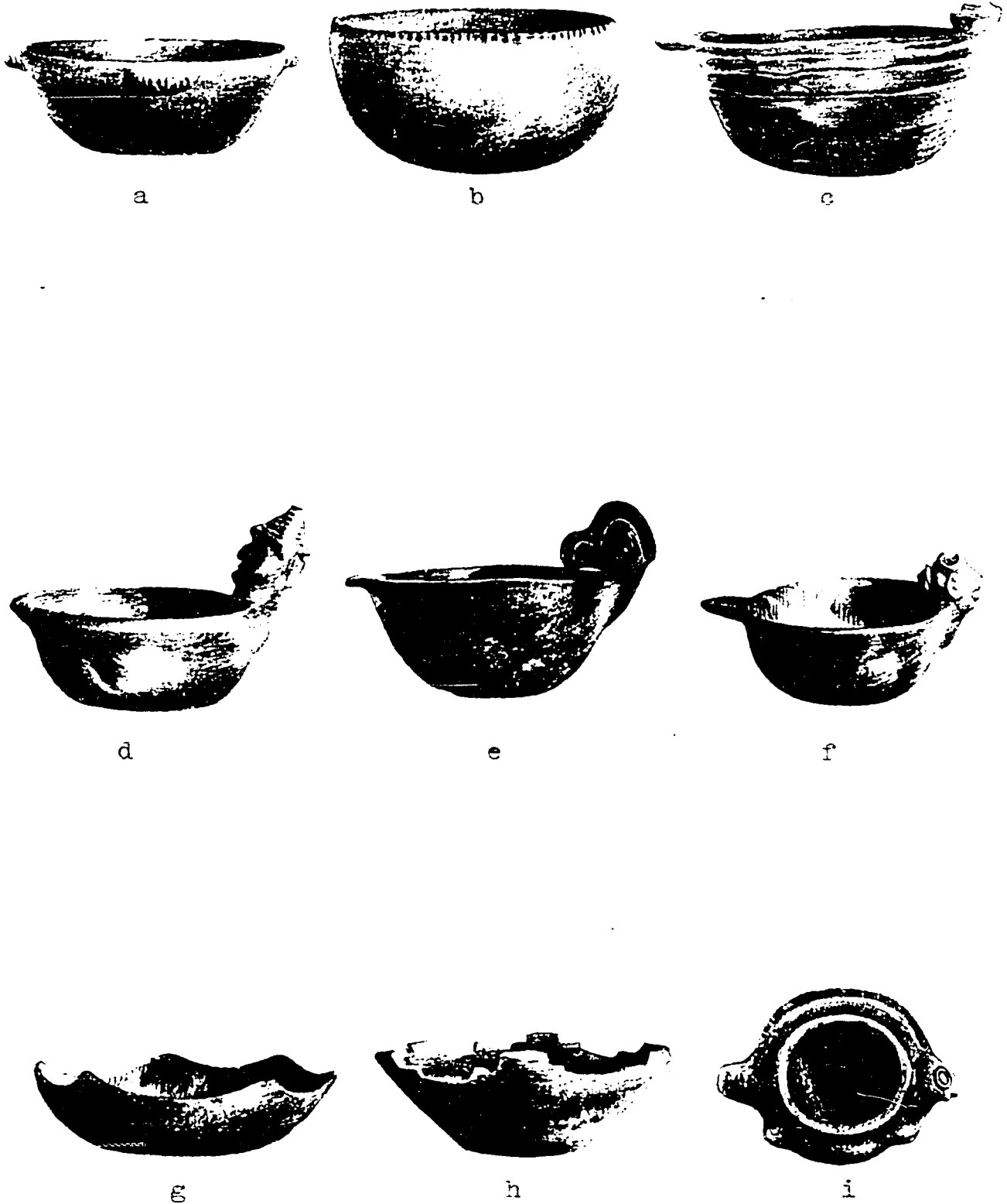


Fig. 60. Bowls.



a



b

Fig. 61. Vessels from Beckwith's Fort.

ceramic aptitude.

Plates. This shape is that found in the O'Byam series although Bell Plain plates also occur. This form does not occur too frequently in museum collections although a large number of sherds of this shape are found.

Miniature Vessels. Any pot less than 3 inches has been classed as a miniature. These are found in all the shapes mentioned above and were generally buried with children. Figure 63a and b shows two from Crosno. The smallest, b, was found in the excavations not associated with any other artifacts or burials.

Compound Vessels. Occasionally, a bottle was placed on top of a jar to make a vertical compound vessel. These compounds are rather rare but are similar in treatment to forms in Arkansas although the basic ingredients such as the bottle forms vary.

Funnels. This shape has been illustrated and described under the Wickliffe Series. Perhaps it would be worthwhile to discuss the possible function of this form. The designation "juice press" has been previously put aside, but a use for this vessel may have been the filtering of salt. With a coarse piece of woven cloth laid in the bottom, and impure salt put in the pot, then water could have been poured through and the pure salt water would have come out the bottom to be evaporated on the salt pans.

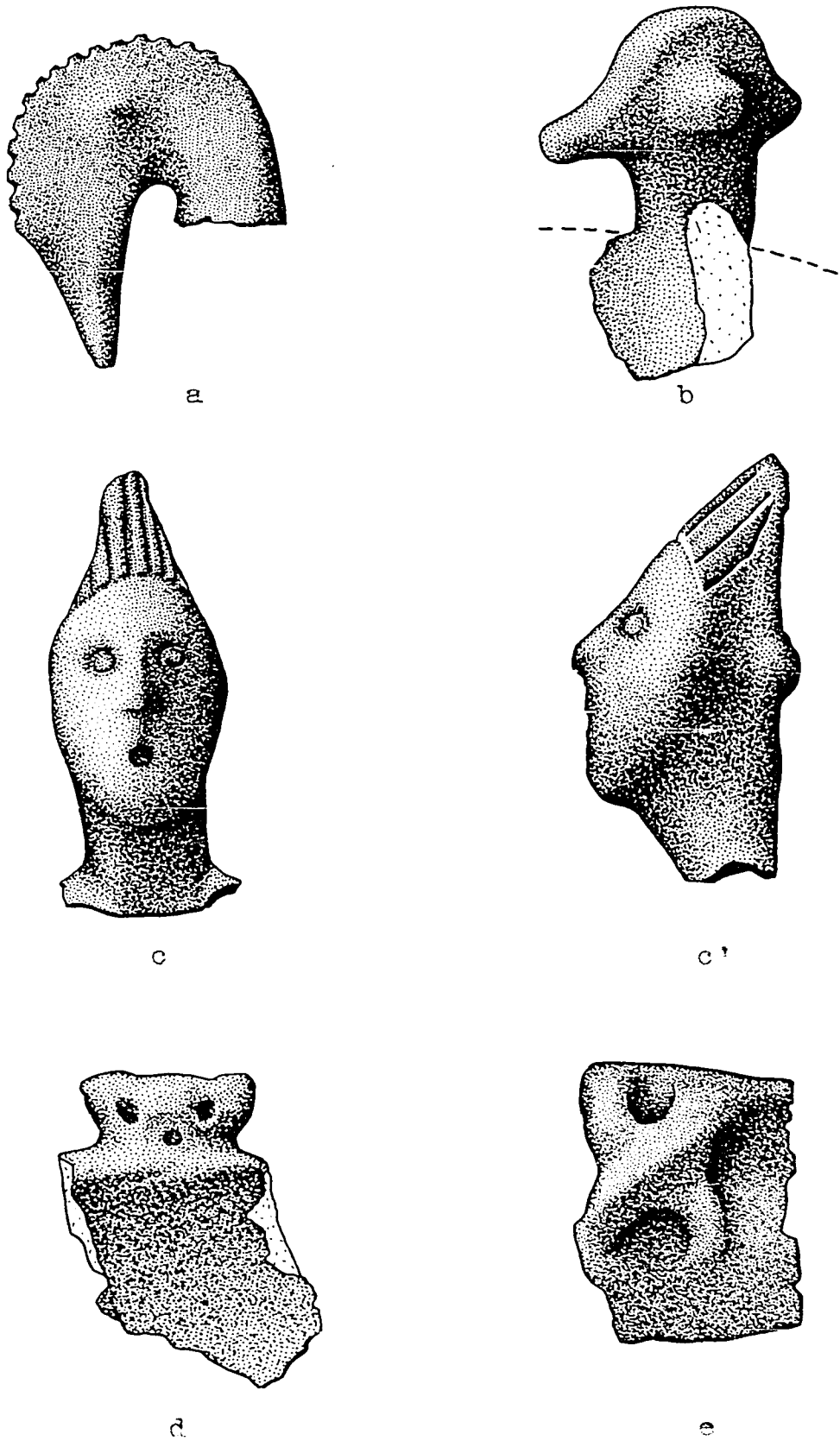


Fig. 62. Rim Effigies from Crosno.
(Natural size)

A more definitive study of aboriginal salt making lies beyond the scope of this paper but it would seem worthwhile to note that wherever you find the Wickliffe series (funnels) you find the Kimmswick series (salt pans) although the reverse is not true.

Salt Pans. This form has likewise been described above. It is sufficient to say that this shape along with the funnel served some important utilitarian function for it is very common in the Cairo Lowlands and elsewhere.

Percentages of Types in Collections

In the Beckwith Collection at Cape Girardeau which the writer studied there are 892 vessels from Southeast Missouri. Unfortunately, no data were kept as to provenience, but it still shows a wide range of shapes.

Table 10

Shapes in the Beckwith Collection

Carafe necked water bottles	231	25.90
Hooded bottles	162	18.16
Wide-mouthed short-necked water bottles	132	14.80
Jars	127	14.24
Bowls	217	24.33
Miniature Vessels	21	2.35
Plates	2	.22
Total	892	100.00

This ratio of shapes is quite similar to that found in the collection from Sandy Woods also studied by the writer

(Williams, 1949). Of these vessels 24 (2.69%) were Old Town Red Filmed and 9 (1.01%) were Sikeston Negative Painted. The percentage of Red ware compares quite well with that obtained in surface collecting although the number of negative painted vessels does give a higher than usual figure.

Other Pottery Specimens

Pipes. Pottery elbow pipes are fairly common and are practically the only type of pipe, although a crude stone one was excavated at Crosno.

Pottery Trowels. Figure 64c and d shows two of these artifacts. One has a bifurcate handle which has been suggested as a smoothing device.

Disks. These artifacts were either made out of sherds or specially made as shown in Fig. 63f, g and h. Whether they are crude spindle whorls is not known.

Perforated Masses. The so-called "torch holder" is shown in Fig. 65. No original functional term has suggested itself for these objects but the one used herein would seem to have less of a value-judgment attached.

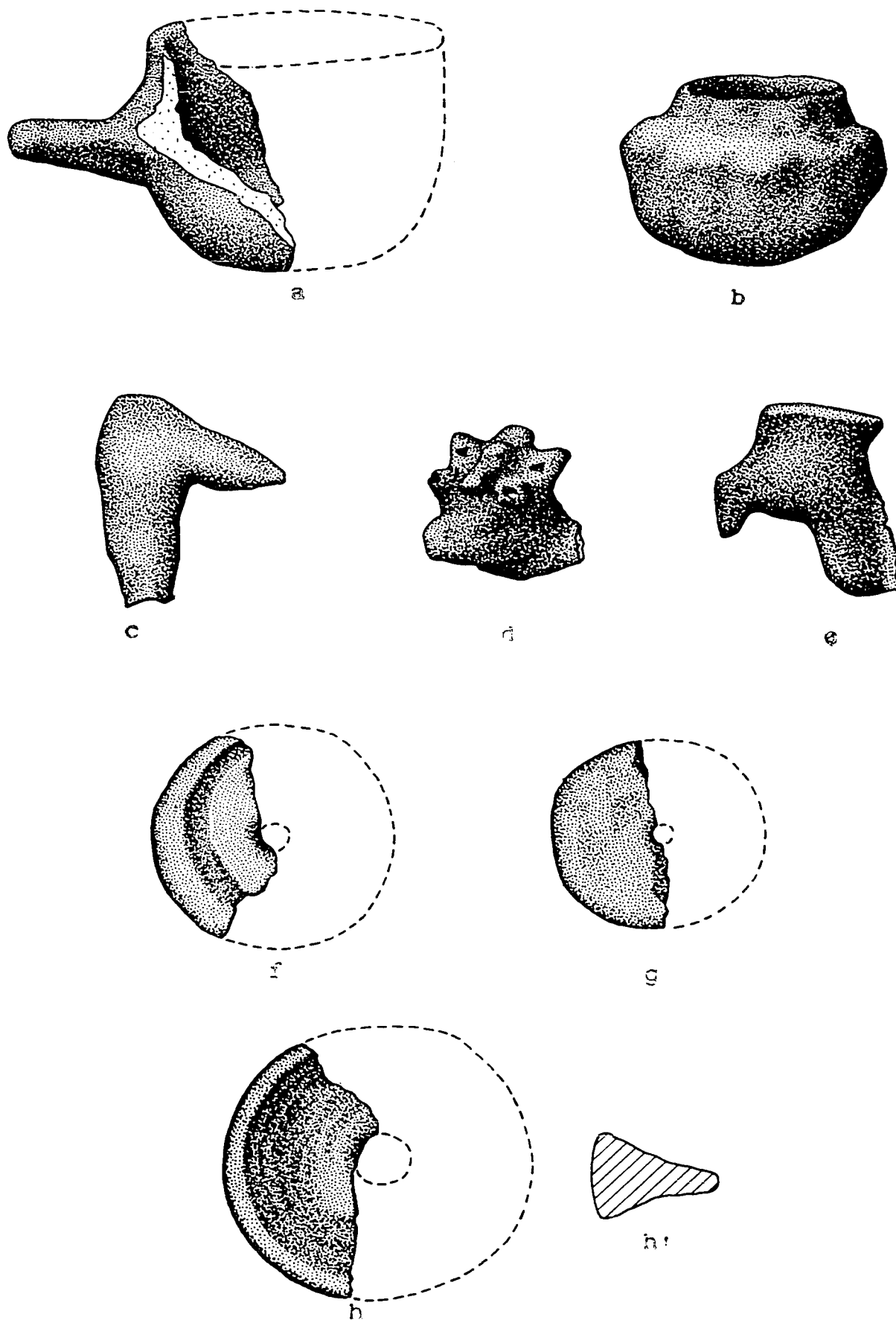
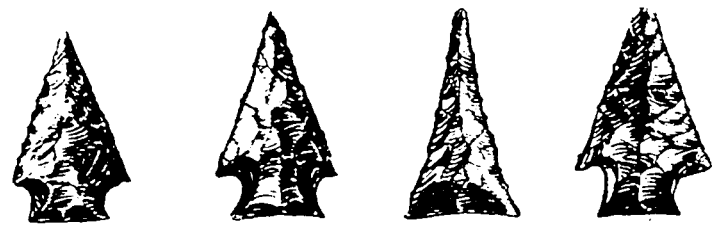


Fig. 63. Miscellaneous Clay Objects, Creso.
($\frac{2}{3}$ natural size)



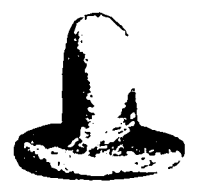
g



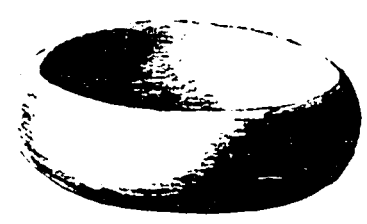
b



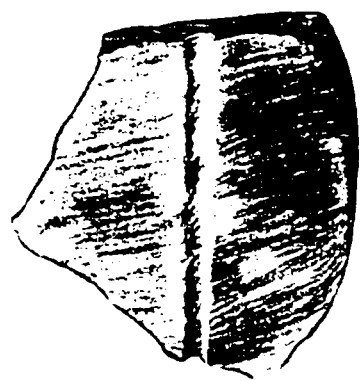
c



d



e



f

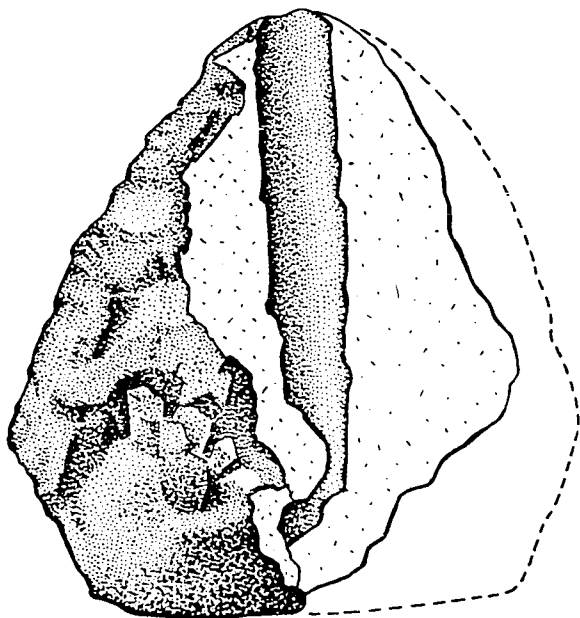


g

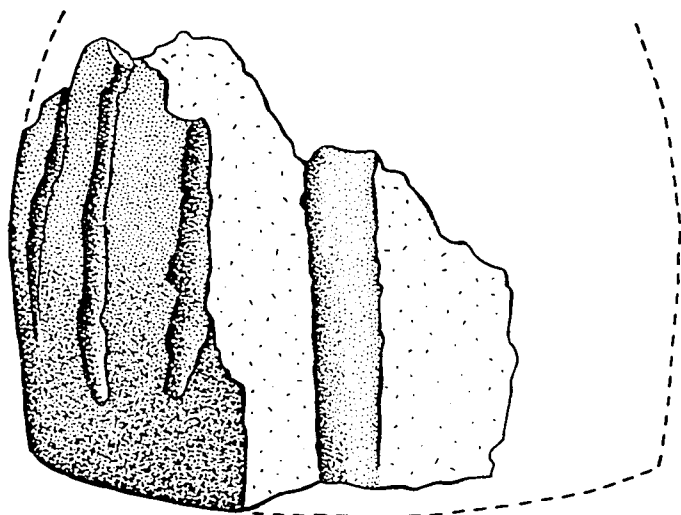


h

Fig. 64. Stone Artifacts (scale varies).



a



b

Fig. 65. Perforated Masses, Crosno.
(2/3 Natural Size)

Chipped Stone Artifacts

Projectile Points. Side notched and triangular points were the main types (Fig. 64a) although the willow leaf does occur in the southern part of the area.

Celts. Chipped and ground celts were quite common, but not as frequent as in Arkansas.

Hoes. These large agricultural implements were fairly common and Figure 64g shows a good example of one.

Drills. Plain drills without wings were rare. No other types are known.

Blades. Large ceremonial blades are rare but do occur.

Worked Flakes. Some flakes show worked edges and may have been scrapers.

Ground Stone Artifacts

Celts. Well-made ground celts are fairly common and there seems to be a wide range in size (Fig. 64h).

Adzes. A few adze forms are known especially in the Anderson collection.

Discoidals. Well-made discoidals are rare but Figure 64e shows a typical one.

Spuds. Figure 64b shows a fine example of this ceremonial piece. One is shown hafted in the shell gorget in Figure 72.

Stone Ornaments

Beads. A fluorite bead from Crosno is in the Anderson collection and is shown in Figure 65a.

Pendants. A fluorite bead from Crosno is also in the Anderson collection and is shown on the Frontispiece and in Figure 65 b, b'. Other similar ornaments including a tiny turtle are in the Beckwith collection.

Labrets. Anderson has a fluorite labret from Crosno and there are similar ones in the Beckwith collection.

Rough Stone Artifacts

Whetstones. Made of sand stone and volcanic tuff. The latter is very light but servicable.

Grindstones. A few fragments that were tinged with hematite are known in the Anderson collection.

Sandstone Saws. This distinctive artifact is a thin section of sandstone with a sharp edge. These are known from Crosno and correspond to ones at the Angel site.

Hammerstones. These are quite common and are generally slightly modified nodules.

Bone Implements

Projectile Points. These are made of antler and two are shown in Figure 66d and e. They were common at Crosno

but not found elsewhere to any great extent. This is due to differential preservation.

Awls. Deep ulna awls are a common form as are splinter awls made from fragments of animal leg bones. An awl with an eye near the piercing end comes from Crosno.

Cutting Tools. A large elk femur scraper comes from Sandy Woods, and several other smaller forms were found at Crosno. Needles are quite common and a few large matting needles with eyes are known.

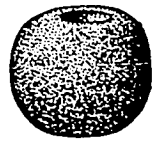
Fishing Implements. Fishhooks are quite common at Crosno and one small bone artifact may be a fish gorge.

Scarifier. Two small pointed artifacts of split turkey bone are known from Crosno. These closely resemble a cache of similar small bone needles from the MacCurdy site (Fig. 5) in the Yale Peabody Museum. With the aid of Bill Sturtevant the functional use of these small artifacts was investigated. Figure 68 shows a Cherokee scarifier. The artifacts from Crosno are the right size to be used in such an implement and the finding of the cache mentioned above would seem to lend weight to the hypothesis.

Bone Ornaments

Beads. Anderson has a single disk bead from Crosno.

Pendants. Figure 65c shows a carved bone pendant excavated at Crosno. Anderson also has a human face in profile from this site. Carved bone would seem to be a very rare Mississippian trait.



a



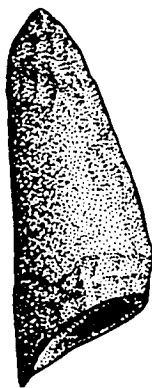
b



b'



c



d



e

Fig. 66. Small Artifacts from Crosno.
(Natural size).

Other Bone Artifacts

Possible Hoe. A deer scapula from Crosno shows signs of cutting and may have been used as a hoe.

Possible Deer Jaw Scraper. All the lower jaws of the deer at Crosno had been broken in half. Such halved deer jaw bones are used by the Iroquois for shelling corn (Sturtevant, personal communication). Whether the ones at Crosno were ever put to this use is not known.

Shell Vessels

A shell dish of Busycon perversum is known from the Sandy Woods site. However, no engraved ones such as those from Spiro have been reported.

Shell Implements

The only implements of this material known are small shell spoons. Despite the wide use of shell in tempering the pottery, little use of it otherwise seems to have been made.

Shell Ornaments

Beads. A few shell beads from Crosno are in the Anderson collection and there is a large number in the Beckwith collection. They are simple disk beads.

Gorgetts. Six shell gorgets are known from Southeast Missouri and they are illustrated on the following pages along with some comparative pieces from nearby.

Figure 67 shows two at Harvard Peabody Museum from the Potter collection. A similar circular one from Illinois is shown in Figure 71a.

Figure 69 shows a cross form with a from Union Co., Illinois., and b from Charleston, Missouri. Figure 70 shows a fine gorget from the Potter collection and since he did most of his work on the Sikeston Ridge, it probably comes from there.

Figure 71 shows some of the spider gorgets from this general area. Only b is from Southeast Missouri, the last two coming from St. Clair Co., Illinois. Figure 72 shows a gorget from New Madrid County, Missouri. The figure is dressed in typical southern cult costume and the long nose probably represents a mask.



Fig. 67. Two Shell Gorgets (HPM 48939, 49052) Orchard photo.

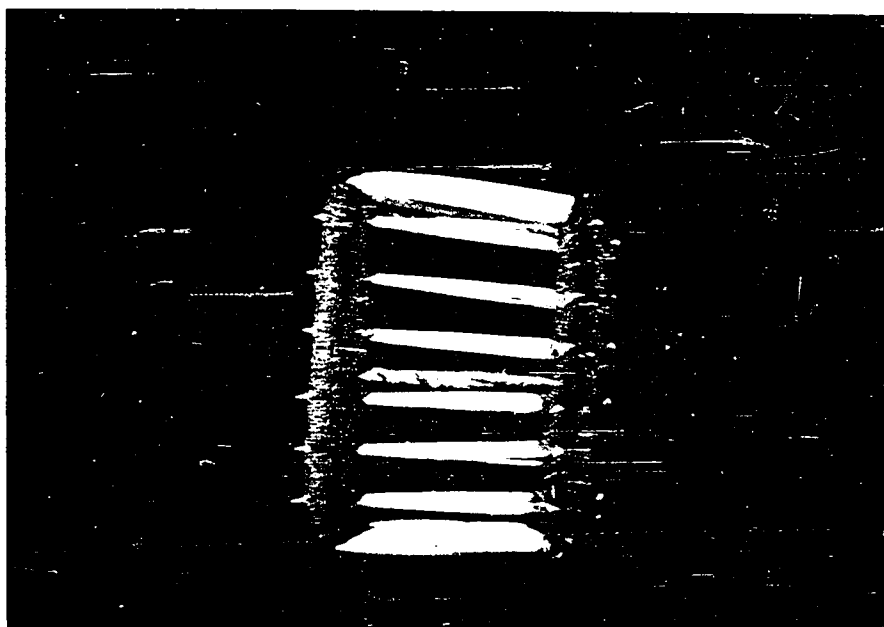
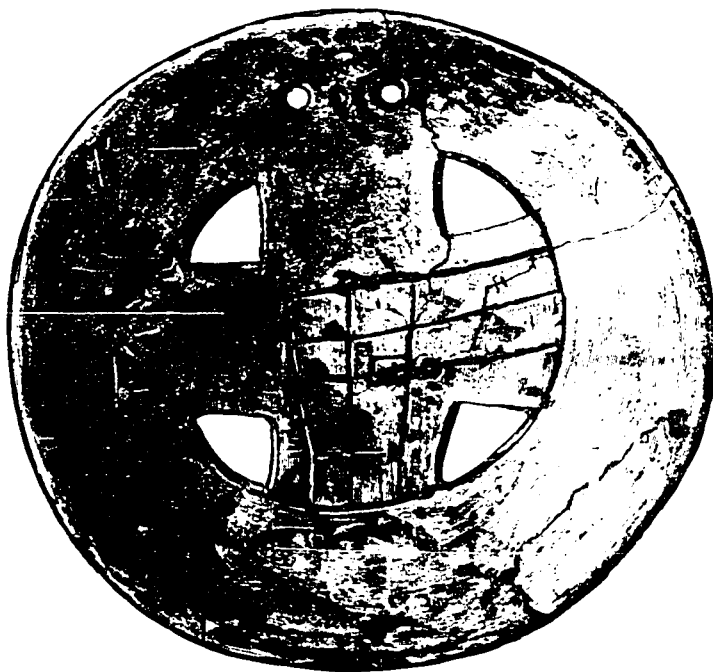
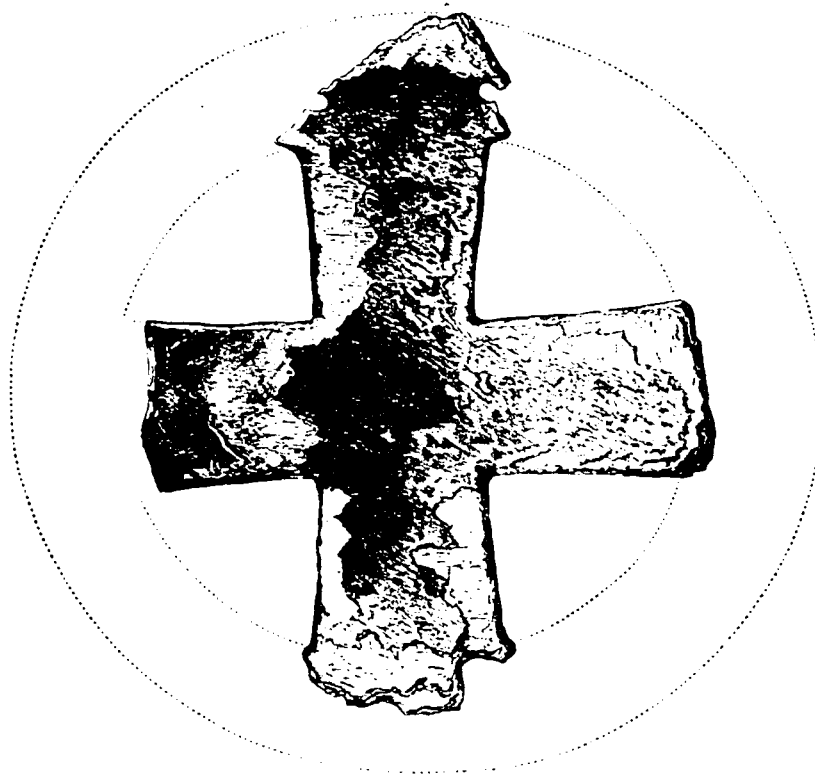


Fig. 68. Cherokee Scarifier (HPM 73433) Orchard photograph.



a. Union Co., Illinois.



b. Charleston, Missouri.

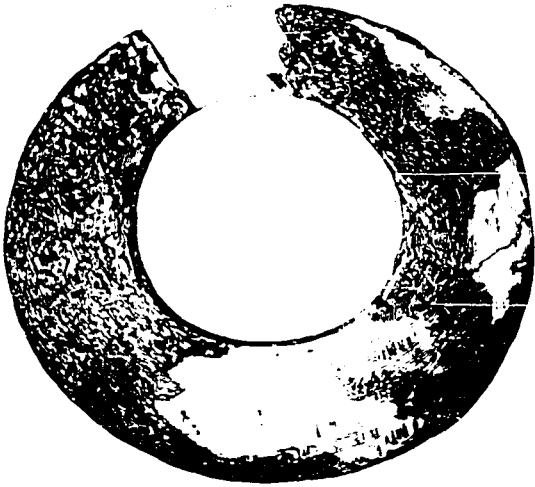
Fig. 69. Cross Form Shell Gorgets.



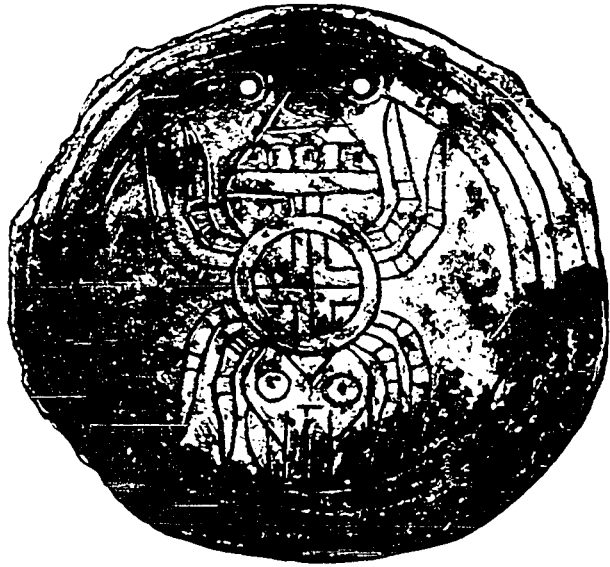
(natural size)



Fig. 70. Human Form on Shell Gorget.



a. Alexander Co., Illinois



b. New Madrid-Crosno



c

St. Clair Co., Ill.

d

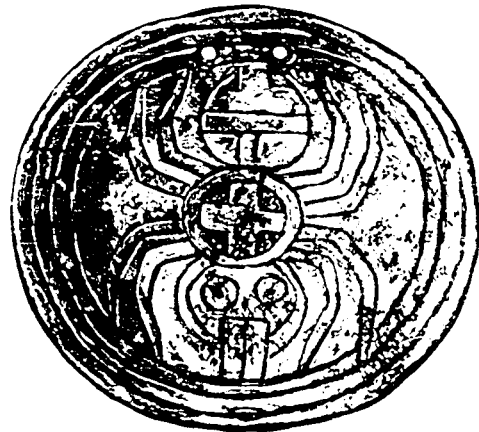


Fig. 71. Circular and Spider Form Gorgets.

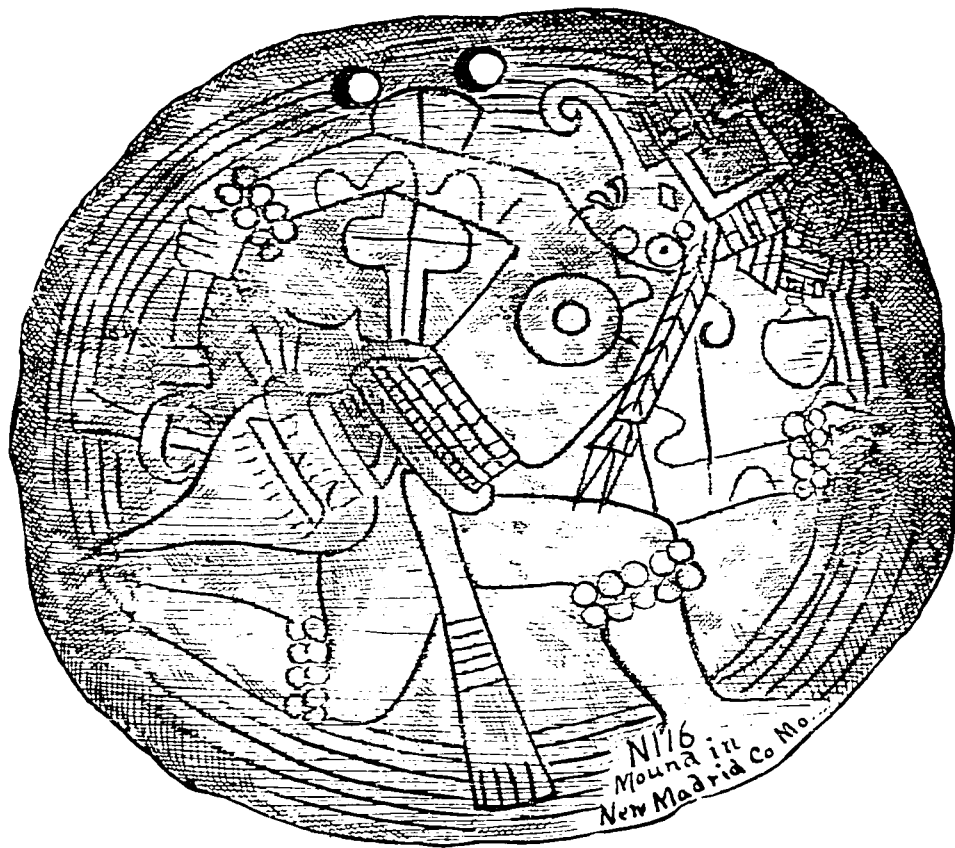


Fig. 72. Human Form Gorget.

Copper Artifacts

Copper Gorgets. Two copper gorgets are known from Sandy Woods. One is at Yale Peabody Museum and has a repousse design of a bi-lobed arrow on it.

Copper Plates. The famous Wulfing Plates are the only artifacts of this type known from the area.

Copper Covered Ear Spools. A pair of these are known in the Beckwith collection. They are stone with a copper overlay.

Copper Awl. A single awl is known in the Beckwith collection.

SECTION 6

A N A L Y S I S O F S I T E P L A N S

ANALYSIS OF SITE PLANS

Type of Sites

Two main types of sites can be distinguished. First, there are the ceremonial centers and large villages. These were the most common site encountered. Secondly, there are the small villages without pyramidal mounds and only low burial or house mounds. This second type of site is believed to have been in a subsidiary position to the larger ones, although no good evidence was found to substantiate this hypothesis. The only positive evidence for such a belief is found in the ethnography of the Southeast, especially among the Creek.

Mound and Plaza Arrangement

In Section 4 ample evidence of the general pattern of mound and plaza arrangement was seen in the site plans illustrated. The main mound was usually on the side of the plaza away from the water. Fairly often there was a second mound facing the main one across the plaza. The plaza itself was often ringed by low burial mounds. In the sites where the data are available there is good indication that the plaza was oval in shape and that the houses came right up to the edge of it. There is no indication of any structures such as ball game poles or the like in any of the sites, but this type of information would probably require careful excavation to uncover.

Walls and Ditch

Enclosing walls were a imposing feature of many of the sites in the area. For the most part they seem to be absolutely straight with no sign of bastions as are know from the Angel site and other sites on the same general time horizon. The walls and their accompanying ditch usually formed a rough rectangle or square on three sides with the four side being the water on which the village fronted. So far as is known, no positive evidence for walls on the four or water side has ever been found.

The earthen walls made up of the dirt taken from the ditch were crowned with a palisade of wooden posts. It may be that the ditch also surved to carry water around and away from the village. Within the walls there was often a borrow pit from which the dirt for the mounds was excavated. This generally was filled with water and could have served as a water supply in case the village was put to siege.

Orientation of Sites

Most of the sites in the area tend to be oriented in a north-south direction. To assume that this orientation is based on cultural factors may be naive since almost all the main rivers and streams in the area run in the same north-south direction. Since the people built their villages along these water courses, this alignment would seem to have a

geographic basis. The same can be said for the houses inside the villages which often have a similar orientation.

SECTION 7

LOCATION OF SITES

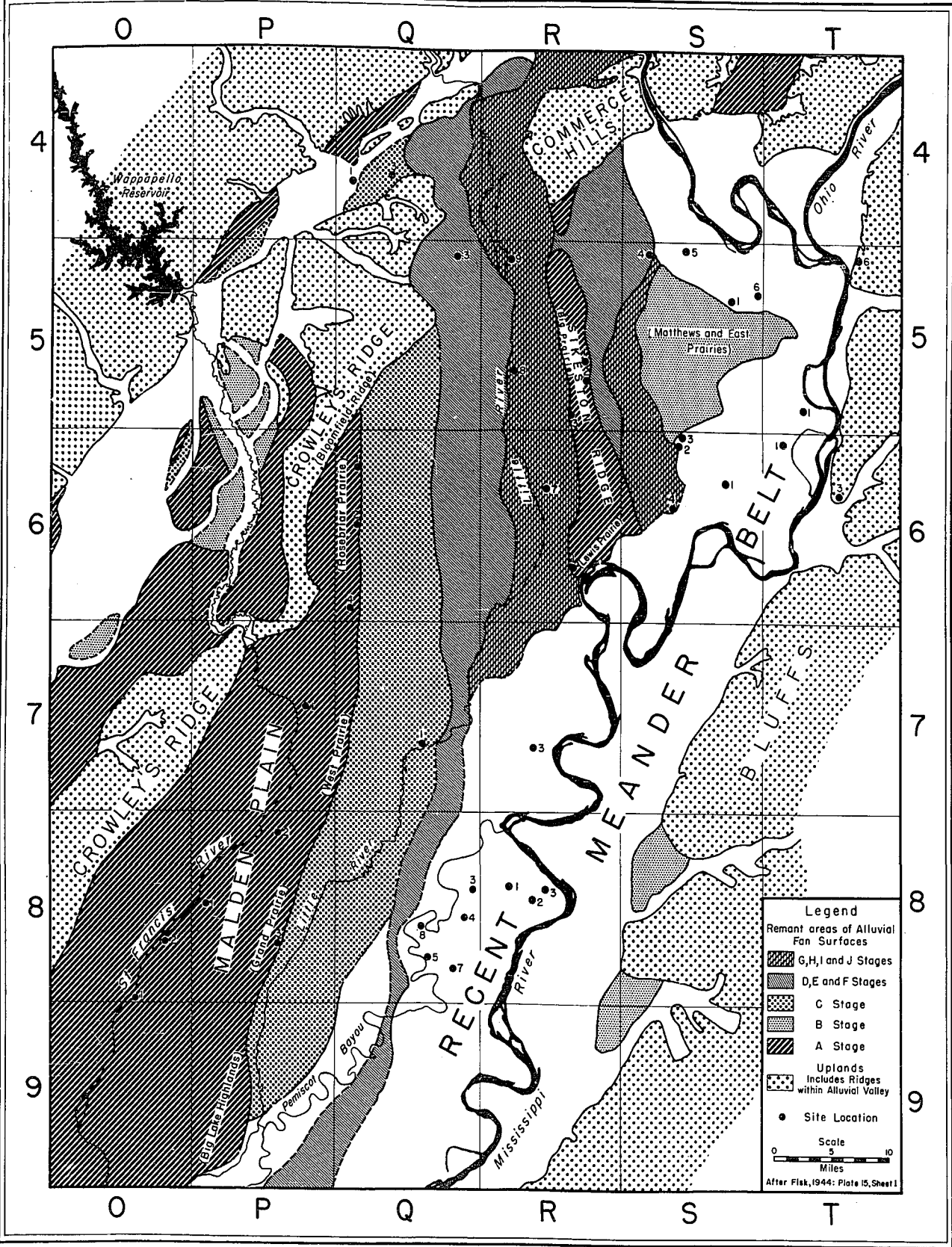
LOCATION OF SITES

Correlation with Ancient Channels

An attempt was made to correlate site locations with the ancient channels in this area. However, the results were not too promising for the time period under consideration. Actually, the correlation of the Crosno site described in Section 3 was the most successful in the whole area for sites during the Mississippi Period. Some success was also had with sites in the earlier periods. The negative results of this correlation do not throw any weight against the method in general. One site that does require mention is the Lusk Chapel site which if properly located is right in the middle of Channel 13. Thus, if these data are correct, it can not be earlier than this channel. This is a very late correlation and should be checked again.

Distribution of Sites

The distribution of sites in relation to remnant areas of alluvial fans is shown in Figure 73. The fans of Stages A and B were prairies in the early historic period and the old names have been written in on them. The sites located near these old prairies show a definite tendency to stay near the edges. No sites were built in the middle of these areas except along the St. Francis River. It would seem that the



aboriginal inhabitants wanted to have the advantages of farming the good prairie soil and still be near water. They were able to accomplish this by living on the prairie banks.

The other main area of aboriginal occupation was in the recent meander belt where the high ridges of the natural levees offered dry and easy to work land. The few remaining sites are located along the Little River where the somewhat lower natural levees still provided good site locations. The whole rest of the area was relatively uninhabitable by agricultural peoples.

Historic Settlement Pattern

As shown by the early descriptions of this area (Viles, 1911; Bratton, 1926: 2-3) the only favorable spots for locating white settlements were on the prairies and recent natural levee lands. Thus Sikeston Ridge was settled from the south end beginning in 1789, and other small farms grew up along the Mississippi. Also occupied were the higher spots in the Cairo Lowland such as East Prairie. These settlements in the interior were virtually cut off from their neighbors for long periods of the year due to the expanses of swamp land that intervened.

Thus one has the picture of a number of small farming communities springing up along the Sikeston Ridge and elsewhere. How similar this is to the situation during the pre-historic period under consideration. This is not to say that history repeats itself, but merely proof that to conquer this

rather tough environment takes greater skill and manpower than that possessed by the pioneers of the nineteenth century. The land was easy to exploit for lumber, furs, and wild game, but to make the whole area profitable for farming has taken the ingenuity of twentieth century man and one of the most elaborate drainage systems in the world which totals some five hundred thousand acres.

SECTION 8

E C O N O M Y

ECONOMY

Agriculture

The basic cultivated plant was maize, fragmentary samples of which were obtained in the cache that was found in Structure 3. There follows a report made on two of the most complete ears by Norton H. Nickerson:

Mississippian Maize

Two essentially complete ears were submitted for analysis. Both had been extensively charred and were therefore brittle. The following observations and measurements were determined; measurements are in millimeters unless otherwise stated. For further explanation of these items, see Nickerson (1953).

	Ear #1	Ear #2
Row Number:	12	8
Ear shape:	tapered	straight
Shank diameter:	10.5	-
Cupule width:	6.0	6.0
Cupule depth:	0.0	.5
Height of Rachis-flaps:	1.3	1.0
Kernel thickness:	3.4	3.4
Lower glume width:	4.0	4.2
Kernels -		
dented:	no	no
higher than wide:	yes	no
visibly rowed:	yes	yes

These data indicate that Ear #1 shows basically a Mexican influence and that Ear #2 shows basically an Eastern influence (Carter and Anderson, 1945).

In Ear #1, Mexican influence is shown by the tapered cob, a row number greater than 8 or 10, a medium cupule width and kernels higher than wide. That it is not pure Mexican can be inferred from its cupule depth of zero, a medium large shank diameter and thin, undented kernels. Each of these characters can be attributed to an Eastern influence.

In Ear #2, Eastern influence is shown by the 8-rowed straight cob, positive cupule depth and thin undented kernels wider than high. No shank diameter could be obtained. That it is not purely Eastern, however, is shown by the small cupule width, low rachis-flaps and medium lower glume width.

LITERATURE CITED

- Carter, George F. and Edgar Anderson. 1945. A preliminary survey of maize in the southwestern United States. *Annals of the Missouri Botanical Gardens*, vol. 32: pp. 297-322.
- Nickerson, Norton H. 1953. Variation in cob morphology among certain archaeological and ethnological races of maize. *Annals of Missouri Botanical Gardens*, vol. 40: pp. 79-111.

Unfortunately, not much maize has been studied from this area which can be compared to that reported on above. However, the maize from Wickliffe and Kincaid is not too different. The problem of Mexican influence is quite complex but in simplest terms it means that some workers in the field of maize evolution feel that there is a noticeable influence on the basic corn of the Eastern United States which they have termed Mexican. There are certain characteristics which they considered as diagnostic of this influence. If more cobs are measured in this very precise way, a body of data will accumulate which can then be studied to put such migration theories on firmer ground.

Other corn was found at Matthews but was not studied. Some other crops such as beans and squash were probably grown but no positive evidence has come from the area.

Wild Plants

Undoubtedly a number of wild plants were used. A persimmon seed was found in the corn cache at Crosno and nuts and the like were probably gathered. Widmann (1907: 285) stated that there were immense stretches of wild rice in this area, but it is not known whether this wild grain was used by the Mississippian Indians.

Hunting

Judging from the amount of faunal material obtained at Crosno, hunting must have been an important supplement to the agricultural crops. A study of the types of birds found at Crosno was made to see if anything could be adduced as to the time when the hunting took place. However, since the migratory birds arrive so early in this area it could not be shown that a summer hunt was engaged in.

SECTION 9

C O N C L U S I O N S

CONCLUSIONS

Baytown-Mississippi Problem

Before finishing this study one final objective view will be taken of the problem of why the Baytown ceramic complex occurs on most of the Mississippian sites. Two interpretations of this phenomena immediately come to mind: (1) That this mixture is a result of dual occupation by two different components at different times. (2) The sites are transitional and show the change from one tempering to the other.

In answer to the first interpretation, it should be noted that there are some pure sites of each complex. If dual occupation is the answer, why did it occur so often.

In answer to the second interpretation, if these sites are transitional, why are there so few pure sites? Surely not every site in the area is transitional.

The following explanation is offered to answer both interpretations. There was little good tillable land fit for a fair sized population group. As a result (1) The land that was good for the Baytown people was also sought after by the later Mississippian people, or (2) The Baytown people were in the more favorable locations and when the Mississippian influences came in, they stayed where they were and took over the Mississippian culture patterns. Whichever explanation is accepted or shown to be correct, most sites in the area show a fair time span.

Phases Defined

Four phases can be defined within the Mississippian tradition in the area. This contrasts with the approach taken by Walker and Adams, 1946; Chapman, 1946; and Griffin, 1952, who all saw the Mississippian here as a manifestation of a single New Madrid Focus. Phillips (1939) also set up a single area but delimited it to the Cairo Lowlands because he realized the limits of his data.

The phases are the Cairo Lowland, Pemiscot Bayou, Malden Plain, and Nodena. Their distribution is shown in Figure 74. The Cairo Lowland phase remains the best known and most of the artifacts discussed herein except pottery represent that phase. It may be characterized as having rather compact and well laid out sites often surrounded by a wall and a ditch. A medium sized main mound usually adjoins a well-defined plaza area. Shell gorgets have so far only been found in this phase but there are few other specific artifacts other than pottery to set it apart from the other phases. This is probably due to lack of knowledge of such details from the other phases.

In ceramics the Cairo Lowlands phase is characterized by the Kimmswick, Wickliffe and O'Byam series; especially by Kimmswick Fabric Impressed and Wickliffe Incised.

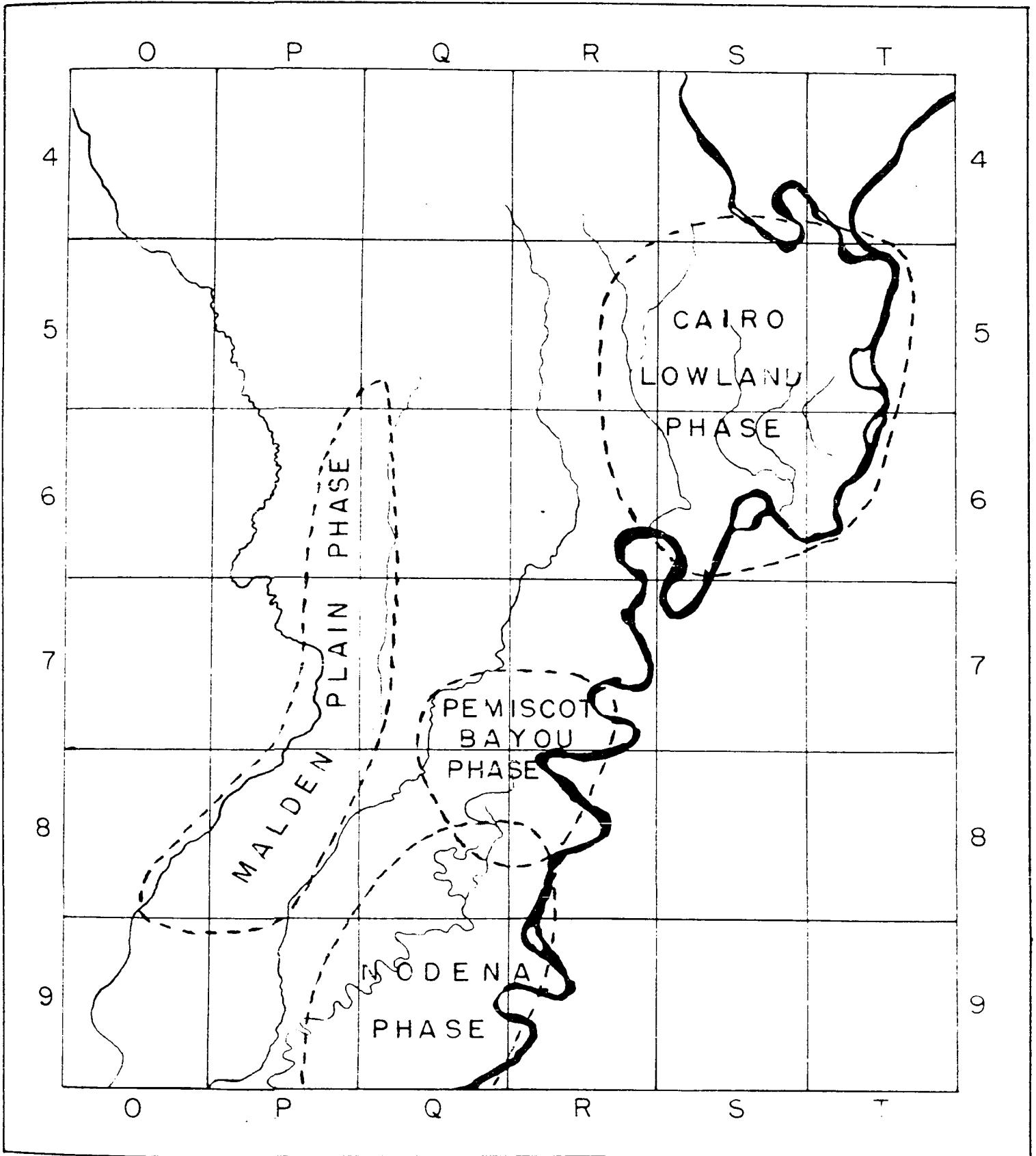


Fig. 74. Distribution of Phases.

The Pemiscot Bayou phase is partially defined by negative traits. It lacks the three characteristic Cairo Lowland series but does possess a new type - Parkin Punctate. The sites of this phase are not as well laid-out although the largest mound of the area falls into this phase. No walled or ditched villages have definitely been assigned to this phase.

The Malden Plain phase is also partially defined by negative traits for it lacks in ceramics either Kimmswick Fabric Impressed or Wickliffe Incised. In positive traits it has Varney Red Filmed and the provisional thin ware type. The sites vary, some are well laid-out with numerous mounds, while others, although evidencing quite a sizable population, had no mounds or low ones if at all.

The Nodena phase is characterized by a number of positive traits which is probably due to Anderson's intensive surface collections. Ceramically it is defined by Ranch Incised, Vernon Paul Applique, Fortune Noded, and Parkin Punctate. The shapes here are definitely Arkansas types with such varieties as the Pecan type head pot and the tail-riding effigy. Bottle forms are also Arkansas in type having wide straight necks in contrast to the usually slender necked Missouri bottles.

In stone, the phase includes willow leaf projectile points and snub-nosed scrapers, as well as numbers of chipped

celts. The contrast between Cairo Lowland and Nodena, the two phases that are best known, is marked. If the Malden Plain and Pemiscot Bayou phases were as thoroughly studied, a similar contrast might well be made.

SECTION 11

A P P E N D I C E S

APPENDICES

Appendix A

Common Plants and Trees of the Area

from

Palmer and Steyermark, 1935.

[In] swampy or more frequently inundated areas:

bald cypress (Taxodium distichum)

tupelo (Nyssa aquatica)

pumpkin ash (Fraxinus profunda)

red maple (Acer rubrum var. Drummondii)

swamp hickory (Carya aquatica)

water locust (Gleditsia aquatica)

swamp cottonwood (Populus heterophylla)

water elm (Planera aquatica)

overcup oak (Quercus lyrata)

itea (Itea virginica) [virginia willow]

button-bush (Cephalanthus occidentalis var. pubescens)

[There are] comparatively few herbaceous plants except aquatics, although coarse sedges and grasses and some others grow along the margins of the sloughs and swamps.

On slightly higher ground above the flood stage, or where it is seldom inundated; the flora is much richer in species. The forest here contains:

oaks - many sorts (Quercus)
 white hickory (Carya tomentosa)
 sweet gum (Liquidambar styraciflua)
 black gum (Nyssa sylvatica)
 winged elm (Ulmus alata)
 white ash (Fraxinus americana)
 flowering dogwood (Cornus florida)

There are also a variety of shrubs and vines and large array of herbaceous plants. Yellow pine (Pinus echinata) is found rarely on the higher sandy ground.

Forest species of the uplands are:

beech (Fagus grandifolia)
 Spanish oak (Quercus falcata)
 tulip-tree (Liriodendron tulipifera)
 cucumber-tree (Magnolia acuminata)
 sweet gum (Liquidambar stracitlua)
 linden (Tilia glabra)
 sugar maple (Acer saccharum var. Schneckii)
 scarlet oak) rarely found
 beaked hazelnut)

Some lowland species extending into other parts of the state are as follows:

green haw (Crataegus viridis)

Rhamnus caroliniana - Indian cherry

Ilex decidua - Possum Haw

Forestiera acuminata - swamp privet

Quercus lyrata - overcup oak

Trachelospermum difforme (dogbane family)

Ampelopsis arborea - pepper-vine

Gleditsia aquatica - water locust

Hottonia inflata - water violet

Mitchella repens - partridge berry

sugar maple (Acer saccharum var. Schneekii)

Paspalum floridanum - (grass family)

Scirpus carinatus (bulrush or club-rush family)

Agalinis viridis (figwort family)

Mecardonia acuminata - water hyssop

Pluchea petiolata (marsh-fleabane family)

Appendix B

Contents of Analysis Units at Crosno

Analysis Unit 1

Sherds:

Mississippian Complex:

Mississippi Plain	377
Bell Plain	36
Wickliffe Cord Marked	1
Wickliffe Plain	25
Wickliffe Incised	10
Kimmswick Plain	10
Kimmswick Fabric Impressed	16
O'Byam Engraved	4
Beckwith Incised	1
Unidentified Incised	1
Total	481

Appendages:

- 2 strap handles (Miss. Plain)
- 2 lugs (Miss. Plain)
- 1 lug (Bell Plain)

Artifacts:

- 1 anvil and whetstone
- 1 small side notched projectile point
- 3 fragments worked stone artifacts
- 1 fragment of bit of celt
- 1 sandstone abrader
- 1 antler projectile point (broken)
- 1 piece of antler (cut and broken)
- 3 fragments of fired clay
- 1 piece of daub

Faunal Remains:

Mammals:

Opossum	1
Raccoon	1
Mink	3
Gray Squirrel	5
Beaver	2
Rice Rat	(60) 2 individuals

Muskrat	3	
Cotton Tail Rabbit	6	
Swamp Rabbit	6	
Virginia Deer	66	
White footed Mouse	(47)	1 individual
Unidentified	<u>5</u>	
Total	(205)	101

Turtles:

Red-eared Turtle	3
Unidentified	<u>1</u>
Total	4

Birds:

Great Blue Heron	1
Wild Turkey	3
Passenger Pigeon	8
Ring-necked Duck	1
Unidentified	<u>5</u>
Total	18

Unworked Stone Fragments

Analysis Unit 2

Sherds:

Mississippian Complex:

Mississippi Plain	358
Bell Plain	23
Old Town Red Filmed	1
Wickliffe Cord Marked	1
Wickliffe Plain	45
Wickliffe Incised	9
Kimmswick Plain	5
Kimmswick Fabric Impressed	18
O'Byam Incised	1
Beckwith Incised	<u>13</u>
Total	474

Appendages:

- 3 lugs (Miss. Plain)
- 3 strap handles (Miss. Plain)

Artifacts:

1 circular hammerstone	
2 anvils	
2 whetstones	
2 whetstones (volcanic tuff)	
1 unmodified piece of cannal coal	
4 used flakes	
1 piece of cut bone (fragment)	
1 fragment of chipped and polished humpbacked adze	
1 piece clay (shaped)	
10 pieces of fired clay	

Faunal Remains:

Mammals:

Raccoon	3
Mink	4
Gray Squirrel	4
Cotton Tail Rabbit	7
Swamp Rabbit	2
Virginia Deer	60
Unidentified	<u>1</u>
Total	81

Turtles:

Red-eared Turtle	2
Unidentified	<u>1</u>
Total	3

Birds:

Lesser Scaup Duck	1
Prairie Chicken	4
Wild Turkey	3
Passenger Pigeon	2
American Coot	1
Wilson's Snipe	1
Unidentified	<u>3</u>
Total	15

Unworked Stone Fragments

Analysis Unit 3

Sherds:

Baytown Complex:

Baytown Plain	9
---------------	---

Mississippian Complex:

Mississippi Plain	344
Bell Plain	23
Old Town Red Filmed	1
Wickliffe Cord Marked	1
Wickliffe Plain	16
Wickliffe Incised	18
Kimmswick Plain	6
Kimmswick Fabric Impressed	7
O'Byam Incised	1
O'Byam Engraved	6
Beckwith Incised	2
Unidentified Incised	6
Total	<u>440</u>

Appendages:

1 double lug (Miss. Plain)
2 strap handles (Miss. Plain)

Artifacts:

2 perforated pottery disks
1 hammerstone, long and battered at both ends
1 whetstone
1 piece unmodified cannal coal
1 bone awl (broken) Ulua
1 bone fragment - nicked by work
1 side-notched projectile point
1 base of triangular projectile point
1 worked flake
1 used chip
1 chip off used implement
1 piece of daub
6 pieces of fired clay

Faunal Remains:

Mammals:

Raccoon	1
Muskrat	1
Cotton Tail Rabbit	10
Swamp Rabbit	4
Virginia Deer	<u>36</u>
Total	52

Turtles:

Red-eared Turtle	<u>1</u>
Total	1

Birds:

Great Blue Heron	1
Canada Goose	3
Blue-winged Teal	1
Wild Turkey	1
Passenger Pigeon	1
Wood Duck	1
Unidentified Duck	2
Unidentified Bird	<u>5</u>
Total	15

Unworked Stone Fragments

Analysis Unit 4

Sherds:

Mississippian Complex:

Mississippi Plain	497
Bell Plain	35
Old Town Red Filmed	1
Angel Negative Painted	1
Wickliffe Plain	53
Wickliffe Incised	9
Kimmswick Plain	13
Kimmswick Fabric Impressed	28
O'Byam Engraved	1
Mound Place Incised	1
Unidentified Incised	<u>4</u>
Total	643

Appendages:

3 strap handles (Miss. Plain)
 1 strap handle (Beckwith variant)
 2 lugs (Miss. Plain)
 1 loop handle (Miss. Plain)
 1 cross handle

Analysis Unit 5

Sherds:

Mississippian Complex:

Mississippi Plain	116
Bell Plain	12
Old Town Red Filmed	2
Wickliffe Cord Marked	1
Wickliffe Plain	11
Wickliffe Incised	6
Kimmswick Plain	2
Kimmswick Fabric Impressed	<u>5</u>
Total	155

Appendages:

1 intermediate handle (Miss. Plain)
 1 loop handle (Miss. Plain)
 2 lugs

Artifacts:

1 whetstone

Faunal Remains:

Mammals:

Raccoon	1
Beaver	1
Muskrat	2
Cotton Tail Rabbit	3
Swamp Rabbit	2
Virginia Deer	32
Unidentified	<u>2</u>
Total	43

Turtles:

Red-eared Turtle	2
Unidentified	<u>1</u>
Total	3

Birds:

Unidentified	<u>4</u>
Total	4

Unworked Stone Fragments

Analysis Unit 6

Sherds:

Baytown Complex:

Mulberry Creek Cord Marked	2
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Mississippian Complex:

Mississippi Plain	530
Bell Plain	29
Old Town Red Filmed	5
Wickliffe Cord Marked	3
Wickliffe Plain	45
Wickliffe Incised	7
Kimmswick Plain	6
Kimmswick Fabric Impressed	14
O'Byam Incised	1
O'Byam Engraved	2
Beckwith Incised	5
Mound Place Incised	2
Manly Punctate	1
Crosno Cord Marked	1
Unidentified Incised	4
Total	<u>657</u>

Appendages:

- 3 strap handles (Miss. Plain)
- 1 strap handle (Manly Punctate)
- 1 strap handle (Matthews Incised)
- 4 lugs (Miss. Plain)
- 1 lug (Bell Plain)

Artifacts:

- 4 sandstone whetstones
- 1 tuff whetstone
- 4 used flakes
- 1 chip - polished
- 2 pottery sherd disks (perforated)
- 1 fragment clay discoidal
- 1 shaped pottery disk (perforated)
- 2 Bell Plain sherd incised (conch effigy?)
- 12 pieces of fired clay
- 1 piece of daub
- 1 hammerstone - large unmodified pebble (cobble)
battered on ends

Faunal Remains:

Mammals:

Opossum	1
Raccoon	12
Skunk	2
Dog	2
Gray Squirrel	7
Beaver	7
Rice Rat	15
Cotton Tail Rabbit	16
Swamp Rabbit	39
Virginia Deer	126
Unidentified	<u>4</u>
Total	231

Turtles:

Red-eared Turtle	35
Unidentified	<u>6</u>
Total	41

Birds:

Pied-billed Grebe	1
Great Blue Heron	1
Canada Goose	5
Mallard Duck	2
Blue-winged Teal	1
Prairie Chicken	3
Wild Turkey	8
Sandhill Crane	7
Passenger Pigeon	4
American Gold-eye Duck	2
Wood Duck	3
Unidentified Duck sp.	6
Hairy Woodpecker	1
Unidentified	<u>8</u>
Total	52

Unworked Stone Fragments

Analysis Unit 7

Sherds:

Baytown Complex:

Mulberry Creek Cord Marked	1
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Mississippian Complex:

Mississippi Plain	78
Wickliffe Plain	3
Wickliffe Incised	1
Kimmswick Plain	2
O'Byam Incised	1
Beckwith Incised	1
Crosno Cord Marked	<u>1</u>
Total	88

Appendages:

1 lug (Miss. Plain)
1 strap handle (Miss. Plain)
1 intermediate handle (Miss. Plain)

Artifacts:

1 mid section chipped and ground celt
2 used flakes
1 worked chip

Faunal Remains:

Mammals:

Opposum	1	
Dog	1	
Fox Squirrel	1	
Gray Squirrel	5	
Rice Rat	(43)	3 individuals
Swamp Rabbit	8	
Virginia Deer	<u>20</u>	
Total	(79)	39

Turtles:

Red-eared Turtle	2
Box Turtle	<u>1</u>
Total	3

Birds:

Blue-winged Teal	1
Wild Turkey	1
Unidentified	<u>1</u>
Total	3

Unworked Stone Fragments

Analysis Unit 8

Sherds:

Mississippian Complex:

Mississippi Plain	412
Bell Plain	45
Old Town Red Filmed	2
Wickliffe Plain	14
Wickliffe Incised	15
Kimmswick Plain	9
Kimmswick Fabric Impressed	11
O'Byam Engraved	2
Beckwith Incised	<u>1</u>
Total	511

Appendages:

3 lugs (Miss. Plain)
 1 lug (Bell Plain)
 2 strap handles (Miss. Plain)

Artifacts:

1 drill (stone)
 1 small bone point
 1 human effigy head (Bell) facing out
 2 worked chips
 2 pieces of daub
 1 possible worked stone
 1 piece of fired clay
 1 sherd of glazed ware (modern)

Faunal Remains:

Mammals:

Opossum	1
Raccoon	1
Cougar	1

Gray Squirrel	1
Beaver	1
Swamp Rabbit	4
Virginia Deer	39
Unidentified	<u>1</u>
Total	49

Turtles:

Box Turtle	2
Red-eared Turtle	3
Unidentified	<u>1</u>
Total	6

Birds:

Canada Goose	2
Blue-winged Teal	1
Prairie Chicken	1
Wild Turkey	3
Barred Owl	1
Unidentified	<u>4</u>
Total	12

Unworked Stone Fragments

Analysis Unit 9

Sherds:

Mississippian Complex:

Mississippi Plain	218
Bell Plain	11
Wickliffe Cord Marked	1
Wickliffe Plain	6
Wickliffe Incised	3
Kimmswick Plain	3
Kimmswick Fabric Impressed	1
Beckwith Incised	<u>1</u>
Total	244

Faunal Remains:

Mammals:

Gray Squirrel	1
Beaver	2
Swamp Rabbit	2
Virginia Deer	42
Unidentified	<u>1</u>
Total	48

Turtles:

Box Turtle	1
Red-eared Turtle	<u>3</u>
Total	4

Birds:

Wild Turkey	1
Unidentified Duck sp.	<u>1</u>
Total	2

Unworked Stone Fragments

Analysis Unit 10

Sherds:

Mississippian Complex:

Mississippi Plain	1249
Bell Plain	63
Old Town Red Filmed	1
Wickliffe Plain	29
Wickliffe Incised	29
Kimmswick Plain	10
Kimmswick Fabric Impressed	28
O'Byam Engraved	3
Crosno Cord Marked	1
Unidentified Incised	<u>3</u>
Total	1416

Appendages:

- 3 strap handles (Miss. Plain)
- 4 lugs
- 2 possible lugs (maybe effigy)

Artifacts:

- 1 clay fragment (either pipe or miniature vessel)
- 1 fragment of clay ear spool
- 2 pottery disks (unperforated)
- 1 whetstone
- 3 used flakes
- 1 tip of projectile point
- 6 flakes off implements
- cache of gar scales
- 5 pieces of fired clay

Faunal Remains:

Mammals:

Dog	1
Gray Squirrel	6
Fox Squirrel	3
Beaver	1
Rice Rat	5
Muskrat	1
Cotton Tail Rabbit	2
Swamp Rabbit	9
Virginia Deer	71
Unidentified	<u>13</u>
Total	112

Turtles:

Box Turtle	6
Red-eared Turtle	2
Painted Turtle	1
Unidentified	<u>2</u>
Total	11

Birds:

Canada Goose	5
Lesser Scaup Duck	1
Prairie Chicken	2
Wild Turkey	3
Sandhill Crane	1
Passenger Pigeon	3
American Gold-eye Duck	2
Shoveller Duck	2
Wood Duck	2
Saw-whet Owl	1
Unidentified	<u>6</u>
Total	28

Unworked Stone Fragments

Analysis Unit 11

Sherds:

Mississippian Complex:

Mississippi Plain	389
Bell Plain	21
Wickliffe Plain	14
Wickliffe Incised	6
Kimmswick Plain	7
Kimmswick Fabric Impressed	8
Unidentified Incised	<u>1</u>
Total	446

Appendages:

3 strap handles (Miss. Plain)
1 lug (Miss. Plain)

Artifacts:

1 hammerstone and anvil
7 pieces of fired clay

Faunal Remains:

Mammals:

Dog	(84)	2 individuals
Fox Squirrel	2	
Beaver	1	
Cotton Tail Rabbit	4	
Swamp Rabbit	5	
Virginia Deer	51	
Unidentified	<u>11</u>	
Total	(158)	76

Birds:

Canada Goose	1
Blue-winged Teal	1
Prairie Chicken	1
Wild Turkey	2
Wood Duck	1
Unidentified	<u>3</u>
Total	9

Unworked Stone Fragments

Analysis Unit 12

Sherds:

Baytown Complex:

Mulberry Creek Cord Marked	2
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Mississippian Complex:

Mississippi Plain	947
Bell Plain	69
Wickliffe Plain	49
Wickliffe Functate	1
Wickliffe Incised	9

Kimmswick Plain	8
Kimmswick Fabric Impressed	27
O'Byam Engraved	1
Beckwith Incised	2
Mound Place Incised	1
Unidentified Incised	8
Total	<u>1124</u>

Appendages:

3 strap handles (Miss. Plain)
 4 lugs (Miss. Plain)
 1 lug (Bell Plain)

Artifacts:

1 negative sherd - plate - ticked line
 2 projectile points (broken)
 1 drill (broken)
 1 worked flake
 1 used flake
 2 chips off implement
 1 gar scale
 1 bird effigy head (Bell) facing in (?) - flat
 1 clay figure head
 1 effigy ware sherd (Bell)
 5 pieces of fired clay

Faunal Remains:

Mammals:

Opossum	5
Raccoon	3
Dog	2
Gray Squirrel	9
Fox Squirrel	3
Rice Rat	5
Cotton Tail Rabbit	9
Swamp Rabbit	6
Virginia Deer	72
Striped Ground Squirrel	1
Unidentified	<u>11</u>
Total	126

Turtles:

Box Turtle	8
Red-eared Turtle	3
Painted Turtle	5
Unidentified	<u>6</u>
Total	22

Birds:

Canada Goose	3
Mallard Duck	5
Lesser Scaup Duck	1
Prairie Chicken	7
Wild Turkey	7
Passenger Pigeon	21
Crow	1
Ring necked Duck	1
Black crowned Night Heron	1
Unidentified Duck sp.	1
Unidentified Goose sp.	4
Unidentified	<u>3</u>
Total	55

Unworked Stone Fragments

Analysis Unit 13

Sherds:

Baytown Complex:

Mulberry Creek Cord Marked	1
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Mississippian Complex:

Mississippi Plain	176
Bell Plain	15
Wickliffe Plain	14
Wickliffe Incised	5
Kimmswick Plain	4
Kimmswick Fabric Impressed	3
O'Byam Engraved	1
Beckwith Incised	1
Unidentified Incised	<u>1</u>
Total	221

Appendages:

- 1 strap handle (Miss. Plain)
- 2 double lug handle (Miss. Plain)

Artifacts:

- 1 bird effigy head (Bell) facing in
- 1 pottery disk (large)
- 1 pottery disk perforated
- 3 pieces of fired clay

Faunal Remains:

Mammals:

Raccoon	3
Rice Rat	1
Cotton Tail Rabbit	7
Swamp Rabbit	5
Virginia Deer	50
Unidentified	<u>2</u>
Total	68

Turtles:

Red-eared Turtle	<u>2</u>
Total	2

Birds:

Canada Goose	1
Mallard Duck	5
Prairie Chicken	2
Bob White	1
Wild Turkey	2
Hooded Merganser	2
Unidentified	<u>3</u>
Total	16

Unworked Stone Fragments

Analysis Unit 14

Sherds:

Mississippian Complex:

Mississippi Plain	1111
Bell Plain	116
Wickliffe Cord Marked	3
Wickliffe Plain	61
Wickliffe Punctate	1
Wickliffe Incised	20
Kimmswick Plain	18
Kimmswick Fabric Impressed	14
O'Byam Incised	2
O'Byam Engraved	7
Beckwith Incised	2
Unidentified Incised	<u>8</u>
Total	1363

Appendages:

3 lugs (Miss. Plain) incised
 1 plain lug
 1 double lug
 2 lug (Bell Plain)
 6 strap handles (Miss. Plain)

Artifacts:

1 sherd effigy ware (conch shell?)
 1 pottery sherd disk perforated
 1 bird effigy head (Bell) facing in
 1 fragment potsherd disk perforated
 1 hammerstone - large flat stone
 1 whetstone
 1 broken side notched projectile point
 1 antler projectile point
 2 pieces cannal coal
 1 piece worked triangular artifact
 1 broken side notched projectile point
 4 pieces of daub

Faunal Remains:

Mammals:

Opossum	5
Raccoon	2
Gray Squirrel	12
Fox Squirrel	1
Beaver	3
Rice Rat	4
Cotton Tail Rabbit	8
Swamp Rabbit	13
Virginia Deer	126
Unidentified	<u>15</u>
Total	189

Turtles:

Box Turtle	2
Red-eared Turtle	<u>6</u>
Total	8

Birds:

Mallard Duck	1
Blue-winged Teal	3
Lesser Scaup Duck	2
Prairie Chicken	5
Wild Turkey	5
Sandhill Crane	1

Passenger Pigeon	15
Barred Owl	1
Crow	3
Ring necked Duck	4
Shoveller Duck	1
Wood Duck	4
American Gold-eye Duck	1
Unidentified Duck sp.	8
Unidentified Goose sp.	2
Unidentified	<u>6</u>
Total	62

Unworked Stone Fragments

Analysis Unit 15

Sherds:

Mississippian Complex:

Mississippi Plain	98
Bell Plain	7
Wickliffe Plain	3
Wickliffe Incised	5
Kimmswick Plain	2
Kimmswick Fabric Impressed	5
Beckwith Incised	<u>1</u>
Total	121

Appendages:

1 lug

Artifacts:

1 hammerstone
 1 fragment of hematite (?)
 2 pieces of modeled clay
 2 used flakes
 3 stemmed projectile points

Faunal Remains:

Mammals:

Opossum	1
Raccoon	5
Gray Squirrel	1
Cotton Tail Rabbit	2
Swamp Rabbit	3
Virginia Deer	14
Unidentified	<u>5</u>
Total	31

Turtles:

Box Turtle	1
Red-eared Turtle	4
Unidentified	<u>2</u>
Total	7

Birds:

Common Loon	1
Canada Goose	1
Prairie Chicken	1
Hooded Merganser	1
Unidentified Duck, sp.	1
Unidentified	<u>7</u>
Total	12

Unworked Stone Fragments

Analysis Unit 16

Sherds:

Baytown Complex:

Mulberry Creek Cord Marked	8
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Mississippian Complex:

Mississippi Plain	115
Bell Plain	9
Wickliffe Cord Marked	2
Wickliffe Plain	8
Wickliffe Incised	1
Kimmswick Plain	2
Beckwith Incised	1
Unidentified Incised	<u>3</u>
Total	149

Appendages:

1 loop handle (Baytown)
1 lug (Miss. Plain)

Artifacts:

1 piece of cannal coal
6 pieces of fired clay

Faunal Remains:

Mammals:

Raccoon	4
Mink	1
Dog	2
Gray Squirrel	2
Cotton Tail Rabbit	2
Swamp Rabbit	5
Virginia Deer	49
Unidentified	<u>2</u>
Total	67

Turtles:

Box Turtle	1
Unidentified	<u>1</u>
Total	2

Birds:

Blue-winged Teal	3
Wild Turkey	2
Sandhill Crane	1
Passenger Pigeon	1
Unidentified Duck sp.	<u>3</u>
Total	10

Unworked Stone Fragments

Analysis Unit 17

Sherds:

Mississippian Complex:

Mississippi Plain	659
Bell Plain	46
Old Town Red Filmed	3
Angel Negative Painted	1
Wickliffe Cord Marked	4
Wickliffe Plain	48
Wickliffe Incised	24
Kimmswick Plain	9
Kimmswick Fabric Impressed	17
O'Byam Engraved	1
Unidentified Incised	<u>5</u>
Total	817

Appendages:

5 lugs (Miss. Plain)
 1 loop handle (Miss. Plain)
 1 intermediate handle (Miss. Plain)
 2 strap handles (Miss. Plain)
 1 handle (Miniature vessel)

Artifacts:

1 negative painted rim sherd
 1 triangular projectile point
 3 pieces of shaped clay
 2 used flakes
 1 worked flake
 1 hammerstone
 2 whetstones
 2 pieces of fired clay
 1 sherd disk

Faunal Remains:

Mammals:

Raccoon	4
Dog	4
Fox Squirrel	3
Beaver	1
Rice Rat	3
Cotton Tail Rabbit	1
Swamp Rabbit	16
Virginia Deer	69
Unidentified	<u>10</u>
Total	111

Turtles:

Box Turtle	1
Red-eared Turtle	<u>5</u>
Total	6

Birds:

Canada Goose	1
Mallard Duck	2
Blue-winged Teal	1
Prairie Chicken	1
Wild Turkey	6
Barred Owl	1
Wood Duck	1
Flicker	1
Unidentified	<u>2</u>
Total	16

Unworked Stone Fragments

Analysis Unit 18

Sherds:

Mississippian Complex:

Mississippi Plain	913
Bell Plain	58
Old Town Red Filmed	5
Angel Negative Painted	1
Wickliffe Cord Marked	4
Wickliffe Plain	56
Wickliffe Punctate	1
Wickliffe Incised	23
Kimmswick Plain	19
Kimmswick Fabric Impressed	29
O'Byam Incised	2
O'Byam Engraved	3
Crosno Cord Marked	1
Unidentified Incised	9
Total	1124

Appendages:

- 6 lugs (Miss. Plain)
- 1 lug (Bell Plain)
- 3 strap handles (Miss. Plain)

Artifacts:

- 1 negative painted sherd
- 1 effigy head (Bell Plain)
- 23 pieces - molded clay from fireplaces
- 1 worked flake (Possible shark's tooth imitation)
- 3 gar scales
- 2 pieces of shell
- 1 stone pipe (used as whetstone)
- 3 fragments worked stone artifacts
- 1 hematite triangular piece
- 1 piece of clay - rolled with fingers
- 3 worked flakes
- 1 polished flake (off implement)
- 1 hammerstone - oblong
- 1 midsection of celt
- 6 whetstones
- 2 sherds from effigy ware (Miss. Plain)
- 3 pieces of fired clay (incised)
- 1 piece (body) punctate
- 1 fragment clay discoidal
- 1 miniature vessel

Faunal Remains:

Mammals:

Opossum	2	
Raccoon	9	
Mink	1	
Dog	6	
Bobcat	2	
Cougar	1	
Gray Squirrel	9	
Fox Squirrel	3	
Beaver	4	
Rice Rat	(128)	5 individuals
Cotton Tail Rabbit	12	
Swamp Rabbit	28	
Virginia Deer	155	
Unidentified	<u>4</u>	
Total	(394)	271

Turtles:

Box Turtle	7
Musk Turtle	3
Red-eared Turtle	16
Unidentified	<u>6</u>
Total	32

Birds:

Canada Goose	2
Mallard Duck	7
Prairie Chicken	4
Wild Turkey	11
Sandhill Crane	1
Passenger Pigeon	1
Barred Owl	1
Great Horned Owl	1
Hooded Merganser	1
Unidentified Goose sp.	3
Unidentified Duck sp.	6
Unidentified	<u>8</u>
Total	46

Unworked Stone Fragments

Analysis Unit 19

Sherds:

Mississippian Complex:

Mississippi Plain	111
Bell Plain	17
Wickliffe Plain	5
Wickliffe Incised	1
Kimmswick Plain	1
Kimmswick Fabric Impressed	2
Beckwith Incised	1
Unidentified Incised	<u>4</u>
Total	142

Appendages:

- 2 strap handles (Miss. Plain)
- 1 lug (Miss. Plain)

Artifacts:

- 1 mid section celt
- 1 ground stone artifact - anvil and possibly discoidal
being manufactured
- 1 fragment - grindstone
- 1 used flake
- 1 piece of clay - fireplace
- 1 section of antler tool - handle (?)
- 1 sherd - possible gourd vessel (Miss. Plain)
- 1 fragment - sherd from effigy vase (Miss. Plain)

Faunal Remains:

Mammals:

Raccoon	2
Dog	2
Fox Squirrel	1
Swamp Rabbit	8
Virginia Deer	43
Unidentified	<u>11</u>
Total	67

Turtles:

Unidentified	<u>1</u>
Total	1

Birds:

Canada Goose	1
Wild Turkey	1
Unidentified Goose sp.	1
Unidentified	2
Total	6

Unworked Stone Fragments

Analysis Unit 20

Sherds:

Baytown Complex:

Baytown Plain	6
Mulberry Creek Cord Marked	4

Mississippian Complex:

Mississippi Plain	928
Bell Plain	61
Angel Negative Painted	1
Wickliffe Cord Marked	3
Wickliffe Plain	54
Wickliffe Incised	22
Kimmswick Plain	16
Kimmswick Fabric Impressed	12
O'Byam Engraved	1
Manly Punctate	1
Crosno Cord Marked	8
Unidentified Incised	10
Total	1127

Appendages:

- 2 loop handles (part of same vessel) (Bell Plain)
- 1 loop handle (fragment)
- 2 intermediate strap handles (Miss. Plain)
- 1 strap handle (large)
- 1 strap handle
- 2 loop handles (miniature vessel)
- 3 lugs (Miss. Plain)
- 2 lugs (Miss. Plain)
- 1 lug (Bell Plain - bowl)
- 2 small lug handles (Miss. Plain)
- 1 miscellaneous lug

Artifacts:

1 effigy head (bird) facing out
 2 fragments of effigy ware
 1 body sherd (negative)
 1 rim sherd (Ramey Incised?)
 1 fragment of pottery pipe
 1 fragment of clay disk
 1 complete perforated pottery disk
 2 fragments perforated pottery disk
 3 fragments of pottery trowels
 1 pitted stone (anvil)
 1 grinding stone
 2 hammerstones
 2 whetstones (sandstone?)
 9 pieces of fired clay
 1 piece Incised fired clay
 2 pieces daub
 1 whetstone (tuff)
 1 stemmed projectile point
 1 triangular projectile point
 1 point of large blade
 1 mid-section large blade
 4 used chips
 1 worked flake
 2 possible worked stone
 1 ground stone celt
 1 piece shell
 1 piece ground hematite
 1 cylindrical stone
 1 fragment of clay from ash pit
 4 pieces of fired clay
 1 piece worked daub (?)
 1 piece holder (?)
 1 piece cannal coal
 2 drilled disk (pottery)
 1 fragment strange shape sherd (Miss. Plain)
 1 sherd effigy ware
 1 polished flake
 1 piece of fired clay

Faunal Remains:

Mammals:

Raccoon	13
Mink	10
Dog	6
Bobcat	2
Gray Squirrel	13
Fox Squirrel	4
Beaver	14
Rice Rat	4
Muskrat	4

Cotton Tail Rabbit	36
Swamp Rabbit	68
Virginia Deer	378
Unidentified	<u>4</u>
Total	556

Turtles:

Box Turtle	10
Red-eared Turtle	22
Painted Turtle	4
Musk Turtle	1
Unidentified	<u>11</u>
Total	48

Birds:

Great Blue Heron	1
Canada Goose	11
Mallard Duck	8
Blue-winged Teal	4
Prairie Chicken	2
Wild Turkey	15
Sandhill Crane	14
Passenger Pigeon	9
Crow	1
Wood Duck	4
American Merganser	2
Unidentified Goose sp.	7
Great Horned Owl	1
Ring necked Duck	1
King Rail	1
Unidentified Eagle sp.	1
Unidentified Duck sp.	1
Hooded Merganser	1
Unidentified	<u>39</u>
Total	123

Unworked Stone Fragments

Analysis Unit 21

Sherds:

Mississippian Complex:

Mississippi Plain	138
Bell Plain	6
Wickliffe Cord Marked	5
Wickliffe Plain	15
Wickliffe Incised	2
Kimmswick Plain	1

Crosno Cord Marked	5
Unidentified Incised	<u>1</u>
Total	173

Appendages:

4 lugs (Miss. Plain)
 1 strap handle
 2 fancy lugs
 1 handle or tail (Miss. Plain)

Artifacts:

1 broad lined incised sherd (Bell Plain)
 9 pieces of fired clay
 3 pieces of shell
 1 stemmed projectile point
 1 clay disk - small

Faunal Remains:

Mammals:

Raccoon	7
Dog	1
Gray Squirrel	6
Cotton Tail Rabbit	6
Swamp Rabbit	62
Virginia Deer	<u>76</u>
Total	158

Turtles:

Box Turtle	26
Red-eared Turtle	29
Unidentified	<u>8</u>
Total	63

Birds:

Canada Goose	5
Mallard Duck	10
Blue-winged Teal	1
Lesser Scaup Duck	1
Bob white	1
Wild Turkey	4
Sandhill Crane	7
Passenger Pigeon	9
Crow	2
Wilson's Snipe	1
Unidentified	<u>20</u>
Total	61

Unworked Stone Fragments

Analysis Unit 22

Sherds:

Baytown Complex:

Baytown Plain	1
Mulberry Creek Cord Marked	4

Mississippian Complex:

Mississippi Plain	493
Bell Plain	23
Wickliffe Cord Marked	10
Wickliffe Plain	20
Wickliffe Incised	1
Kimmswick Plain	6
Kimmswick Fabric Impressed	14
O'Byan Incised	3
O'Byan Engraved	2
Beckwith Incised	1
Crosno Cord Marked	13
Unidentified Incised	<u>4</u>
Total	595

Appendages:

- 1 handle (?) (Miss. Plain)
- 3 lugs (Miss. Plain)
- 1 fancy lug
- 2 loop handles (Miss. Plain)
- 5 lugs (Miss. Plain)
- 1 strap handle (Miss. Plain)

Artifacts:

- 1 mid section celt - used for anvil
- 2 worked flakes
- 6 used chips
- 1 fragment Conch effigy bowl (Bell Plain - shell)
- 1 fragment of celt
- 2 worked flakes
- 4 fragments - shell
- 1 fragment hammerstone
- 3 pieces fired clay

Faunal Remains:

Mammals:

Raccoon	27
Mink	1
Dog	3
Gray Squirrel	19
Fox Squirrel	3
Beaver	7
Rice Rat	2
Muskrat	5
Cotton Tail Rabbit	7
Swamp Rabbit	135
Virginia Deer	268
Unidentified	<u>26</u>
Total	503

Turtles:

Box Turtle	20
Musk Turtle	4
Red-eared Turtle	27
Unidentified	<u>23</u>
Total	74

Birds:

Canada Goose	9
Mallard Duck	17
Blue-winged Teal	1
Prairie Chicken	3
Bob White	4
Wild Turkey	14
Sandhill Crane	29
Passenger Pigeon	9
Green Heron	1
Unidentified Duck sp.	9
Red-breasted Merganser	2
American Golden Eye Duck	1
Ring Neck Duck	2
Shoveller Duck	1
Wilson's Snipe	1
Unidentified	<u>39</u>
Total	142

Unworked Stone Fragments

Analysis Unit 23

Sherds:

Mississippian Complex:

Mississippi Plain	146
Bell Plain	3
Wickliffe Plain	2
Kimmswick Fabric Impressed	<u>1</u>
Total	152

Appendages:

1 loop handle (Miss. Plain)

Artifacts:

1 fragment hooded bottle (Miss. Plain)
 3 pieces fired clay
 1 used flake

Faunal Remains:

Mammals:

Raccoon	3
Dog	1
Gray Squirrel	3
Cotton Tail Rabbit	5
Swamp Rabbit	4
Virginia Deer	29
Unidentified	<u>1</u>
Total	46

Turtles:

Box Turtle	5
Red-eared Turtle	19
Unidentified	<u>8</u>
Total	32

Birds:

Bob White	2
Wild Turkey	1
Crow	2
Unidentified	<u>8</u>
Total	13

Unworked Stone Fragments

Section 11

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