

WINTERVILLE:  
A CASE STUDY OF PREHISTORIC CULTURE CONTACT  
IN THE LOWER MISSISSIPPI VALLEY

by

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## SUMMARY

One of the most intriguing problems in the late prehistory of the Southeastern United States is the diffusion of the Mississippian culture. While some of the more dramatic examples of Mississippian acculturation have been explored, there has been no inquiry into a more subtle, and potentially more rewarding, case of Mississippian-izing transculturation, which in the light of other evidence would contribute greatly to an understanding of the nature of this climactic phenomenon. Such an opportunity is afforded by the Winterville site in the Yazoo Basin of the Lower Mississippi Valley.

At the time of its initial occupation, Winterville was situated at the extreme southern margin of direct Mississippian influence from the northern part of the Lower Valley, and at the northern limit of the equally viable Plaquemine culture in the southern part of the valley. The focus of study is upon the contact of these two dynamic cultures at Winterville and the resultant cultural development. Therefore, the objective of this dissertation is to reconstruct the culture and history of the Winterville site as a key to the recognition and understanding of the processes of cultural dynamics in a particular spatial-temporal context, and the correlation of these processes to the Mississippian culture.

The procedure for achieving this objective will commence with an archaeological description which includes background information, résumé of the fieldwork and classification of the cultural remains. This data is then synthesized in order to define the basic units prerequisite for the interpretation of the processes of culture change--i.e., cultural dynamics--at Winterville. In conclusion, the significance of these processes is considered in the larger context of Southeastern prehistory. It is found that the pattern of culture change manifested at Winterville is substantially different from that observed at other Mississippian centers outside of the heartland, and that this difference appears to be due to the basically proselytical nature of the initial contact between two cultures at a relatively equal stage of development.

## PREFACE

The Winterville project was first suggested by Dr. Stephen Williams in the summer of 1966. He had been informed that the Mississippi State Park Commission desired an excavation at its new state park in order to obtain information and material for display in the museum then being erected on the premises. After enlisting my participation, Dr. Williams stayed with the project until its completion, offering advice and support as necessary.

The project was made possible through the generosity of the Peabody Museum (Harvard), the Lower Mississippi Survey (Harvard), Louisiana State University, and the Applied Science Laboratory (University of Pennsylvania), all of which loaned the basic equipment required for a field trip. Special purchases, laboratory costs and contingency expenses were covered by a research grant from the National Science Foundation, and labor costs by a special grant from the Mississippi State Park Commission. Personal expenses for myself and my family were provided for by a Yale University Fellowship, and by the City of Greenville, Mississippi, which hospitably contributed living accommodations as well as laboratory space and the use of a city vehicle. The author wishes to extend to the above institutions his grateful appreciation for this support, and particularly to acknowledge the aid and encouragement of the following individuals: Dr. Williams

(Harvard), Dr. Elizabeth K. Ralph (University of Pennsylvania), Dr. William G. Haag (Louisiana State University), Mr. Robert Foster (Mississippi State Park Commission), and Mayor Patrick Dunne (City of Greenville).

While in the field, many individuals and groups contributed time, effort and moral support to the investigations. Especial thanks are proffered to Mr. and Mrs. Robroy Fisher, who prepared the way for the project, and to G. A. "Doody" Mahony, the superintendent of the Winterville Mounds Park, who graciously provided assistance, companionship and southern hospitality. The amount of work accomplished is due directly to the cheerful and untiring efforts of the crew foreman, Harvey "Preacher" Davis, Sr., who maintained high standards as well as efficiency under often adverse conditions. Also to William Hony, Nancy Betterton, David Smith and Louis Turcotte are thanks due for volunteered efforts during the excavations and in the laboratory. Members of the Winterville and Sunflower chapters of the Mississippi Archaeological Association were generous in providing information and aid as the occasion demanded. Of these organizations, particular appreciation is extended to Mr. Jack Lancaster, the Robert Turcottes, Mr. James Mims and Mrs. Maxwell Brown. Mr. Lancaster also contributed his photographic talents to the plates reproduced with this text. Finally, the permission granted by the executors and heirs of the estate of the late Shelby Edwards for



excavation on that portion of the site still in private hands is gratefully acknowledged.

In the laboratory analysis, Minze Stuiver of the Yale Radiocarbon Laboratory provided the radiocarbon dating of Winterville. These dates are to be correlated with an archeomagnetic dating which is being processed by Dr. Robert DuBois, Earth Sciences Observatory, University of Oklahoma. Unfortunately, the latter dating will not be available until the Fall of 1969. Also in process, but not completed in time for inclusion herein, are the faunal analysis (bone identification and interpretation of distribution) by Carl Falk, University of Missouri, and x-ray diffraction analysis of pottery sherds by Dr. J. O. Snowden, Jr., Millsaps College. Many thanks are due to these gentlemen for their interest and continuing efforts.

During the writing stage my adviser, Dr. Irving Rouse, provided invaluable guidance, and many of his suggestions are incorporated herein.

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## I. INTRODUCTION

### The Development of the Conceptual Scheme

In A Study of Archeology, Taylor (1948) examines the methodology, objectives and practice of American archaeology. The methodology consists of three basic levels of procedure, followed by a fourth and a fifth depending upon the objective sought. The first three levels are "the definition of the problem in terms of a conceptual scheme; second, a gathering, analysis, and criticism of empirical data; third, the ordering of these data in chronological sequence" (Taylor 1948:32). If the objective of the study is a historical reconstruction, then the archaeologist proceeds to the next level, which Taylor refers to as historiography and defines as the construction and integration of cultural contexts through the analysis of relationships. If, however, the objective of study is "the nature of culture, of cultural constants, of processes, of regularities, and of chronological development" (ibid:38); that is, the statics and dynamics of culture, then the fifth level of procedure, cultural anthropology, is achieved. Taylor indicts American archaeology of rarely progressing beyond the third level of procedure. While undeniably doing archaeology, they are not writing history or studying culture despite claims to the contrary. In falling short of their proclaimed

objectives, they have not taken full advantage of their data: "They have categorized events and items, tagged them, but not investigated them in their contexts or in their dynamic aspects. As a result of these conditions, Americanist archaeology is not in a healthy state. Its metabolism has gone awry. It is wasting and not assimilating its foodstuffs" (Taylor 1948:94). Taylor considers that the fault lies in the emphasis upon a comparative or taxonomic approach concerned primarily with those phenomena in a cultural unit (site or component) which have comparative significance for determining external relationships. The result is the external correlation of sites and components, their position in time and space (the construction of regional chronologies) or in taxonomic hierarchies, depending upon the objective. Instead, Taylor proposes a conjunctive approach which concentrates primarily upon the relationships of phenomena within the cultural unit, before external relationships can be appreciated and the fourth level of procedure achieved. And only through the determination of internal relationships is it possible to construct the fuller cultural contexts--not merely spatial-temporal or taxonomic units--prerequisite for proceeding to the fifth level of procedure, the study of culture itself.

There is much to recommend Taylor's conceptualization, although it is perhaps overly rigorous. His procedural levels follow logically and his objectives are valid

insofar as archaeologists aspire to be more than archaeologists; in any case, they are not the fads that Ford (1952:317) labeled them. If these objectives are accepted, whether as ultimate goals or for the more efficient utilization of data, then their respective attainment will serve as an indicator of progress. By this standard, Taylor's critique of American archaeology was justified, and is still a fairly accurate picture of its practice in the Lower Mississippi Valley. Certainly, a trend is evident in the more recent monographs (especially Greengo 1964) toward the fuller description, definition and interpretation of culture units. However, the stated objective of this analysis is the "reconstruction of culture history," which emphasizes the study of external relationships in order to integrate these units into "phases." This objective is basically historical--it is concerned with the spatial-temporal position of the units rather than their cultural content; that is, the content is analyzed for its historical rather than its cultural properties. Thus, the reconstruction of culture history is not equivalent to historiography which Taylor defines as, first, the construction of cultural contexts on the basis of internal relationships, and only secondly, a concern with the external relationships of these constructs. The difference, of course, is whether archaeological data is viewed primarily as historical data or as cultural data. This distinction led Ford

(Phillips, Ford and Griffin 1951:61) to dichotomize archaeologists into two groups: those whose interests were historical (Ford), and those whose interests were cultural (Taylor). While the two interests were not mutually exclusive, he felt that they were divergent, and were to be served by different approaches and different classification systems. Unfortunately, this attitude has prevailed, with Southeastern archaeologists going their own "historical" way.

On a methodological level this has resulted in the rejection of the conjunctive approach by Ford and his colleagues. The reason for this rejection is obscure, but I suspect that it was due less to different interests than to Taylor's rigorous presentation of the conjunctive approach which Ford interpreted as meaning the supersession of the comparative approach. The insistence on the conjunctive approach in preference to the comparative was a logical reaction and well conceived antidote to the use of the latter by the Midwestern taxonomists. But to Southeastern archaeologists who had found the comparative approach to be a useful tool for establishing their regional chronologies (which worked!), this was a difficult priority to accept. In defense of the approach and its achievements, Ford stated that, "Until a certain amount of order has been achieved in respect to time-space relations on a regional scale, it may be questioned whether satisfactory cultural inferences can be drawn

from any archaeological materials" (Phillips, Ford and Griffin 1951:61). This is a truism, but it misses the mark: what Ford seems to have failed to realize is that while historical constructions are a necessary, they are not a sufficient, condition for cultural interpretation. As Taylor would argue, such reconstructions belong to the third level of procedure, and do not alone produce enough information to continue to the fifth, for "even the fullest attainment of the objectives apparent in a purely comparative approach will not provide adequate material for the writing either of history or of anthropology" (Taylor 1948:202).

Ironically, the proof of the limitations of a purely comparative approach is presented in a monograph by Ford (1952), himself, in which he attempts to utilize his historical reconstructions for cultural as well as historical interpretations. His objective is to find continuities in cultural phenomena and to arrive at principles of culture change. His data consists of selected ceramic design motifs and techniques of design execution. His comparative methodology is a qualitative and quantitative analysis to define these phenomena and to trace their temporal-spatial distribution; and it is by demonstrating the utility of these forms of analysis at the level of historical and cultural interpretation that Ford makes his most important contribution in this study. It is an interesting experiment, but one which

ultimately fails to achieve its objectives with valid and meaningful results. The failure is due to the fact that while Ford has external historical controls over his data, he has no adequate cultural controls--i.e., an understanding of the positions and relationships of the traits under analysis within the various contexts in which they were manifested. This omission is compounded by the restriction of his study to the analysis of only one class of data (viz, ceramics). His failure could have been avoided if he had adopted a conjunctive approach to complement the comparative; if he had been aware that whereas the phenomena, themselves, may be of the same order of comparability, their appearance in various contextual situations may not be.

It is apparent, then, that both the comparative and the conjunctive approaches are required to successfully "do" historiography and cultural interpretation. Brew (1946:65) has observed that "we need more rather than fewer classifications," and the same must be said for our approaches. In order to realize the full potential of the archaeological data it is necessary to consider both its historical and cultural aspects, its external and internal relationships, and we must select classifications and perform quantitative and qualitative analysis as the situation demands. These conditions will hold whether the objective is historical or cultural interpretation, and whatever the special emphasis might be as conditioned by the particular problem at hand.



## The Problem

One of the most intriguing set of problems in Southeastern prehistory is the origin, development and diffusion of a climactic phenomenon usually referred to as the Mississippian culture. Its influence was so great in various areas in the late prehistoric period that the label "Mississippian" has been assigned to a temporal period, a developmental stage, a cultural phase, a people, a ceramic tradition and numerous artifactual types. The result is confusion and misconception, but it is also a reflection of the dynamism of this phenomenon and its impact upon the cultures of the eastern United States. While some of the more dramatic examples of Mississippian acculturation have been explored, there has been no work on a more subtle, and potentially more rewarding, case of Mississippianizing transculturation. Such an opportunity is afforded by the Winterville site, which at the time of its initial occupation was situated at the extreme southern margin of direct and continuing Mississippian influence from the northern part of the Lower Mississippi Valley, and at the northern limit of an equally viable culture in the southern part of the Lower Valley known as the Plaquemine culture. The focus of this study, then, is upon the contact of these two dynamic cultures at Winterville and the resultant cultural development. A situation like this presented more alternatives for cultural development and therefore is ideal for the study

of cultural dynamics.

### Objective and Procedure

The objective of this dissertation is to reconstruct the culture and history of the Winterville site as a key to the recognition and understanding of the processes of cultural dynamics in a particular spatial-temporal context, and the correlation of these processes to the larger phenomenon known as the "Mississippian culture."

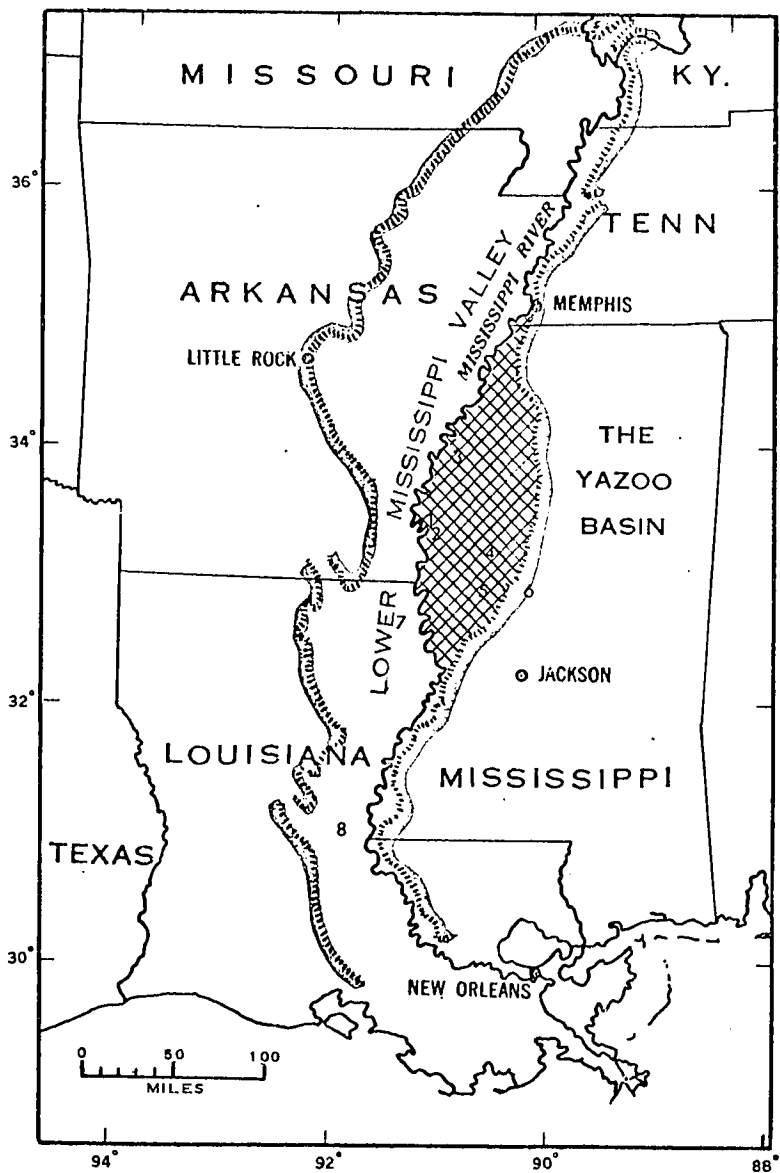
The procedure for achieving this objective will commence with an archaeological description which includes background information, résumé of the fieldwork and classification of the cultural remains. This data is then synthesized in order to define the basic units prerequisite for the interpretation of the processes of culture change--i.e., cultural dynamics--at Winterville. In conclusion, the significance of these processes is considered in the larger context of Southeastern prehistory. To summarize briefly, it is held that if we are to discover cultural processes, we must first describe what happened in prehistory. To do this it is necessary to reconstruct both historical and cultural contexts: that is, we must construct a chronological framework and analyze the cultural content of the component segments before we can expect to recognize the traits or combinations of traits which are relevant for the study of cultural processes. Only by observing how each of these

selected traits related to others internally and externally in each context, can we begin to understand how people acted, interacted and reacted.

## II. ARCHAEOLOGY IN THE YAZOO BASIN: A BRIEF REVIEW

The development of archaeology as a body of knowledge and as a discipline has been very spotty in the lower Mississippi Alluvial Valley (Greengo 1964:3-15). But of all the regional subdivisions of the Lower Valley, the Yazoo Basin has received the greatest share of professional attention. Therefore, a review of the significant contributions to Yazoo Basin archaeology will exemplify the state of the discipline in the rest of the Lower Valley, as well as reveal the archaeological picture of this particular region.

The Yazoo Basin is an alluvial floodplain of the Mississippi River, located in the west-central part of the state of Mississippi (Fig. 1). Two hundred miles long and 60 miles wide at the widest point, the triangular outline gave the Basin its popular name of "The Delta." The Delta was late in being opened up for settlement due to the prodigious task of clearing the dense forests, draining the bottomlands, and controlling the Mississippi. The task was not truly begun until the return of stability after the Civil War created the need for more land, and it is still going on today. As a consequence, the Delta was largely ignored in the early surveys of aboriginal remains. The few exceptions were scattered accounts restricted to the more accessible areas along the Mississippi settled and cleared earlier in the century.



1 Winterville

2 Ely

3 Oliver

4 Jaketown

5 Lake George

6 Deasonville

7 Poverty Point

8 Marksville

Fig. 1. Map of the Lower Mississippi Valley and location of sites mentioned in the text.

Thus, the remarkable work of Squier and Davis (1848) skips over the Delta, as does the compendium of Holmes (1903). Even Thomas (1894), in his great survey of mound sites in the eastern United States, located only six in this basin where hundreds have since been recorded. Nevertheless, interest had been stimulated, and it was in the Delta that the first "scientific" excavation in the Lower Valley was effected soon after the turn of the century (Peabody 1904). This was closely followed by the expeditions of C. B. Moore, whose cursory testings of a number of sites were so disappointing in results that an extended period of inactivity set in while attention was turned elsewhere (Moore 1908, 1911).

It was not until 1929 that work resumed. This was a brief dig conducted by Henry B. Collins at a small village site in the hills on the eastern edge of the Delta (although not in the Delta, the excavation and report of this site was of greatest importance for Yazoo and Lower Valley archaeology). The publication of this site report (Collins 1932) marks the inception of modern archaeology and prehistoric interpretation in the Lower Valley. In addition to demonstrating technical competence in carrying out the excavations, Collins observed that attention should not be focused upon mound sites alone, but that for complete prehistoric interpretation all kinds of sites must be studied. Thus, he chose a village site for investigation. Even more important was his

recognition of a prehistoric temporal depth, and his statement that "the most important immediate problem of Southeastern archaeology is to establish a basis for a chronology of prehistoric sites" (ibid:17). To accomplish this, he proposed a direct-historic approach to locate historic sites from which material could be collected, and a comparative approach in which these materials could be matched with similar materials from other sites, the degree of similarity indicating whether the new site was historic or prehistoric. Although not explicitly stated, it is implied that, carried far enough, this method will result in subdivisions of the prehistoric category. The material best suited for these purposes, Collins suggests, are the abundant pottery fragments found at most Southeastern sites, and this grouping of potsherds into rudimentary "types" is the start of a long and profitable tradition in Lower Valley archaeology.

Working with Collins on this project was the young James Ford. It is evident that this association resulted in a communion of spirits which had far reaching effects. Ford, a native Mississippian, had already spent several years making surface collections from sites in northern Louisiana and in Mississippi, including the Yazoo Basin. Ford published the results of this and a later survey in 1935 and 1936, respectively. These two volumes mark Ford as the founding father of Lower Valley archaeology. He followed through on many of Collins' ideas and contributed

much of his own. To him may be attributed our first consistent and logical system of pottery classification, and our first real chronological framework. The basic analytic procedure was a distinctive modal analysis of potsherds, which was the basis for the first comprehensive description of pottery types. These types were grouped according to association into ceramic complexes, which on the basis of limited stratigraphic excavation were placed in chronological order. The result was seven complexes (basically ceramic, but other artifacts and features were included where noted) organized into two regional chronologies. As already noted, Ford's survey covered areas in both Louisiana and Mississippi, and in the distribution of his complexes he distinguished two geographical regions. One region centered on Natchez, Mississippi, and the Red River mouth of central Louisiana, while the other included the southern part of the Yazoo Basin. In each region three periods were defined: two were prehistoric and the third historic. The earliest period in both regions was represented by the Marksville complex which had many similarities with the Hopewell materials of Ohio. The later prehistoric period was represented by the Deasonville complex, a general Woodland manifestation in the Yazoo Basin, and the Coles Creek complex around Natchez (although later found to be of some importance in the Delta as well). Thus, three prehistoric complexes and two prehistoric periods were set up and



related (Table 1). The other four complexes were assigned to the historic period: Tunica in the Yazoo Basin, and Natchez, Choctaw and Caddo in the Natchez/Red River region. This was the bare framework on which to peg the Lower Valley prehistory. The direction set by Collins had been followed, and a firm base had been established from which to proceed.

Ford next teamed up with Gordon Willey to publish a WPA excavation in Louisiana (Ford and Willey 1940), followed by a synthesis of prehistory in the eastern United States (Ford and Willey 1941) based on the foregoing work and other excavations. The important results for the Lower Mississippi Valley were the addition of two new prehistoric periods bracketing Marksville (the complexes had by now given their names to the periods): Tchefuncte and Troyville respectively. The periods of the expanded chronology were then grouped into "stages" on the basis of mound-type characteristics (Table 1). Tchefuncte, hypothetically equivalent to the northern Adena, was assigned to the Burial Mound I stage. Marksville, and its outgrowth, Troyville, were placed in a Burial Mound II stage. The next stage, represented by the Coles Creek period, showed a marked shift in mound type, and the stage was called Temple Mound I. Deasonville was not included in this scheme as its association with mounds was not known. Another final prehistoric period and stage were indicated, but not given substance. This

Table 1. Development of regional chronologies in the Lower Mississippi Valley.

Ford 1936		Ford & Willey 1941		Phillips et al 1951 Ford et al 1955		Greengo 1964			
Periods	Complexes		Periods	Stages	Periods	Phases	Phases		
	Yazoo	Natchez							
III	Tunica	Natchez,		TM II	(Historic)	Lake George	Historic		
		Choctaw,	Plaquemine					Late Mississippi	Lake George
II	Deasonville	Caddo, etc.		TM I	Late Baytown	Coles Creek	Coles Creek		
		Coles Creek	Coles Creek					Early Mississippi	Deasonville
I	Marksville	Troyville		BM II	Middle Baytown	Issaquena	Issaquena		
		Marksville						Early Baytown	Marksville
		Tchefuncte						Tchula	Tchula
					Poverty Point	Poverty Point	Poverty Point		

was the Plaquemine period, which, as a later development of Coles Creek, was assigned to a Temple Mound II stage. Recognized as approximately coeval with the comparatively well-known "Mississippi culture" further up the valley, Plaquemine was not even described for a decade (Quimby 1951, 1957; Cotter 1951, 1952), and its relationships with its northern contemporary were never really understood.

As significant as those new additions to the chronology were, they applied only to the Natchez region and south to the Gulf. They were only of peripheral application to the Yazoo Basin, which had had no work or attention since Ford's earlier survey. The basin did not benefit from the vast WPA projects which provided so much archaeological stimulus elsewhere in the late 1930's and early 1940's. So it was again the inimitable Ford who turned his attention to new territory. Teaming with Philip Phillips and James B. Griffin, he set up a program to survey the upper part of the lower Mississippi Valley between the mouths of the Ohio and the Yazoo. Because of wartime interruptions and other circumstances, only about half of this area was actually covered, but this included the upper two-thirds of the Yazoo Basin. Aside from presenting a great fund of data from a previously unknown area, the publication of the results of this survey (Phillips, Ford and Griffin, 1951) made a series of significant contributions in methodology, theory, and problem

orientation. There are chapters on analytic techniques (wherein Ford delineated the seriation analysis of pottery), the correlation of sites to extinct river channels, site plans and settlement patterns, identification of sites from historical documents, and the posing of particular problems in culture history (some of which they answered, and some of which are still with us). But their primary objective was to establish a relative regional chronology which could be tied in with that developed for the more southerly region around Natchez. This was achieved once again through ceramic analysis and the formulation of pottery types. Complexes of types were set up on the basis of stratigraphic and distributional relationships, and these complexes were the basis for the definition of periods (Table 1). Thus, Phillips, Ford and Griffin recognized a Tchula period to correspond with Tchefuncte, Early Baytown with Marksville, Middle Baytown with Troyville, Late Baytown with Coles Creek, Early Mississippi with (Late) Coles Creek-(Early) Plaquemine, and Late Mississippi with (Late) Plaquemine-Historic. Deasonville in the previous chronology established for the Lower Yazoo, would be approximately coeval with Middle to Late Baytown. However, with the establishment of the new chronology, Deasonville was dropped from the terminology.

As the nomenclature indicates, the six "periods" (a seventh preceramic period was also recognized but not

named) referred to above are actually subdivisions of what the authors considered the three basic periods: Tchula, Baytown and Mississippi. The principal distinction between these three periods was ceramic, particularly paste differences, although mound types and other traits were considered. The subdivision indicates both relative time depth and the central concern of the authors. For, besides establishing a relative chronology, the authors were particularly interested in the problem of the origin of the Mississippi "culture" and its development from what preceded. In this they were not very successful, partly because they were not far enough north. But what is interesting here, in the broad developmental scheme of archaeological thought, is their concern with such a problem, which transcends the objective of constructing chronologies, but is of course dependent upon the reference points such chronologies provide.

Returning now to the Yazoo Basin, itself, the next important development was the excavation of the Jaketown site in 1951 (Ford, Phillips and Haag 1955). This site, located in the south central part of the basin, had been tested by the Phillips, Ford and Griffin survey, and because it gave evidence of an even earlier period to add to the chronology, as well as occupations during all subsequent periods, it was singled out for particular attention. Although evidence had been accumulating for some time (Webb 1944, 1948b), the existence of a

preceramic, terminal Archaic florescence in the Lower Valley was just being recognized. Until Jaketown, however, this period was represented only by the type site, Poverty Point, in northeastern Louisiana. It therefore seemed desirable to excavate a companion site to firmly establish this new period in the chronology; and if it were possible to check the rest of the chronology at the same time, so much the better. A Poverty Point complex was indeed isolated and identified as the earliest occupation at the site, making it possible to add such a preceramic period to the beginning of the chronology (Table 1).

Representative complexes from all the basic ceramic periods were also recovered in proper stratigraphic position, thus affirming the general chronological outline. But there were gaps and it was apparent that the site was not continuously occupied throughout the entire chronology. These discontinuities thwarted efforts to relate the periods in terms other than their chronological position. It had been hoped by the authors that significant relationships could be discerned between the complexes in each period to shed some light on cultural development through time. But the breaks in occupation and the dependence on data provided by ceramics, which apparently changed too greatly during the intervening periods, precluded success in this venture.

The important contributions, then, were augmentation of the historical framework (regional chronology) by the

addition of a new period, verification of the chronology at a representative site in the region, and further refinement of the content of the complexes defining each period. Thus, in line with the approach, the results were of a historical nature. Even the unsuccessful attempts to relate the periods were historically oriented for they were using the same criteria to relate periods as they had to distinguish them, and the historical discontinuities were a major factor in the failure. However, the attempt continued the trend--first observed in the Survey volume (Phillips et al 1951)--away from the mere construction of regional chronologies, although they are still the primary objective. But by taking such a chronology and attempting to analyze the relationships within it the authors reveal a theoretical progression from a concern restricted to temporal constructions to the study of culture history.

Another important contribution and indication of changing concerns was the emphasis upon and the handling of a particular complex, Poverty Point. For the first time in the Yazoo Basin, an archaeological assemblage was reported upon in detail: a broad range of artifacts and features was described and no one class was emphasized to the exclusion of others. Of course, the absence of pottery forced a certain departure from past procedures, but it is significant that the authors wished to secure as much information about this period as possible. That this represents an important theoretical change and is not

merely an accumulation of data as an end in itself, is manifest in the following terminological slips: in reference to regional sequences, the authors state that, "these may be defined as series of cultural phases..." (Ford et al 1955:61); and concerning the Jaketown excavations, the aim was "to secure as much information as possible about the preceramic phase of occupation" (116). There is no explanation for this exceptional use of the term "phase" in preference to period, and since there is no distinct definition it must here be considered interchangeable. This is curious, because one of the authors had already co-authored an article (Phillips and Willey 1953; see also Willey and Phillips 1958:22) in which phase was carefully defined in culture-historical terms: a combination of the chronologically oriented period and the culturally derived focus (McKern 1939). Was the use of phase, then, really an accident, or was it rather an appropriate characterization of what had been done at Jaketown, and a harbinger of the future?

The answer may be found in the next and most recent contribution to Yazoo Basin archaeology. This was a report on a series of small excavations conducted in the southern tip of the Basin in 1954 and 1955 (Greengo 1964). Therein, phase as defined by Willey and Phillips becomes the basic conceptual unit of analysis. The central problem Greengo set for himself was "to define and interpret a particular archaeological culture unit in the Lower Mississippi



Valley" (Greengo 1964:122). Thus, again, as at Jaketown, a subdivision of the chronology was the primary object of investigation rather than the overall chronology itself. However, it was not a question of adding to the chronology, but an investigation of a segment that had already been established: "Once a gross chronological framework has been set up, the next procedural step would seem to be an attempt to fit all of the archaeological information into the scheme, even though it might have to be modified some to encompass a more complete cultural inventory." To distinguish this new culturological approach, Greengo prefers the concept of phase to period because the latter had been "based entirely on shifts in patterns of ceramic types" while phases are "convenient for organizing the total archaeological data." Theoretically, of course, periods could also have been so conceived, but that they had not been was reason enough to turn to a new terminology for new concerns. It is interesting to note, however, that the phases of the new chronology correlate almost exactly with the old periods because "in almost every instance the changes in ceramic patterns appear to reflect changes in other aspects of culture as well" (Greengo 1964:13).

A further important consideration is the particular historical framework chosen as the point of departure in Greengo's scheme. The chronological framework applied and verified at Jaketown was essentially that proposed by

Phillips et al (1951) for the northern part of the basin, but with the addition of a new period. Considering the intermediate position of the site, the Natchez-Red River chronology could probably have been utilized almost as easily, and this was admitted by the authors (Ford et al 1955:61). The two chronologies are nearly identical in basic structure, and they differ only in the (ceramic) content of some periods. Thus, it is quite revealing that, given the choice again--for the area of exploration was not far south of Jaketown--Greengo should select the more southerly extra-Yazoo regional chronology from which to adapt his "regional sequence of phases." It will be noted that this sequence (Table 1) further refines the old chronology and adapts it to the local situation by subdividing one of the periods into two phases with the resurrection of Deasonville (necessitated by what appeared to be the relative co-occurrence of two distinct ceramic and--presumably cultural--complexes in this same area), and renaming two of the transmuted units: Issaquena for Troyville and Lake George for the protohistoric Natchez (Late Mississippian cultural content). The identification and definition of the Issaquena phase as a local but distinctive manifestation of Troyville was the focus of Greengo's study, the details of which need not concern us here. It should be noted, however, that although it remained basically a ceramic analysis in spite of its stated objectives, this study contributed to our fuller

understanding of a segment from the earlier end of the chronology.

An effort to give substance to the more recent end of the sequence was the objective of excavations at the Lake George site in 1958-1960 by the Lower Mississippi Survey, Harvard Peabody Museum. This large temple mound site south of Jaketown was occupied during the last three pre-historic phases (Coles Creek-Lake George) and when the results are published the southern part of the Yazoo Basin should be one of the archaeologically best known areas in the Lower Mississippi Valley.

To recapitulate, we have found that the first exploratory excavations in the Yazoo Basin soon after the turn of the century were singular unconnected events, whose immediate influence was negative rather than positive. Although one of the richest archaeological regions in North America, in terms of the sheer number of sites, the sites themselves did not produce the fine pottery and other specialized funereal objects in the quantity or quality which had been expected. Therefore, interest in the Yazoo Basin declined, and it was not until the late 1920's and early 1930's that work resumed, concurrently with the development of a truly professional methodology and approach. A landmark volume by Ford (1936) presented the first chronological sequence for the basin (and the Lower Valley) and demonstrated the methodology whereby it was achieved. Ford's sequence was restricted

in time and space, but subsequent work extended the historical framework to cover the whole of the Yazoo Basin (Phillips, Ford and Griffin 1951), and expanded and refined the original sequence (Ford et al 1955; Greengo 1964). The latter references, the first modern site reports, also revealed a shift from a total concern with the construction of regional chronologies to the description of the component "periods" and their interpretation as archaeological culture units, or "phases." The added interest of tracing relationships within and between these periods/phases is evidence of the development of problem oriented research. However, these changes in emphasis have not been accompanied by the necessary theoretical or methodological advances, as is reflected by the fact that the basic objective for Lower Valley archaeologists remains "a temporal and spatial ordering of culture history in the Lower Mississippi Valley" (Greengo 1964:122).

### III. THE PHYSICAL AND HISTORICAL BACKGROUND

#### Location and Description of Winterville

The Winterville site (19-L-1)<sup>1</sup> is located in the west-central part of the Yazoo Basin and within the confines of the modern political boundaries of the County of Washington, the State of Mississippi (Fig. 1). It is four miles north of the city of Greenville, one mile south of the town of Winterville and three miles east of the present channel of the Mississippi River. Its coordinates on the Mississippi River Commission (USGS) 15' quadrangle map "Refuge" are NE1/4 NE1/4 S19 T19N R8W.

The site (Fig. 2) is cut by old State Highway number 1 on the east and new State Highway number 1 in the southwest corner. A county road connecting the two major routes forms the southern border. The northwestern edge is defined by a recently dug "bayou," and the northern tip is bisected by a drainage ditch. Thus, these present boundaries are artificial and do not reflect the original extent of the site, which certainly claimed more land to the north and east and perhaps elsewhere. But aside from this marginal disturbance, the site proper has largely been spared other major modern disturbance, although agricultural and other damage to some of the individual areas has been extensive.

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<sup>1</sup>See Phillips, Ford and Griffin 1951:41 for site designation system.

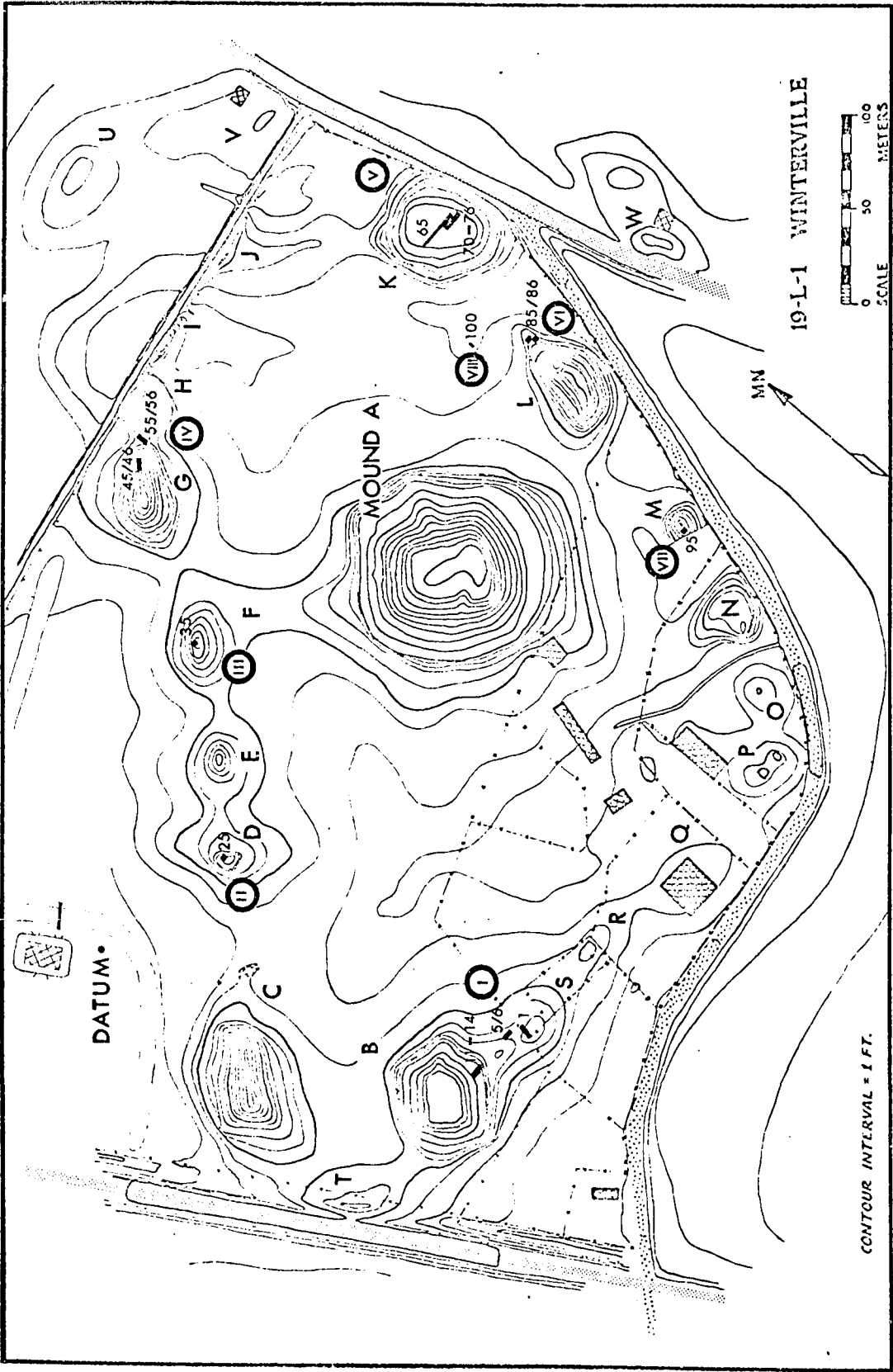


Fig. 2. Topographic map of the Winterville site and locations of the excavations.

Winterville is a large site composed of a group of mounds extending over an area of more than 50 acres (Fig. 2). Although nineteen mounds or their remnants are now evident, four others (N-P, R) were recorded before their destruction in recent years. These 23 mounds are of the pyramidal substructural type, commonly called temple (domiciliary) or platform mounds, and are presently from two to 55 feet high. They are arranged in a large oval oriented towards the northeast-southwest. The oval surrounds a great plaza of some 44 acres near the center of which is situated Mound A, the largest mound and focal point of the site. This arrangement is quite unusual and had the effect of creating two ceremonial plazas: one to the northeast of the central mound and one to the southwest. A single plaza surrounded by two or more mounds is the norm for such sites; however, most sites are smaller than Winterville and have fewer mounds. As a consideration of settlement patterns, then, we really do not know whether the site is exceptional or the normal result of growth in the area. It is significant in this respect that the only other comparable site of the same plan, Lake George (21-N-1), is located 50 miles to the south in the basin.

In addition to its physical appearance, a unique feature of the site is the general absence of surface refuse. Although this may be partially accounted for by the present grass cover which makes surface collecting

extremely difficult, it is a fact which has been noted by all professional visitors to the site. Only on mound slopes or in areas of extensive disturbance where mound earth has been spread by plowing is significant surface material to be found. This leads to the hypothesis that the site functioned primarily as a ceremonial center and had but a small residential population living on the mound summits. At least, it was not a town as normally defined. It is possible, of course, that there was a dependent village associated with the site, all evidence of which has been completely buried under recent alluvium. This, however, is unlikely as all of the surrounding fields outside of the aboriginal limits of the site have proved barren of cultural remains; and all of these fields have been subjected to subsoiling, a modern plowing practice which turns the dirt to a depth of several feet--far deeper than recent alluvial deposition.

### Geologic History and Physiographic Setting<sup>2</sup>

The foundations of the present Mississippi River Valley were established during the Pleistocene when the sea level was lowered some 400 feet and the continental rivers became rushing torrents which hollowed out a vast canyon. With the rise of the sea level at the close of

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<sup>2</sup>This section is based partly on the excellent summation to be found in Phillips, Ford and Griffin (1951: 5-36). The reader is referred there for more detail on the Lower Valley as a whole and for source material.



the Pleistocene, the rivers lost their velocity and the canyon was gradually filled with gravels, sands, silts and clays. Between 10,000-5,000 years ago the Mississippi River and its tributaries had filled the valley with this alluvial sediment and the present elevation of the valley floor was reached.

The surface of the alluvial valley, including the Yazoo Basin, has been subjected to continuing modification since its formation. With the lessening of the gradient to the sea, the Mississippi became a meandering river which constantly shifted its course across the alluvial flood plain, cutting new and deserting old channels within each course (or meander belt). The topography to be observed today is the result of at least 5,000 years of these hydraulic processes and consists of sandy levee ridges formed along the streams and rivers, abandoned channels that have been silted in, and the low interfluvial "backswamps" in which flooding waters deposited the fine clay of the Sharkey series locally referred to as "gumbo" or "buckshot" (terms which appropriately describe this intractable material in a wet or dry state). Cutting across this topography are the rivers and streams, themselves, and a maze of small bayous. The latter drain the land and connect the oxbow lakes, or partially filled abandoned channels, which are the only significant lacustrine features. In this flat land one foot difference in elevation may be as important economically as 100 feet in

a hilly or mountainous region. In aboriginal times the relatively high natural levees were the only habitable and agriculturally suitable areas within the confines of the valley, and it is on them that almost all prehistoric sites were situated.

Winterville is located within the present meander belt of the Mississippi, a course which the river has followed for at least the past 2,000 years (Fisk 1944). In the reconstruction of channel stages by Fisk (*ibid*, Pl. 22, Sheet 8), Winterville is found to be situated on a natural levee formed by a Stage 2 channel, and at the exact point where the latter cut through a Stage 1 channel (Fig. 3). This relationship indicates that the occupation of Winterville could have been no earlier than the Stage 2 channel (Fisk dating is second century A.D., but recent evidence suggests it is much older), and in fact probably considerably postdated it. We now know from other archaeological-geological correlation in the basin that during the last 2,000 years sites were rarely, if ever, established in direct association with active channels of the Mississippi. These sites were always on tributary streams or abandoned channels (oxbow lakes) which had good access to the active channel. In view of this settlement pattern it is safe to assume that the Stage 2 channel had been abandoned before Winterville was founded. The channel was not immediately and completely filled, however, and at a later stage seems to have been

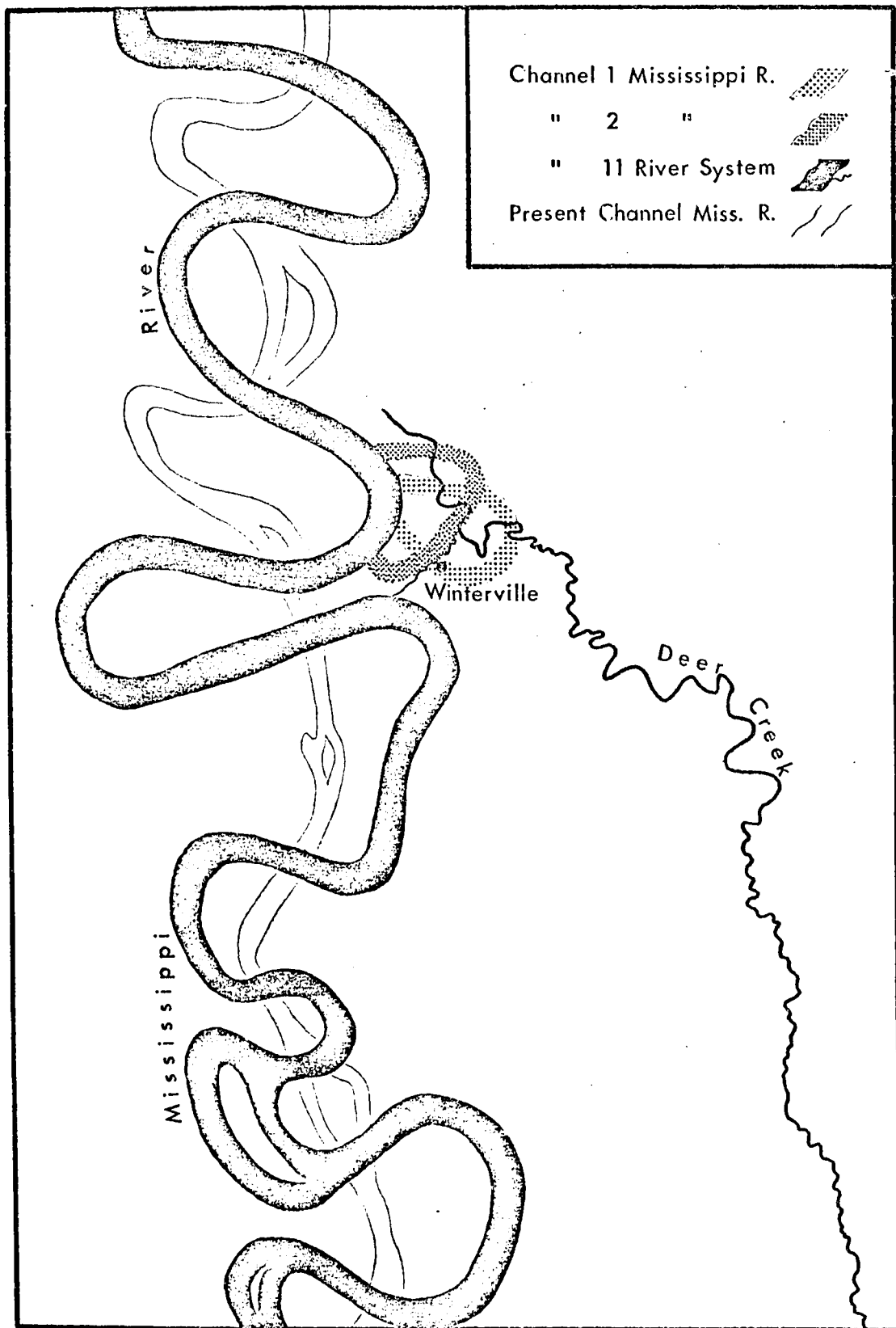


Fig. 3. Extinct channels and ancient river system in the vicinity of Winterville.

partially occupied by a bayou, the outline of which is clearly visible in aerial photographs. This bayou seems to have formed a link between the still current Williams Bayou to the northeast and a later stage of the Mississippi to the southwest. It is very significant in this respect that both Williams Bayou (which is a tributary of Deer Creek--not the Mississippi) and the closest subsequent approach of a later channel of the Mississippi about one and one-half miles to the southwest of the site (and into which the Winterville bayou presumably flowed) are assigned by Fisk to Stages 10/11. Thus, by Fisk's general dating, at ca. A.D. 1000 a fluvial system consisting of the Mississippi River, Deer Creek and interconnecting bayous would have been operative (Fig. 3), and conditions would have been ideal at this location for the establishment of a major settlement. For, by virtue of its water connections--the only convenient form of communication in that country--the Winterville location was in direct contact with the Mississippi River, the principal artery, on the one hand and, on the other, with the interior of the basin via Williams Bayou and Deer Creek (an area we shall find to have been in close contact with, and greatly influenced by, Winterville). When these conditions existed then, the location had the natural advantage of an intermediate geographic position.

There were also other natural advantages to be enjoyed at Winterville. The exact location is--and

probably was even more so then--the highest elevation in the vicinity, except for the more recent levee formations of the Mississippi. Thus, it must have been relatively immune to the annual inundations, and perhaps suffered only from the occasional great floods. Being high land, it would also have been well drained, a very important consideration in this country, particularly for agriculturists. And the sandy loam (Sarpy series) soil of the levee deposits is itself well known for its extraordinary fertility. Thus, the combination of rich, easily worked, and adequately drained land in a region of moderate temperatures, long growing seasons (the norm is 240-300 frost free days), and 50-60 inches of annual rainfall provided nearly ideal horticultural conditions for the agriculturists who must have been associated with Winterville.

Moreover, the dependence upon agriculture need not have been total, for as would be expected in a naturally rich and ecologically variable land, there was a wide array of flora and fauna which could be simultaneously exploited. From the swamp biology of the lowland, in which cypress and tupelo gum, alligators and other reptiles predominated, to the oaks, honey locusts, cottonwoods, cane brakes, and associated large mammalian fauna of the levees, to the riverine products of the great and small streams, nearly all conceivable requirements for human sustenance were available. To what degree these resources

were exploited is not known, but the possibilities were great. It is probable that different peoples at different times took advantage of different ecological niches, and the effect must have been to upset the original balance. Yet the interaction between man and nature would have resulted in a total environment, the best aspects of which must have been realized by the time Winterville was established.

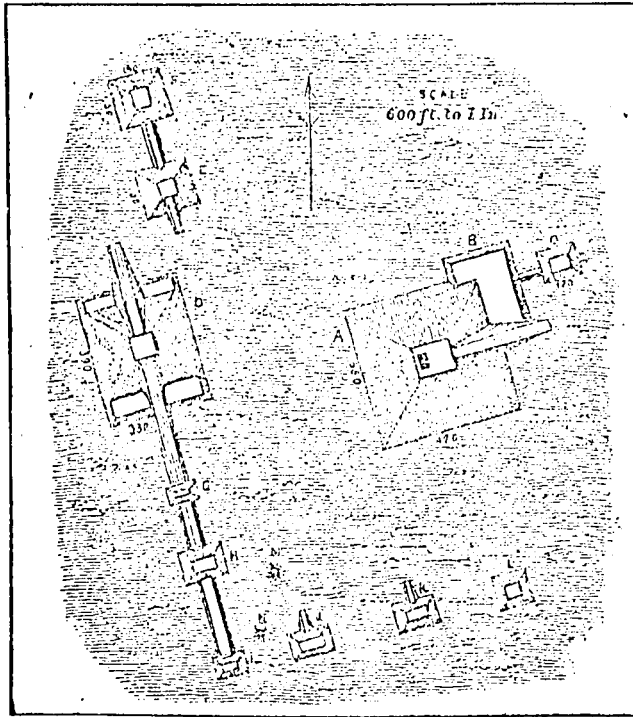
It is an interesting footnote to this section that the aboriginal relationship between man and nature has been destroyed. The marvelous ecological variety is gone. Modern man with his emphasis upon a single crop agricultural economy has endeavored mightily to change his natural environment rather than adapt to it. By the construction of great artificial levees to contain the Mississippi, the draining and leveling of the land, the clearing of the virgin timber, and the modern mechanized agricultural methods, the original physical appearance and biological population has been completely altered. A new era has begun, the consequences of which await us.

#### Recent History

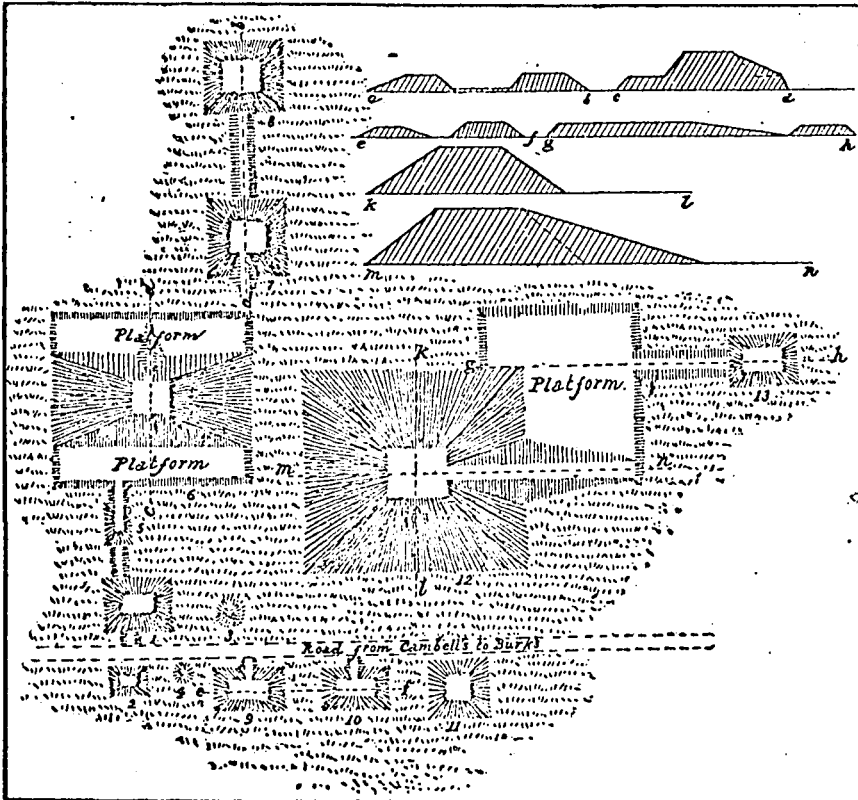
The region in which Winterville is located was one of the earliest in the Yazoo Basin to be opened up for permanent settlement. The first river towns were founded in the 1820's, following the Treaty of Doak's Stand (1820) at which the native Choctaw Indians ceded their ancestral

lands in the southern half of the basin. The nearby levees were cleared soon after and great plantations carved out of the wilderness. One of these plantations, named Montrose (or Mount Rose) and established by a Major Hunt, included Winterville.

The earliest account of the site is a description recorded by Mr. Henry Tillinghast Ireys after a visit in 1852 (McCain and Capers 1954:13, 67-70). At that time the "cane and timber" had not yet been cleared, so that Mr. Ireys noticed only "sixteen or seventeen" mounds. Their good state of preservation is indicated by the observation that the ramp was still prominent on the north side of Mound A. A more complete description of the mounds was published by Squier in 1860 (Fig. 4a). He, too, notes that "all the mounds of this group are well-preserved, and display a wonderful regularity of outline" (Squier 1860:171). This is substantiated by an accompanying map which shows eleven pyramidal mounds with ramps and connecting causeways and two conical mounds. Although this map bears little resemblance to the site as it looks today (and perhaps even then!), there is no question from the description and measurements of the individual mounds that this was Winterville. So that while the map may have been the product of as much imagination as fact, there may well be features represented which have since disappeared. Essentially the same map was reproduced twenty years later with even greater descriptive detail



a



b

Fig. 4. Early maps of Winterville: a, Squier (1860:171); b, Hough (1880:383).



(Hough 1880; Fig. 4b). Although these two maps must have had the same source and agree in most particulars, there are a few significant differences, proving that they were subjected to the whims of the authors and/or engravers. In any case, many of the features--real or fanciful--depicted on these maps were lost during the forty-year period following the Civil War when the plantation, renamed Mound Place, was intensively cultivated. (It was also during this period that a small brick-walled dairy cellar was put into the south side of Mound A, giving rise to the local myth of a central chamber in the mound.) Unfortunately, there is no information about the site during this period, and the hiatus was only ended by the visit of C. B. Moore in 1907.

Clarence B. Moore was one of the last of the prodigal, peregrinating archaeological explorers, that castigated breed of men to which, nevertheless, modern archaeology is often much indebted. Moore came to Winterville (which he named the Blum Mounds in honor of the current owner) in late November 1907, after his well-rewarded work at Moundville, Alabama. Since the two sites bore certain obvious physical similarities, Moore reasonably expected to duplicate his accomplishment at Winterville. He certainly tried. He was accompanied by five of his highly trained laborers, who in a mere six days dug more than 150 pits ("trial-holes"), measuring approximately 3 x 6 feet and 4 feet deep. A majority of these were put into

the summits of fifteen of the mounds, but 45 were also placed in the flat between and around the mounds. The results of this amazing effort were very disappointing: a few badly preserved skeletons and some isolated pots; even "sherds were rarely met with" (Moore 1908:599; App. I). No noteworthy finds were reported from most of the locations tested. And, most revealing of all, there is not a single illustration of an artifact in the report of the excavations by this man who was wont to lavishly illustrate all his publications. However, since Moore was looking especially for richly furnished burials, it is certain that he overlooked much other valuable information; he was after specimens, not information.

The disappointing results that Moore experienced had one very beneficial effect: the site was generally ignored for a long while thereafter. At a local level, the belief that there was "nothing in the mounds" (still current 50 years after Moore's visit), seems to have led to a marked dropping off of depredations by pot hunters and treasure seekers, the activities of which Moore had noticed in many of the mounds. Thus, although cultivation continued, the site had changed so little by the time of the next professional visit nearly twenty years later, that the published account was almost entirely a quote of Moore's description (Brown 1926:83-8).

In the spring of 1927, the Mississippi River broke its levee going into the Choctaw Bend about five miles

north of Winterville (the great Mound Crevasse). The ensuing flood was catastrophic to an extensive area, and there was considerable property damage as well as the loss of a year's crop. Even more serious, a mantle of coarse sand was laid down in the course of the flooding waters, which even to this day ruined the fertility of a wide swath of land. The flood had two effects on Winterville. First, it affirmed the belief of the present inhabitants that the mounds had been built as flood refuges, and indeed they served this purpose in 1927 for both man and beast. Second, although there does not seem to have been much alluvial deposition at the site itself, the agricultural cycle was interrupted, and as in the areas where the sand was laid down, the land was turned into pasturage. There was little, if any, cultivation on the principal part of the site after that time. This, however, was a mixed blessing, for while the smaller mounds were spared further plow destruction, the larger ones, which had theretofore survived quite well as they were unsuitable for agriculture, were now endangered by the removal of their natural cover through grazing. This practice continued for over thirty years and even the great central mound was reduced to a gullied, amorphous blob, hardly recognizable as the symmetrical construction depicted in the earlier maps.

Such was the condition of the site, aggravated by the rerouting of State Highway number 1 across the southwestern

corner in 1939-1940, when the first modern surveys were conducted in 1940 by the National Park Service (Jennings 1940) and the Lower Mississippi Valley Survey (Phillips, Ford and Griffin 1951). Phillips returned in the spring of 1949 with Albert C. Spaulding, who drew the first accurate site contour map (Fig. 2). During this visit four small test pits failed to find adequate midden for stratigraphic excavation, but small surface samples of pottery and other artifacts were collected. More recently, a few scattered test digs were carried out in 1964 by the local chapter of the Mississippi Archaeological Association, under the supervision of the Mississippi State Department of Archives and History. These excavations were placed at the base of Mound A and on the northwestern edge of the site, and according to the participants were unrewarded by noteworthy results.

In 1939, largely through the efforts of the Greenville Garden Club, clubs and individuals of the city of Greenville contributed the money necessary to buy 42 acres--about 80 per cent of the site. All of the mounds were acquired except for M-R, U-W and part of S which remained in private hands (M-R being utilized as a plantation headquarters). This property was deeded to the city of Greenville with the stipulation that it would always be maintained as a park. The Greenville Garden Club was given the job of beautification and proper development. In 1960 the park was taken over by the

Mississippi State Park Commission. The park area was augmented in 1965 by the acquisition of two acres which included Mounds R and S. Both mounds, however, had been destroyed in 1964, as also were N-P in the headquarters area of the neighboring plantation. Under the State's administration recreational and educational facilities have been constructed, including a museum on the western edge of the site. Most important of all, however, is a continuing program of mound stabilization and restoration, which hopefully will conserve what is still one of the best preserved of the large aboriginal mound sites.

#### IV. THE EXCAVATIONS

##### Introduction

By the summer of 1967, the "Winterville Mounds" had been fully commissioned as a state park, and the niceties of government operation were being observed. The mounds had been cleared of most trees and the grounds were being mowed regularly by the resident Park Ranger. Thus, very little clearing was required in preparation for the excavations: usually, it was only necessary to strip the grass cover in the immediate vicinity.

The purpose of the excavation was to discover what happened at Winterville, when, and how. Because of the sheer size of the site a comprehensive reconstruction of all events was not possible, but it was expected that a systematic exploration of selected locations would provide the data for a general historical and cultural reconstruction. It was therefore decided that the best tactical approach would be to test as many of the mounds and other areas of cultural activity as possible. Since this plan called for a series of widely spaced excavations to test locations selected according to the kind of information sought, a more versatile system of control was required than the usual "grid" layout of the entire site.

The first step was to establish a datum--the primary reference point from which all vertical and horizontal

measurements were to be taken--and that was done near the present museum on the western edge of the site. While this may seem to be an odd location for the datum point, it was necessitated by major ongoing construction projects relating to the "restoration" of the mounds and the grading of walkways within the site proper. The location chosen had already been converted into parkland and no further modifications were contemplated. The datum was permanently marked with a two foot iron pipe. (As additional insurance against the possible loss of this reference point, two more permanent pipes were also set at other locations on the site: see Fig. 2 and App. II for the precise location of these permanent markers.) While all other points and locations to be described below were fixed to this datum, it must be noted that the datum itself was an arbitrarily selected point which was not tied into any other established system--the closest USGS primary bench mark "Lyles" was more than two line-of-sight miles away. Thus, the exact elevation of the datum above sea level was not known either. However, the site is located between the 130 and 135 foot contour lines on the Mississippi River Commission "Refuge" Quadrangle, and considering its prominence above the surrounding terrain, 135' was taken as the mean elevation of the ground surface, exclusive of the mounds. Therefore, 135' was the elevation arbitrarily assigned to the datum.

From the datum, a base line was run due east (magnetic) toward the great central mound; an extension of

this line further to the east to completely transect the site required a dogleg to the north around that mound. Secondary lines were run to the northern and southern ends of the site from points on the base line. The accuracy of the lines was controlled with the aid of an engineer's transit. All measurements--and to be consistent this was true throughout the excavations--were metric because the surveying equipment was so calibrated (although note that the contour intervals on the site map are in feet, as originally drawn by Spaulding). Distances and elevations along these lines were marked by stakes set in the vicinity of possible excavation locations. Thus, whenever a new location was opened up, it was a simple matter of running a line in from the nearest reference stake to lay out the excavation and tie it into the system. This method allowed the greatest amount of latitude in carrying out the plan of excavation, and at the same time ensured tight horizontal and vertical control.<sup>1</sup>

As already mentioned, the objective of the excavation plan was to conduct as comprehensive a test of Winterville as was possible in a limited investigation. Because the scarcity of occupational evidence on the flat surrounding the mounds indicated that the site functioned primarily as a ceremonial center, the mounds themselves, the most

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<sup>1</sup>All horizontal and vertical (elevations) measurements which are in reference to the datum are given in meters. Depths below ground surface at the individual excavations are given in centimeters.



striking feature and presumed focal point of activity, were accorded the most attention. Therefore, of 28 distinct units of excavation, 23 were placed in nine of the mounds, and five in other earthworks, between the mounds, or in the plaza.

The excavations were grouped in eight locations, numbered I-VIII (Fig. 2), where answers to particular problems were sought. The amount of field work at each location varied from a single excavation unit to a series of such units, sometimes disconnected. The usual procedure was to start with a single unit and then to add more if necessary to follow out a particular feature, or to clarify the stratification. In some locations, however, more than a single excavation was initially planned. In such cases, they were placed far enough apart to recover the maximum amount of information from the location, but close enough together so that a high degree of correlation in the results could be expected.

The standard excavation unit was a 2 x 2 meter pit, although 1 x 2 meter pits, profiles, and a trench were also cut. Each unit was located with reference to the coordinates of the nearest survey stake (usually coinciding with the northeast corner of a pit) and identified by a number between 1 and 100. Contiguous units were assigned sequential numbers, but the group of units in each location was distinguished from other local groups by at least several digits, the practice being to assign one or more

decades to each location.

The pits or other excavation units varied in depth according to the thickness of the cultural deposit, although in extended excavations they were only as deep as was immediately useful. With a single exception, at least one pit in each location was carried all the way down to sterile subsoil. The initial pit in a location was dug in arbitrary levels--usually of 25 cm.--however, these levels were often subdivided in an effort to follow observed stratification and segregate the cultural contents. Where additional contiguous pits were dug in the same location every attempt was made to dig natural levels according to the stratification revealed in the initial excavation, unless such layers were especially thick or it was desirable to follow precedent for analytic purposes. Each level was identified by a letter of the alphabet starting with "A" and following sequentially from the top down; sublevels were distinguished by subscripts.

Although the excavations were conducted over a period of one year (July 1967-June 1968), the actual time expended in the field approximated six months. A hired crew averaging three men provided the nucleus for the field work and was sometimes supplemented with voluntary labor. All excavation was accomplished by hand with shovels or smaller implements and was carefully supervised. All excavated dirt was screened through one-half inch wire mesh, unless otherwise stated.

Location I: Mounds B and S

This location was the first to be opened up for excavation and it eventually received more attention than any other. It was chosen for three reasons. First, it was the only part of the site to have a significant amount of cultural material on the surface. Second, human teeth and bone fragments were discovered on the eastern corner of Mound B during a preliminary site survey, and there were also local reports of burials having been turned up in the vicinity of Mound S. Finally, the earliest plans of the site (Squier 1860:161; Hough 1880; see Fig. 4) indicate the presence of causeways interconnecting many of the mounds, the most extensive of which appears to start at B and connect S, R, Q and perhaps P. Therefore, the third reason was to check the accuracy of what were often overly imaginative reconstructions, and, if these causeways had some basis in fact, to gather constructional information.

Just before it was acquired by the park a couple of years ago, a two-acre section on the southern end of the site, which included Mounds R and S, was leveled. Mound R was completely destroyed, but Mound S had been bisected by the old property line so that part of it was spared. The ready-made profile was tempting, as were the reports of burials uncovered during the leveling, so operations commenced at this spot at the end of July 1967.

## Profile and Pit 1

Description and coordinates. The first objective was to cut a clean vertical profile near the center of the mound remnant to clear away the dirt which had sloughed down since the original cutting. This profile was six meters long and one meter in depth from the highest remaining point on the mound surface (elevation: +1.91 m.). The precise location of the profile is difficult to fix because it followed the original cut, which had followed the property line, which, in turn, was not oriented to a cardinal point but ran on a line  $10^{\circ}$  east of north, west of south. The closest reference stake (S 190, E 123; el. +1.91 m.) was 1.55 meters northwest of the northern terminus of the profile, and what was to become the northwest corner of Pit 1.

Stratification (Fig. 5). The profile revealed the following stratification: humus, midden layer, occupational level and constructional fill. The first 20 cm., including the top of the midden layer, had been disturbed some time in the past, evidently through cultivation; the humus had been deposited since then. The midden layer was a homogeneous sandy loam, gray-brown in color, and quite rich in cultural content. It was not possible at this point to definitely determine whether this layer was the result of primary or secondary deposition (i.e., whether it represented an occupational level or constructional fill), although later evidence indicated the former. The midden

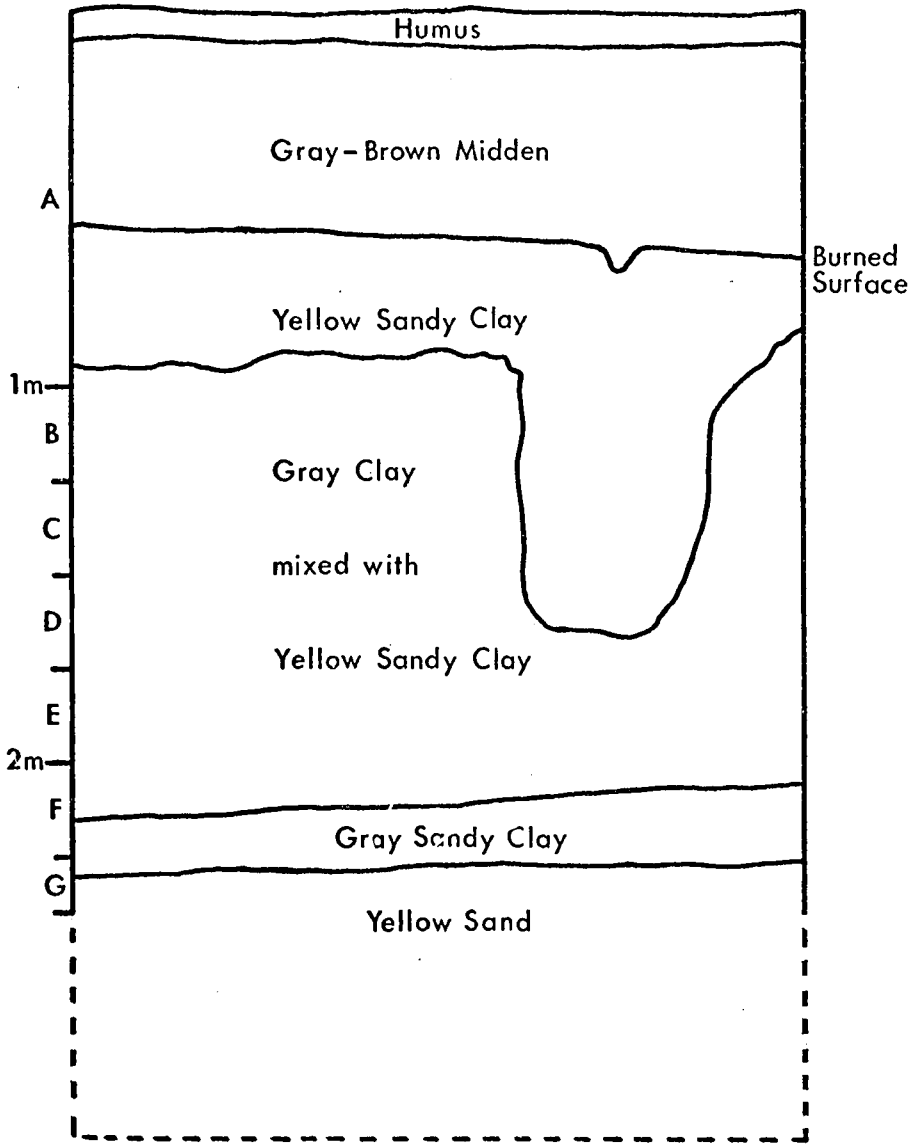


Fig. 5. Location I, Pit 1, west profile.

continued to a depth of approximately 60 cm. and directly overlay an occupational level marked by a burned floor (el.: +1.25 to 1.40 m.). This floor was of hard baked clay with a high sand content, and had no features of its own although it was broken in several places by postholes, wall trenches, and other intrusions from above. The material of which the floor was composed, a relatively unmodified sandy clay with little cultural content, continued to a depth of approximately 90 cm., at which point it was replaced by variegated fill consisting of alternating layers of yellow sandy clay mixed with chunks of pure gray clay. As it appeared that we were coming into sterile mound construction, the profile, as a whole, was stopped at this point, and a 2 x 2 meter pit (1) was set up at the northern end to carry out the test.

Pit 1 confirmed that the variegated sandy clay was constructional fill, which was found to be more than one meter thick. Finally, at a depth of more than 200 cm. (el.: ca. -.20 m.), this fill gave way to a layer of gray sandy clay mottled with charcoal and containing a few potsherds and other materials. Between elevation -.35 and -.40 m. this layer shaded into what appeared to be sterile yellow alluvial sand. To be certain that subsoil had been reached, a posthole was sunk down another 75 cm. and brought up only more of the same sand, though with increasing clay content.

Interpretation. The stratification of Profile and

Pit 1 clearly demarcated three distinct stages of human activity. On top of the natural levee deposits of the Channel 2 Mississippi there was evidence of a preliminary occupation. The fact that there was not very much cultural content, however, suggests that the occupation was small, brief or both. With little or no break, this was followed by the construction of most of Mound S--the remnant left to us indicates only proportions, not the ultimate size that the mound may have attained. This mound was capped with a layer of sandy clay, and considering the lack of cultural content within it, or on its fired surface, the structure on the summit of the mound must have burned very shortly after its construction or been kept ritually clean. In any case, directly on top of this occupational surface was a thick layer of midden, the top of which has been removed. This midden was determined to be primary deposition and probably represented a lengthy period of late occupation.

#### Pits 5/6

Description and coordinates. In order to test for a causeway, a double pit was put in between Mounds B and S. Spread by the plow, but still prominent, a ridge-like feature connecting these two mounds was clearly visible. However, the question was whether its origin was aboriginal, and if so, what its function might have been.

The coordinates<sup>2</sup> of Pit 5 were S 188, E 115, and those of Pit 6, S 188, E 117; the elevation of both was +1.85 m. These two pits were taken down concurrently for the first six levels, then Pit 5 was stopped, while Pit 6 was carried down another six levels. The levels were originally planned to be an arbitrary 25 cm., but in fact ranged between 15 and 30 cm., according to circumstances.

Stratification (Fig. 6). The stratification was markedly similar to that found in Profile and Pit 1, with two exceptions: first, the overlying midden layer was found to be composed of two distinct deposits differing in color and charcoal content. Second, it would seem that Pit 1 was not carried all the way to sterile subsoil and that the yellow sandy soil was incorrectly identified. It was found again at the bottom of Pit 6, and again it was "sterile," but this time it was mottled with charcoal. We were forced to continue, and at an elevation of -.90 m. another occupational level was reached. This was indicated mainly by a high charcoal content in a relatively pure gray clay matrix, but there were also a few potsherds. Sterile subsoil was reached at an elevation of -1.05 m., and this time was definitely verified by testing with a posthole to a depth of -1.85 m.

Interpretation. There were clearly two early occupational levels, and they were separated by 50 cm. of

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<sup>2</sup>All coordinates are those of the northeastern corner of a pit, unless otherwise indicated.



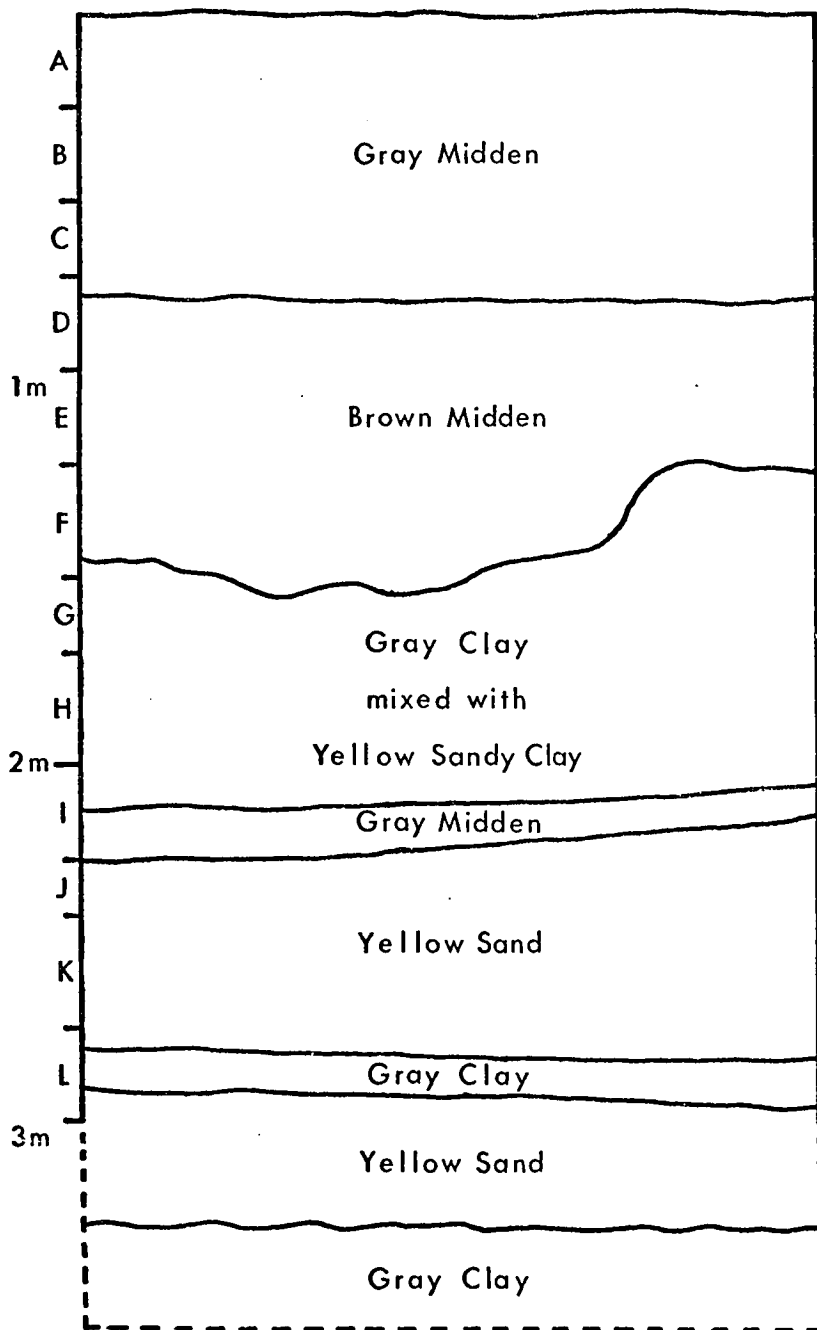


Fig. 6. Location I, Pit 6, south profile.

yellow sandy fill. Immediately following this occupation-- or perhaps part of it, since there was no observable break--was a considerable amount of mound construction, which in turn was capped by a long occupation manifested by a thick layer of what seemed to be primary midden. This midden, however, was unusually homogeneous and lacking in the usual signs of human disturbance. An explanation for the homogeneity may be that this was not an actual site of occupation, but that the nearby mounds were and that it was from them that the refuse was discarded. This situation would also explain the difference in the thickness of the midden layer supra- as opposed to inter-mound. For, while the stratification in Pits 1 and 5/6 was very similar, and clearly related, there was a significant difference in the proportion of constructional fill to the overlying midden. In both cases, the ratios were almost 2:1, but whereas this favored mound construction in Pit 1, in Pits 5/6 there was considerably more midden. However, there is no question that some sort of earthwork was purposefully constructed here, and that it was constructed at the same time that Mound S was built. Its purpose is not known, although some indication of its function may be provided by the only significant feature in the entire excavation: a shallow wall trench with postholes running east-west, which apparently originated at the break between the two midden layers, and may indicate a wall or some other structure connecting Mounds S and B.

## Pits 11-14

Description and coordinates. This was admittedly a case of going for the goodies. It has already been mentioned that in the preliminary site surveys fragments of human bones and teeth had been found on Mound B. Further search and clearing of the ground cover pinpointed several spots near the base of the eastern corner and along the southeastern side from which these remains seemed to be washing out. A 2 x 4 meter pit (11/12) was then set up so that it included the most promising spot and yet was also on the same east-west line as Pits 5/6 (in order to facilitate the correlation of stratification later). The coordinates for Pit 11 were S 188, E 92 and for Pit 12, S 188, E 90. As the pit was set perpendicularly into the eastern corner of Mound B, there was considerable slope to the ground surface: the highest point was the northwestern corner of Pit 12 (S 188, E 88; el.: +3.31 m.--all measurements of depth were taken from this point) and the lowest the southeastern corner of Pit 11 (S 190, E 92; el.: +1.91 m.), the difference between them being 140 cm. Because of the slope, and since the burial was the principal concern, the initial level of this excavation was an irregular one, being deep at the western end of Pit 12 but only reaching ground level at the eastern side of Pit 11. This procedure provided for a horizontal working surface from which to continue excavation at regular 25 cm. levels, and comparative freedom in isolating

and removing the burial.

Stratification (Fig. 7). In the top level of Pits 11/12 we eventually found four burials and four isolated fragments of human bone (elevation of burials: between +2.71 and +2.20 m.). These had been included in the constructional fill of the mound, which was a very hard, yellow sandy clay with occasional inclusions of pure gray clay. Essentially the same material was found in Mound S beneath the midden, although the surface of it had been heavily burned. That surface can probably be correlated with an unweathered surface, also burned in places, upon which the burials had been laid before the overlying fill had been added. In any case, the same fill continued through the next two 25 cm. levels, and then at the bottom of it a second layer of burials was found (elevation: between +1.56 and +1.30). Because the first of these burials to be uncovered ran south and west out of Pit 12, it was necessary to open up two new pits: 13, a 1 x 2 m. pit to the west of 12, and 14, a 1 x 4 m. pit south of both 12 and 13. In Pit 13 there was only undifferentiated yellow sandy clay until the second layer of burials was reached. In Pit 14, however, more burials belonging to the first layer were discovered before the second layer was uncovered. In both 13 and 14 the same stratification was revealed as in 11/12 and the two layers of burials were definitely confirmed as being distinct events, separated by approximately 50 cm. of mound fill.

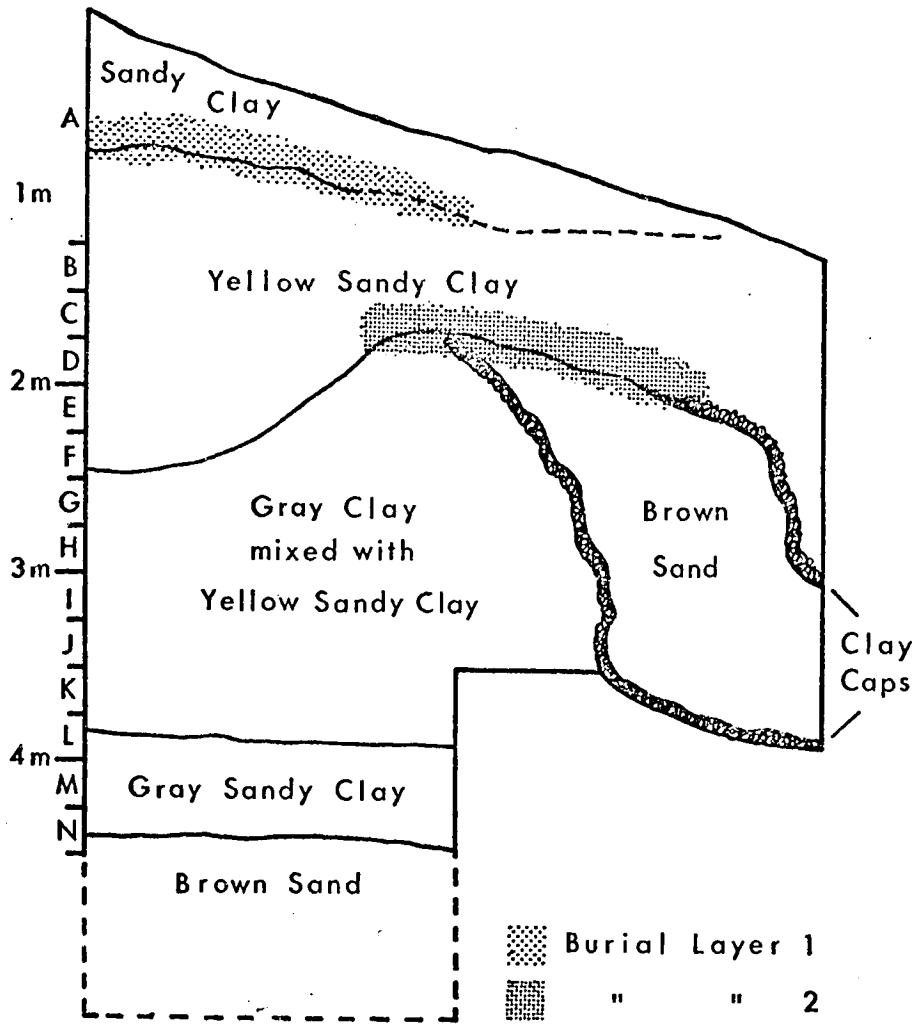


Fig. 7. Location I, Pits 11/12, north profile.

Altogether, sixteen burials were recovered from the two layers. There were six individuals in the upper layer, and their arrangement is shown in Fig. 8. In addition, there were eight other scattered fragments of human bone disassociated from the burials. All of the remains in this layer were in an advanced state of deterioration. The ten burials from the lower layer (Fig. 9) were in a better state of preservation, but even then it was not always possible to age or sex them. All of the burials were placed in constructional layers, although most were associated with old surfaces of the mound; that is, they lay on these surfaces or in shallow graves within them. Half of the individuals were accompanied by grave offerings, but only one of these was from the upper layer (#16). Extended (supine), bundle, and isolated skull were the three favored forms of burial. Of these, the first two were found in both the upper and lower layers, while the third, which was the least common, was confined to the lower layer. The basic data concerning these 24 lots of human remains is presented in Table 2 and described in more detail at the end of this chapter.

Excavation of both Pits 13 and 14 was stopped once the burials were taken out, and efforts were then concentrated upon carrying 11/12 down to subsoil. Ten more 25 cm. levels were dug to a depth of 450 cm. (elevation: -1.19 m.). This dirt was not sifted, owing to the high clay admixture and the low artifactual content which

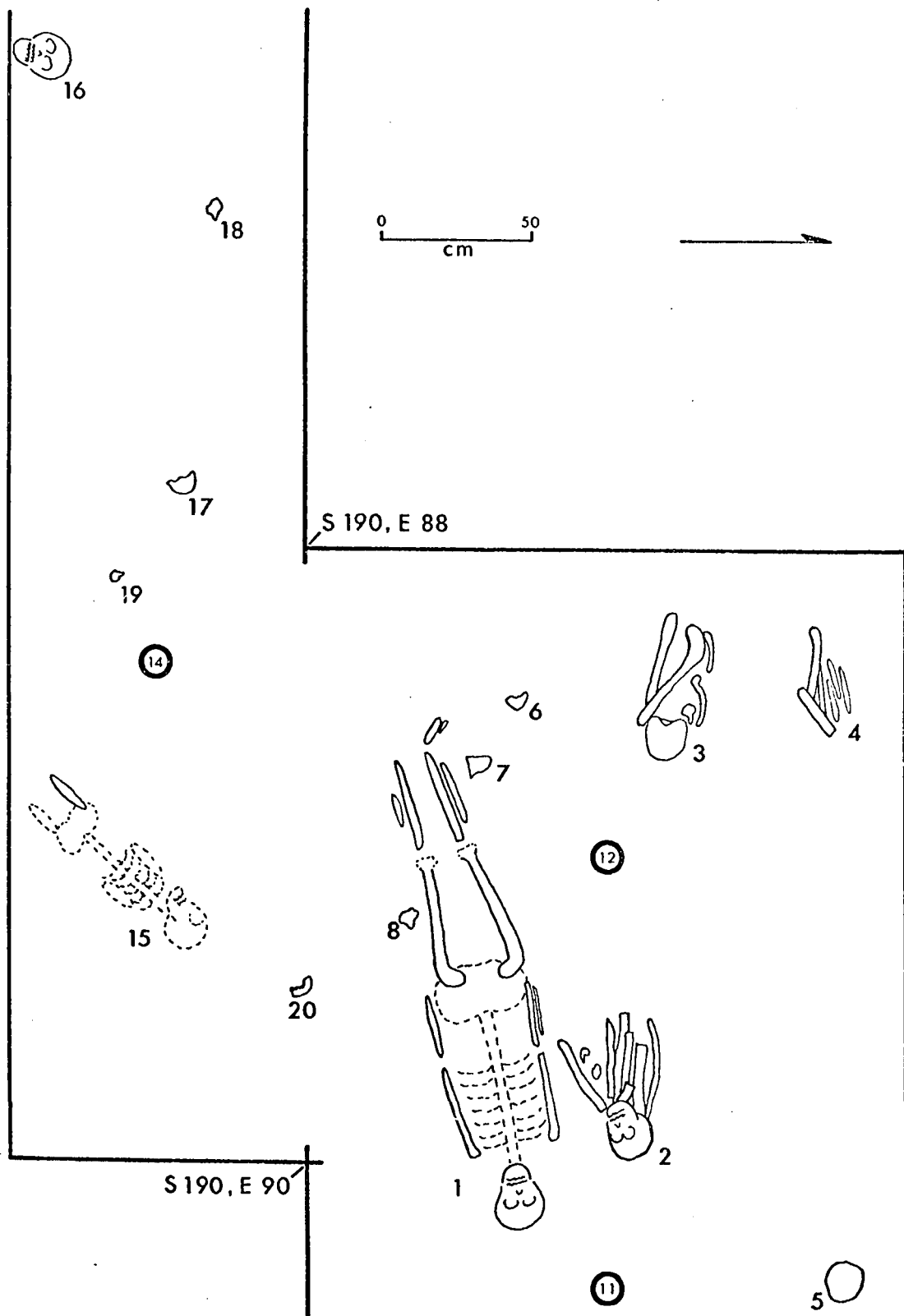


Fig. 8. Location I, Pits 11, 12, 14, Plan of Burial Layer 1. Burials 1-4, 15-16; bone fragments 5-8, 17-20. Elevation between +2.20 and +2.71 m. on sloping mound surface.

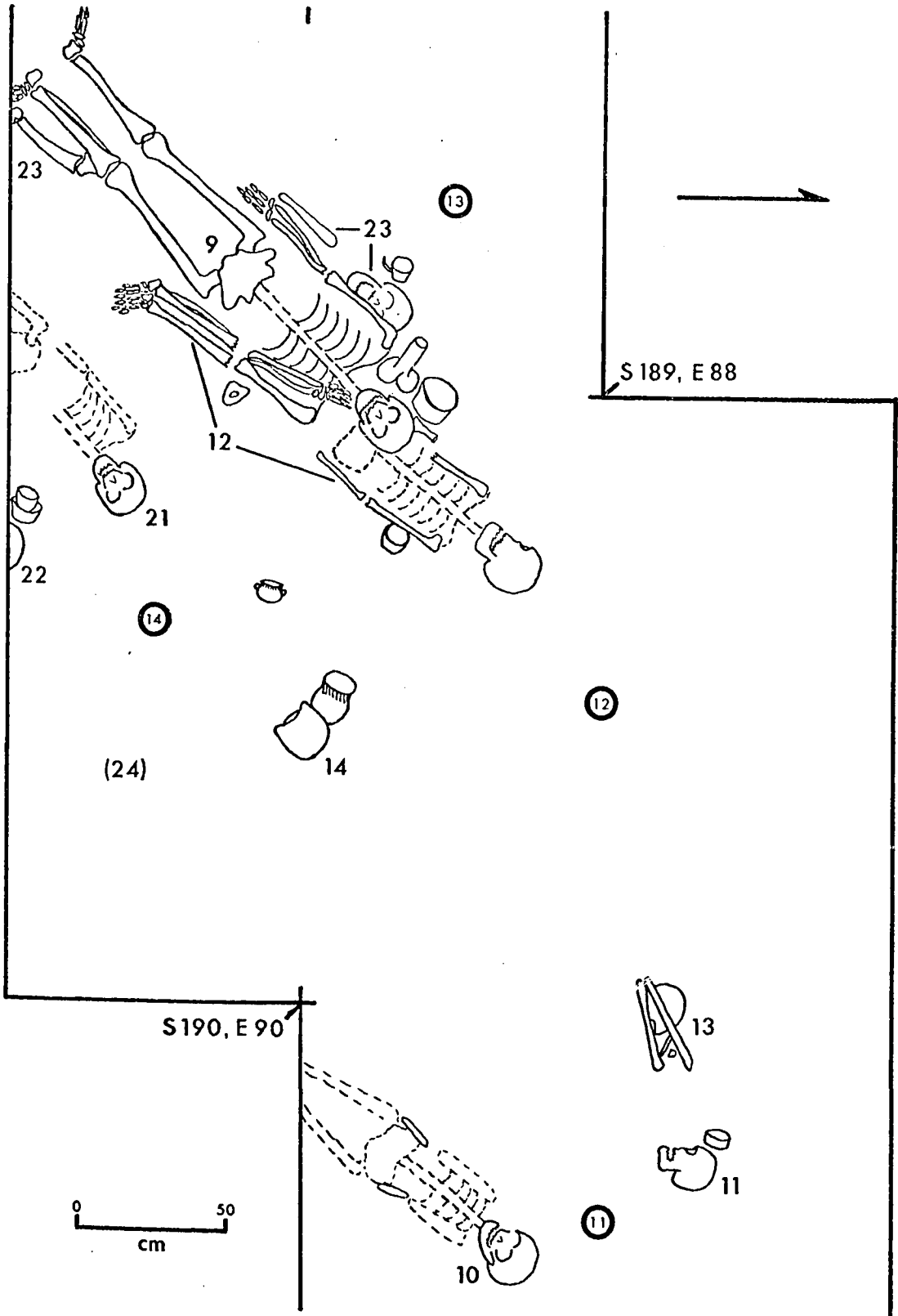


Fig. 9. Location I, Pits 11-14, Plan of Burial Layer 2. Burials 9-14, 21-23. Elevation between +1.30 and +1.56 m.



together did not seem to justify the extra effort.

Beneath the yellow sandy clay was up to 2.20 meters of mixed fill, which predominantly consisted of the same alternating sandy clay and pure clay strata already observed as the principal layer of constructional fill in Pits 1 and 5/6. However, this fill was supplemented by a purer sandy clay in the western part of Pit 12; and in the northeastern part of Pit 11, the mixed fill was replaced by a thick layer of medium grained brown sand (which clearly shows individual basket loads) topped off with a clay cap. Beneath these fills, and at a depth of 390 cm. (el.: -.59 m.), was found the same gray sandy clay layer that had been found in the other pits, except that this time the evidence for human occupation was tentative, at best, being limited to charcoal flecking and a few pieces of shell. This layer continued for 50 cm., but turned darker half way down, indicating higher charcoal content. It was abruptly replaced by sterile, alluvial laid sand by 450 cm. (el.: -1.15 m.). A test posthole indicated that this was definitely sterile subsoil, the grain size of which slowly diminished with depth until at an elevation of -2.05 m. it had changed to nearly pure gray clay.

Interpretation. The same two artifact-bearing, pre-mound layers discerned immediately above subsoil in Pit 6 were present here, despite the absence of pottery, but were not separated by fill. More than ever, these layers appeared to be natural (alluvial) depositions and had only

a suggestion of human activity. It would seem that we were on the edge of any pre-mound occupation. And then, before the surface of the upper layer had had a chance to weather, Mound B was built. Although there is no good evidence of weathered surfaces or old humus lines, the construction was probably not continuous, although most, if not all, of the mound was certainly put up within a relatively brief time. Initially, this consisted of a thick loading of various mixtures of sand and clay. The improbable stratification of this loading clearly indicates that it was a one-time construction: some of the surfaces between different loadings were too near the vertical to have held firm, in spite of the clay caps added. And a close examination of the clay "cap" between the principal fill and the sand fill clearly proves it to have been unweathered, even to the slightest degree, for it still had the sharp angular surfaces such clay has when freshly broken up. This layer was the equivalent of a structural member and not a surface finish. The initial construction, then, amounted to two-thirds of the total mound (if the proportions revealed in Pit 12 are a fair picture of the whole) and consisted of all fill beneath the second, or earlier, layer of burials.

The crucial question is when the earlier burials were put into position, and what their relation was to the stratification. First, it must be pointed out that although the evidence was not conclusive, the clay cap

over the first stage of construction showed no signs of weathering and no humus lines, indicating that it was not exposed for any length of time. This was certainly the case with the correlative surfaces in both Pits 1 and 5/6. Secondly, the burials were laid directly on this surface, or in shallow pits within it, but not below it. And as would be expected, it was quite apparent from their condition that these burials were covered immediately. In other words, there seems to have been no significant time lapse between the completion of Construction Stage 1 and the adding of the overlying yellow sandy clay mantle (Stage 2). As these burials and their funereal accompaniments, then, were sandwiched in between and considered part of a spectacularly brief construction, they will provide excellent information for the dating and cultural association of this burst of activity.

After the sandy clay mantle had been added, there appears to have been a brief pause in mound construction. There was no clay cap to signal the completion of this stage, but there was a distinct surface, often marked by burning, evidence of which could be found along the entire southeastern edge of the mound. After this event, the upper layer of burials was put on the burned surface and covered with a third and final mantle of sandy clay, which was almost identical in composition to the second. The surface of this layer has been destroyed.

The absence of the overlying midden found in Pits 1 and 5/6 may be attributed to one of two causes: either it was removed by natural washing action, which even cut down into the first layer of burials, or even more likely, there simply wasn't any. The latter explanation would be perfectly compatible with the supposition that this mound, the second largest in the group, had especial religious significance and was therefore kept ceremonially clean--all refuse was thrown clear, augmenting the great accumulation found in pits 5/6.

#### Summary of Location I

After a very brief occupation directly on the natural levee of the Stage 2 Mississippi channel, a tremendous amount of mound building activity was manifested. A full 90 per cent of Mounds B and S, as well as part of an inter-connecting earthwork, were completed before individual surfaces had a chance to weather or become littered and disturbed through human occupation. This construction primarily consisted of loading on alternate layers of sandy clay and pure clay; the former had the virtue of being easier to dig, while the latter was the most erosion-resistant material available. On top of this, a mantle of sandy clay was added to both mounds. The mounds then seem to have been occupied, and this occupation probably contributed to the lower layer of midden discovered in Pits 5/6. However long the occupation was, its termination was

signaled by a general conflagration which singed both mounds. Mound B had a final mantle of sandy clay added after this, bringing it to its final form, while Mound S, a domiciliary mound, grew a little more through accretion of refuse. Both mounds then contributed to the upper layer of midden in Pits 5/6.

Location II: Mound D

Mound D was one of the smaller mounds of the domiciliary type. In 1967 it was in a badly deteriorated condition, as a result of both cultivation and depredation. While most of the latter may have been effected by pothunters, C. B. Moore also put in ten of his 6 x 3 x 4 foot "trial-holes." The only result of all this endeavor was "a much-decayed skeleton of an infant...about 2 feet below the surface" (Moore 1908:599; App. I). The selection of the mound for further work was determined, first, by the need for a link between Location I and work planned in other locations on the northern end of the site; second, by the desire for some ceramic stratigraphy in what was expected to be an accretional, or midden, mound; and third, by the surprise of discovering a spot near the present summit which miraculously appeared to have escaped Moore.

Pit 25

Description and coordinates. A standard 2 x 2 meter pit was established with the following coordinates: S 14,

E 84. This was close by the highest remaining point on the mound (S 15, E 85; el.: +2.69 m.) from which all local measurements were taken. After an initial level of 20 cm., this pit was taken down in 10 cm. levels.

Stratification (Fig. 10). Immediately beneath about 15 cm. of plow disturbed midden was a layer of ash, charcoal and baked clay. This refuse directly overlay a fired living floor (at 20-ca. 40 cm.) associated with which were numerous postholes mostly aligned in parallel or perpendicular rows. In subsequent levels, it was clearly revealed that the posts were sited in wall trenches, running NE-SW and NW-SE, and that these joined in forming part of a rectangular structure oriented at a 45° angle to the cardinal points (Fig. 11a). This structure was probably domiciliary, considering the small size of the posts used for wall supports (av. dia. of postholes: 10 cm.). It was deemed a waste of time to try and follow out the wall trenches in order to recover a more complete plan of the structure, as it could not be expected that enough had survived the recent depredations to justify the extra work.

The wall trenches continued to a depth of about 100 cm., and their midden content was quite distinct from the constructional fill into which they intruded. The fill was a layer about 50 cm. thick which consisted of the same basically unmodified sandy clay mixture which has already been recognized as the principal constructional material

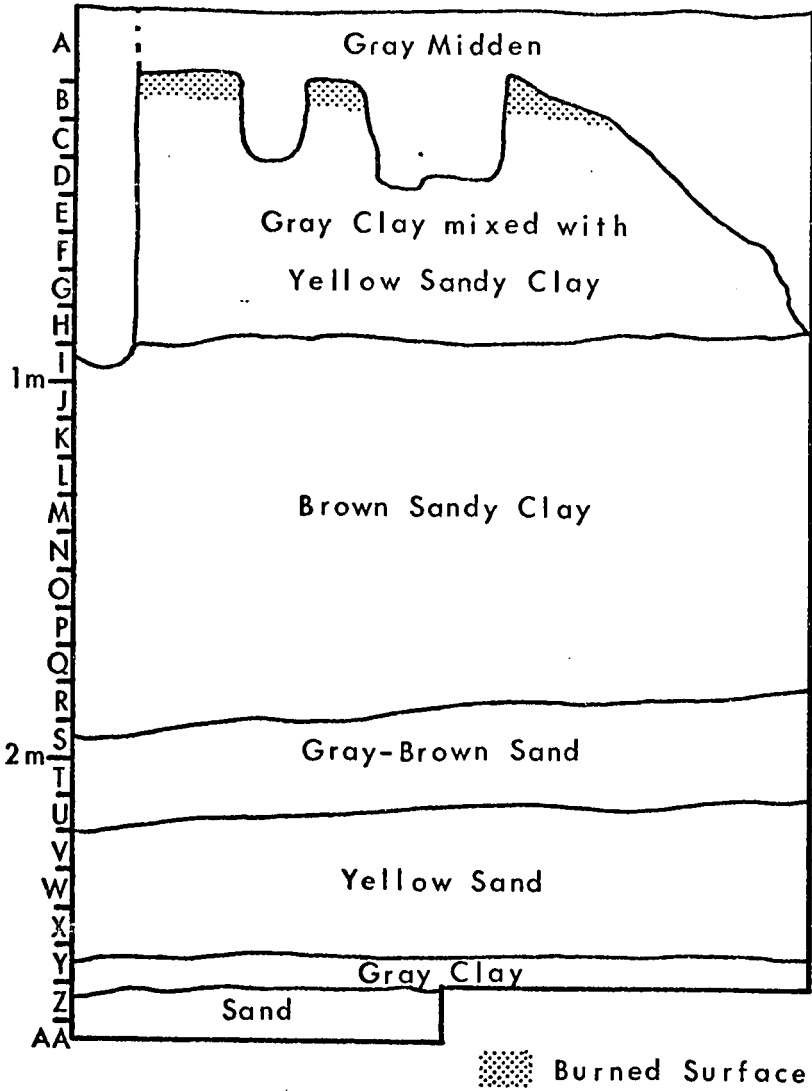
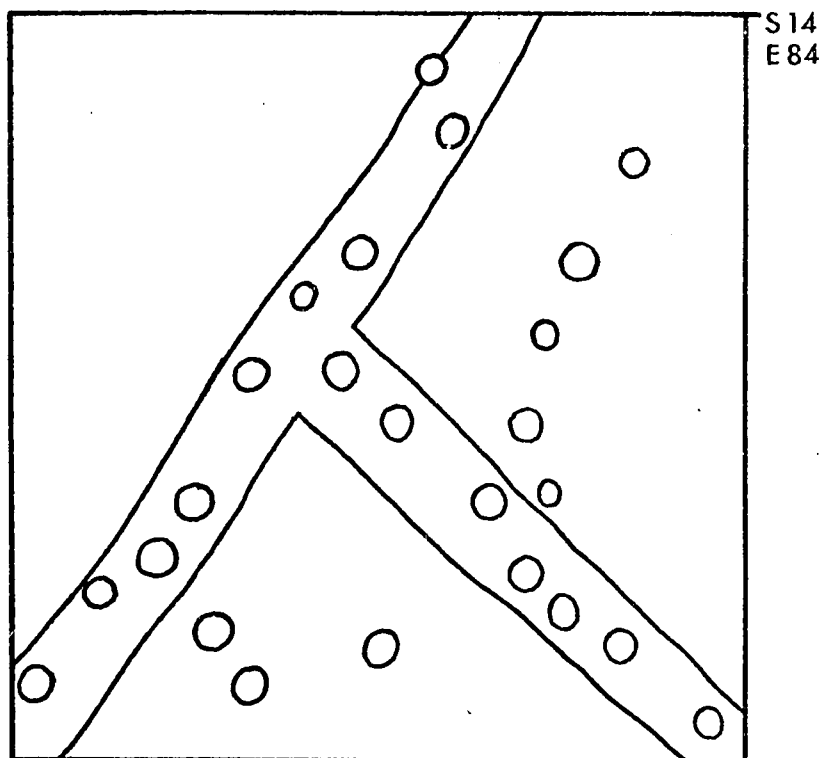
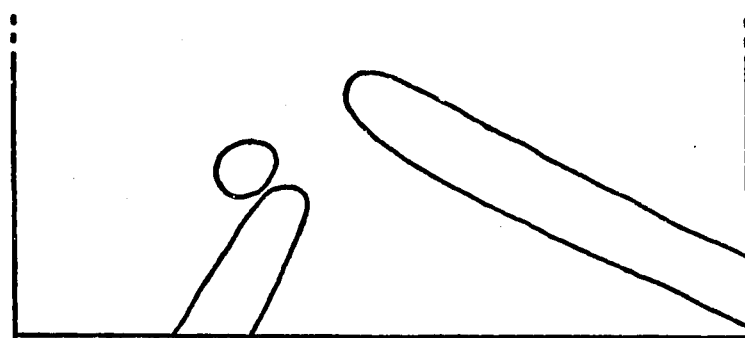


Fig. 10. Location II, Pit 25, south profile.

S14  
E84

a

0 50  
cm

S79  
E375

b

Fig. 11. Locations II and VII. Partial plan of house structures, wall trench and post mold patterns: a, summit of Mound D; b, beneath Mound M.



at the site. (It was also in plentiful supply in the immediate vicinity.) This time it was of a light brown color, and it had a heavy admixture of chunks of gray clay. Then, between a depth of 90 and 100 cm. from the mound surface (el.: ca. +1.65 m.) a new layer of sandy clay fill was reached. This fill was similar to the last, but darker because of increased charcoal mottling, and had fewer inclusions of pure clay. It was a full meter thick and represented a single deposition event. Beneath the fill at a depth of approximately 200 cm. (el.: ca. + 65 m.) was a layer of gray-brown sandy soil averaging 25 cm. thick. Without even charcoal flecking, it did not have the appearance of midden, but of alluvium, and contained many thin lenses of pure white sand which was certainly water-laid. Despite appearances, this layer had twice the cultural content, by level, of the overlying fill and obviously represented the preconstructional surface which had been briefly occupied in the vicinity of Location I. No actual living floor could be ascertained, but four postholes were definitely associated with the surface of this layer. By 220 cm., the soil turned much sandier and lighter in color, and although there was some charcoal mottling, the artifactual content dropped off markedly. It may be presumed that this layer was definitely alluvial in origin and that all potsherds, etc. had been intruded down into it. At approximately 250-260 cm. a thin layer of water-laid gray clay with a slight

sand content was reached, and then at 260-270 cm. (el.: ca. 0 m.) sterile rust-colored sand appeared. Cultural materials were found to a depth of 280 cm., but came from a pit which originated in the pre-mound occupational level. A test posthole put down another 50 cm. to a depth of 330 cm. verified that we were into subsoil.

Interpretation. The bottommost strata were alluvial depositions, the most recent surface of which gave evidence of a brief human occupation. This occupation also disturbed underlying layers and intruded cultural materials into them. On this basis, Mound D was constructed of sandy clay fill in two distinct, but immediately sequent, stages. Capping the fill was an occupational level featuring a structure, probably domiciliary, on the mound summit. The structure was oriented so as to face across the plaza towards the central mound, and towards the bayou in the other direction. This occupation was terminated when the structure burned. Additional occupations are a moot point depending on how the evidence is interpreted. There certainly seemed to be postholes, and perhaps other features, which were intruded through the burned floor from above. However, originating in the top level, these could as easily have been modern as aboriginal. The very top level, itself, could either represent later fill, or occupational refuse, or it may have been composed only of plow-disturbed debris from the underlying burned occupational level. Because of the general disturbance,

it was not possible to reach a conclusion from the stratification, although in the analysis of ceramic stratigraphy we shall find that another, later occupation was indeed indicated. Thus, again, this was essentially the same stratification as revealed in Location I: natural levee deposits, brief pre-mound occupation, mound construction, first post-constructional occupation (terminated by fire), and additional occupations (but little or no evidence of mound construction).

Location III: Mound F

Mound F was almost identical to Mound D, although it was slightly higher and appeared to be in better condition (despite the fact that Moore, op. cit., also put ten "trial-holes" into it, apparently with no noteworthy results). Therefore, it was hoped that information would be gained which would clarify the question raised at Mound D concerning the possible existence and the extent of a late occupation. A second motive for selecting Mound F was to check the amount of intentional mound construction: small domiciliary mounds of this sort are usually thought of as being accretional (i.e., built up by the accumulation of refuse through living in one spot), but this was most definitely not the case in Mounds S or D, which were principally composed of sterile fill that appeared to have been loaded all at one time.

## Pit 35

Description and coordinates. A standard 2 x 2 m. pit was placed on the summit of Mound F and as near to the original center as could be estimated. The coordinates for this pit were N 75, E 163, and the elevation was +3.00 m. It was taken down to subsoil in twelve 25 cm. levels, although one of these was subdivided, making thirteen levels in all.

Stratification (Fig. 12). From the first level it appeared we were not going to get any information on late occupations, as we immediately struck into nearly sterile mound fill. This fill was the usual sandy clay, this time with a heavy admixture of chunks of gray clay, both scattered randomly and in layers. This constructional layer was nearly two meters thick and had no features or other relief except that the clay chunks were concentrated in the upper portion and thinned out towards the bottom.

At a depth of 190-195 cm., however, there was an abrupt transition to a light gray sandy clay which was mottled with charcoal and had a high number of sherds within it. This sandy clay in turn was directly above an occupational level which lay between 200 and 215 cm. in depth (el.: +.85-1.00 m.). While this level did not seem to be an actual living floor, it consisted of very rich midden which had obviously been subjected to a very intense fire before being covered over. Postholes and other associated features indicated that there was

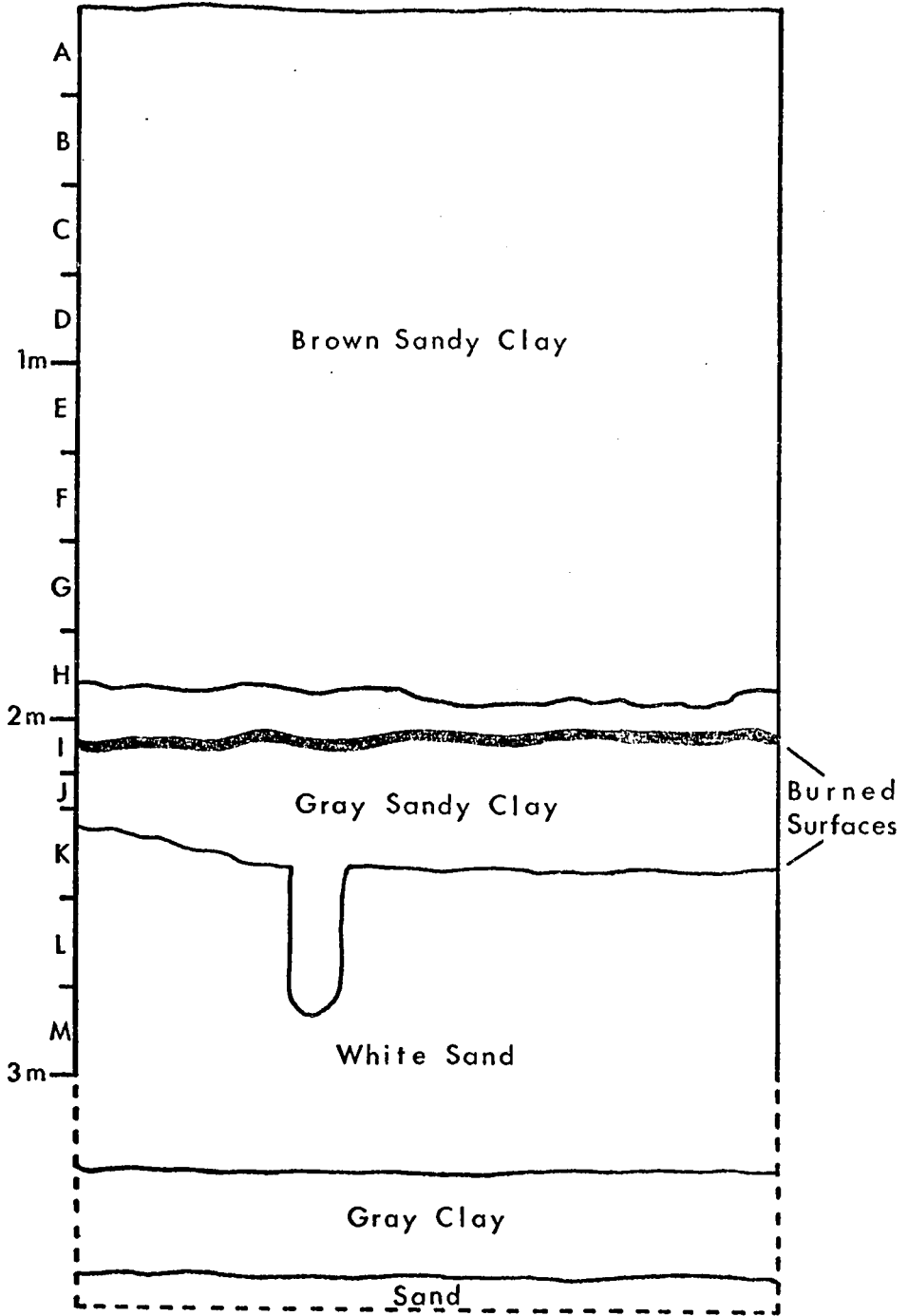


Fig. 12. Location III, Pit 35, west profile.

activity, but not what it was: although four of the postholes were aligned in a wall trench, it could not be determined what kind of structure they belonged to. Beneath this occupation level was found the same gray sandy clay that overlay it, this time in a layer averaging 25 cm. thick. Then, between 225-245 cm. (el.: +.55 to .75 m.) was found a thin strata of burned dirt and charcoal, which was surprisingly rich in potsherds and other materials. The surface of this level was very uneven, and in appearance suggested a series of briefly tended fire pits. Pottery was particularly abundant in areas of high charcoal concentration. This was the earliest occupational level. Underneath was a fine alluvial sand, which at first was grayish and had a little cultural material intruded into it, but by 290 cm. (el.: +.10 m.) it had turned into sterile white sand. The posthole put down to verify that we were in subsoil revealed that this sand continued for another 35 cm. until it was replaced by a layer of pure gray clay (el.: -.25 m.), which was in turn replaced by coarse white sand (el.: -.55 m.).

Interpretation. The first evidence of human activity was an occupational level on the old levee surface. Apparently briefly occupied, this level was covered by a layer of what seems to have been fill, the top of which had a second occupational level. The interesting feature of this occupational level was that it, unlike all other pre-mound levels, bore the marks of a general

conflagration which thus far had been associated only with the first post-mound occupation. (This fact is of great importance, as we shall see in the discussion of stratigraphy.) Above the burned level was a thin layer of fill and then the major construction--a one time loading--which resulted in Mound F. The top of this fill, as well as any post-constructional occupation(s), had been removed through cultivation. Thus, while we achieved our second objective by determining that the mound was largely constructional, it would seem that we failed at the primary objective of learning more about the later occupation(s). Actually, we did far better than we realized; and this mound, which in general stratification compares so closely to Mounds S, B and D, will be found to have a very different stratigraphy (see Chapter VI).

#### Location IV: Mounds G and H

Mounds G and H are medium size mounds: respectively, the seventh and fifth highest in the group. It therefore seemed rather curious that they should have been situated so close to each other (Fig. 2). While it was hoped that an excavation between the two mounds would discover the reason, it was not expected. What was expected, however, was a chance to work on both mounds with one pit: to determine when each mound was built, and their relationship to each other. Expectations are not always realized; and excavations often grow--in this case from one pit to four

pits and a profile.

#### Pits 55 and 56

Description and coordinates. Bridging the brief interval between Mounds G and H was a narrow ridge which was reminiscent of that between Mounds B and S, although on a smaller scale. On the highest part of this ridge, exactly in between Mounds G and H, a standard 2 x 2 m. pit was established. Coordinates were N 166, E 221; elevation: +1.85 m. This pit was designated number 55. Subsequently, a second pit (56) was set up immediately to the south (N 164, E 221). All levels were an arbitrary 25 cm.

Stratification (Fig. 13). Immediately under the topsoil was, for Winterville, an extremely rich midden. This midden was basically a homogeneous brown sandy loam, and it continued undisturbed to a depth of 80 cm. At that depth, there was an abrupt transition to a layer of fired clay fragments (daub), which was 5-10 cm. thick and lay directly on a fired floor. This floor (el.: ca. +1.00 m.) was of very hard baked clay, and except for two postholes was featureless. It seemed we would have to follow it out and uncover more if we were to discover its *raison d'être*. As we were also quite willing to mine some more of the rich midden, Pit 56 was opened up.

As in Pit 55, 56 was topped with the rich brown midden which continued to a depth of approximately 75-80 cm.



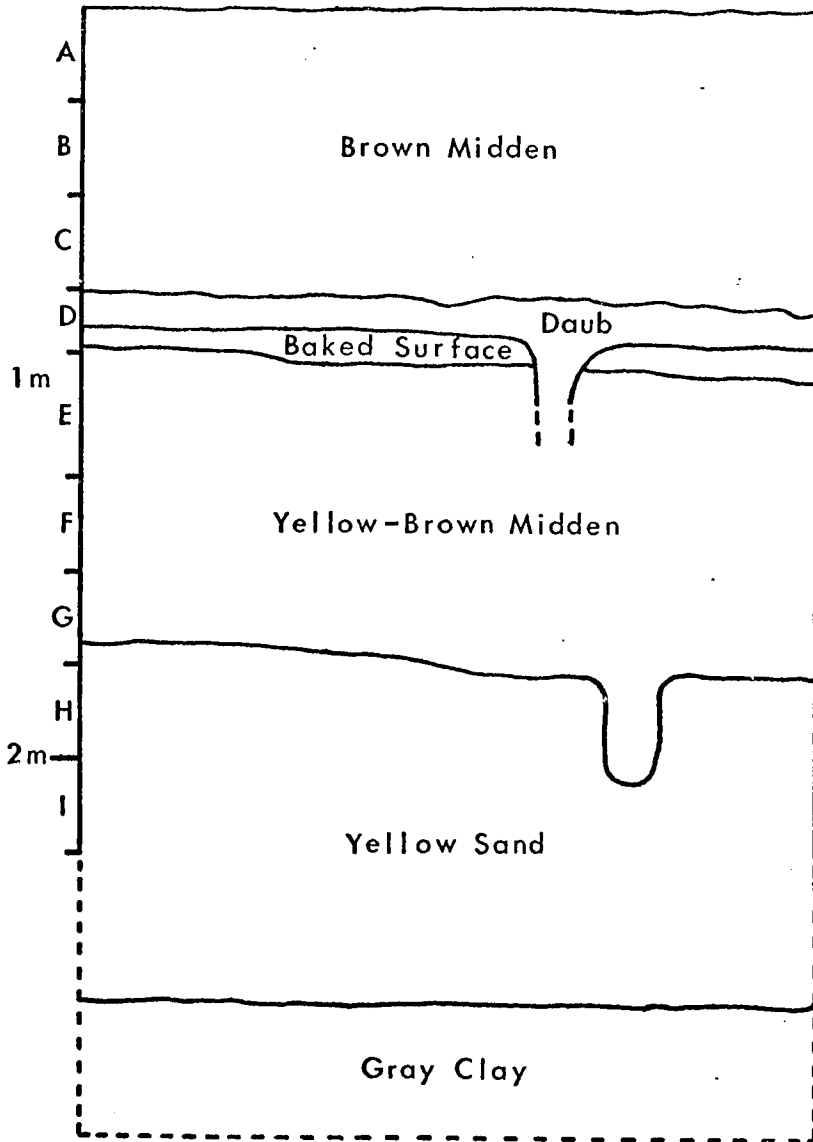


Fig. 13. Location IV, Pit 56, north profile.

However, the burned floor was just barely present. There was no daub layer, and the floor, while clearly evident in the northern profile, simply thinned out and eventually disappeared in the southern part of the pit. Clearly, the floor, or whatever it was, was not a major feature. Therefore, in a change of tactics we decided to forget the floor and carry the pit on down to subsoil.

Beneath the burned floor level was another 75 cm. of midden, which was even richer than that above the floor. This midden was lighter brown because it was sandier and had occasional chunks of gray clay mixed in. Then, at 170-175 cm. a layer of charcoal flecked yellow sand appeared. This sand was essentially sterile, but there were numerous intrusions into it from the overlying midden. By 200 cm. (el.: -.15 m.), this layer had definitely shaded into sterile subsoil. Further testing showed that the yellow sand continued down another 65 cm. at which point it was abruptly replaced by pure gray clay.

Interpretation. Basically, the stratification was very simple. At the bottom was alluvial deposition, the top 20 cm. of which was stained and disturbed by human activity. This activity may have resulted from a brief occupation on the old ground surface as well as later disturbance from overlying strata. Above the sand were over 1 1/2 meters of very rich midden, which, however, was featureless except for a burned occupational level half way up.

These results were interesting, but they did not tell us much about Mounds G and H and their relationship. We had a considerable accumulation of rich, homogeneous midden that was determined to have been primary deposition and which, analagous to Location I, must be considered to have been refuse thrown down from the mound summits. But we could not relate this to any mound stratification. The most obvious feature to use for such correlation was the burned floor. But there was no indication of whether there was an actual structure at this very spot or whether the ground was fired when structures on one or both of the mounds burned and daub from the crumbling walls cascaded down. (The quantity of this daub was quite large--the total aggregate from the single layer in Pit 55 weighed more than 315 pounds.) Even more fundamental, it was not clear whether the floor pre- or postdated the mounds. It was therefore resolved that one of the adjoining mounds had to be tested.

#### Pits 45/46

Description and coordinates. Mound G was chosen for correlative testing, as Mound H was known to have recent graves in it (so recent, in fact, that many local residents still knew about them; see also Moore 1908, p. 598). Furthermore, although Mound G was not as high as H, it was bigger and had more surface area, so that there was a better chance of missing the five "trial-holes" Moore had

allotted to each. Finally, Mound G was one of three oval (originally rectangular?) mounds at the site, and it was hoped that an explanation for the relative popularity of this shape could be found.

Therefore, a double pit, 2 x 4 m. was established on the highest point at the northeastern end of Mound G. As the area of the summit was so restricted, it was not possible to conveniently align a pit of this size with the cardinal directions; and yet a double pit was required for the expected depth of excavation. Therefore, it was necessary to skew the entire excavation 45°: a one-eighth turn counterclockwise, pivoting on the reference stake for Pit 46 (N 159, E 209; el.: +4.07 m.). Pit 45, then, had no fixed reference point, although it could be interpolated, and was located only by its juxtaposition to Pit 46. This confusing situation was compounded by the fact that Pit 45 was subsequently shifted one meter to the northeast, so that it was half in 45 and half in 46 as originally established. Thus, first as a double pit, then as a single pit, this excavation was taken down through the mound to subsoil in eighteen 25 cm. levels.

Stratification (Fig. 14). Mound G had the most complex stratification yet encountered. The top of the mound was covered with rich brown sandy loam midden very similar to that found in the top three levels of Pits 55 and 56. The midden was disturbed, but the nature of the disturbance (and whether it was aboriginal or modern) was

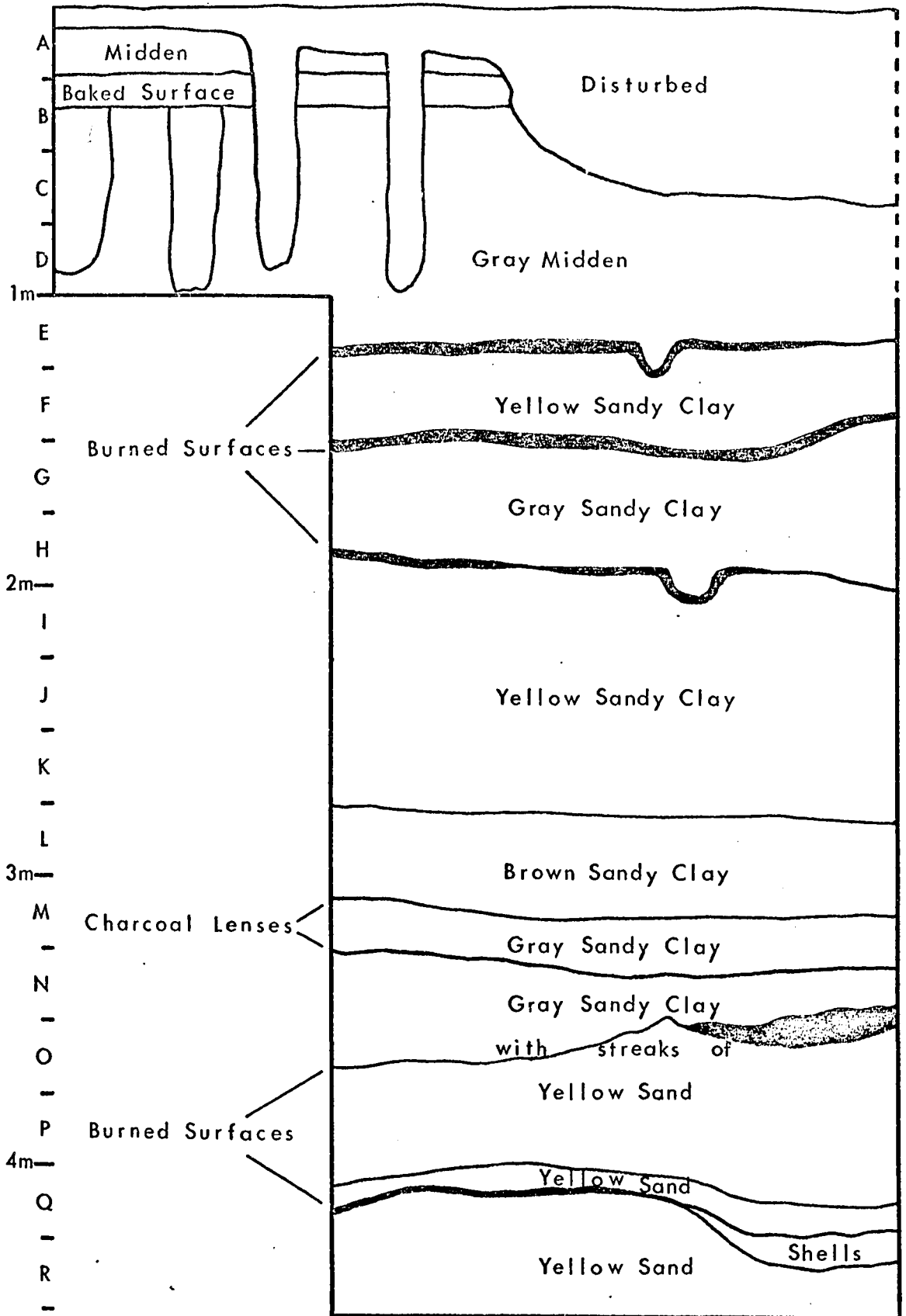


Fig. 14. Location IV, Pit 45, northwest profile.

not immediately apparent. Beneath it there was a section of hard, heavily burned floor in Pit 45, which had been broken or destroyed in places by later intrusions. The floor was not present at all in Pit 46, which, however, was beginning to reveal extensive disturbance from the surface. This floor lay 25-35 cm. deep and below it was another layer of midden. This midden, basically gray sandy clay, was about 80 cm. thick and had a high sand content, like that under the burned floor in Pit 56. However, this midden was obviously secondary deposition, loaded on as constructional fill. In taking this midden fill out, the extent and nature of modern disturbance was fully realized. The profiles of Pit 45 showed a number of postholes intruding down from the surface to as deep as 100 cm., and Pit 46 was found to be almost completely disturbed by one or more large pits. One of the latter, in the northeastern part of Pit 46, was observed to have a suspiciously regular outline, and discreet probing brought up nails and fragments of wood. When more such evidence turned up in the southern corner of Pit 45, it became quite apparent that we were in the middle of a 19th century plantation graveyard. However, it was also apparent that the center of the pit was undisturbed by such hindrances. Therefore, a meter was lopped off each end of the excavation, and the resulting 2 x 2 meter pit, designated 45 only, was carried down to subsoil.

The sandy midden continued down to a depth of 115 cm.

Between 115 and 195 cm. a considerable amount of activity was revealed: within these 80 cm. were three distinct occupational levels separated by sterile fills of sand and clay mixture. The three levels, at depths of 115-120, approximately 150 and 185-195 cm., all showed some evidence of burning and had a few potsherds directly associated. Some kind of structure stood on the highest two levels, and each was burned down before the overlying fill was added. Both structures were indicated by a row of small postholes running SW-NE, the same orientation as the mound itself. The uppermost structure also had a shallow trench parallel to the row of postholes. It was not possible to determine what kind of structures these were, but the parallel construction and orientation would seem to relate them. Although the surface was burned, no features could be identified in the lowest level.

Beneath all this, starting at 190 cm. in depth, and continuing to approximately 400 cm., was major mound construction, within which the following distinctions were pertinent: from 200 to 300 cm. there was only constructional fill consisting of the usual sandy clay with occasional chunks of pure gray clay mixed in. This fill was lighter at the top, but darker towards the bottom. At about 300 cm. and down to 400 cm., there was less clay admixture and more sand, but the color became grayish because of charcoal mottling. Also within this last 100 cm. were elusive lenses of charcoal which had no

particular associated materials or features and apparently only represented temporary fires in the course of construction. However, there was also a more significant layer of charcoal which sloped diagonally across the pit from about 325-365 cm. and was up to 10 cm. thick. A row of medium size postholes set within a wall trench running northwest-southeast was associated. Again, some sort of structure was indicated, but we did not have enough information to determine what kind. Nevertheless, it was probably not a house because of the slope of the ground. Whatever it was, it was unlikely to have stood for long because exactly the same kind of fill was found beneath it as over it.

At approximately 400 cm. (el.: ca. .0 m.), the gray sandy clay fill shaded into a layer of water-laid yellow sand; and directly beneath it was a thin layer of charcoal, which became a layer of charcoal-mottled clay embedded with mussel shells in the northern corner of the pit. This was the earliest evidence of human activity, and by 435 cm. (el.: -.30 m.) sterile yellow sand was reached. A posthole verified that we were in subsoil and showed that the sand continued to a depth of 480 cm. at which point it was replaced by solid gray clay.

Interpretation. A very brief occupation on the old natural levee surface was covered with a layer of sand laid down by alluvial action, which indicates a hiatus of unknown duration. Upon this base Mound G was built. In



spite of four definite occupational levels and two charcoal lenses, it appears that nearly four meters of constructional fill were loaded on within a relatively brief span of time. The brevity of the occupations was implied by three facts: First, the lack of sherds and other refuse associated with the burned layers; second, the fact that the lowest layer was covered with the same kind of fill that lay beneath it; and third, that the top two, and possibly three, layers appeared to have identical structures associated, indicating a continuity of purpose. The conclusion, then, was that these burned surfaces were brief, temporally insignificant pauses in what was one major construction project. Only after an elevation of +3.75 meters had been attained, was there evidence of an important occupational level. Although it was not possible to determine the nature of this occupation, it was intense enough to leave a considerable accumulation of artifactual remains, and the burning of what must have been a major structure generated such terrific heat that the surface was fired to a depth of 10 cm. After the rubble had been cleared, there was at least one later occupation, most evidence of which has since been destroyed.

Although it was not revealed in the excavations, the contours of Mound G suggest that the oval shape was due to the construction of a second mound adjacent to, and overlapping, an earlier mound. Our excavations were in this addition, the function of which is unknown although

it served to narrow the gap between Mounds G and H.

#### Profile and Test Holes, Mound H

Mound H was not extensively tested by us, because, as already noted, it was known to contain recent graves. However, two one-meter deep postholes were put into the top of the mound. These brought up only homogeneous light brown sandy clay which was sterile and even lacked charcoal flecking. The top occupational layers were obviously gone and only underlying constructional fill was left.

The extent of this fill was indicated when a second opportunity for investigating the mound was presented. In the summer of 1967, a bulldozer nicked the northwestern edge of the mound in clearing the right-of-way for a fence, and in so doing cut about a one-meter high profile near the base. The elevation of this profile was between approximately +2.50 and + 3.50 meters, which was below the bottom of the holes put into the summit. Again, only constructional fill was revealed: basket loaded sand, surmounted by the same light brown sandy clay found at the top, but with inclusions of chunks of pure gray clay. In the upper fill was one localized area of burned dirt without associations. Otherwise, as was the case at the summit, there was no charcoal mottling. Both fills were completely sterile and not even a sherd was turned up. It would therefore seem from this limited evidence that Mound H was also largely constructional--that is, composed

principally of sterile mound fills--which suggests that it, too, may have been built within a relatively brief period.

#### Summary of Location IV

On top of a brief occupation on the old ground surface, Mounds G and H were built within a brief period of time, and perhaps contemporaneously. However, it is likely that the extension of Mound G was added later. The last preserved occupational level on the summit of this extension may be correlated with the burned floor in Pits 55 and 56, and the layer of daub in Pit 55 could represent the clearing of the collapsed walls from the structure on the top of the mound, thus accounting for the absence there of such rubble. The midden below the burned level in Pit 56 was refuse discarded by the occupants on the mound up to the time of the conflagration. The midden above the burned level in Pits 55 and 56 was refuse from the last occupation on the mound(s), evidence of which was mostly destroyed at the summit of Mound G and seems to have been entirely removed from Mound H. Thus, we finally gathered some information about the latest occupation at the site; and judging by the depth of the midden this was as intense as the preceding occupation, although it did not manifest any constructional activity.

#### Location V: Mound K

To gain further information about the latest

occupations at the site and their relationship to each other, it was decided that the summit of one of the larger mounds should be extensively tested. Such an excavation was also desirable, considering the nature of the site, in order to uncover the remains of a temple or other ceremonial structure. For these purposes one of the larger mounds had to be selected: one, moreover, which was still in fairly good condition and touched only lightly by man and weather. The choice, therefore, was narrowed to the five largest (and these were the best preserved) mounds: A, B, H, K and L. H was out because of the recent burials. Mound A was unsuitable because it had been the target of most depredations and had been unpityingly pitted. Furthermore, Mound A was at that time in the process of being restored, and this restoration included the loading of several feet of protective dirt on the summit plateau: overburden which would have unproductively claimed extra labor. Mound L, like G, was badly eroded and it was doubtful that much of the original surface was left. Thus, it had to be either Mound B or Mound K. The Mound B location had already been tested by us. Moreover, Moore had also worked over the summit plateau of Mound B by placing nine "trial-holes" thereon. On the other hand, the plateau of Mound K had twice the surface area, but had received only half the attention from Moore (five trial-holes), and was therefore probably better preserved. Finally, of all the mounds, K had the most daub--burned wall

fragments--on the surface, which suggested it was well suited for our second objective.

#### Pits 70-76, Trench 65

Description and coordinates. Careful probing beneath the surface of the summit plateau indicated a burned floor at a depth of approximately 75-100 cm. It could be felt over a considerable area and seemed to be covered by a layer of daub. A double pit (75/76) was placed in what appeared to be an undisturbed spot, and directly over where the floor was determined to be especially firm. The coordinates for these pits were N 122, E 417 and N 122, E 419 respectively. As the excavations were expanded, five additional pits (70-74) were added (Fig. 15): two along the N 122 line (E 413, E 415) and three along the N 124 (E 413, E 415, E 417). Trench 65 was a 1 x 16 m. trench running between N 123 and N 124, from E 411 west to E 395. The average elevation of these excavations was +5.75 meters.

Stratification (Fig. 16). Pits 75/76 were taken down concurrently in 25 cm. levels. The first several levels were composed of very rich grayish brown midden. There were indications of burned areas and possible occupation levels at many points, but due to great disturbance it was not possible to isolate these phenomena as individual living floors; in fact, it was not even certain whether these areas were aboriginal, or whether they were

redepositions as the result of recent disturbances. While later occupational levels were to be expected, it is significant to note that the best evidence for them came from that part of Pit 76 which was subsequently proven to be the most disturbed. Whatever the determinations of such levels, there was no question but that the midden itself was basically a primary deposition: that is, it was accretional refuse and not constructional fill.

Beneath the midden, and at a depth of approximately 75 cm., a layer of pure daub was found in all but the southern and eastern portions of Pit 76, where major disturbance was clearly evident. This daub was covered by a thin (1-2 cm.) layer of wood ash, proving that it represented the collapsed wall of a structure which stood and burned in that exact location. As the top of the layer of daub actually varied in depth from 67 to 95 cm., it was decided that arbitrary levels should give way to natural levels. Thus, all overlying midden was removed until the daub was everywhere exposed in Pit 75 and the undisturbed portion of Pit 76. More than 412 pounds of this daub was then taken up, and directly beneath was a fine hard-baked floor at a depth of 84-98 cm. (el: ca. +4.75 to +4.90 m.). Although obviously a living floor and integral part of the structure which had burned, there was disappointingly little artifactual material associated with it. There was one whole pot that had been crushed by the falling wall (and re-fired so that the pieces warped), and part of a

large bowl, but otherwise there was very little to be found. Features associated with the floor consisted of four large hollow postholes (two bracketing the crushed pot, see Fig. 15) and a large pit which had been dug and then filled in again prior to the fire. Four other postholes were later intrusions from above. Also intrusive, but in the disturbed part of Pit 76, were two wall trenches which were perpendicular to each other and formed a corner, thus proving that there was at least one later structure associated with the overlying midden.

At this point, the excavations were expanded in order to follow out the burned floor and to gain as much structural detail as possible about the associated building and its function. First, five new pits (70-74) were opened up immediately to the west and north of Pit 75. These were excavated by natural levels: from the surface to the top of the daub layer, and then the daub layer to the floor. It had been hoped that a later occupational level could be found in the midden layer which would provide for a stratigraphic subdivision, but as none could be discerned the entire midden layer was taken out as one level. Thus, exactly the same stratification prevailed as was observed in Pits 75/76. The dirt from these levels was not sifted in order to expedite the work, but all potsherds and artifacts noticed were saved.

Beneath the layer of daub, the burned floor continued in excellent condition in all pits, although it had been

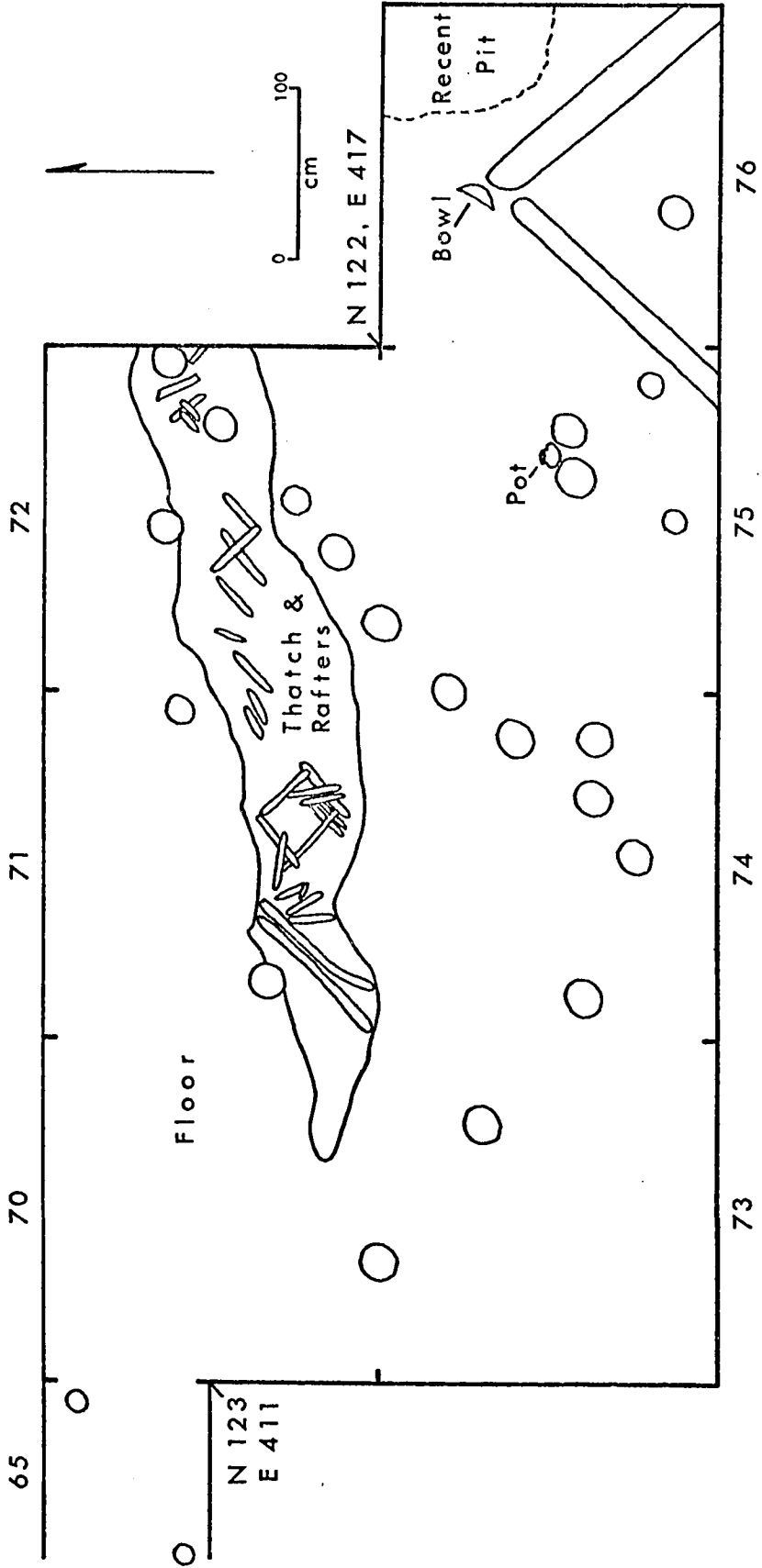


Fig. 15. Location V, Plan of Mound K excavations and burned structure at depth of ca. 90 cm.



disturbed in the southwestern corner of Pit 73. Again, there was very little artifactual material associated directly with the floor itself. The only new features were an extensive layer of burned roof thatch in Pits 71 and 72, a few scattered postholes, and a row of eleven large postholes (average diameter: 20 cm.) which ran on a line northeast to southwest through Pits 72 and 74 (Fig. 15). The fact that these postholes were not hollow but had fill similar to the overlying midden, and that they pierced the daub and thatch layers, indicated that they were not associated with the present floor but were intrusions from a later structure. This conclusion was substantiated by the orientation which paralleled the principal intrusive wall trench in Pit 76.

Having thus far failed to even determine the dimensions of the structure we were working on, it was decided to complete the bisection of the summit plateau by running a one-meter wide trench (designated 65) all the way to the western edge. It was hoped that we would at least find the foundations of one of the walls. The entire trench was excavated in one operation, again without sifting the dirt, down to the burned floor at approximately 120 cm. The greater depth of the floor level was found to be due to a sudden dropping off in the eastern end of the trench. The difference in absolute level beyond this drop-off, and the small amount of daub covering the burned surface, was taken as evidence that

we were largely beyond the floor proper and instead were on the old outside ground surface. Also, postholes at the drop-off point suggested that a wall running roughly north-south may have been placed there. Whether this was the main wall or not will never be known because the situation beyond that point was complicated by a number of disturbances which destroyed large parts of the burned surface and any associated features. These disturbances mostly included postholes and wall trenches which ran northeast-southwest and originated in the overlying midden where two or three later occupational levels were clearly indicated in the profiles. One rectangular pit, however, originated from the surface and was probably the handiwork of C. B. Moore.

Thus, we had found the remains of a well-preserved structure, but did not discover its dimensions or form. However, in terms of effort expended and results achieved, the point had been reached where this secondary line of inquiry had to be subordinated to the primary objective of gaining general information about the latest occupations and their relationships. It was necessary to determine the exact position of this structure in the post-constructional mound stratification. Therefore, attention was shifted back to Pit 75, which was taken down through the floor in order to check the underlying strata.

Immediately beneath the floor was a layer of very heterogeneous fill consisting of midden, burned dirt,

charcoal and daub, under which was a layer of daub and ash that covered another burned floor at 112-116 cm. depth (el.: ca. +4.60 m.). The two floors were quite distinct and did not have any connection, except that there were intrusions down into this earlier floor from the upper--or later--one (Fig. 16). The only new features in the lower floor were several postholes. Again, there was very little associated artifactual material.

But the extent of occupation at this elevation had still not been realized: for under the second floor lay a thin layer of burned dirt and daub, which overlay a third and yet earlier burned floor at a depth of 121-125 cm. (el.: ca. +4.50 m.). This floor was also clearly independent of those above it, although it was disturbed by intrusions from as high as the first floor. It had no new features and few potsherds or other materials. This floor was the earliest post-constructional occupation. Below it was light sandy clay fill which was troubled by intrusions from the overlying occupational levels to a depth of a little over 175 cm. At a depth of about 190 cm. was a thin lense of charcoal. This charcoal was not significant in itself, but coincident with it at approximately 200 cm. was a change to a different mixed sandy clay fill which had many intrusions into it originating at or just below the level of the charcoal. Among these intrusions was a wall trench with twelve postholes (av. dia.: 10 cm.), which ran northeast-southwest. This was the earliest

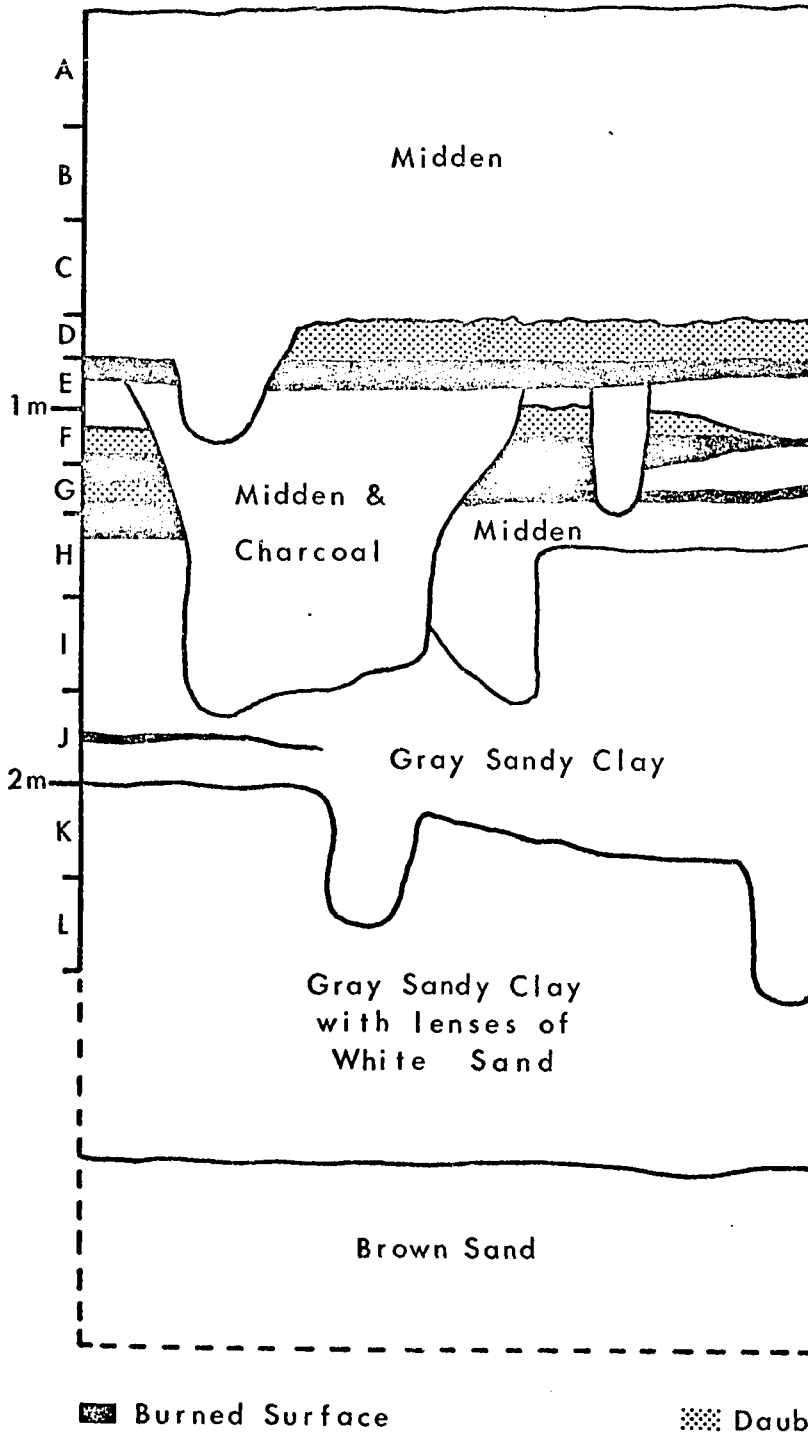


Fig. 16. Location V, Pit 75, south profile.

occupational level encountered in the excavation, and it may be correlated with the levels in the upper fill of Mound G below the heavily burned floor. Beneath it the fill continued for a meter to approximately 300 cm. when it changed to light brown sand. The latter gave evidence of burning at a depth of 340-350 cm., but there was no indication of whether this was an occupational level or not. This last meter was not excavated but was tested by a posthole. We could go no deeper with a 2 x 2 meter pit.

Interpretation. Although we did not go to the bottom of Mound K, the general impression was of a situation comparable to Mound G; that is, that there was a considerable amount of mound building, which may have included very temporary occupations along the way, but that the principal occupations were restricted to the very upper levels. The exact number of late post-constructional occupational levels was not determined, but there was certainly an intensive occupation associated with the three burned floors. The extensive excavation devoted to the uppermost of these failed to discover the dimensions or size of the associated building, but did gather valuable structural details about the floor, walls and roof (which will be described in a later section). We do not know whether the building itself was ceremonial or secular, but the lack of associated artifactual materials suggests that it may have been ceremonially cleansed before being ritually fired. Certainly, there was no evidence of an

accidental fire. Above these floors was very rich primary midden, which was much disturbed and included at least two or three later burned levels. This late occupation was significant in that it added to the mound through living accretions, although there seems to have been no purposeful mound construction.

Location VI: Mound L

Being one of the higher mounds, Mound L had been considered previously for excavation, but had been passed over because of its poor state of preservation. Moreover, at that time we were interested in an excavation at the summit, and Moore confesses that the plateau "was fairly well covered by the seven trial-holes allotted to it" (Moore 1908:598). However, there was another feature of Mound L which warranted investigation: on the northern end was a "toe" which reached out towards Mound K (Fig. 2). The question was whether this extension was aboriginal or recent, and if the former whether it was part of the mound or a remnant of a causeway between Mounds K and L. It was also hoped that an excavation in this location would produce more information about the last occupation, as the other two locations around the northern plaza had done.

Pits 85 and 86

Description and coordinates. A 2 x 2 m. pit was set up on the toe near the base of Mound L and designated 85.

However, in the very first level was found a bovine victim of the 1927 flood (according to informants this mound was one of two stock refuges during that catastrophe). The disturbance was extensive, so operations were shifted 2 m. east and 2 m. south, and a new pit was opened up. This pit (86) had coordinates of N 48, E 398 and a mean elevation of +1.10 m. It was taken down to subsoil in nine 25 cm. levels, many of which, however, were subdivided along strata lines.

Stratification (Fig. 17). The top level consisted of rich gray-brown midden which had been so disturbed through cultivation that it was thoroughly mixed, and it was impossible to ascertain whether it was primary deposition or wash from the mound. Just below the plow zone--where the plow had not already destroyed it--was a heavily burned occupational level (el.: +.85 m.). This layer consisted of burned dirt, charcoal and ashes, and had a large number of potsherds and other artifacts associated, but no special features. This burned level seems to have capped a layer of gray-brown midden which was not homogeneous like that above, but was quite variegated and included areas of relatively pure gray clay and light brown sand. And then, at a depth of 50-75 cm., this midden faded into sterile light brown sandy fill. This fill had many intrusions down into it from the overlying midden, but there were no other features. Beneath the fill, between 80-120 cm. deep, was a sloping occupational level

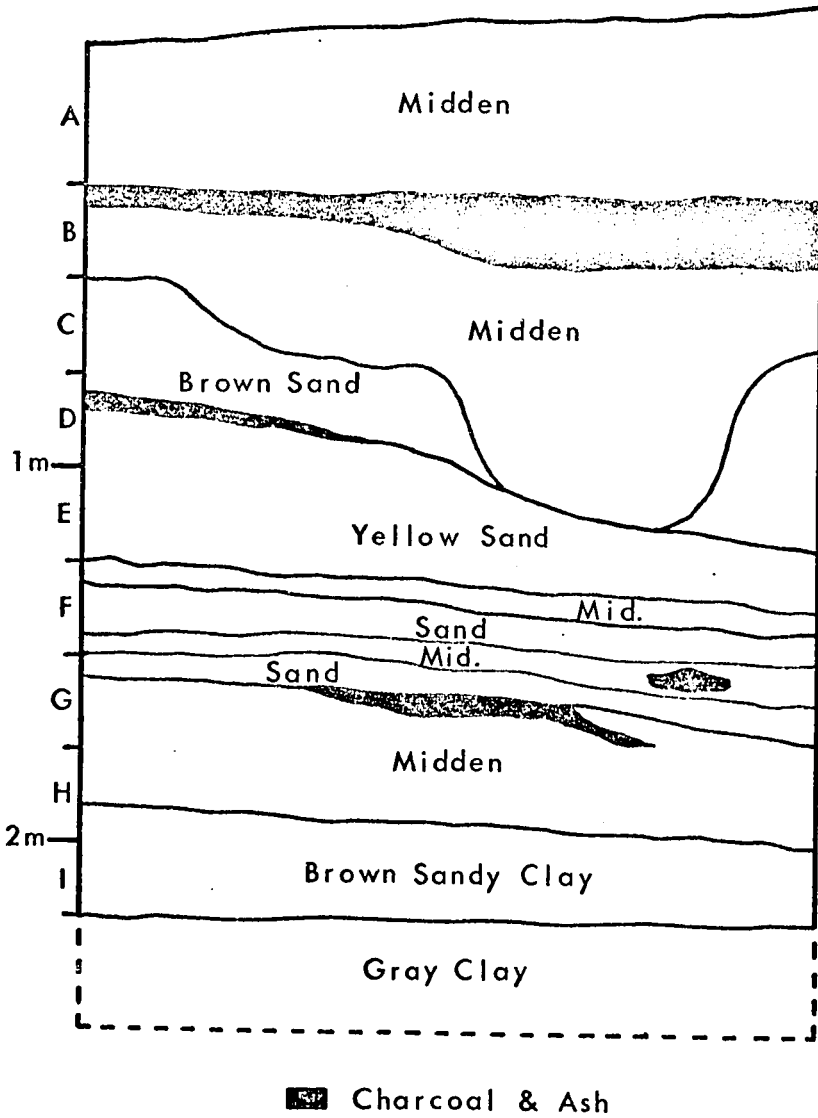


Fig. 17. Location VI, Pit 86, south profile.



indicated by a second layer of charcoal and ash and a rich concentration of potsherds. This level capped another layer of sandy fill into which intruded two east-west wall trenches, with postholes, that originated in the gray-brown midden associated with the first occupational level.

At 125-135 cm. (el.: ca. -.20 m.) the yellow sand fill was replaced by gray sandy clay midden, the surface of which was burned. This was the top of what then appeared to be a rather intensive occupation consisting of alternating layers of midden and sterile light gray sand fill: each of three distinct layers of midden had a burned surface or considerable charcoal and ash content and was separated from the others by a layer of fill. The bottommost layer of midden was approximately 30 cm. thick (which was about the same as the overlying four layers of midden and fill combined), was slightly different in having higher clay content, and extended to a depth of 200 cm. Underlying it in the western part of the pit was a localized area of burned dirt and charcoal (el.: -1.00 m.). This was the earliest evidence of occupation in this location, as it lay directly on the old sandy clay levee surface. A posthole test verified that subsoil had been reached and that it changed from sandy clay to pure gray clay at a depth of 220 cm.

Interpretation. Unlike other locations, it appeared that the earliest occupation was quite intensive and may have lasted over an extended period of time. The question,

of course, was whether greater time depth was represented here or whether mound construction was comparatively late at this location and these earlier levels actually correlate with mound construction elsewhere. This is a problem which has to be deferred to the discussion of stratigraphy<sup>3</sup>. It should be noted at this point, however, that above these levels there is clear evidence of mound construction even though the pit was not located on the mound proper. In fact, there were two distinct layers of fill, and each was surmounted by an occupational level. While the earlier of these may have been relatively brief since there was not much midden associated with it, the upper occupation seems to have been the major event it was at other locations in the post-constructional situation. It, too, bore evidence of termination by an intense fire. After this, the story is not clear due to disturbance, but it is probable that the top layer of midden represented a later occupation and was deposited either by human action (refuse thrown from the mound) or natural (erosion).

Thus, it was not possible to add any significant information concerning the latest occupations at the site. Nor did we determine the function of the "toe," but we can say that it was purposely built, that it was aboriginal and that it was an integral part of Mound L, participatory to the activities carried out thereon.

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<sup>3</sup>Actually, stratigraphy will prove that only the lowest midden is pre-mound. The four overlying midden and fill strata are tailings from Mound L; and the toe was the product of the last two mantles.

Location VII: Mound M

There were indications in the Mound L excavation that the pre-mound occupation may have been quite intensive. While evidence of this occupation had been found in all other locations where the excavations had gone deep enough, the impression was that it had been relatively brief; or-- as at Location I--if there were more to it, then we were just on the fringe of it. There were undeniable artifactual remains, but these seemed to be included in a clay strata in which there were no clearly distinguishable occupational levels or signs of activity (the only structure that could possibly have been associated, at the bottom of Mound F, will be shown to have had different relationships). It seemed logical, then, to check out the possibility of a principal locus--if such existed--for a pre-mound occupation in the area between Locations I and VI (Fig. 2). This objective also had the virtue of rounding out the testing of the site.

The area in question comprised that portion of the site still in private hands and being used as a plantation headquarters. As already noted, the destruction which had been wrought upon the mounds in this area was great. Of the six original mounds, four (N, O, P and R) had been destroyed within the past few years, one provided the foundation for an implement shed, and only one had survived and was accessible, although about a third of it had been cut away and the remainder was under cultivation.

This latter was Mound M and its excavation was done for salvage as much as for the other reasons given above.

#### Profile and Pit 95

Description and coordinates. As soon as permission had been received to excavate, the profile on the side which had been destroyed was cleared and a section about 3 meters long and 2 meters high was cut (approximate coordinates: S 79, E 374.5 to S 79.5, E 377.5). The stratification revealed was clear and from the surface down revealed the following succession: midden, burned occupational level, two layers of fill and a second burned occupational level. It was hoped that this simple guide could be used for digging Mound M by natural levels, and therefore a 2 x 2 m. pit (95) was established nearby (S 77, E 377) on the highest remaining point of the mound (el.: +1.75 m.). However, it soon became apparent that the stratification was far more complex than had been indicated in the profile. In order to maintain adequate control, natural levels had to be abandoned in favor of arbitrary 25 cm. levels, which were then subdivided along strata lines.

Stratification (Fig. 18). As had often been the situation in other locations, the top layer of the mound was composed of very rich gray-brown midden. Because of the disturbance caused by the plow, it was not immediately apparent whether this midden was primary or secondary

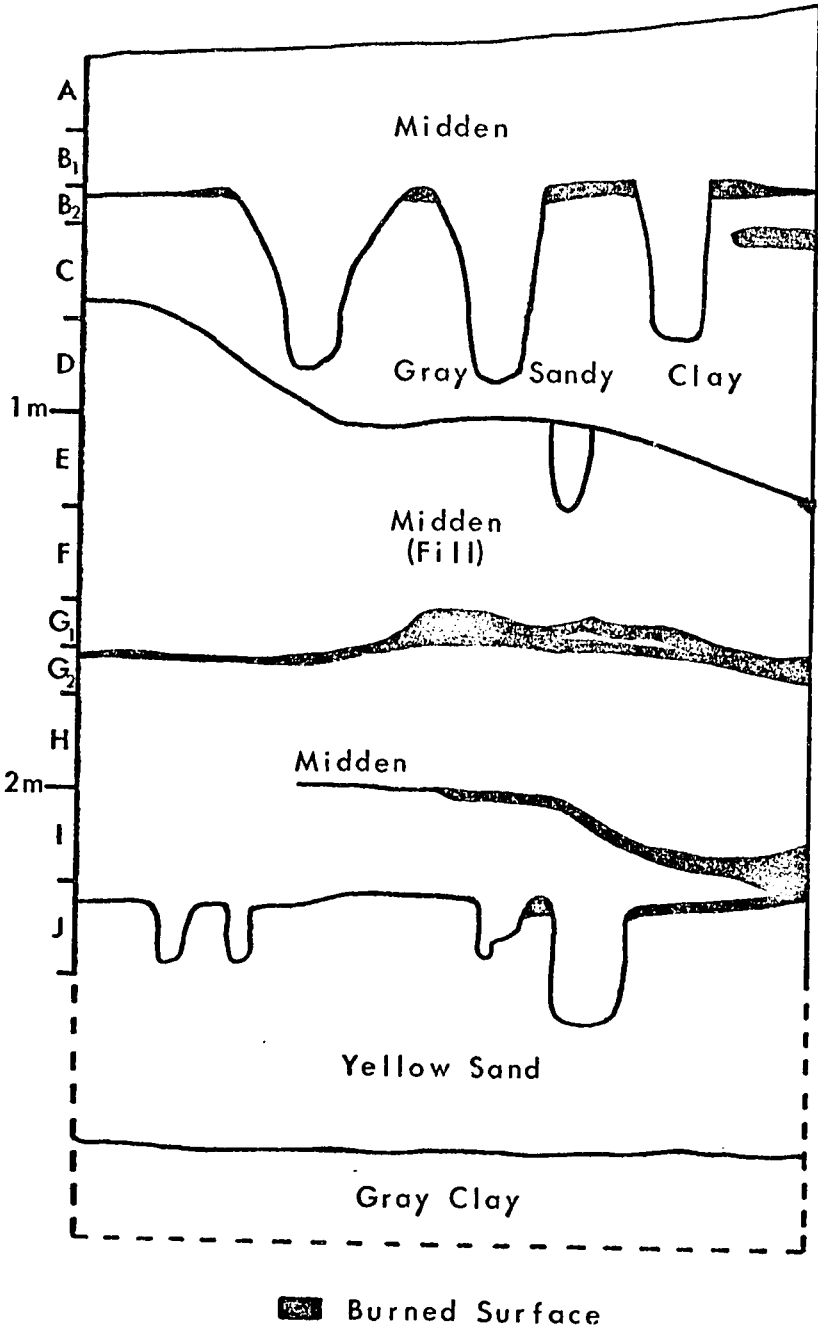


Fig. 18. Location VII, Pit 95, south profile.

deposition, but the many intrusions found in subsequent levels clearly indicated that it was primary. Beneath it, at a depth of 25-42 cm. (el.: ca. +1.50 m.), was a burned floor which was covered by daub, indicating the remains of a house or other structure. This floor had been hard-baked, but was cut through in many places by intrusions from above. These intrusions included four parallel wall trenches, with fourteen postholes, running northeast-southwest. The burned floor capped--and was of the same material, being altered only physically by firing--a layer of sterile gray sandy clay fill which included scattered chunks of pure clay. The intrusions into this from the overlying gray midden continued to a depth of 90-95 cm.

In the southeastern corner of the pit, a new layer of gray-brown midden replaced the sterile fill at approximately 75 cm., gradually expanded with depth until it was found throughout the pit at 135 cm., and continued as the matrix all the way down to subsoil; it remained basically unchanged throughout except for differential charcoal mottling according to associations, and increasing sand content towards the bottom. Within this were three occupational levels. The first was on the sloping surface between 75-135 cm. and was indicated by a wall trench with a double row of postholes on a northeast-southwest line. The second level was a heavily burned layer which lay on an undulating surface between 145-170 cm., and probably represented the remains of a house, as there were

burned logs and thatch lying on the "floor." Also associated with this floor were bone artifacts, including an antler flaker, and a large number of chert cobbles, which suggests that this may have been a workshop. The third, and earliest, occupation level was a thick, but localized, layer of charcoal and ash between approximately 200-225 cm. (el.: -.25 to -.50 m.). This layer was very rich and had a number of features associated, including two wall trenches which met at right angles, but did not touch, forming an open corner of a structure oriented two points east of north (Fig. 11b). This occupation lay directly on sterile subsoil, which consisted of yellow sand levee deposits found everywhere throughout the pit at 230 cm. (el.: -.55 m.). The wall trenches, however, intruded to a depth of 260 cm. Posthole tests revealed that the sand continued down to 295 cm. (el.: -1.20 m.) where it was replaced by pure gray clay.

Interpretation. At last there was good evidence for the earliest occupation at the site. Here were actual living floors: not one, but two levels with associated house structures, which may be assigned to this occupation. Furthermore, the layer of what seems to have been primary midden deposition between these two levels is indicative of continuity and suggests that there was some temporal depth to the occupation. Originally, then, this mound seems to have been a small domiciliary mound of the accretional type. What happened after that is open to

conjecture: there may have been further occupation, but the impression is that the overlying midden was fill--perhaps scraped up from the vicinity of the mound--the surface of which may have been briefly occupied. In any case, there is no question but that the final form of the mound was then achieved by loading on a thick mantle of sterile constructional fill. An occupation followed and, as at other locations, was terminated by a general conflagration. A final layer of midden above this, testifies to a still later occupation, the associated living floor(s) of which has been destroyed.

Location VIII: North Plaza

In the final days of field work, the north and south plazas were extensively tested to a depth of one meter or more with a posthole digger. The objectives were to determine the level of the old levee surface, the level of the plaza when the site was occupied, and the amount of alluvial deposition since then. The results were quite unsatisfactory: in all but one of the twenty-odd scattered holes, the fill was an undifferentiated brown sandy clay which was sterile and obviously alluvial deposition. As all the holes went below the level that subsoil was reached in the nearest excavation, it was assumed that the information sought had been destroyed by cultivation, or else that the plazas had been kept so clean that there was no clear demarcation between the pre- and post-occupational



alluvial deposits. In any case, with one exception, not a sherd was brought up, or even a significant amount of charcoal, which seemed to support the concept of the sterile, or "ceremonially cleansed" plaza. Therefore, it was quite a surprise when several sherds were brought up from a hole sunk into that part of the north plaza bordered by Mounds A, K and L. The location of the test hole was far enough away from the mounds so that it was unlikely we had hit eroded wash from them. There had to be another explanation: possibly, this was more evidence of a pre-mound occupation.

#### Pit 100

Description and coordinates. Because of the limitations imposed by time and money, only a small 1 x 2 m. pit was established. This pit, designated 100, extended 1 meter west and 2 meters south from reference stake N 74, E 375. The elevation was +.11 m. at the stake.

Stratification (Fig. 19). The plow zone was 25 cm. deep and nearly sterile. But beneath it was a layer of rich dark brown midden, 25-30 cm. thick. That this midden was primary deposition was indicated by the fact that while the layer itself lay no deeper than 60 cm., potsherds were found intruded down to 80 cm. in what was otherwise sterile sandy subsoil. The latter was verified with a posthole to the depth of 175 cm.

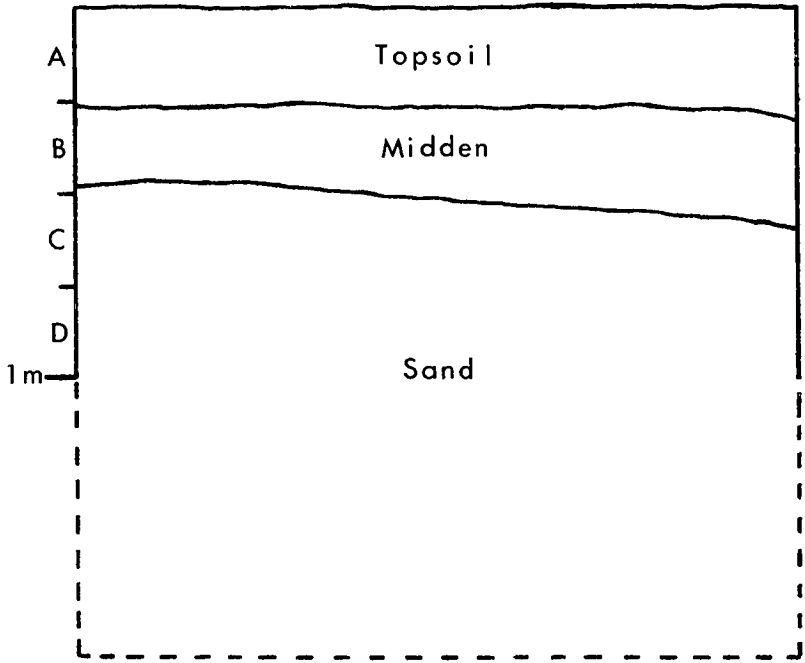


Fig. 19. Location VIII, Pit 100, west profile.

Interpretation. Clearly, an occupation of some sort in this location was indicated. The question of whether it predated the creation of the ceremonial plaza, or was part of it, must be considered under the discussion of stratigraphy. (See Chapter VI.)

### Description of Features

Features differ from artifacts in that they may never be removed from the excavations in their entirety. The complete phenomena must be observed and studied in situ, although it is often possible to remove parts of it for further study. Three categories of features were observed at Winterville: earthworks, architecture, and burials.

#### Earthworks

Two kinds of earthworks may be distinguished at Winterville: mounds and causeways.

The existence of different kinds of mounds in North American prehistory has been recognized at least since the categorization of Squier and Davis (1848). A basic subdivision into burial and temple mounds was well established by the time Ford and Willey (1941) synthesized the prehistory of the eastern United States in terms of mound-type "stages." More recent work has identified a number of varieties, which in the realm of our immediate concern-- "temple mounds"--are recognized as being of three distinct types differentiated according to presumed function and form. These are domiciliary (living) and ceremonial mounds,

the latter being further subdivided into platform and pyramidal (Belmont 1967:31-32). Of these, the two kinds which could be expected at Winterville are the domiciliary and ceremonial-pyramidal. The former is characterized by its usually smaller size and haphazard construction, owing much of its bulk to living accretions rather than to intentional loading. The latter is generally bigger in size and is largely a purposeful construction, although occupational levels may be a significant feature. The more regular outline associated with this kind of mound (and hence the label "pyramidal") is probably an accident of recent history--through sheer size they have more successfully preserved their form from the depredations of modern farming practices, while the smaller mounds have been destroyed or plowed down.

With general criteria like these it is possible to make almost any kind of identification desired to fit the circumstances at hand. But it is significant that even the smallest mound excavated at Winterville gave every evidence of purposeful, planned construction for 90 per cent or more of its bulk, so that whatever functions the various mounds might have fulfilled they are similar structurally and may be considered as a single class. These mounds may be described as artificial constructions, pyramidal and flat-topped in form, composed of dirt and/or occupational refuse, and serving as sub-structural daises.

The only other earthworks observed at Winterville were

the causeways which apparently interconnected several of the mounds. Aside from differences in form and presumed function, the one causeway tested differed significantly from the mounds in structure: it had a much higher percentage of refuse content which was of primary (accretional) deposition, indicative either of occupation on it or on the neighboring mounds. Basically, however, these causeways were purposeful constructions which may be described as artificial linear earthworks serving to interconnect mounds.

### Architecture

The architecture of Winterville exhibits only one kind of building, examples of which differ only in size, probably according to function. This building is of the same general type commonly found throughout the Lower Valley during the late prehistoric period and identified with the spread of Mississippian influence. The smaller buildings at Winterville were probably domiciliary (Fig. 11), while the larger were presumably ceremonial in nature (Fig. 15), although there is no solid evidence other than size and placement to support these conjectures of function.

At two locations (IV and V) detailed structural information concerning individual buildings was recovered. The following description is based upon these two buildings.  
Illustrations: Figs. 11, 15; Pl. 1.

Form: Rectangular. Entranceway was probably in one corner.

Dimensions: Unknown. Not a single reconstructible floor plan was uncovered.

Structural detail:

Foundation. Linear wall trenches were dug for all four sides. Average width for smaller structures was 10-15 cm., and for larger 20-25 cm. Depth was approximately one meter in both cases.

Support. Side wall posts averaged 10 cm. in diameter for the smaller buildings and 20 cm. in diameter for the larger. These posts were set vertically into the wall trenches and placed approximately 15-40 cm. apart. The trenches were then filled in with dirt to the original ground level to secure the posts in an upright position. Central roof supports in the interior of the building were of approximately the same diameter as the wall posts, but they were set into individual postholes rather than trenches. The lengths of these wall and roof posts is not known, so it is not possible to reconstruct the height of the structures.

Wall construction. The wall posts were first interwoven horizontally with split cane 1-2 cm. in diameter (Pl. 1a, b). Occasionally, the cane itself was also interwoven with vertical strips in the interstices between the main posts. This framework was then plastered on both the interior and exterior surfaces with a layer of daub (sandy

clay, usually with a heavy admixture of grass to act as a bonding agent when the clay dried out--when fired by the burning of the structure this material was turned brick hard and orange in color; more than half a ton of such brickbats was recovered from the excavations). The average thickness of the daub layer was 50 mm., but there is evidence to suggest that the exterior layer was usually thicker than the interior one (in some cases, the ratio is 2:1). The exterior surfaces were then scored with a sharp instrument or brushed with sticks and grasses (Pl. 1c) preparatory to applying a finishing coat of mud plaster. The final plastering consisted of pure clay, averaged 2-3 mm. thick, and was fairly well smoothed although not brought to a flat plane (Pl. 1d). Interior surfaces were roughly smoothed and unfinished. The complete wall averaged 200-300 mm. thick on all structures.

Roof construction. Roofs were constructed of a framework of poles which was then covered with a thick layer of grass thatch. The complexity of this construction is evidenced by a section of carbonized roofing from the burned building partly excavated on the summit of Mound K (Fig. 15). The roof of this building consisted of no fewer than five cross-laid layers of rafters, averaging 4 cm. in diameter, which supported four more layers of thatch, each of which was approximately 5 cm. thick and also alternately crosswise. It is probable that these elements were tied together although no evidence was

recovered. Such a roof must have been quite solid and waterproof, and at the same time allowed sufficient egress for smoke from small internal fires.

Floors. Floors were composed of hard packed sandy clay, which usually had a much higher sand content than the clay used for the walls. That these floors were periodically renewed is indicated by the burned building on the summit of Mound K: at least three distinct superimposed layers, each averaging 2-3 cm. thick, can be discerned (Pl. 1e).

Remarks: This general kind of rectangular, wall trench, wattle and daub structure is associated with the spread of Mississippian influence throughout the Southeast. It would be most useful for classificatory purposes to discover if the structural details described above are similarly widespread or whether they are of a local nature only.

It is significant that in terms of form and construction, only one kind of architectural feature was uncovered at Winterville. These buildings seem to differ only in size, which is the single clue as to their functional differentiation: the smaller were probably domiciliary, while the larger may have been ceremonial.

### Burials

Sixteen burials were recovered from the upper levels of Mound B. Most were in a very bad state of preservation and it was difficult to age or sex them. In addition,



eight other fragments of human bone were found and even less information was derived from them. The basic data concerning these 24 distinct lots of human remains is presented in Table 2.

The burials were deposited in two separate layers (Figs. 7, 8, 9), the upper of which had six individuals and the bottom, ten. All were placed in mound fill, although most were associated with old surfaces of the mound; that is, they lay on these surfaces or in shallow pits within them. Half of the burials were accompanied by grave offerings, but only one of these was from the upper layer. Three classes of burials are recognized: extended, bundle and isolated skull. The first two were found in both the upper and lower layers, while the third, which was the least common, was confined to the lower layer.

Extended Burial.

Illustrations: Figs. 8 and 9.

Number of individuals: 10.

Age group and sex: Nine adults (post-adolescent) and one child. Two of the adults could be identified as males and two as females.

Position: The articulated skeleton is extended and laid in a supine position. Arms are usually at the side, but may be in a variety of positions. Skull faces up, or slightly to one side.

Orientation: All are oriented between north and east.

Table 2. Burial Data

No.	Layer		Description					Manner of Interment			Grave Goods			
	1	2	Burial Ext	Bund	skull	Frag-ment	Age Adult	Child	Sex M	F		Pit	Surf	Fill
1	X		X					X					X	
2	X			X				X					X	
3	X			X				X					X	
4	X			X				X					X	
5	X					X		X					X	
6	X					X							X	
7	X					X							X	
8	X					X							X	
9		X	X					X		X	X			X
10		X	X						X		X			
11		X			X				X			X		X
12		X	X					X		X	X			X
13		X		X				X				X		
14		X			X			X				X		X
15		X	X					X				X		
16		X	X					X				X		X
17		X				X		X					X	
18		X				X		X					X	
19		X				X		X				X		
20		X				X		X					X	
21		X	X					X		X		X		
22		X	X					X			X			X
23		X	X					X		X	X			X
(24)		X	X					X					X	X

Table 2 (continued)

Remarks. #1-4 were badly decomposed and impossible to sex. All seem to have been included in mound fill during construction as there was no evidence of prepared surface or grave pit. #1 was complete and articulated, #2-4 seem to be missing a few smaller bones. Funereal offerings may have accompanied #1, but since the skull was at the present ground surface they have been destroyed.

#5-8 were isolated fragments of human bone scattered through the mound fill.

#9 was a well preserved adult male laid into a shallow sand filled pit and lying directly on #23 and #12. #9 and #23 were definitely interred at the same time, but #12 may be earlier and associated by accident. Two pottery vessels (Neeley's Ferry Plain, Pl. 8f, i), a stone palette and abradar, and two bone implements accompanied #9.

#10 was the badly decomposed skeleton of a child which had been laid in a shallow sand filled pit without accompaniments.

#11 was the badly decomposed detached skull of a child (deciduous teeth still in place) laid on old mound surface and accompanied by a small pottery vessel (Chicot Red).

#12 was the fairly well preserved articulated skeleton of an adolescent female which was laid in a sand filled pit and accompanied by a pottery vessel (Addis Plain, Pl. 3d). Possibly interred at the same time as #9 and #23.

#13 was a badly decomposed bundle burial laid on the old mound surface. It was associated with #11.

#14 was a well preserved detached adult skull lying face down on the old mound surface and accompanied by a single pottery vessel (Manchac Incised, Pl. 4g).

#15 was completely decomposed except for the teeth and a fragment of the right humerus. Laid on burned mound surface.

#16 consisted only of a badly crushed and decomposed skull--presumably there was a complete skeleton associated, but this was not determined. The skull lay on an old burned mound surface and one pottery vessel (Holly Bluff Plain, Pl. 7c) was associated.

#17-20 were fragments of adult human skulls scattered through mound fill or lying on old burned surface.

## Table 2 (continued)

#21 was the badly decomposed skeleton--although the skull was in reasonably good condition--of an adult female laid on an old mound surface and apparently disturbed by the interment of #22.

#22 was the well preserved skeleton of an adult laid in a shallow sand filled pit and accompanied by two pottery vessels (Addis Plain and Bethlehem Incised, Pl. 3c, 6m). Interment apparently disturbed #21. This burial was not excavated.

#23 was the well preserved articulated skeleton of an adult male which had been interred in a shallow sand filled pit at the same time as #9, which lay directly on top. Also associated with #12, which lay beside, but these were probably distinct deposition events. The skull was crushed by the weight of #9's right arm. Tibias and fibulas are markedly bowed. Accompanied by two pottery vessels (Addis Plain and Neeley's Ferry Plain, Pl. 3h, 8h).

#24 was the badly disturbed skeleton of an adult which lay beneath #21. A broken pot associated with it was a uniquely decorated vessel of Greenville ware. This burial was not excavated.

Method of interment: Five were inhumed in very shallow pits, three were laid upon an old ground surface and then covered over, and one was included in undifferentiated mound fill. One was too badly disturbed to determine whether it was originally in a prepared pit or not. All are single burials, except for two--and perhaps three--which were interred at the same time in the same pit.

Funereal accompaniments: At least six of the ten extended burials were accompanied by one or two pottery vessels, which were placed by the head or, in one case, by the arm. One of these also had other stone and bone artifacts lying beside the elbow and head.

Remarks: Extended, supine burials, oriented towards the northeast and usually accompanied by grave offerings were the most prevalent form of interment at Winterville. There does not seem to be any differentiation according to age or sex. That some burials were interred in shallow pits while others were laid on the ground surface probably only reflects whether interment was effected during mound construction or in an interval between constructions. This kind of burial is characteristic of the Mississippian cultural tradition, and it is presumed that its practice at Winterville is indicative of northern influence.

#### Bundle Burial.

Illustrations: Figs. 8 and 9.

Number of individuals: 4.

Age group and sex: All adults; sexing was not possible

due to the deteriorated condition of the remains.

Position: The disarticulated (and incomplete) skeleton was tied into a bundle or piled in one spot. There is no observed order to the placement of the bones--they are all jumbled together.

Orientation: The long bones generally seem to follow the east-west axis.

Method of interment: Three of the bundles were included in mound fill, and one seems to have been laid on an old ground surface and then covered over. All are single burials.

Funereal accompaniments: None.

Remarks: This kind of burial is very distinct in arrangement and the absence of accompanying grave goods. Perhaps of even greater significance is the two-stage burial process indicated: disarticulation and inhumation. Disarticulation may have been accomplished immediately after death and preparatory to inhumation or to preliminary repose in a charnel house; or it might represent the gathering up of the bones after a period of exposure (this would more logically account for the missing parts of the skeletons). Inhumation was during mound construction as all are in, or immediately covered by, mound fill and not in specially prepared pits. This may be a Plaquemine form of burial (see Neitzel 1965, Quimby 1957).

#### Isolated Skull Burial.

Illustrations: Fig. 9.

Number of individuals: 2.

Age group and sex: One adult and one young child, sex unknown.

Position: Single, detached skulls were either laid face down or on the side.

Orientation: In both cases, the top of the skull is turned to the north.

Method of interment: The skulls were placed on an old ground surface and then covered with mound fill. These are single burials, although the child may have been associated with a bundle burial.

Funereal accompaniments: A single pottery vessel accompanied both skulls.

Remarks: Although it is possible that these are really minimal bundle burials, they are considered a distinct class, first because the skull alone is present and second because of the accompanying grave goods which are not found with the more complete bundle burials. Note, also, that this kind of burial has been found in late Plaquemine-Natchezan contexts (Neitzel 1965).

Miscellaneous Human Remains. Eight fragments of human bone were found scattered throughout the excavation in the vicinity of--but not directly associated with the sixteen burials. Five of these were pieces of adult skull, and the other three were unidentifiable. As all of these were associated with the upper layer of burials they may have come from some of the disturbed burials in the lower layer.

### Summary of the Excavations

A composite of the stratification observed in the eight excavation locations reveals the following general succession of events at Winterville:

1. Alluvial deposition, consisting of sand from the natural levee of the Channel 2 Mississippi River and clay from silting in of the Channel 1 cut-off.
2. Small occupation on the old natural levee surface, and centering in the eastern portion of the site.
3. Mound (and other earthwork) construction with locally available alluvial dirt sometimes mixed with midden refuse. Infrequent, thin occupational levels may occasionally be incorporated.
4. One or more late occupations on the mound summits manifested by living levels with associated buildings (usually burned), and midden layers on, and at the base of, the mounds; burials were interred at this time.

The correlation of the individual strata between locations, and the determination of continuity or discontinuity in the succession of events within each location, must be deferred to Chapter VI.



## V. THE ARCHAEOLOGICAL COLLECTION

### Classification

As discussed hereinafter, the classification of archaeological remains comprises a series of methods developed to order the empirical data into discrete units suitable for organizational, descriptive or comparative purposes at the procedural levels of presentation, integration and interpretation. Each level of procedure has a specific objective which is achieved through reclassifications of the data into different units of analysis derived according to the criteria determined by the particular objective. Although distinct in form and operation, the resultant classifications at the various levels are closely related and each is prerequisite for that which follows. It is not held that this is a necessarily inherent order, but it is a logical progression in the abstraction of the empirical data which is appropriate for the objectives of the present study.

The objective of the first level of procedure, that of presentation, is to describe the archaeological collection; that is, the artifacts and other cultural remains of the archaeological manifestation. This, of course, presupposes a certain preliminary organization of the empirical data. Thus, the first step is to categorize the data into presentable groupings differentiated by minimal criteria,

usually of form, function or other quality. These groups are the gross categories reflected in the chapter or subchapter headings of an archaeological report. Description of the remains may be accomplished by classification in the restricted sense; that is, the arrangement of the empirical data into classes, the listing of observed characteristics for each class, and the establishment of the range of variation among the characteristics within the imposed criterial limits. It is at this point that the most complete presentation of the archaeological remains is possible, and when the minutiae which may be excluded from further consideration are recorded. These class descriptions (often miscalled "type descriptions") are an important step in the general classificatory process as they provide the basic organization for further analysis and interpretation of the remains.

In the following pages, the descriptions of the artifacts and other remains are subdivided into more specific subcategories in which the various classes are arranged according to convenience and clarity of presentation. The classes are assigned simple descriptive (formal and/or functional) labels, although the greater number of pottery classes requires for this category the use of the binomial system of nomenclature which combines descriptive terms with a modifying praenomen.

Artifacts are physical manifestations of human culture which may be defined as discrete objects that have been

manufactured, or modified from a natural state, by human action. And, just as they were originally portable in nature, they are the kind of empirical data which can be removed from the excavations and taken to the laboratory where they may be subjected to further analysis. Four subcategories are distinguished on the basis of material: pottery, other ceramic artifacts, stone artifacts, bone artifacts.

### Pottery

The pottery is described by its ware and decoration. Ware, and more specifically the attribute of temper, is accorded first consideration in distinguishing classes of pottery. This priority follows precedent in Lower Valley archaeology, where temper is the most consistently sortable feature among potsherds, and therefore the one upon which the basic ceramic subdivisions have been formulated. Therefore, I have adopted the heuristic device of arranging the classes into ten "series," each characterized by a single ware, except for one in which two closely related wares are combined since most classes in this series exhibit both. Within and beyond these series, further distinctions and relationships among the classes are afforded by decorative attributes.

Tchefuncte Series: Lake Borgne Incised

Illustrations: Plate 2a.

Sample: 2 sherds.

Ware: Soft, friable paste with laminated texture of the type called Tchefuncte Plain by Ford et al and Phillips. Surfaces are weathered. The two sherds are from the same vessel which was probably a bowl.

Decoration:

Technique. "Jab and drag" incision with a square ended instrument. As secondary decoration, bosses are raised on rim exteriors by punching them through from inside.

Design. Aside from the ring of bosses around the rim, the principal decoration consists of linear elements on the body of the vessel. While the designs are probably rectilinear, the sherds are too small to reconstruct motifs.

Placement. Bosses on the rim, incised designs on the body.

Remarks: These are the oldest sherds to be recovered from the Winterville excavations, but they have no significance other than that they were accidentally included in mound fill (both came from the same constructional layer in Mound D). To dramatize the disparity in temporal position between these sherds and Winterville, the original vessel was probably made about the time that the Mississippi River flowed where Winterville now stands. Obviously, there were earlier sites in the immediate vicinity which have since been covered by alluvium or destroyed.

References: Ford and Quimby 1945:61-62; Ford et al 1955:70;

Phillips (in press); Phillips et al 1951:72; Thorne and Broyles 1968:56.

Baytown Series: Baytown Plain

Illustrations: Plate 2b-e.

Paste:

Method of manufacture. Generally coiled, but there is evidence of modeling in some of the coarser examples.

There is a wide range of quality in technique.

Tempering. Grit particles ranging from very small in size to large angular pieces 3 mm. or more across the largest dimension.

Texture. The texture is uneven, and while it is usually compact, it may appear to be quite unconsolidated due to coarse temper and improper purification of the clay.

Hardness. The range, from soft to very hard, is far too great to be distinctive, but most specimens are around 3.0.

Color. Ashy gray to black predominate, but a full range of browns is also represented.

Thickness. Five to 11 mm. is the range for body sherds, but bases may be considerably thicker on the coarser specimens. Overall average is 10 mm.

Surface finish: While some sherds are smoothly finished, most are crudely smoothed or unfinished.

Form: Very little information, but bowls and/or beakers are indicated in a sample of 39 rims and one base.

Remarks: These are sherds with clay-grit temper which simply could not be classified as Addis Plain. While Addis may appear to be rather heterogeneous grouping, whatever coherence it may exhibit is due to the fact that really aberrant specimens were set aside, and the aggregate lumped together here. The justification for treating this group as a single class is twofold. First, most of the examples (including the decorated of this ware) were found in constructional fill in a very restricted part of the excavations, and almost certainly belong to an occupation outside of and predating Winterville. Second, while some of the sherds are very reminiscent of Coles Creek pottery (the forerunner of Addis) further to the south, and others the coarser Deasonville (the local Woodland culture) pottery in the central part of the basin, most are intermediate and could be considered marginal examples of either. This situation coincides with what is known of the earlier culture history of the Winterville area: many sites-- including Ely immediately to the south of Winterville-- give evidence of Coles Creek influence upon Deasonville contexts in the latter part of the first millenium A.D. The mixture of traditions resulted in many ceramic hybrids. The sherds here classified Baytown would seem to have originated under just such conditions.

Associated decorative techniques: Incising, stamping, punctating, painting, cord marking and brushing; the first two techniques being more common in the Coles Creek pottery

and the others in the Deasonville (Woodland).

References: Ford 1951:70-74; Greengo 1964:23-35; Phillips (in press); Phillips et al 1951:76; Thorne and Broyles 1968:19-21.

Baytown Series: Withers Fabric Impressed

Illustrations: Plate 2f.

Sample: 1 sherd.

Ware: Baytown, but with a high organic content which gives the texture a distinctive laminated appearance. Surfaces are roughly smoothed. Vessel form unknown, but this sherd probably from a bowl.

Decoration:

Technique. Marking with a textile-wrapped paddle. As the one sherd is badly weathered, it is not possible to make any comments about the quality of the execution except to observe that it seems to have been boldly accomplished and while the clay was still in a very plastic state.

Design. The only decorative effect intended is an overall "texturing" of the surface.

Placement. Probably the entire exterior surface.

Remarks: The single example was probably brought in with mound fill, but its stratigraphic provenience is not known as it was a surface find at the site of the demolished Mound O. Withers may be distantly related to Mulberry Creek Cord Marked.

References: Ford et al 1955:80, Phillips (in press),  
Phillips et al 1951:73-76; Thorne and Broyles 1968:105.

Baytown Series: Evansville Punctated

Illustrations: Plate 2u.

Sample: 2 sherds.

Ware: Heavy, coarse-textured Baytown with roughly smoothed surfaces. Simple bowl forms presumed.

Decoration:

Technique. Close spaced and rather crude "fingernail" punctations made by pinching two fingers together in very plastic clay.

Design. No real design seems to be intended for the punctations are not aligned but scattered haphazardly. The only aim was to completely "decorate" the entire surface.

Placement. The decoration apparently covered the entire exterior surface of the vessel, except the base.

Remarks: It is possible that these two sherds are only extreme examples of the more common Wilkinson Punctated (Addis series). However, in spite of general similarities, they are quite different in all important respects, which demands classificatory separation.

References: Ford et al 1955:89-91; Phillips (in press);  
Phillips et al 1951:90-91; Thorne and Broyles 1968:42.

Baytown Series: Hollyknowe Pinched

Illustrations: Plate 2t.



Sample: 1 sherd.

Ware: Coarse Baytown paste and texture; surface roughly smoothed; vessel form is "flower pot" bowl.

Decoration:

Technique. A series of pinches made with the fingers are aligned linearly to create a ridged effect.

Design. The one sherd exhibits a curvilinear design, but it is to be expected that rectilinear designs predominated. The one motif represented consists of parallel arcs.

Placement. On the exterior surface of the body.

Remarks: Hollyknowe is distinguished from Evansville Punctated solely by the added decorative concept of linearity (see remarks under Patmos and Transylvania for further discussion) and from Patmos Pinched (Addis series) by paste and vessel form.

References: Phillips (in press); also alluded to in Phillips et al 1951:90.

Baytown Series: Larto Red

Illustrations: Plate 2m-n.

Sample: 63 sherds.

Ware: Thick, coarse textured Baytown with large particles of clay-grit tempering. Surfaces are roughly smoothed. The only vessel forms recognized are simple bowls.

Decoration:

Technique. A thin red film has been washed over the

surface of the vessel. Often only a trace of this film remains, but this was probably not the original appearance and is due instead to weathering.

Design. The only decorative intent was the overall endowment of color.

Placement. Entire exterior surface of the vessel and often the interior surface as well.

Remarks: The rather fugitive, washed-out character of the red filming is probably explained by the fact that most of these sherds came from near the surface and had also been subjected to at least two different deposition environments (for these sherds were incidental inclusions in dirt brought in for mound construction and almost certainly predate the occupation of Winterville).

References: Ford 1951:59-61; Ford et al 1955:86-87; Greengo 1964:59-63; Marshall 1965:94; Phillips (in press); Phillips et al 1951:102-105; Thorne and Broyles 1968:57-58.

Baytown Series: Mulberry Creek Cord Marked

Illustrations: Plate 2g-h.

Sample: 30 sherds.

Ware: Baytown of the coarser variety. Undecorated surfaces are unfinished or roughly smoothed. Vessel forms cannot be deduced from this sample but were probably simple bowls/beakers.

Decoration:

Technique. Cord marking, probably applied by a cord

wrapped paddle. A great variety is manifested in the size of the cords used and in the quality of the paddling.

Design. The only decorative intent is to roughen the surface, and any linearity observed among the cord marks is probably accidental.

Placement. On the exterior of the vessel, in most cases covering the entire surface.

Remarks: While there is a certain resemblance in decoration to Montrose Cord Marked of the Coker series, there is almost certainly no direct relationship involved (see remarks under Montrose for further discussion). All of these sherds came from the southern and western parts of the site and seem to have been incidental inclusions in mound fill, for they were found only in constructional strata.

References: Ford 1936, 1951:53-56; Ford et al 1955:87-89; Haag 1939:17, 1942:518; Phillips (in press); Phillips et al 1951:82-87; Thorne and Broyles 1968:71-72.

Baytown Series: Oxbow Incised

Illustrations: Plate 2p-r.

Sample: 7 sherds.

Ware: The coarse, roughly finished variant of Baytown is diagnostic. Simple bowls and/or beakers are the only recognized vessel form.

Decoration:

Technique. Incising with a variety of instruments

in clay of medium to hard plasticity. These incisions are usually quite crude as the execution is careless.

Design. Although basically rectilinear, there is no organized design. The decoration consists of incisions which are sometimes parallel, but usually cross at greatly varying angles. This irregularity is the most distinctive feature of the decoration, so that there is consistency in diversity.

Placement. On the exterior surface of the vessel, on or beneath the rim.

Remarks: Oxbow may be distantly related to Mazique Incised.

References: Ford et al 1955:91-92; Phillips (in press); Phillips et al 1951:97-98; Thorne and Broyles 1968:82-83.

Baytown Series: Salomon Brushed

Illustrations: Plate 2 1.

Sample: 6 sherds.

Ware: Thick, coarse Baytown with surfaces roughly smoothed or unfinished. Vessel forms cannot be inferred from these sherds, but they were probably simple bowls or beakers.

Decoration:

Technique. Very crude brushing with a bundle of fibers or sticks.

Design. Apparently, the only decoration intended was to texture the surface, for the brush strokes are very haphazardly applied and any observed linearity is the result of the technique rather than a purposeful design.

Placement. On the exterior surface of the vessel between the rim and the base.

Remarks: Despite the technique employed, the primary decorative concern of the artisan was to impart an overall texture to the surface of the vessel, and little or no extra effort was expended in trying to achieve a linear design at the same time. This difference in decorative intent is one of the principal reasons for distinguishing Salomon from Plaquemine Brushed (Addis series), although technical quality and ware also differ.

References: Phillips (in press); see also Phillips et al 1951:98.

#### Baytown Series: Churupa Punctated

Illustrations: Plate 2v-x.

Sample: 6 sherds.

Ware: Generalized Baytown paste; surfaces unfinished or roughly smoothed; no information on vessel form, but probably bowls or beakers.

Decoration:

Technique. Incision and punctation which are uniformly crude in quality of execution but differing in method. Incision is accomplished by a variety of blunt implements in clay of medium plasticity; punctations may be round, hemiconical or circular depending upon the type of tool used and the angle at which it was held.

Design. Curvilinear, consisting of zoned bands

of punctations.

Placement. On the exterior body surface.

Remarks: These sherds are hardly typical of Churupa as described in its more southerly provenance: they are rougher, more carelessly executed, and generally of coarser paste, traits which might be expected in a marginal situation. However, though rude imitations they are still within the range (descriptive, as well as spatial) of Churupa and are not to be confused with Dupree Incised (Addis series), with which there is a superficial resemblance, but major differences in paste, design and execution of decoration.

References: Ford 1936:220-222, 1951:52-53; Ford et al 1955:85; Greengo 1964:55; Phillips (in press); Phillips et al 1951:95; Thorne and Broyles 1968:33.

Baytown Series: Chevalier Stamped

Illustrations: Plate 2s.

Sample: 3 sherds.

Ware: The finer variety of Baytown paste. Finish is roughly smoothed; vessel form is unknown as sherds are too small for reconstructions.

Decoration:

Technique. Rather careless rocker stamping with the end of a stick or cane.

Design. Stamping arranged in vertical rows around the vessel.

Placement. On the exterior, and probably the upper part of the body, beneath the rim.

Remarks: This is the same pottery described in the references, although these examples are slightly aberrant in paste and appearance.

References: Ford 1936:187; Ford 1951:81; Neitzel 1965: Pl. 10s; Phillips (in press); Phillips et al 1951:100; Thorne and Broyles 1968:30.

#### Baytown Series: Coles Creek Incised

Illustrations: Plate 2i-k.

Sample: 3 sherds.

Ware: Despite the small size of the sample, a great range is represented from coarse to fine paste, and from unfinished to smoothed surfaces. Bowls are the presumed vessel form in all cases.

#### Decoration:

Technique. Incising with a pointed stick, or planing with a flat edged tool held at an angle. Quality of execution varies from careless to good and depends partly upon the texture of the paste as well as moisture content at the time of incision.

Design. Two or more horizontal lines ringing the vessel beneath the rim. One, instead of having simple incisions, has the clay formed into overhanging ridges by planing with a flat edged tool (Pl. 2i)--this is a minor variation of the famous "overhanging lines" which

classically describe Coles Creek Incised.

Placement. This is an exterior rim decoration which is placed just beneath the lip of the vessel.

Remarks: The range of variation exhibited by the sherds might be expected considering that this locale is a marginal distribution for Coles Creek, but it is significant that Phillips (in press) recognizes varieties into which each one can be placed. Thus, the sherd with well executed overhanging lines on medium textured paste belongs to the "classic" Coles Creek variety; one with simple incisions on a coarser and thicker ware of an ashy gray color can be assigned to the Ely variety (Pl. 2j--this variety was set up to account for the rather aberrant material found at the Ely site just south of Winterville); and the third sherd with crude incisions on coarse, unfinished ware may be classified as variety Hunt (Pl. 2k). I rather expect that all of these occur at, or about, the same time in the Winterville area, although there is certainly no way of proving it from the present excavations. On this assumption and because the sherds are only a small and accidental inclusion in the Winterville assemblage anyway, these fine distinctions are set aside. The only real significance of Coles Creek at Winterville is its relation to the later Hardy Incised (Addis series), as is discussed thereunder.

References: Ford 1936:Fig. 34, 36, 38; Ford 1951:74-76; Ford et al 1955:95; Phillips (in press); Phillips et al 1951:96-97.



Baytown Series: Mazique Incised

Illustrations: Plate 2o.

Sample: 1 sherd.

Ware: Heavily tempered, but compact textured Baytown.

Surface is roughly smoothed. Vessel form appears to have been a wide mouth bowl.

Decoration:

Technique. Careful incising with a narrow pointed instrument which was held at a considerable angle to the surface of the vessel. The one example also appears to have been red filmed on the interior.

Design. A rectilinear design is represented by the sole motif of parallel oblique lines.

Placement. On the exterior rim or upper part of the vessel.

Remarks: This sherd would be classified as Manchac Incised (Addis series) if it were not for the paste, technique of design execution and red filming.

References: Ford 1951:57-59; Phillips (in press); Phillips et al 1951:98-101; Thorne and Broyles 1968:68-69.

Addis Series: Addis Plain

Illustrations: Plate 3.

Paste:

Method of manufacture. Coiled, but potsherds generally show ragged edge fracture rather than annular.

Tempering. Extremely variable, ranging from nearly

indistinguishable clay particles to granules of grit (often 2 mm. or more in dia.), and occasional sherd fragments. Impressions of organic materials--usually twigs--may also be discerned, but these were presumably accidental inclusions.

Texture. As with temper, there is a considerable range of texture from fine to extremely coarse, but generally fine to medium and quite compact.

Hardness. Surface hardness ranges from 2.5 to 4.5 on the Moh scale and averages approximately 3.5.

Color. "Warm" medium browns predominate, but light gray-browns to dark black-browns, and even black, are included.

Thickness. Vessel walls range from 4 to 10 mm. with the average being in the vicinity of 6.5 mm.

Surface finish: Usually smoothed, but may be either crudely and carelessly accomplished with a striated and bumpy surface, or well smoothed with a lustrous finish, or finely smoothed and brought to a high polish. The latter often has a characteristic crackled appearance.

Form: Bowls and jars and intermediate shapes are overwhelmingly favored; bowls predominate overall and may be subdivided into simple and carinated categories.

Simple bowls (Pl. 3a, c, e-g). With 345 rim sherds, a partial vessel and various burial pots, this is the largest single category. These bowls have a simple curved outline, and may range from shallow, plate-like dishes to

globular vessels with incurved sides and restricted mouths. The vast majority have steep or vertical sides and, judging by the lack of distinguishable bases in the collection, must have been round bottomed. A number of flat bases (52), however, and the "flower pot" associated with burial #23 (Pl. 3c) indicate that beaker shapes are also to be included in this category. Rims are generally unmodified, although a few from later levels were thickened or notched on the lip (Pl. 3e-g). Appendages are very rare, but rim nodes occur occasionally. One human head rim effigy (Pl. 3 l) may have come from this kind of bowl.

Carinated bowls (Pl. 3b, d). 138 sherds are identified as coming from widemouthed bowls with sharply defined shoulders. The upper part of the vessel has a vertical or carinated--i.e., recurved--profile, while the bottom breaks away from the shoulder to a rounded base. Rims are unmodified and there are no appendages.

Jars (Pl. 3h, j, k). 126 sherds from globular vessels with restricted mouths, short (av. 1-2 cm.) flaring rims, and sharply defined or rounded shoulders prove that jars were an alternate form. Although exact dimensions are unknown, these vessels were medium to large in size with round or flat bottoms. Rims are unmodified and usually carelessly finished. Loop and eared handles (Pl. 3h) are almost certainly associated with this vessel form, but are uncommon.

Bottles (Pl. 3i). There are six sherds which appear

to be from small globular bottles with tall narrow necks. The vessel illustrated is unusually large. It was recovered from the bottom of Mound G. This is a very minor form. Rims are unmodified, and there are no known associated appendages.

Miscellaneous: Three sherds with holes drilled through them indicate that cracked pots were mended to prolong their life. Two sherds show edges that were worn smooth after fracture, but it is not known how or why this occurred.

Remarks: A great range in temper, texture, surface finish, vessel form and other attributes is clearly evident in the foregoing description. In an attempt to create more closely defined classes, an effort was made to distinguish and sort out a polished, fine textured ware from a coarser one. While such a distinction is readily recognized in sorting plain body sherds, there is no clear association of wares with a particular vessel form; that is, while fine polished sherds which indicated the shape of the vessel are mostly from carinated bowls, not all such bowls are of the fine ware; and while most simple bowls and jars are coarser in temper, texture and finish, some are quite fine. Therefore, there did not seem to be enough justification to establish two separate wares at this point. Nevertheless, it is probable that with the accumulation of knowledge what is now a seemingly heterogeneous grouping will be subdivided one or more times.

Associated decorative techniques: Incising, brushing, punctating and occasional engraving.

References: Phillips (in press); Quimby 1942:265-6, 1951:107; Thorne and Broyles 1968:7-8.

Addis Series: Beldeau Incised

Illustrations: Plate 4r-s.

Sample: 4 sherds.

Ware: Addis paste and smoothed surface finish. Although the evidence is not conclusive, bowls--or, more precisely, beakers--are the associated vessel form.

Decoration:

Technique. Incision and punctation in clay of medium plasticity. Execution is finer and more careful than in related types.

Design. Crosshatched incisions 5-19 cm. apart with one or more triangular punctates in the center of the diamonds. One sherd, however, is unique in that it has no punctations, but does have a smaller diamond engraved in the center of one of the larger ones--obviously the same decorative effect is intended, so that despite the difference in technique the sherd is included here (Pl. 4s).

Placement. Exterior surface and presumed to be on the upper part of the body below the rim, as described at other sites.

Remarks: Except for the one aberrant example, this material is as described in the references, in spite of the fact

that Winterville is at the extreme range of distribution.

References: Ford 1951:81-83; Phillips (in press).

Addis Series: Dupree Incised

Illustrations: Plate 4v-y.

Sample: 13 sherds.

Ware: Typical medium textured, smooth finished Addis, although one sherd has a little shell in the temper and must be classified as Greenville (Pl. 4x). Although it is not certain, the impression is that vessel forms favor beaker/bowls.

Decoration:

Technique. Incision and punctation with a sharp pointed tool; the same tool was probably used to perform both operations. Execution is generally careless and the punctations are often irregular in shape as though hastily made.

Design. Designs are rectilinear and composed of oblique bands of punctation zoned by incised lines. Such decorated zones contrast with undecorated bands or triangular areas.

Placement. Decoration begins directly beneath the lip of the vessel and covers the upper part of the exterior surface of the body. In no case does it extend all the way to the base.

Remarks: This is the same pottery described in the references. Technically, the name should be "Dupree

Punctated" in the interests of consistency, for it is a well established Lower Valley policy--somehow overlooked in this case--that zoned punctation is labelled "punctated" instead of "incised" (e.g., Churupa Punctated, Owens Punctated, and many others). There is no particular reason for this that I am aware of, but such it be. However, since there is no priority from a technical standpoint, and to keep the record clear, the established name is retained.

Dupree is most closely related to Manchac Incised. There are also physical similarities to Churupa Punctated (Baytown series), but probably no direct relationship involved.

References: Ford 1951:89; Neitzel 1965:Pl. 10q-r; Phillips (in press); Quimby 1951:122-123; Thorne and Broyles 1968:41.

Addis Series: Hardy Incised

Illustrations: Plate 4a-e.

Sample: 39 sherds.

Ware: Predominantly Addis paste but seven sherds have a little shell and must be classified as Greenville. Surfaces are always smoothed and sometimes polished. Vessel forms are entirely simple bowls, including both wide mouth and restricted mouth variations.

Decoration:

Technique. Incision with a sharp to blunt pointed instrument in clay of variable plasticity. Execution tends

to be rather careless and inconsistent, for while some lines are made while holding the instrument at a considerable angle, others are incised perpendicularly. Crude, roughly triangular punctations are sometimes added and are drawn with a pointed tool or impressed with a square ended one.

Design. The decoration consists of horizontal lines on the rim of the vessel. These lines may be closely spaced, or as much as 5-10 mm. apart. They may overhang, creating a washboard or clapboard effect, but usually do not. If punctations are present, they are placed between or under the lines (Pl. 4b).

Placement. Just beneath the lip on the exterior rim surfaces.

Remarks: This is a very heterogeneous group of sherds which really share only a design motif. This same feature also relates the group to Coles Creek Incised (Baytown series), and since another characteristic of these sherds is that all look like aberrant Coles Creek, the class is endowed with a little more substance. That this material actually seems to be derived from Coles Creek is indicated by four sherds which are thinner than the rest, have a finer paste, are nicely smoothed, and exhibit a higher quality of design execution than is common to the majority of the specimens (Pl. 4d). Phillips (in press) would classify these sherds as Coles Creek Incised, variety Mott, and consider them as intermediate between Coles Creek and Hardy. I have not made this distinction because the



dividing line either way is slim, because they are coextensive with Hardy and for our purposes may be considered the same class, and because one of the four (illustrated) has Greenville paste which indicates it may not be as early as thought.

Hardy also bears a very close resemblance to Mound Place Incised (Neeley's Ferry series), but it is unlikely that they are related. Descriptively, the only distinguishing objective criterion is ware. Both are characterized by horizontal lines incised on the rims of bowls; and if the temper distinction is removed, there are no significant differences. However, it is likely that the superficial similarity is a result of coincidence. Such an example of homoplasmy could well be expected in the general design motif and simple vessel form under consideration. It might also be mentioned in passing that subjectively the sherds here classified as Hardy simply look very different from those put into Mound Place, despite overall similarities. Furthermore, there is a physical separation of the two at Winterville, and while the origins of Hardy can be traced directly to Coles Creek Incised (a fact which leads Phillips to make Hardy a variety of Coles Creek), Mound Place Incised seems to be a northern pottery, and its spatial distribution is very different.

References: Ford 1951:87-88; Neitzel 1965:Pl. 10j-k; Phillips (in press); Quimby 1951:113-114; Thorne and Broyles 1968:50.

## Addis Series: Harrison Bayou Incised

Illustrations: Plate 4p-q.

Sample: 24 sherds.

Ware: All are typical Addis and well illustrate the permissible range of pastes, textures and tempers.

Surfaces are smoothed, but not always with great care.

Vessel forms greatly favor jars with 14 of the sherds definitely from this form, and eight more probably so although they are too small to be sure.

Decoration:

Technique. Incision with a pointed implement in clay of variable plasticity (usually soft-medium, but sometimes hardened). Execution tends to be careless, particularly in softer clay. In the latter case, edges of the incisions are often "burred."

Design. The design is rectilinear and consists of only the single motif of oblique crosshatching.

Placement. Decoration is confined to the exterior rim surfaces of jars, or, in the event of another form, to the upper part of the body beneath the rim.

Remarks: Harrison Bayou is very similar to Manchac Incised and when the latter is sloppily executed so that the lines overlap, it is often difficult to decide which way to throw a sherd. The distinguishing features are only in design motifs, preferred vessel forms and whether shell tempering may occur. Harrison Bayou also bears an obvious similarity to Beldeau Incised, but the latter has an added

decorative feature and seems to be associated with vessels of different shape.

References: Ford 1936:187-188; Ford and Willey 1940:50; Neitzel 1965:Pl. 10p; Phillips (in press); Quimby 1951:115-116; Thorne and Broyles 1968:51.

#### Addis Series: Manchac Incised

Illustrations: Plate 4f-m.

Sample: 82 sherds, 1 vessel.

Ware: Typical Addis paste is represented by all but 7 sherds which have Greenville paste (Pl. 4i). Surfaces are generally unfinished or roughly smoothed. Vessel forms are straight sided bowls (beakers) and restricted mouth bowls or jars.

Decoration:

Technique: Incising with a pointed instrument, usually while the clay is in a very plastic state. Execution is careless, the lines are often crooked, and the edges of the incisions are rough.

Design: Rectilinear designs composed of oblique lines (except in one case where the lines are vertical--Pl. 4f). The favored motif is a band of line-filled triangular or trapezoidal panels. Sometimes the top and/or bottom edge of this band is defined by a horizontal line. The design on one sherd alternates a panel of incisions with one of punctations (Pl. 4m), while the whole vessel and another sherd have ridge pinching alternating with the incisions (Pl. 4g).

Placement. Decoration is confined to the rims of jars and the upper part of bowls.

Remarks: Manchac bears a homoplastic resemblance to Barton Incised (Neeley's Ferry series), but is almost certainly unrelated to it. The most closely related pottery is Harrison Bayou Incised and Mazique Incised.

References: Ford 1951:86-87; Neitzel 1965:Pl. 10a-d; Phillips (in press); Quimby 1942:267, 1951:111; Thorne and Broyles 1968:61-62.

Addis Series: Patmos Pinched

Illustrations: Plate 4n-o.

Sample: 12 sherds.

Ware: 11 of the sherds have Addis paste and 1 has Greenville. Surfaces are uniformly smoothed. Vessel forms are restricted to jars, insofar as information is available.

Decoration:

Technique. Pinching between two fingers while the clay is still very plastic. Fingernail marks are often to be observed. The pinches are always aligned close together so that they form ridges, and in two cases these ridges have been carelessly smoothed over so that the individual pinches are somewhat obscured. Execution is generally rather careless.

Design. The design is decidedly rectilinear and is composed of the pinched ridges which are aligned vertically. Even in the sherds where the ridges are not prominent, the emphasis on vertical linearity is still clearly evident.

Placement. Decoration is always on the exterior surface and is found on both the rims and the bodies, although in the latter case it is probably confined to the upper half of the vessel.

Remarks: Ridge pinching is a specialized form of decoration, which outside of Patmos is found only in the closely related Pouncy Pinched (Neeley's Ferry series) and the possibly related Hollyknowe Pinched (Baytown series). The basic decorative technique is similar to the pinching occasionally found in Wilkinson Punctated, but a further elaboration of design is exhibited. The distinguishing feature is that punctations (i.e., pinching) are not the sole decoration any longer: the emphasis is now on linearity, and the pinches--formed into ridges--are the technique whereby a linear design is executed. Thus, in overall decorative intent Patmos is closer to Manchac Incised than it is to Wilkinson Punctated; and in this respect it is of particular significance that a few examples of Manchac Incised also manifest ridge pinching as well as incising (Pl. 4g).

References: Phillips (in press); see also Phillips et al 1951:90-91.

Addis Series: Plaquemine Brushed

Illustrations: Plate 4t-u.

Sample: 21 sherds.

Ware: The paste is typical Addis and surfaces are roughly

smoothed. The only information on vessel forms suggests that jars are characteristic.

Decoration:

Technique. Brushing, which is probably done with a bundle of fibers of varied composition. The marks are generally quite light but may be deeply incised. The quality of the execution is generally quite careful considering the technique.

Design. The intent is to completely decorate the surface, and yet retain a rectilinear effect. The only motif is parallel oblique brushing.

Placement. Decoration is on the exterior surface only, and is usually confined to the upper part of the vessel, that is, to the rim and shoulder.

Remarks: Plaquemine Brushed is closely related to Manchac Incised, from which it is sometimes difficult to differentiate when the brush strokes are deeply incised. There is also a close relationship with Grace Brushed (Neeley's Ferry series), the only significant differences being the paste and the quality of the brushing technique.

References: Ford 1951:85-86; Neitzel 1965:Pl. 10e-h; Phillips (in press); Quimby 1942:267, 1951:109-111; Thorne and Broyles 1968:86.

Addis Series: Wilkinson Punctated

Illustrations: Pl. 4z-a'.

Sample: 28 sherds.

Ware: Typical Addis, although 2 sherds have a little shell added to the tempering and must be classified as Greenville (Pl. 4a'). Surfaces are smoothed. Vessel forms are jars wherever it can be determined, except for one sherd which seems to be from a tall, straight sided beaker.

Decoration:

Technique. Punctating, usually with a blunt instrument or the fingertip, which was thrust at an angle to the surface of the vessel so that a "burr" is formed along one side. In one-fourth of the sherds, a similar depression and ridge effect seems to be achieved by the related technique of pinching the wet clay between two fingers. A few sherds have been jabbed with a thin stick or reed, resulting in small, round or circular punctations which are closely spaced. In all cases no great care was exercised. Execution was always in fresh, very plastic clay.

Design. No purposeful design is represented other than overall surface texturing achieved through random punctation. That the punctates sometimes appear to be aligned in vertical or horizontal rows is probably accidental.

Placement. On the exterior surface of the vessel; the majority of the sherds seem to be from the rim and shoulder area, but decoration may sometimes be over the entire body.

Remarks: Wilkinson is obviously closely related to Parkin Punctated (Neeley's Ferry series), and differs primarily in paste. The relationship of both Parkin and Wilkinson to Evansville Punctated (Baytown series) is a moot point, but it is possible that either is derived from it or that there is no relationship at all.

References: Ford 1936:78, 1951:88-89; Ford and Willey 1940:50-51; Phillips (in press); Thorne and Broyles 1968:103.

Greenville Series: Greenville Plain

Illustrations: Plate 5.

Paste:

Method of manufacture. Coiled and well bonded, so that fractures usually cut across coil lines.

Tempering. Like Addis, a wide array of tempering agents are utilized: including angular bits of clay, grit, ground up sherds and shell. The one cohering feature of Greenville is that shell is always included, although in greatly varying amounts and particle size. But while shell is always present (even if it is only in the ground up sherds which provide the real temper!), it is not the only tempering agent and is usually not even the predominant one, being combined with clay, grit and/or sherds.

Texture. Texture is extremely variable, ranging from fine to coarse, but always compact.

Hardness. The range is too wide to be a very useful test: 2.5-4.5, average ca. 3.0-3.5.



Color. Brown, with a tendency towards the lighter tones.

Thickness. 4 to 10 mm., with an average of 6.5 mm.

Surface finish: Surfaces may be carelessly finished, carefully smoothed or finely polished. As in Addis, certain surface treatments are associated more with one vessel form than another, as discussed below.

Form: Bowls predominate, but jars and bottles are also present.

Simple bowls (Pl. 5a, d). 73 rims and 23 basal sherds are from bowls with a simple curved profile. These bowls are small to large in size, may be shallow or deep and have rounded or flat bases. It is probable that there is a correlation of rounded bottoms with shallow bowls and flattened bottoms with the deeper beaker shaped vessels. On all, the distinguishing characteristics are that the mouths are the widest part of the vessel, the texture is comparatively coarse, and the surfaces are carelessly finished. Rims are unmodified and the lips are crudely rounded or squared off. The only appendages associated are nodes (Pl. 5o) and small lugs which were molded onto the rim (Pl. 5m-n). These were definitely a minor feature of otherwise very simple vessels.

Carinated bowls (Pl. 5b, c, e, f). With 114 sherds which clearly indicate vessel shape and two partial bowls, this is the largest single form category. These are fairly deep, wide-mouthed vessels with sharply profiled

shoulders and rounded bottoms. They are generally smaller in size than simple bowls. Almost all are finely textured and have a polished finish, but as in Addis there are exceptions. The association of complex shape and finer variant of the ceramic qualities is distinctive, however. Rims are carefully rounded, tapered or squared, and lips are undecorated except for a few examples from the lowest levels of the excavations which are notched. No appendages are associated with this form.

Restricted bowls (Pl. 5g). 44 rim sherds seem to be from an intermediate bowl form (recognized in Addis, but not considered distinctive enough to separate out): medium size globular vessels with restricted mouths. The distinctive feature is that the mouth is not the widest part and may be so restricted that the form approaches a neckless jar. Although some sherds have a rough finish, most are smoothed and often polished. These vessels are completely plain, the rims are unmodified and there are no appendages.

Jars (Pl. 5h-j). 58 distinctive sherds are from small to large globular vessels with short, standing rims and restricted mouths. Necks and shoulders may be sharply defined or gently sloped. Rims are incurving or vertical; lips are rounded or squared, and in two cases are notched, but are otherwise unmodified and undecorated. Texture and finish range from coarse to fine. Three loop handles and four strap handles are associated with this form (Pl. 5p-q).

Bottles (Pl. 5k-1). Five sherds seem to be from small bottles, the exact shape of which is not known. Texture is medium, and surfaces are smoothed but not polished. There are no appendages.

Miscellaneous: A fine, polished, duck's head rim effigy (Pl. 5s), and a similarly fine extruded handle (Pl. 5r) are unique specimens from vessels of unknown form. One sherd with edges worn smooth after fracture was also recovered.

Remarks: This is a new class of plain pottery which occupies an intermediate position between Addis Plain and Holly Bluff Plain. The relationships to both Addis and Holly Bluff are apparent in various aspects of paste, vessel forms and associated decorative techniques. In these respects, Greenville is marginal to both but is neither one nor the other. Rather, it may be considered as forming a technological bridge between Addis and Holly Bluff. Essentially, it is Addis with the added feature of shell tempering. But its significance is much greater than that mere description, for closer analysis reveals that there is also a coincident change in popularity of vessel forms and a tendency towards finer textures and polished surfaces. Thus, while Greenville is derived from Addis, it is also approaching Holly Bluff (and, indeed, is found to be the direct forerunner stratigraphically). It has been distinguished as a separate class to emphasize certain formal attributes which are believed to have

especial historical and cultural significance.

Associated decorative techniques: There is a very particular correspondence with engraving and incising.

References: None; but see sources listed under Addis Plain and Holly Bluff Plain.

Greenville Series: Anna Incised

Illustrations: Plate 6a-g.

Sample: 73 sherds.

Ware: Mixed paste, with 73% of the sherds similar to Greenville and 27% to Addis. Surface finish is always finely smoothed but rarely polished. Vessel form is restricted to the plate, or shallow bowl, only.

Decoration:

Technique. While medium incised lines predominate, the execution varies from fine line "engraving" to broad incising sometimes referred to as "trailing." In almost all cases, the incising was accomplished after the paste had hardened, but before it was fired. Therefore, the quality of the execution fluctuates, and the incisions are often quite crude in appearance as it was hard to maintain even control in the hardened surface. Significantly, in a few cases true post-fired engraving is evident, and on at least one large sherd (Pl. 6a) this technique is combined with the more common incising described above. Therefore, a variety of techniques is characteristic of Anna.

Design. Both curvilinear and rectilinear design motifs

occur, but rarely together on the same vessel. Curvilinear motifs are usually whorls in the center and running scrolls on the rims. Rectilinear designs are characterized by so-called "stepped" motifs or multiple parallel lines and are found only in the center, never on the rims. One sherd is also red-slipped; and one has punctations incorporated into the design.

Placement. Decoration is confined to the interior surfaces of plates and shallow bowls. While the central portion of the vessel is nearly always decorated, rims may not be.

Remarks: This is the "Anna Interior Engraved" of Ford and Willey, but with a name change to conform with the binomial system of nomenclature and to more accurately describe the predominant technique of design execution. Engraving is nevertheless an important decorative technique which relates Anna to Carter Engraved and L'Eau Noire Engraved. There is also a relationship with Blum Incised (Neeley's Ferry series) in terms of vessel shape, placement of decoration and certain motifs. Furthermore, there may also be a distant relationship with Blanchard Incised (Holly Bluff series) on the basis of interior placement of decoration and the technique of wide line incising (trailing). And the latter trait, as well as the scroll motif, certainly relates Anna to Bethlehem Incised.

References: Ford 1936:Figs. 21n, 22d, 23j, 26c; Ford and Willey 1940:55; Neitzel 1965:Pl. 10n; Phillips (in press); Thorne and Broyles 1968:11.

## Greenville Series: Bethlehem Incised

Illustrations: Plate 6h-m.

Sample: 34 sherds, 1 vessel.

Ware: Compact, fine textured Greenville paste predominates, but some sherds must be considered Addis in the observed absence of shell tempering. Surfaces are always smoothed, but not polished. Bowls--simple or complex--are the associated vessel form.

Decoration:

Technique. Incising in clay of medium plasticity is usually well executed in the manner often called "trailing." The incisions average 2 mm. in width and are proportionately about as deep as they are wide. Unlike Leland Incised, the incisions are not subsequently polished over, so that edges are usually sharply defined.

Design. Curvilinear designs composed of two or more lines. Motifs include the meander, the interlocked scroll or the whorl, the latter of which is usually paneled (Pl. 6m).

Placement. On the exterior surface between the rim and the base.

Remarks: This is a new class which is closely related to Leland Incised (Holly Bluff series) but differs in respect to paste, quality of design execution and some design motifs. In these same traits, Bethlehem most resembles Anna Incised, although vessel form and placement of decoration clearly distinguish the two.

References: None; but see sources listed under Anna Incised and Leland Incised.

Greenville Series: Carter Engraved

Illustrations: Plate 6n-q.

Sample: 34 sherds.

Ware: 33% of the specimens are typical Addis Paste, while 67% are Greenville: these sherds are identical except for the addition of a little shell as tempering in the latter sherds. All have fine, compact texture and well smoothed, usually polished surfaces. The only vessel forms are simple and carinated bowls.

Decoration:

Technique. Execution of designs is uniformly superior and consists entirely of fine line incising in hardened clay, which is usually indistinguishable from--and technically equivalent to--engraving.

Design. Designs include both rectilinear and curvilinear motifs, often on the same vessel. Rectilinear motifs are mostly composed of vertical and oblique areas of hatching, which may be the sole decoration but are more often zoned so that there are contrasting undecorated areas. Hatched areas may also be cross cut by curvilinear elements such as meanders. Curvilinear motifs also occur alone in the form of two or more parallel lines arranged in meanders or interlocked running scrolls. One sherd is red slipped, and on four the incisions are filled with red paint.

Placement. The decoration is always placed on the exterior rim surfaces of simple or carinated bowls.

Remarks: Carter is closely related to L'Eau Noire Engraved, but there are significant differences, particularly in design motifs. The motifs associated with Carter range from simple to exotic, and it is the latter which are of the greatest interest for they are very suggestive of Caddoan influence, as is the technique of engraving, itself. That this material might owe much to foreign contact is also indicated by the unique trait of filling the lines with red paint (see Phillips et al 1951:128). That it is not actually an imported pottery, but is a bonafide member of the Winterville assemblage, however, is confirmed by certain parallelisms with Anna Incised and Chicot Red, as well as L'Eau Noire. These include the use of engraving and red painting, and the presence or absence of shell tempering in otherwise similar pastes.

References: Phillips (in press).

Greenville Series: Chicot Red

Illustrations: Plate 6v-w.

Sample: 32 sherds and 1 vessel.

Ware: Greenville paste, which seems to be rather coarse in the lower levels and generally finer in overlying strata--but in all cases typical Greenville. Bowls are definitely the predominant vessel form with the whole vessel and at least 81% of the sherds being so identified



on the basis of shape and/or interior decoration. At least four sherds are from carinated bowls. A minority form may be represented by two sherds which appear to be from bottles. Surfaces have been smoothly finished and then modified by the decoration.

Decoration:

Technique. A pigmented clay slip is applied to the surface of the vessel before firing. This slip is often as much as .5 mm. thick. An added decorative treatment is also present on four sherds, at least two of which are from carinated bowls: fine line incising (or engraving) after the red slip had dried and perhaps even after firing. The execution of the incising is not very neat and the edges are rough and scarred where flakes have chipped off. Excision is also present on two of the four sherds. (Note that in all of these respects there are superficial similarities to the red painted variety of the Tippetts Bean pot from the Trappist phase at Cahokia. See Griffin 1949: 57-58, Pl. 4-5; Moorehead 1922:Pl. 11, no. 16 and 18.)

Design. There is no "design," as such, in most cases, as the decoration consists entirely of the vivid red hue of the clay slip applied to the vessel surface. However, the sherds which are also engraved exhibit simple rectilinear and curvilinear motifs composed of several parallel lines.

Placement. Six sherds are painted on the exterior only, eight on the interior, and eighteen (and the whole

vessel) on both the exterior and interior surfaces. When present, incised decoration is placed on the exterior just below the rim (on the rim in the case of carinated bowls).

Remarks: This is a new class of pottery, which, however, is hinted at by Phillips in discussing Old Town Red at the Lake George site (21-N-1): "...and there seems to be still another unclassified category characterized by a thick granular paste with some shell" (Phillips, in press).

Chicot is certainly closely related to Old Town Red (Neeley's Ferry series) and Sharbrough Red (Coker series), with which it is partially coextensive at Winterville, and perhaps more distantly to Larto Red (Baytown series). There is also a correspondence with L'Eau Noire Engraved in the fine incised/engraved sherds which also feature the very distinctive trait of excising. However, these sherds are different from L'Eau Noire in that the motifs are much simpler and more like Carter Engraved. Further emphasizing the relationship with L'Eau Noire and Carter is that two sherds so classified were also red filmed. Finally, as noted above, all of these features are reminiscent of the Tippets Bean pot from Cahokia.

References: Phillips (in press); see also sources listed under Old Town Red.

Greenville Series: L'Eau Noire Engraved

Illustrations: Pl. 6r-u.

Sample: 21 sherds, 1 vessel.

Ware: Two-thirds of the sherds have typical, fine-textured Greenville paste, while the remainder are Addis. Surfaces are always well smoothed and often polished. Vessel forms favor simple and carinated bowls, although one sherd and the whole vessel, both with Addis paste, prove that small jars are also included.

Decoration:

Technique. Engraving, or a technically equivalent fine line incising indistinguishable from it. Excising--that is, areas where thin portions of the surface have been removed--is also characteristic, and is the principal technological feature which distinguishes this material from Carter Engraved. One sherd is also red filmed (Pl. 6u).

Design. Rectilinear designs feature stepped, or rectangel-within-a-rectangle motifs. When present, excised areas add an element of contrast and contribute to the complexity of the overall design.

Placement. Decoration is confined to the rims of jars and carinated bowls and just beneath the lip of simple bowls. In all cases, it is an exterior decoration only.

Remarks: This is essentially the "L'Eau Noire Incised" of the literature, but with a name change to more accurately describe the technique of decoration. This change also seems desirable in order to segregate what may be a local variant, for engraving is by no means diagnostic of L'Eau

Noire throughout the Lower Valley, as it is at Winterville.

The incidence of engraving in this and related classes is a very significant feature with far reaching implications, not the least of which is the possibility of Caddoan influence. Certainly, the technique and associated design motifs are new introductions into the area at this time. In this respect, it is interesting to note that these types (which were also notably adaptable to shell tempering) seem to hold a special position in the ceramic complex, similar to that of Leland Incised in another context.

The distinctive feature of excising should be noted as a unique phenomenon at Winterville, which aside from this class is manifested only in single occurrences in Anna Incised and Chicot Red. Further relationship with the latter pottery is evidenced by the single sherd which is red filmed.

References: Neitzel 1965:Pl. 100; Phillips (in press); Quimby 1951:119-121; Thorne and Broyles 1968:59.

Holly Bluff Series: Holly Bluff Plain

Illustrations: Plate 7a-j.

Paste:

Method of manufacture. Coiled, and not always well bonded. Sherds often show fractures along coil lines.

Tempering. Finely ground shell, although often other unidentified (possibly organic in many cases) pulverized materials are also present. Minute particles of shell are

usually observable, unless they have disintegrated through natural leaching.

Texture. The texture is generally very fine, compact and homogeneous, although those sherds subjected to leaching may have a vesicular appearance. In some sherds, where the shell particles are larger than average, there is a tendency towards lamination as in other shell tempered types.

Hardness. Hardness varies considerably according to the amount of leaching which has occurred. Unleached specimens range between 2.0-3.0, the average being in the vicinity of 2.5.

Color. "Warm" browns predominate, but also light to very dark browns occur.

Thickness. While the range, like Addis and Greenville, is 4-10 mm., the average is a comparatively thick 7.5 mm.

Surface finish: The surface is always well smoothed and often has a highly polished finish. The fact that polishing does not predominate may be due to physical rather than cultural conditions--i.e., weathering might well be held accountable for destroying the finish of many leached sherds.

Form: With few exceptions, vessel shapes are restricted to bowls. The exceptions are the vessel from the floor of the burned temple (Pl. 7o) and six sherds from what appear to have been jars or bottles. The bowls may be separated into two basic categories: simple and complex.

Simple bowls (Pl. 7a). These are small to medium size vessels with a wide mouth, simple curved profile and rounded or flattened bottom. Of 28 rim sherds, 23 are rounded but unmodified, while the other 16 are distinctively thickened on the interior of the lip, the exterior, or both interior and exterior. These rims are rolled or appliquéd. The former are round in profile, while the latter are oval or rectangular. No appendages are known to be associated with this form.

Complex bowls (Pl. 7c-j). 78 sherds, two partial vessels and the bowl associated with burial #16 (Pl. 7c) are indicative of a comparatively sophisticated bowl form. These are related to the Addis and Greenville carinated bowls, but are quite distinct in proportions. They seem to be shallower, and the rims are more flaring, so that while the shoulders are still distinct they are less sharply profiled. The interior angle of the shoulder is usually defined by an incised line (Pl. 7d). Bottoms may be either rounded or, unlike carinated bowls, flat. But the most distinctive feature of all is the rim-lip treatment: although a few rims are unmodified and have simple rounded lips, four out of five are decorated in the manner Phillips (in press) calls the "Haynes Bluff" rim, or they are closely related variants thereof. This decoration consists of various combinations of incising and/or notching (or scalloping) of the lip, the majority of the specimens exhibiting both treatments (Pl. 7e-j). Execution

of this feature is generally quite fine. No appendages are associated with this form.

Remarks: Holly Bluff Plain is closely related to Greenville Plain and actually appears to be derived from it. However, it is quite distinct from Greenville in that the texture is more homogeneous, and in that the tempering is finer and consists entirely, or at least predominantly, of ground shell. Bowls are the preferred vessel shape, and, as in Addis and Greenville, there is a dichotomy between simple and complex forms. That other forms are found in the latter wares, but not in Holly Bluff, may be explained by the co-occurrence of Neeley's Ferry Plain, which apparently subsumed the functions that these forms fulfilled. As an appendix, it should be noted that Holly Bluff is very similar to the pottery of the historic Natchez to the south, as well as to Bell Plain in the northern part of the Lower Valley. All represent the best aspects of the culmination of ceramic technological development in the Lower Valley.

Associated decorative techniques: Trailing, incising, and occasional punctating.

References: Phillips (in press); Phillips et al 1951: 122-126.

Holly Bluff Series: Beland City Incised

Illustrations: Plate 7x-z.

Sample: 16 sherds.

Ware: Holly Bluff paste, which has a well smoothed and

usually polished finish. The only identified form is the simple bowl.

Decoration:

Technique. Broad line incising (trailing) is combined with engraving or punctation. All techniques are carefully executed, and seem to have been applied at different stages in the manufacture of the vessel. Trailing is the basic technique and was executed while the paste was of medium plasticity. Punctations may have been added at this time, or at any stage thereafter until the vessel was fired.

Engraving was accomplished only after the surface had dried out and hardened, but probably before firing. Aside from the different stages of decoration, it is also important to note that different tools were required for the techniques at each stage. A blunt instrument was necessary for trailing, a medium point was chosen for punctating, and a fine, sharp point of some hard material would have been requisite for engraving. As in Leland, the vessels seem to have been "polished-over" after firing.

Design. The overall design is curvilinear, although all sherds are too small to reconstruct any motifs. The elements of the motifs vary with the decorative techniques employed, but always convey the predominant theme of decorated bands and plain surfaces. Thus, the decoration consists not only of curvilinear incised designs, but also of contrasting zones of decoration and nondecoration, achieved by filling alternating bands (the area between



two incised lines) with punctations or engraved crosshatching.

Placement. Decoration is placed on the exterior surface of simple bowls, and presumably covers the whole body between the rim and the base.

Remarks: This material is obviously closely related to Leland Incised, but is kept distinct because of significant difference in decorative intent and execution. This results in a more complex--and in this case evolved--decoration which is not merely curvilinear but is also contrastive.

Engraved crosshatching, which is found on seven of the sherds, has been noted as a minor motif associated with Leland Incised (Phillips et al: referred to as "Silver City treatment"). Related material is accorded separate status in the Caddoan (Maddox Engraved) and historic Natchezan (Emerald Engraved) areas. Phillips, quite correctly, I think, has made all of these varieties of a wide spread superclass. But this does not solve our present situation, as it does not account for the larger number of nine sherds, which are identical in every respect except that they have punctations in place of engraving. This treatment is unique, although it bears some resemblance to Belzoni Incised (Neeley's Ferry Series).

Therefore, this material could conceivably be thrown into Leland on the one hand, or Belzoni on the other, or divided between the two, or between the latter and Maddox;

it is intermediate to all three. But it is too distinctive to ignore, and at least until more information is available separate status is called for.

References: None as described; but for related types outside Winterville see Neitzel 1965:46; Phillips (in press); Phillips et al 1951:137; Quimby 1942:266; Suhm et al 1954:320; Suhm and Jelks 1962:99; and Webb 1948a:108-109.

Holly Bluff Series: Blanchard Incised

Illustrations: Plate 7u.

Sample: 4 sherds, 1 partial bowl.

Ware: Holly Bluff paste, well smoothed finish, simple and complex bowl form.

Decoration:

Technique. "Trailed" incisions in clay of medium plasticity. Quality of execution is generally very good.

Design. Curvilinear, the only motif being a series of single festoons depending from a horizontal line in, or just below, the lip.

Placement. The design is placed only on the interior surfaces of rims belonging to vessels which are otherwise undecorated.

Remarks: This poorly represented class seems to be a northern variant of Leland Incised, to which it is very closely related. Indeed, the only difference between the two seems to be the placement of the decoration, for even the dependent festoon motif is occasionally found in Leland

(though always on the exterior of the vessel, and combined with other elements).

References: Phillips (in press); Phillips et al 1951:148-149; Thorne and Broyles 1968:25.

Holly Bluff Series: Fatherland Incised

Illustrations: Plate 7v-w.

Sample: 9 sherds.

Ware: Indistinguishable from Holly Bluff. Surfaces are always well smoothed and often polished (where polishing is not observable it may have been removed through weathering--see discussion under Holly Bluff Plain). Insofar as can be determined from these small sherds, vessel forms are simple bowls.

Decoration:

Technique. Fine line incising in medium-hard clay with a sharp instrument, which was perhaps toothed--like a comb--in order to make more than one line at a time. Execution is usually careful and exhibits considerable technical proficiency.

Design. Curvilinear designs consisting of three parallel lines. The sherds at hand are too small to recognize individual motifs, but it is to be expected that the meander and the scroll were favored.

Placement. On the exterior surface of the body between the rim and the base.

Remarks: Although numerically weak, this pottery is very

significant for its association with the historic Natchez, and for its obvious relationship with Leland Incised. Fatherland differs from Leland only in the technique of design execution and its preference for three parallel lines in design composition. Also, if the tool used was a multitoothed instrument, or comb, then there is a probable relationship with the Choctaw pottery, Chickachae Combed, with which there are other similarities as well.

References: Ford 1936:54-55; Ford and Willey 1940:56; Neitzel 1965:Pl. 10w, y, aa-cc; Phillips (in press); Quimby 1942:263-264, 1957:123-124; Thorne and Broyles 1968:44.

Holly Bluff Series: Leland Incised

Illustrations: Plate 7k-t.

Sample: 186 sherds, 1 vessel.

Ware: Fine textured and compact Holly Bluff paste, but ranging in temper from the usual Holly Bluff norm, wherein shell particles are minute and not always evident, to heavy shell content with particles occasionally reaching a size larger than 1 mm. Surfaces are always finely smoothed and are usually polished. Small, simple bowls are the predominant vessel form, but complex bowls are represented by a few sherds. Also included are small, globular, short necked jars as illustrated by the whole vessel from the burned floor at the summit of Mound K (Pl. 7o). The rims of the bowls are rounded and thickened.

Decoration:

Technique. Generally very well executed incising which favors relatively broad lines made with a blunt instrument. This technique--often called "trailing"--results in lines averaging 2 mm. in width and 1 mm. in depth. Polishing of the vessel is usually then effected so that the edges of the lines are well rounded.

Design. Curvilinear designs, occasionally composed of a single line, but usually of 2-5 parallel lines. Favored motifs are the running, interlocked scroll and the meander. Circles at the centers of the scrolls and triangular elements at the borders are common. One or more horizontal lines may be incised directly beneath the rim. Generally, the overall effect is pleasing as the designs are carefully drawn, simple, and of a broad sweeping nature. Occasionally, however, the design is quite complex and composed of a number of elements which nearly fill the entire surface (Pl. 7n--Phillips considers this to be a distinct variety, which he names Ferris).

Placement. On the exterior surface of the body between the rim and the base.

Remarks: This is a cohesive class which may vary some in paste but which is distinctive in the generally high quality of design layout and execution. The care expended upon its production is probably indicative of a special function. Significantly, it is probably derived from Bethlehem Incised, which in turn was a member of the fine

Greenville series. There is also a general resemblance to Belzoni Incised (Neeley's Ferry series) which is reflected in the intermediate Williams Incised. Even more similar is Fatherland Incised, the historic Natchez pottery, and this similarity is obviously the result of very close relationships.

References: Ford et al 1955:101; Phillips (in press); Phillips et al 1951:137-140; Thorne and Broyles 1968:60.

Holly Bluff Series: Williams Incised

Illustrations: Plate 7a'-b'.

Sample: 18 sherds.

Ware: Paste is intermediate between Holly Bluff and Yazoo. The texture is compact, but it is liberally tempered with shell particles which, although generally fine, may be 1-2 mm. in diameter. Both interior and exterior surfaces are well smoothed. The vessel form is probably a large, hemispherical bowl.

Decoration:

Technique. Incising with a blunt instrument in clay of medium plasticity. The technique is equivalent to trailing, but is not quite as carefully executed as in Leland Incised.

Design. Curvilinear designs of large scale, sweeping motifs composed of one to five parallel lines are characteristic. Favored motifs are probably the meander or running scroll. The lines, or groups of lines, are

always widely spaced.

Placement. On the exterior body surface, between the rim and the base.

Remarks: This new class appears to be a genuine hybrid, which is intermediate between Leland Incised and Belzoni Incised (Neeley's Ferry series). Vessel form, technique of decoration and design motifs relate Williams to Leland, but the larger size of the vessels and the coarser paste approaches Belzoni. Williams is an example of convergence rather than an evolutionary link in a local ceramic development.

References: None; but see Phillips' (in press) discussion of Belzoni Incised and Leland Incised.

Neeley's Ferry Series: Neeley's Ferry Plain

Illustrations: Plates 8, 11x-c'.

Paste:

Method of manufacture. Coiled, as may be observed in the fracture breaks along coil lines, and the interior surfaces of vessels and sherds where a washboard appearance is sometimes observable.

Tempering. Crushed shell is the only tempering agent, and it is usually in liberal amounts. The particles may be quite large, attaining several millimeters in diameter.

Texture. Because of the tempering, the texture characteristically has a laminated appearance, and although this is **generally** quite even, in the thicker examples it

may be rather contorted. In specimens where the shell tempering has been leached out the texture is extremely vesicular.

Hardness. Hardness is variable depending upon the amount of shell tempering and the degree of weathering (leaching). The average of a representative sample of unweathered sherds is 2.0.

Color. Buff to dark gray; generally some shade of brownish gray.

Thickness. The range is from 4 to 17 mm., but the average is 8.5 mm.

Surface finish: Surfaces are unfinished or carelessly smoothed. Occasionally, the surface shows some care in finish and in a few cases appears to be polished.

Form: Jars are overwhelmingly favored, but not to the exclusion of other forms.

Jars (Pl. 8a-c). This form is represented by 989 rim or distinctive body sherds and one partial pot. Usually large in size, these are globular vessels with round bottoms and restricted mouths. The rims stand 1-7 cm. high and average 4-5 cm. They are vertical or slightly incurving and only occasionally flare out (the latter trait is more common in the upper levels of the excavation, but is not restricted thereto). The angle between the rim and shoulder may be sharply defined or obscured by a gentle slope. A mere seven rims have an exterior appliqued strip beneath the lip (Pl. 8b). Otherwise, the rims are



unmodified, except that the lips were characteristically flattened by the fingers or other instrument, which sometimes left a crudely incised median line. Handles are the only appendage, and while they are not common, they exhibit a considerable variety. Simple nodes (Pl. 11x), prongs (2-4 points--Pl. 11y-z), eared handles (Pl. 10c), plain loop handles (Pl. 11b', 10b) and centrally indented loop handles (Pl. 11c') are recognized from the lower levels, while strap handles (Pl. 8c, 9s) and lugs (Pl. 9q) predominate in the upper levels. The principal method of attaching these appendages is by riveting, although simple molding is evident in a few cases.

Bottles (Pl. 8f). 23 sherds and one whole vessel with burial #9 prove the existence of bottles as a minor form category. These bottles are distinguished by globular bodies (usually spherical, although the funereal vessel is tri-lobed) and tall narrow necks. Rims may be vertical or flaring; lips are rounded but otherwise unmodified. No appendages are known to be associated.

Bowls (Pl. 8e, g, i). With 232 identifiable rim sherds, as well as the vessel accompanying burial #9, this is the second most popular vessel form in Neeley's Ferry Plain. Vessel size ranges from small to large and shapes vary tremendously. Simple bowls with rounded bottoms are the rule, but these may be very shallow, steep sided or vertical sided (in which case flat bottoms may occur--see burial pot in Pl. 8i). In all of the above the mouth is

the widest part of the vessel, but 47 other rim sherds are from simple bowls with incurving sides and restricted mouths (Pl. 8g). Six more sherds show a complex angled silhouette and indicate that the carinated bowl form may have carried over briefly into this type from Addis Plain. While almost all of the rims are plain and unmodified, a few are incised or thickened; and 20 have notched or scalloped lips (Pl. 8e), a treatment obviously derived from the Haynes Bluff rims (see Holly Bluff Plain). None of these bowls appear to have had handles, but one rim effigy (crudely stylized owl or human head?--Pl. 8d) probably came from a vessel of this form.

Plates (Pl. 8j-1). 48 rims and seven body sherds are from flat, shallow vessels with raised rims which are very similar in appearance to the traditional European dinner plate. While this form is not unique to Neeley's Ferry ware at Winterville (cf. Anna Incised), it is very restricted in distribution and usually occurs only in association with Anna and Blum Incised. Even here it is not entirely undecorated, for this is the only form where rims are generally notched, indented or scalloped. Even the few plain rims are exceptionally well finished. There are no appendages.

Miscellaneous: One sherd with a partially drilled hole suggests that attempts were made to mend cracked pots. The potsherds, themselves, seem to have been used for a variety of purposes: four have been shaped into circular discs of

the kind usually called "counters," a fifth disc is drilled through the center and may have functioned as a spindle whorl, one sherd has a groove worn into each side and apparently was used as a whetstone, while three other sherds have edges worn through unknown operations.

Remarks: Neeley's Ferry Plain was found throughout the Winterville excavations, and in terms of quantity is the largest single class of pottery. As described above, this material is essentially the same as the published description (Phillips et al 1951:105-110), and I have not found it warranted--or even necessary for the purposes of this study--to assume a southern variant of this basic Mississippian ware. Even within Winterville, all attempts to subdivide this class into possibly more significant categories were finally abandoned after a notable lack of success. There is a close similarity in paste and surface finish between sherds from all parts of the excavations. The general, overall homogeneity of Neeley's Ferry is remarkable, and may be ascribed to the fact that once shell becomes the only temper and is liberally used, then all coarse shell tempered ware looks alike. The only significant distinctions recognized are in vessel shapes: while jars and simple bowls seemed to occur throughout the excavations, bottles, plates and carinated bowls seemed to be restricted to the lower, or intermediate levels. Although stratigraphy later confirmed this change in popularity, it was still not enough justification for

subdivision, and would only have created classificatory difficulties in attempting to segregate otherwise identical body sherds which were undistinctive as to vessel form. But although nonsignificant for classificatory purposes, form changes are important in the history of the Winterville occupation and are so discussed in another section.

Associated decorative techniques: Incising, punctating, brushing and painting.

References: Ford et al 1955:99; Phillips (in press); Phillips et al 1951:105-110; Thorne and Broyles 1968:74-75.

Neeley's Ferry Series: Barton Incised

Illustrations: Plate 10a-1.

Sample: 436 sherds.

Ware: Typical Neeley's Ferry paste and surface finish; standard jar form, medium to large in size (one typical example has a mouth with a reconstructed diameter of 32 cm.).

Decoration:

Technique. Incision is the only technique employed, but there is a considerable range in the execution. The variation appears to be due to the fact that the lines were carelessly incised by an assortment of instruments when the clay was in a very plastic state. Edges of the incisions are often quite rough or "burred." The incisions, themselves, tend to be medium in depth and width, but extremes in both dimensions are represented.

Design. Designs are rectilinear and composed of parallel diagonal lines spaced 2-10 mm. (av. 5 mm.) apart. The dominant motif is a band of alternating line-filled triangles, but simple bands of oblique parallel lines also occur. Minor motifs are the alternation of line-filled trapezoidal spaces and plain (undecorated) triangles and rough wide-spaced crosshatching. The decorated zone, or band, is sometimes bordered by a wide horizontal line along the bottom, but only very rarely is the top border so defined. In two cases, the band of decoration is not only zoned at the bottom, but the band itself is also broken into panels by wide vertical incisions, or incisions and spaces (Pl. 10h-i). The reason for emphasizing the latter trait, beyond its numbers, is that it is very distinctive and yet also occurs in Winterville Incised (Pl. 10m-n). Three sherds also have punctations included in the design, and one is red-slipped on the interior.

Placement. This is a rim decoration only, although because of the careless execution the lines sometimes extend a short way down onto the shoulder. On vessels where the angle between the rim and shoulder is sharply defined, the decoration is always carefully restricted to the rim and is often zoned at the angle by the horizontal line mentioned above.

Remarks: Barton Incised is numerically the most significant decorated pottery at Winterville. This is essentially the same pottery described in the references, although there

are a few minor differences between the material found further north and that described here (for a detailed discussion see Phillips et al 1951:117-118, who note that Barton, as they originally defined it in the Memphis-Arkansas regions, begins to lose definition in the Winterville area). But though modified, this material is still Barton Incised. Barton is closely related to Winterville Incised and actually differs from it only in respect to design. But it is also closely related to Arcola Incised, with which it is most similar on exactly the same trait of design. The latter relationship is further emphasized by a number of sherds from small, thin walled vessels which exhibit relatively well executed and close spaced designs much like (and coextensive with) Arcola, but placed on the rim rather than the shoulder (Pl. 10k-1). This material essentially reflects a process of miniaturization within Barton.

References: Marshall 1965:102; Phillips (in press); Phillips et al 1951:114-119; Thorne and Broyles 1968:16-17.

Neeley's Ferry Series: Belzoni Incised

Illustrations: Plate 11e-k.

Sample: 55 sherds.

Ware: Neeley's Ferry paste, although it is often somewhat thinner than average. Finish is usually roughly smoothed. Vessel forms favor squat, short necked jars which generally run to smaller sizes than the standard jars and have

vertical or widely flaring rims; bowls are probably present as a minor form.

Decoration:

Technique. Incision, and often punctation, when the clay was fresh and still quite soft. The incisions tend to be quite broad (up to 3-4 mm.), but may be less than a millimeter in width; they average 1 mm. in depth. The lines may be spaced as far apart as in Winterville Incised (ca. 1 cm.), or so close they are almost touching. Execution of the decoration varies from crude to neat but care was rare.

Design. Curvilinear designs composed of one or more lines. Basic motifs are the interlocked scroll and the whorl. Punctations are a significant part of the decoration, and fields of them are often incorporated within the design; or, even more common, they are used to border the outer line of the design.

Placement. On the body of the vessel only--rims are undecorated--with the following exceptions. Two rims are punctated, and three sherds (probably from the same large vessel) exhibit a single gently curved line, bordered by a row of punctates, running around the interior of a greatly flaring rim (Pl. 11j). These are aberrant, but in all cases there is enough information otherwise to definitely assign them to Belzoni. Therefore, it must be stipulated that while the emphasis is upon body decoration, rims are not always plain.

Remarks: This is essentially the same pottery briefly described in the references, but with important differences reflected in the tighter description presented here. In the original description (Ford et al), exceptionally broad incisions were considered to be diagnostic--however, while they are prevalent in this material, they are certainly not found to be universal. (Wide line incising appears to be a trait of increasing importance in pottery decoration during the late prehistoric and protohistoric periods, and one which is not restricted to any particular pottery.) Belzoni is most distinctive in the combination of vessel form, design motifs and placement of decoration. It is obviously related to Winterville Incised in exhibiting rather slipshod curvilinear decoration on Mississippian jars. But the jars are of a special form, found otherwise only in Arcola Incised which also shows the trait of restricting the decoration to the body of the vessel. Although Arcola generally has a better executed decoration than Belzoni, this is not always the case, and the only significant distinction between them is in the rectilinear vs. curvilinear design. There is also an obvious resemblance to Leland Incised. But the differences in paste, vessel form and decorative technique--and also perhaps motifs--prove that there is no direct relationship. The use of punctations as a secondary element in the design bears a superficial resemblance to Beland City Incised, but it is probable that the decorative concepts were quite



different. Outside of Winterville, relationships are probably closest to Rhodes Incised, Owens Punctated, and Manley Punctated (Phillips et al 1951:127, 136-137, 147), with each of which there are similarities not otherwise manifested at the site.

References: Ford et al 1955:99-101; Phillips (in press); Thorne and Broyles 1968:24.

Neeley's Ferry Series: Blum Incised

Illustrations: Plate 9k-m.

Sample: 22 sherds.

Ware: Typical Neeley's Ferry in paste and surface finish. Vessel form is restricted to the plate, or shallow bowl.

Decoration:

Technique. Incising while the clay was still in a very plastic state. On most sherds, the incisions are fine to medium (1-2 mm.) in width, but in a few cases they are broader--almost trailed--and on one sherd the lines are so broad and shallow the technique approaches brushing (Pl. 9k). The execution is generally rather careless, although all rough edges have been removed.

Design. The design may be either curvilinear or rectilinear. The only observed curvilinear motif is the interlocked scroll composed of up to seven parallel lines. Rectilinear designs consist of parallel straight lines in unknown motifs.

Placement. Decoration is confined to the interior

surface of the vessel and is apparently placed in the center, not on the rim.

Remarks: Blum is certainly very closely related to Anna Incised of the Greenville series. The most significant shared traits are the vessel form and placement of decoration, both of which have a very restricted occurrence at Winterville. Classificatory distinction, however, is required by the differences in paste, quality and kind of decoration technique, and the complexity of design motifs. Phillips (in press) has suggested that Blum be made a variety of Winterville Incised; but because of the incorporation of rectilinear motifs, and because of the other traits mentioned above, I believe the relationship lies much closer to Anna.

References: Phillips (in press).

Neeley's Ferry Series: Grace Brushed

Illustrations: Plate 9i-j.

Sample: 26 sherds.

Ware: Typical Neeley's Ferry paste and surface finish. The only vessel form represented is the standard jar.

Decoration:

Technique. Brushing with a bundle of fibers or grasses. The execution is generally very careless and superficial (Pl. 9j). If it were not for some sherds which approach Plaquemine Brushed in quality (Pl. 9i), there would be some doubt whether this was purposeful

decoration or crude surface finishing.

Design. An overall decorative effect is intended, although this may range from a careful, oblique, rectilinear arrangement similar to Plaquemine Brushed, to the haphazard brushing characteristic of Salomon Brushed.

Placement. On the exterior surface of the vessel.

Remarks: This class is most closely related to Plaquemine Brushed of the Addis series, although it differs in paste and general quality of the brushing. The more carefully executed sherds also resemble Barton Incised, with which the class as a whole shares certain other relating attributes.

References: Phillips (in press).

Neeley's Ferry Series: Mound Place Incised

Illustrations: Plate 11p.

Sample: 4 sherds.

Ware: Typical Neeley's Ferry paste and surface finish is exhibited. All are rim sherds from wide mouth, simple bowls.

Decoration:

Technique. Incising with a sharp pointed instrument in clay of medium plasticity. Execution is of variable quality.

Design. The rectilinear design is represented by the sole motif of two or more parallel horizontal lines. These lines are spaced 1-2 cm. apart.

Placement. Directly beneath the rim on the exterior surface of the vessel.

Remarks: Despite a certain superficial resemblance to Hardy Incised (Addis series), there is almost certainly no relationship, as the origin of this class is believed to be very different (see remarks under Hardy Incised).

References: Phillips (in press); Phillips et al 1951:147-148; Thorne and Broyles 1968:70; Williams 1954:224.

Neeley's Ferry Series: Old Town Red

Illustrations: Plate 9g-h.

Sample: 28 sherds.

Ware: Typical, coarse Neeley's Ferry with roughly smoothed finish. As all the sherds are undistinctive body sherds, vessel forms are not known, but large simple bowls are indicated by the curvature and by the interior decoration on 39% of the specimens. Other forms may also be present, but cannot be inferred from the evidence at hand.

Decoration:

Technique. A red pigmented film is applied to the surface of the vessel prior to firing.

Design. The only decorative effect intended is an overall red color.

Placement. 17 of the sherds are filmed on the exterior only, 8 on the interior, and 3 on both the exterior and interior. It is presumed that in each case

the entire interior and/or exterior surface was covered.

Remarks: While there is an obvious resemblance to Larto Red (Baytown series), there is probably no direct relationship. The similarity represents convergence resulting from the application of the same general decorative concept, for Old Town and Larto belonged to different times and places. (Larto was indigenous to the Winterville area, but seems to have predated the site, itself, as it is found only in constructional fill. Old Town, on the other hand, is present in occupational layers, but was probably introduced from the Eastern Lowland region of northeastern Arkansas-southeastern Missouri. It is important to note that Phillips confines his Old Town variety of the type--the variety to which this material most closely conforms--to that region.) However, there is certainly a close relationship with Chicot Red (Greenville series) and Sharbrough Red (Coker series), both of which also combine red painting with shell tempering.

References: Cole 1951:147-148; Marshall 1965:103-107; Phillips (in press), Phillips et al 1951:129-132; Thorne and Broyles 1968:78; Williams 1954:209.

Neeley's Ferry Series: Owens Punctated

Illustrations: Plate 110.

Sample: 1 sherd.

Ware: Coarse Neeley's Ferry with roughly smoothed surface finish. The one sherd is from the rim of a jar.

Decoration:

Technique. Careless incising and punctating with a sharp pointed instrument.

Design. Overall design is apparently rectilinear and consists of a single zoned punctation motif: widely spaced, diagonal, punctate-filled bands.

Placement. On the exterior surface of the body of a large jar. The rim is not decorated.

Remarks: Owens is a very minor class at Winterville, and its importance is further reduced by the fact that the example was not stratigraphically located but was found on the surface. The only real significance of this one sherd is that it is probably from an imported trade vessel, for the usual provenience of Owens is far up the river in the Lower St. Francis and very northern Yazoo Basins, per Phillips.

References: Phillips (in press); Phillips et al 1951: 136-137.

Neeley's Ferry Series: Parkin Punctated

Illustrations: Plate 9p-v.

Sample: 184 sherds, 1 partial vessel.

Ware: Coarse Neeley's Ferry paste which has been roughly smoothed in preparation for the decoration. Jars are the predominant vessel form, although a few sherds also indicate bowls. Handles are more commonly associated with Parkin than any other pottery class at Winterville.

Decoration:

Technique. Punctating with a variety of implements and by means of a number of different methods. The most common kind of punctation was made with a blunt ended stick which was held at an angle to the surface of the vessel. This technique formed a characteristic ridge, or "burr," along one side of the punctation which is oval shaped (Pl. 9q, r, u). Occasionally, a thinner stick or reed was pushed straight into the clay so that the small punctations are round or circular (Pl. 9p, t). Some semilunar punctations were made with the fingernail alone (Pl. 9v), and a few of these were made by pinching the clay between the fingers, sometimes raising a small protuberance in between (Pl. 9s). All kinds of punctations average .5-1 cm. in diameter and were made when the clay was still very soft. Execution varies greatly from sloppy to careful, even among the same kind of punctations.

Design. The punctations are randomly applied over the entire surface but often they are rectilinearly arranged in horizontal and/or vertical rows. This linearity, however, appears to be a by-product of the equidistant spacing observed in creating the primary decorative effect of overall visual contrast.

Placement. Decoration is always on the exterior surface of the vessel, and while it is usually confined to the rim or shoulder area it sometimes covers the whole body (particularly of bowls).

Remarks: Similarities in paste and vessel form relate Parkin to both Barton and Winterville Incised, although the class remains distinct in decoration and the occurrence of handles. Although it is possible that Parkin may ultimately be derived from Evansville Punctated (Baytown series) further north, any resemblance to the Winterville examples is surely homoplastic (and is in terms of decoration only). There is also a very close resemblance to, and perhaps affinity with, Wilkinson Punctated of the Addis series.

References: Marshall 1965:102; Phillips (in press); Phillips et al 1951:110-114; Thorne and Broyles 1968:84-85.

Neeley's Ferry Series: Pouncey Pinched

Illustrations: Plate 9n-o.

Sample: 16 sherds.

Ware: Neeley's Ferry paste and surface finish. The standard jar is the only observed vessel form.

Decoration:

Technique. Pinching between the fingers while the clay is still very plastic. These pinches are usually prominent and arranged closely together to form ridges (Pl. 9n). But occasionally they are shallow and disconnected so that while they still follow in close succession, the ridge effect is lost (Pl. 9o). Execution is relatively careless.

Design. The ridges, or rows, are aligned vertically



to form a simple rectilinear design.

Placement. On the exterior surface of the vessel, where it may be found on the rim and/or body. In the latter case it is probably restricted to the upper part, or shoulder.

Remarks: Pouncey is very closely related to Patmos Pinched (Addis series), with which it shares the same vessel form, decorative intent and technique of execution. The quality of the execution, however, is generally inferior in this group. A probable relationship with Parkin Punctated is evident in paste and vessel form. Also significant is the occasional use of pinching in Parkin, although the decorative application is different. In terms of the rectilinear decorative intent, Pouncey is more closely related to Barton Incised, with which it also shares the same paste and vessel form.

References: Phillips (in press); Phillips et al 1951: 111-112.

Neeley's Ferry Series: Transylvania Punctated

Illustrations: Plate 11 l-m.

Sample: 24 sherds.

Ware: Typical Neeley's Ferry paste in texture, tempering and surface finish. The only vessel form seems to be the jar.

Decoration:

Technique. Careless punctating with fingernail or

pointed stick, usually without raising a "burr" along one side.

Design. The punctations are aligned in rows forming curvilinear (but not excluding rectilinear) designs. Complete motifs are not known, but a common element is the festoon.

Placement. The decoration is placed on the exterior surface of the vessel and may be found on both the rim and the body, although it is more common on the latter.

Remarks: Transylvania is obviously closely related to Parkin Punctated (Phillips makes it a variety of Parkin), but is distinguished by the overall decorative intent. Unlike Parkin where the punctations, themselves, are the decoration, they are here the technique whereby a linear design is executed. As in Patmos Pinched and Pouncey Pinched, this is believed to be an important distinction. Decoratively, Transylvania differs from Pouncey in favoring more elaborate curvilinear designs rather than simple rectilinear ones. The possible use of festoons in these designs might relate Transylvania to Winterville Incised.

References: Phillips (in press).

Neeley's Ferry Series: Tyronza Punctated

Illustrations: Plate 11n.

Sample: 1 sherd.

Ware: Coarse shell tempered Neeley's Ferry paste. Surface

is roughly smoothed. The vessel form is a jar.

Decoration:

Technique. Punctuation and incision with a sharp pointed instrument. Execution is fairly neat.

Design. The rectilinear design consists of a zoned triangle motif filled with punctations.

Placement. On the rim of the vessel, the triangles depending from the lip.

Remarks: Phillips places Tyronza in the upper part of the Lower Valley, and as only one example was recovered from Winterville, it may be assumed that it was an importation from further north.

References: Phillips (in press); Phillips et al 1951: Fig. 87d.

Neeley's Ferry Series: Arcola Incised

Illustrations: Plate 11a-d.

Sample: 47 sherds.

Ware: Neeley's Ferry paste, but sherds often quite thin and reminiscent of Coker. However, the resemblance is probably only homomorphic, the thinness here being the result of diminution in vessel size and not specifically a trait of the paste as in Coker. Forms are small globular pots with short standing, or flaring, rims. These are a subcategory of the standard jar form and differ only in the smaller size and the joining of the rim and shoulder at a sharper angle. Surfaces are smoothed and sometimes polished.

Decoration:

Technique. Fine-line incising in plastic clay is characteristic. Execution is of a high quality and rough edges are almost always removed.

Design. Straight, closely spaced, parallel incisions are arranged into a band of line-filled triangles. Occasionally, the individual triangles may be separated by a broad incision; similar incisions may be employed to indicate the top and bottom borders of the band.

Placement. The single band of decoration is placed on the shoulder, or upper body, of the vessel, and never on the rim.

Remarks: This is the same pottery described in the references, except for a few minor differences (e.g., punctations are never incorporated in the decoration of the Winterville specimens, nor are appendages found to be associated). Arcola is very similar to Barton Incised, but is distinguished by the finer and more careful execution of the decoration which is placed on the shoulders of small jars rather than the rims of larger ones. There is an even closer physical relationship with Belzoni Incised, differences being mainly in the realm of design motifs and execution.

References: Phillips (in press); Phillips et al 1951:140; Thorne and Broyles 1968:12.

## Neeley's Ferry Series: Winterville Incised

Illustrations: Plate 10m-z.

Sample: 300 sherds.

Ware: Typical Neeley's Ferry in all its variations of paste and surface finish. Vessel form is the standard jar. No handles or other appendages are known to be associated.

Decoration:

Technique. Incising, but covering a wide range of techniques. The incisions may be crudely or finely executed with a sharp or blunt instrument in plastic to fairly dry clay. Very narrow to exceptionally wide incisions occur, but the average is a medium line which is neither particularly careless nor neat in execution. Wide lines seem to be more common in the upper levels.

Design. The overall designs are basically curvilinear, although they may include horizontal elements. The favored motif is for the rim to be banded with parallel, horizontal lines and to have concentric festoons depending down from them onto the shoulder (Pl. 10s, x, z). There may be a few distinct festoons spaced evenly around the vessel, or a series of smaller ones in an imbricated pattern. In a few early examples, the festoons are restricted to the rim and depend from just one horizontal line under the lip, or no line at all (Pl. 10p, q, u). It thus appears that there is a development towards a more complex design and one which encroaches further down upon the shoulder of the vessel. Another motif is composed of three parallel

lines which, instead of being horizontal, form a simple meander running around the rim and dipping down onto the shoulder (Pl. 10t). This motif is related to still another consisting of an interlocked scroll, which either runs freely around the rim (Pl. 10r, v, w, y), or is segmented into zoned panels (Pl. 10m, n; see Barton Incised for a similar zoning treatment). This motif is related to the first one described above by the fact that the horizontal lines banding the rim in the latter case are sometimes zoned by oval panels (Pl. 10o).

Placement. On the exterior surface of the rim, but often extending down upon the shoulder of the jar. In any case, the decoration is restricted to the upper part of the vessel and is primarily a rim treatment.

Remarks: This is a new class, the distinctive features of which are curvilinear incised decoration on the rims of jars with Neeley's Ferry paste. There is a tendency for the decoration to encroach upon the shoulder area, which may be a development through time and the inspiration for Belzoni Incised. There is certainly a close relationship with Belzoni, manifested in the sharing of certain motifs--such as the interlocked scroll and the whorl--and the overall emphasis on curvilinear designs. However, there are important differences between these two in the predominance of motifs, their technique of execution and their placement on the vessel, so that whatever the relationship is, it is not as close as that between Winterville and

Barton Incised. Winterville and Barton differ significantly only in that designs are curvilinear versus rectilinear. This may seem a minimal difference on which to distinguish two separate classes, but it follows a broad distinction which has been established in Mississippian ceramics between curvilinear and rectilinear designs (Phillips et al 1951). But even more important is a consideration of origins; for while Barton may be traced straight up the river to the Mississippian heartland, Winterville is first recognizable as a distinct entity in the Yazoo Basin. Selected motifs of both Barton and Winterville are sometimes to be found combined on the same vessel in the northern part of the Basin (see Phillips et al 1951:Fig. 87i), but whether this is the result of overlapping of decorations, or is indicative of a developmental situation, is open to conjecture. In any case, the important consideration is that the distribution of two design concepts is not the same, and, whether Winterville is derived from Barton, or not, the two fall into easily sortable groups in the central basin.

References: Phillips (in press); Phillips et al 1951: Fig. 87e-h.

Coker Series: Coker Plain

Illustrations: Plate 9a.

Paste:

Method of manufacture. Coiled and well-made;

potsherds characteristically have clean fractures with straight edges, showing good bonding of the coils and overall technical accomplishment.

Tempering. Small-medium particles of crushed shell are the only tempering agent.

Texture. Due to the flakes of shell used for tempering, the paste has a laminated appearance, but is otherwise very fine and compact.

Hardness. Ranging from 2.0-2.5, most sherds are close to 2.5.

Color. Gray. May be light gray to very dark, almost black, and occasionally brownish gray. Interior surfaces may sometimes be of an orange hue.

Thickness. The range is 1-4 mm. with an average of 3 mm.

Surface finish: The surfaces are generally well smoothed. On a few specimens a thin, dark gray, clay slip has been added, which has been polished.

Form: Very little information is available concerning vessel shapes. There are no whole vessels and most of the pieces are undistinctive body sherds. However, the predominance of body sherds, plus the form of 12 rims suggests that large, globular, restricted mouth jars were the characteristic form.

Remarks: There is the possibility, strengthened by the lack of rim sherds, that what has been recognized as a separate class is really only an extreme variation of



Neeley's Ferry Plain. But while this may indeed be the case for those specimens from the latest occupational levels (see remarks under Arcola Incised and Barton Incised), there is no question of its being a viable and easily sortable entity in the lower levels of the excavations. Furthermore, in these cases, many examples--being thin, polished and having an oxidized interior surface--are reminiscent of Powell Plain, an important Northern Valley pottery. That this similarity might indicate relationship is supported by the fact that a few actual sherds of Powell, itself, were found at Winterville.

Associated decorative techniques: Cord marking and painting.

References: Griffin 1949; Phillips (in press).

Coker Series: Montrose Cord Marked

Illustrations: Plate 9d-e.

Sample: 14 sherds.

Ware: Thin Coker ware with fine texture and medium shell temper. Surfaces are well smoothed where undecorated. Vessel form is unknown but large jars are presumed, judging from the curvature of the sherds and the complete absence of rims.

Decoration:

Technique. Close spaced cord marking, and since the marks are usually parallel they were probably applied with a cord wrapped paddle. Cord marks average 1-2 mm.

in width and 1 mm. in depth. Although boldly impressed, they are often smudged, blurred or even obliterated by careless handling prior to firing. One sherd is also red filmed on the interior surface.

Design. The only decorative effect intended seems to have been an overall roughened surface. Although the markings are usually parallel this is probably a technological factor rather than a purposeful decorative feature. The only other decoration--red filming--is also an overall treatment.

Placement. The cord marking is always on the exterior of the vessel, and insofar as is known is not restricted to any particular area, but covers the entire surface. The one case of red filming was on the interior, or unmarked, side.

Remarks: This is a new class of the greatest significance, in spite of its meager representation. It combines a distinctive decorative treatment with an equally distinctive ware. Cord marking is not otherwise found on shell tempered ware in the Winterville area although it is an important decoration in the Baytown series (Mulberry Creek Cord Marked). The latter, however, should have predated the occupation of Winterville, so that any resemblance is due only to the application of similar decorative techniques. It is much the same kind of homoplasmy noted between Hardy Incised and Mound Place Incised. And like Mound Place, a more northerly origin is looked for in this

case, for it was in the Middle Mississippi heartland that cord marking continued as an important decorative form on shell tempered ware at the later time that Winterville was occupied. The thin, Coker ware distinguishes Montrose from the northern cord marked pottery, but the ware, itself, is also probably of northern origin in concept, as it seems to be related to Powell Plain (see remarks under both Coker Plain and Powell Plain). The distinctive combination which characterizes Montrose, then, is a local creation resulting from heavy outside (northern) influence. The one red filmed sherd is of particular significance for the only other kind of decoration on Coker ware is red painting (Sharbrough Red), and this one sherd relates decorative techniques. Furthermore, it is surely no coincidence that Cahokia Cord Marked from Cahokia commonly combines these two techniques on the same vessel (Griffin 1949:55-56, Pl. 3), providing additional evidence for the origin of this pottery.

A final observation: while the very thinness of the Coker ware would not seem to be suitable for utilitarian purposes, particularly in view of the apparently large size of the vessels, it must be noted that a charcoal crust--such as accumulates from a cooking fire--is still preserved in some of the cord marks. It can only be surmised that, technically, Coker was a very superior ware.

References: None; but see sources listed under Coker Plain, Powell Plain and Sharbrough Red.

## Coker Series: Sharbrough Red

Illustrations: Plate 9c.

Sample: 5 sherds.

Ware: The paste is compact, medium textured Coker, but these sherds are remarkable in being even thinner than the average for the ware (the range is 2-ca. 3 mm.). Surfaces are well smoothed prior to decoration. As these specimens are undistinctive body sherds, vessel forms are unknown, but considering the placement of the decoration, closed forms--such as jars or bottles--are likely.

Decoration:

Technique. A thin clay slip has been applied to the surface of the vessel. After drying, it was polished over.

Design. The only decorative intent seems to be to imbue the entire surface with the rich red color of the pigmented clay slip.

Placement. On the exterior surface of the vessel.

Remarks: Although only barely represented, this is a distinctive class of pottery with a significance far beyond its numbers. Red slipping on Shell tempered ware at the time that Winterville was occupied is certainly a trait which came down the river from further north (see discussion under Old Town Red of the Neeley's Ferry series). The combination of this trait with Coker ware in Sharbrough further emphasizes this influence, for Coker is probably the local copy of Powell Plain (a

Cahokia pottery, a few sherds of which are present at Winterville). Moreover, a close relationship with Powell, itself, is evident in the shared traits of red coloring, clay slipping and surface polishing, although the application is somewhat different in each case. Sharbrough is also related to Chicot Red and Old town Red in sharing the same general decorative treatment, but differences in ware and vessel form distinguish them. The name "Sharbrough" was coined by Phillips for essentially the same material which he has recognized in the collection from the Lake George site (21-N-1).

References: Phillips (in press).

Powell Series: Powell Plain

Illustrations: Plate 9b.

Sample: 7 sherds.

Ware: Compact, medium shell tempered Powell from Cahokia. This ware is exceptionally thin, and in all essential respects is equivalent to the Coker Plain at Winterville, except that a dark gray slip has been added to the exterior surface and then highly polished. The only form recognized is a medium to large globular vessel with restricted mouth and simple rolled rim.

Decoration:

Technique. Aside from the polishing, the only decoration is red painting.

Design. Other than that the painting is confined to

a particular part of the vessel, no design is intended.

Placement. While polishing occurs over the exterior surface of the body of the vessel, only the interior surface of the rolled rim is painted.

Remarks: This pottery is not indigenous to Winterville, but must have been an import from the Cahokia region. The impact of this demonstrated contact with Cahokia is manifested in the equivalent local ware, Coker Plain, which was probably derived from, or at least influenced by, Powell. The relationship between these two is further emphasized by Montrose Cord Marked and Sharbrough Red which offer further proof of northern influence upon the Winterville ceramic complex. Powell Plain, although but one manifestation of this influence, serves to identify its origin.

References: Barrett 1933:Pl. 79-82; Griffin 1949:49-51, Pl. 1.

Bell Series: Nodena Red and White

Illustrations: Plate 11u-v.

Sample: 14 sherds.

Ware: The paste and finish are typical Bell, a northern ware similar to Holly Bluff, but distinguished by being thinner, harder and lighter gray in color. Exterior surfaces are always well smoothed, almost polished, but interior surfaces may be unfinished. Predominate vessel form is the bottle, although at least one sherd with a

decorated interior is from a bowl.

Decoration:

Technique. Red and white pigmented paint is applied to the surface of the vessel before firing. This paint can be quite thick (up to .5 mm.) and is similar to a clay slip in appearance, but differs in that a slip is applied to the entire surface while this is carefully restricted to certain areas. Although one sherd does indicate that the red was applied first and then the white over it, most show that both paints were put on at the same time.

Design. The sherds are too small to reconstruct overall designs or even determine whether they are rectilinear or curvilinear. However, it is probable that both curved and straight elements are represented. The only motif which can be recognized consists of parallel stripes, alternating red and white in color (Pl. 11u).

Placement. On the exterior surface of bottles, where necks tend to be painted red, only, while bodies are red and white; and on the interior and exterior surfaces of bowls. The paint usually covers the entire surface, although in some sherds there is almost as much natural unpainted surface, as painted.

Remarks: This is an example of trade pottery. The paste of these sherds, being Bell rather than Holly Bluff, proves that the original vessels were not made at Winterville, but further up the valley, from whence they were imported. This also explains the twin traits of painting and bottle

form which otherwise are nearly absent in the contexts from which these sherds came (the uppermost levels at the northern end of the site). Some of the sherds could be classified as Carson Red on Buff and others Hollywood White because they are missing a color, white and red respectively, but considering the small size of these sherds the deficiency is probably accidental. In any case, Modena, Carson and Hollywood are all closely related and their presence at Winterville has equal significance, so that for our purposes they may all be considered the same pottery, whether in fact they are or not.

References: Phillips (in press); Phillips et al 1951:133-134; Thorne and Broyles 1968:76.

Bell Series: Walls Engraved

Illustrations: Plate 11s-t.

Sample: 3 sherds.

Ware: Typical Bell paste, which is the northern counterpart to Holly Bluff, but distinguished by being thinner, harder and lighter in color. The surfaces are finely smoothed and highly polished. Although bottles are characteristic of this type elsewhere, the only vessel form represented by these sherds is the bowl.

Decoration:

Technique. Engraving with a very fine pointed instrument, probably after the vessel had been fired.

Design. The designs are curvilinear, but the sherds



are too small to reconstruct motifs. The predominant elements are zoned bands of crosshatching.

Placement. On the exterior body surface between the rim and the base.

Remarks: This is obviously an intrusive pottery which has been imported from the Memphis area to the north. The ware definitely owes its origin to this region, and the technique of engraving is very distinct from the incised-engraved technique exhibited in Beland City Incised (Holly Bluff series), the closest Winterville relative.

References: Phillips (in press); Phillips et al 1951: 127-129.

Chickachae Series: Chickachae Combed

Illustrations: Plate llw.

Sample: 2 sherds (from the same location, and probably from the same vessel).

Ware: The paste is definitely foreign to Winterville as it is slightly sandy and has a high organic content, possibly including a little shell; there are also inclusions of red, ochre-like pieces of stone. The peculiarly laminated appearance of the paste and the lack of coil fractures indicate that molding was the method of manufacture rather than coiling. While the interior surfaces are a light buff in color, exteriors are medium to dark gray. Surfaces are smoothed but not polished. There is no information on vessel size or shape other than

that the curvature of these sherds indicates small, globular forms. The sherds are a uniform 4.5 mm. in thickness.

Decoration:

Technique. Very lightly incised, or "combed."

Design. The lines are very closely spaced and arranged in sweeping curvilinear designs. The sole motif observed is the interlocked scroll.

Placement. The only information available is that this is a body decoration which is placed on the exterior surface.

Remarks: Chickachae has been associated with the historic Choctaw (Collins 1927). These sherds are from the uppermost levels, and there can be little doubt that they represent either a very late import or a remnant left by a roaming Choctaw band after the site was abandoned (it must be noted, however, that there is no other evidence of a historic occupation).

References: Collins 1927:260; Ford 1936:42-44; Haag 1953:25-27; Quimby 1942:265; Phillips (in press); Thorne and Broyles 1968:32.

### Unclassified Pottery

Two sherds from the surface (one each from Mounds A and G) are decorated with distinctive designs which do not fit in any of the foregoing classes. The sherd from Mound A (Pl. 11r) is from a small jar or bottle with Neeley's

Ferry paste. It is incised with a simple cross-within-a-circle ("sun circle") motif which is framed by rectilinear incised lines. The Mound G sherd (Pl. 11q) is from a wide-mouth bowl with scalloped lip. The paste is a fine textured Bell (the northern equivalent of Holly Bluff), and the vessel was almost certainly imported. The design--incised when the clay had hardened, but probably before firing--consists of what appear to be parts of a rattlesnake motif and another sun circle motif. These two sherds are very different, but they share in common a single design motif, which, with the rattlesnake motif, was probably inspired by that phenomenon known as the Southern Cult.

One sherd with typical Neeley's Ferry paste and surface finish seems to be decorated on the exterior with an impression from an open-mesh, twined textile or netting (Pl. 9f). If this was purposeful decoration, then the idea was probably introduced with cord marking (Montrose Cord Marked) from further north where both techniques were commonly found on shell tempered ware. However, as only one example was recovered from Winterville, it is possible that all that is represented is the accidental setting of an unfired pot upon a piece of fabric.

Seventy-one additional sherds with incised decoration could not be classified. Although some are simply unique, the reason in most cases was that they were so small that there was not enough information on design, or else the technique of execution was so irregular that they did not

conform to the established classes. The breakdown according to wares is as follows: 26 Addis, 2 Baytown, 5 Coker, 13 Greenville, 3 Holly Bluff, 22 Neeley's Ferry.

### Other Ceramic Artifacts

This category is composed of ceramic artifacts which are not included under the discussion of pottery. They are not potsherds which have been modified or reused, nor were they ever at any time a part of a pottery vessel. They were always distinct entities of varied complexity and function. Two classes of ear ornaments, one class of pipe and a group of miscellaneous objects comprise this category.

#### Round Earplug

Illustrations: Plate 12a-b.

Sample: 3.

Material: Similar in composition, texture and color to Addis ware.

Method of manufacture: Modeled. Surfaces are smoothed, but not polished.

Dimensions: The range is 26-ca. 35 mm. in diameter, and 10-15 mm. thick.

Form: Drum shaped. The faces are flat, convex, or concave; the sides are flat or slightly concave.

Function: Ornamental. These are designed to be worn in a perforated ear lobe.

Remarks: This kind of earplug is characteristic of the southern part of the Lower Valley during the middle-late prehistoric period (cf. Ford 1951, Fig. 42a-b; Moore 1911, Fig. 4).

### Cylindrical Earplug

Illustrations: Plate 12c.

Sample: 1

Material: Similar in composition, texture and color to Neeley's Ferry ware.

Method of manufacture: Carelessly modeled. Surface is smoothed, but not polished.

Dimensions: The diameter of the head is 19 mm. and of the shaft 12 mm. The original length is unknown.

Form: The form is that of a thick pin with an expanded, but flat, head.

Function: Ornamental. This is believed to be an ear ornament designed to be pushed through a perforation in the earlobe.

Remarks: This specimen is similar in appearance to a small earspool and would be so classified if it were not for the disproportionate length of the shaft (even though broken, it is too long). Therefore, it seems the better alternative to classify it with the pin shaped clay and shell ornaments found in late Mississippian sites in the valley (cf. Moore 1911, Fig. 28). The kind of ware from which it is made and its stratigraphic position at

Winterville support such an association.

### Elbow Pipe

Illustrations: Plate 12g.

Sample: 1.

Material: Paste and surface finish equivalent to Neeley's Ferry ware.

Method of manufacture: Probably modeled, but may be coiled. Surface is smoothed, but not polished.

Dimensions: App. 50 mm. long and 50 mm. high.

Form: This is an equal-arm elbow pipe with biconical bowls.

Function: Specialized container (for smoking tobacco or other mixture). Either bowl could have been used to hold the weed, but one is slightly wider and had more carbon content, while the other was flattened on what would have then been the bottom side. In the latter end would have been inserted a separable stem, presumably of wood or cane.

Remarks: This kind of pipe is a good Mississippian artifact and is found wherever these people ventured in the late prehistoric period.

### Miscellaneous Objects

A dozen miscellaneous objects, most unidentifiable, are too undistinctive to convey any significant information. The most interesting of all are what appear to be two legs broken off from crudely finished clay figurines (Pl. 12e-f).

A third item is a small round, shell tempered ball with an extruded point on one side (Pl. 12d). The nine other objects are crudely finished and made of untempered clay; they are in a variety of shapes and sizes, and while some appear to have been purposely shaped others are amorphous lumps, perhaps accidentally fired.

### Stone Artifacts

This category of artifacts may be divided into three subcategories according to the degree of manufacture exhibited by the members (i.e., the extent to which the natural material was modified by human agency): (1) unmanufactured tools, (2) crudely manufactured tools, and (3) carefully manufactured tools of greater sophistication. The first group consists of natural stones utilized with no apparent prior modification, and includes three types of tools: palette, abrader and hammerstone. Group two is composed of tools which exhibit only the lowest order of manufacture; that is, stones which have been modified only enough to accomplish the job at hand, and includes four types of tools: chopper, unspecialized scraper, oval scraper and plane scraper. The third group contains those tools exhibiting more involved techniques of manufacture, finer and more careful workmanship, and generally a more extensive modification of the basic material; aside from some unclassified specimens, this group includes one class of celt and two classes of projectile points.

The chert mentioned is the usual fine variety which ranges from tan to red in color. Much of it probably came from interglacial alluvial gravel deposits within the valley proper. The light gray to creamy pink quartzite, on the other hand, is of widely varying quality (depending upon the amount of impurities), and most of it was probably brought down from the hills.

#### Palette

Illustrations: Plate 12k-m.

Sample: 4 pieces and 2 whole specimens.

Material: Very poor grade of quartzite.

Method of manufacture: None.

Dimensions: Variable. The dimensions of the largest specimen are 115 mm. long, 80 mm. wide and ca. 20 mm. thick.

Form: Relatively flat, but irregular in outline.

Function: Grinding platform.

Remarks: Stones were selected which had been shaped naturally to the approximate form desired. The only human modification is subsequent usage: one or both sides are ground down so that the center of the palette is significantly thinner than the edges. The wear pattern is even and without gross linear striations; the surface is often so finely ground that it is semi-polished. This indicates that the grinding operation was of a finer nature than whetting. As the name suggests, the probable function was for use in grinding up ochre to make pigments for



paint: one of the specimens, associated with burial #9, had a small pumice abrader lying on it and was covered on one side with a layer of yellow ochre. Fragments of these palettes are often found at Late Baytown sites in the Yazoo Basin.

#### Abrader

Sample: 2

Material: Pumice, quartzite.

Method of manufacture: None.

Dimensions: Variable (the larger specimen is 70 mm. long).

Form: Irregular.

Function: Grinding.

Remarks: The piece of pumice is worn on several sides, and as it was associated with the stone palette found with burial #9, its specific use was probably for grinding ochre into paint pigment. The other specimen is larger and has two distinct surfaces of heavy wear. The particular function which it may have performed is unknown, but the appearance is similar to that of a mano.

#### Hammerstone

Illustrations: Plate 13a.

Sample: 4.

Material: Quartzite (3), chert (1).

Method of manufacture: None.

Dimensions: Variable.

Form: Irregular.

Function: Pounding.

Remarks: Heavy enough to be functional, these cobble size stones are of a convenient size to be held in the hand. All were utilized as found; that is, they are heavily battered on the end or side, but otherwise unmodified.

### Chopper

Illustrations: Plate 13b-c.

Sample: 34.

Material: Mostly chert, but also a few quartzite.

Method of manufacture: Percussion. One or more large flakes have been crudely detached, unifacially or bifacially, to produce a sharp cutting edge along one side or end. Occasionally, fortuitous breaks seem to have produced a useable edge, which then obviated such purposeful manufacturing.

Dimensions: Variable, but in the range of cobbles.

Form: Irregular, but always with at least one clearly defined cutting edge.

Function: Chopping. The edges are usually heavily battered, presumably as the result of striking or chopping rather than cutting or scraping.

Remarks: This class intergrades with unspecialized scrapers, the principal differences being in size of the instrument, and the degree and kind of wear exhibited. There are no other distinguishing formal characteristics.

## Unspecialized Scraper

Illustrations: Plate 13d.

Sample: 40.

Material: Chert.

Method of manufacture: Percussion. Several large flakes have been carelessly detached to create a sharp, bifacial edge. This edge is quite irregular, but there is no evidence of secondary working or retouching. Suitable large flakes which did not require much modification were sometimes used.

Dimensions: Variable.

Form: Irregular. But there is always a sharp cutting edge along the side or across the end of a pebble, cobble or flake.

Function: Cutting. The pattern of wear consists of multiple small flakes irregularly splintered off from both sides of the edge, which suggests useage for cutting, or possibly scraping, purposes.

Remarks: These are sometimes difficult to distinguish from choppers, and it is probable that their functions overlapped. These scrapers, however, are usually smaller and show a different pattern of wear.

## Oval Scraper

Illustrations: Plate 13h-i.

Sample: 27.

Material: Chert.

Method of manufacture: Fine percussion and pressure flaking. Flakes or pebbles have been crudely chipped, usually over the entire surface. Some irregular examples were obviously fragments of the proper size which were discovered and used without further modification.

Dimensions: 30 mm. average diameter. These specimens are fairly uniform in size.

Form: Oval or round with a continuous bifacial cutting edge around the widest dimension.

Function: Cutting. The pattern of wear is similar to that found on Unspecialized Scrapers, although it is probable that a specialized function was the reason for the particular form.

Remarks: These implements are closely related to unspecialized scrapers in general function, but are quite distinct in form and degree of preliminary modification (manufacturing). Since most were purposely manufactured to conform with a particular shape and dimension, it is presumed that they had a specialized function. Although more care seems to have gone into the manufacture of these scrapers, the fact that the edge is generally straighter than on unspecialized scrapers is the result of the smaller size of the detached flakes and is not due to any secondary retouching.

#### Plane Scraper

Illustrations: Plate 13f-g.

Sample: 38.

Material: Chert.

Method of manufacture: Percussion. One or more large flakes detached unifacially from a natural pebble to produce a narrow and steeply angled working edge. No further retouching or preparation of the edge is evidenced.

Dimensions: Variable. But within the range of pebbles and small cobbles.

Form: Irregular. Except where the surface has been modified, the form is that of the natural pebble. The working edge averages no more than 10 mm. wide.

Function: Scraping. The narrow and steeply angled working edge would be quite unsuitable for ordinary cutting or scraping, but it would be appropriate for fine planing or chiseling. Usage produces a characteristic wear pattern in the edge: a similunar depression resulting from the multiple detachment of microscopic flakes at, or near, one point. It is suggested that these tools may have been fashioned for working bone, or possibly wood, where a long cutting edge was not required; and the semilunar depression would follow as a natural result of use on a curved surface.

Remarks: As with unspecialized scrapers, there seems to have been no strict requirement for size or shape, and sometimes suitable flakes were also used without further modification. The only certain requirement and distinguishing characteristic was for a narrow, steeply sloped edge, which was presumably created for a very special purpose.

## Pebble Celt

Illustrations: Plate 13 1-n.

Sample: 6.

Material: Chert (5), petrified wood (1).

Method of manufacture: Percussion, pressure flaking and grinding. The basic technique is rather careless, bifacial chipping to achieve the basic form through the removal of small to medium flakes. That pebbles of the approximate size and shape of the finished product were carefully selected is indicated by the fact that these celts were never worked over the entire surface, and part of the original cortex usually remains on one or both faces. The side edges, which seem to be the incidental result of the manufacturing process rather than the intended working edge, are always heavily scarred apparently through purposeful blunting preparatory to hafting. This scarring is in sharp contrast to the single working end which is always carefully finished, bifacially ground and polished to a sharp even edge. On the specimens at hand, this edge is worn or chipped through use. The other end is left unfinished, or is rounded off and blunted.

Dimensions: None of these implements would have had an overall length of more than 100 mm., and the average was probably closer to 70-80 mm. The average width is 20 mm.

Form: These celts have long and narrow silhouettes with straight, or slightly convex, sides. The working end is slightly rounded. Cross sections are oval.

Function: Scraping or chopping. Considering the shape of these implements and the carefully finished, but narrow, working edge, it is probable that they functioned as some sort of chisel, perhaps for large wood working projects. However, the possibility of some sort of chopping function--for example, as the bit of a tomahawk--should not be excluded.

Remarks: These are diagnostic Mississippian artifacts in the Yazoo Basin, which, at Winterville, are found only in the very uppermost levels or on the surface.

#### Triangular (Scallorn) Point

Illustrations: Plate 13v-y.

Sample: 5.

Material: Chert.

Method of manufacture: Pressure flaking. Transverse flaking, meeting in a rough median ridge on both faces, is characteristic. Fine finish retouching of the edges is common.

Dimensions: Lengths range from 26-39 mm.

Form: These are triangular, corner-notched points with sides which are usually incurvate and bases which are excurvate. Barbs are prominent.

Function: Piercing. These are arrow points which are meant to be hafted to a shaft.

Remarks: These points are of the type variously called Scallorn, Alba, or "fir tree" in the literature (Webb 1959;

Ford 1951). They were a common point in the southern part of the Lower Valley during the latter part of the pre-historic period.

#### Triangular (Madison) Point

Illustrations: Plate 13r-u.

Sample: 4.

Material: Chert.

Method of manufacture: Pressure flaking. Flaking is often transverse, but may be rather irregular. When transverse, some semblance of a median ridge is sometimes apparent on one or both faces. Retouch finishing was employed where necessary to straighten the edges and occasionally to blunt the basal edge.

Dimensions: Reconstructed or actual lengths range from 30-41 mm.

Form: These are thin triangular points with straight sides, and straight or incurvate bases.

Function: Piercing. These are arrow points which are meant to be hafted to a shaft.

Remarks: Points of this type are often classified as Mississippi triangular, or Mississippian in the published reports. They are typical markers for the spread of Mississippian culture throughout the Southeast.

#### Miscellaneous Stone Artifacts

A number of solitary artifacts, unidentifiable fragments,



and problematical objects could not be classified because of a lack of information. A wide variety of forms, materials, methods of manufacture and presumed functions are represented.

Chipped chert: An asymmetrical point which was probably to be hafted and used as a knife blade (Pl. 13q); an expanded base drill point (Pl. 13j; see also Ford 1951:Fig. 46a); a stemmed end scraper (Pl. 13e); nine unclassifiable fragments of points and other implements (Pl. 13k, o-p); and one "perforator." The perforator is an excellent example of those described as characteristic of the Poverty Point culture microlithic industry (Ford et al 1955:140-141). It was found in mound fill and is the only evidence that we have of a Poverty Point occupation in the immediate vicinity of Winterville.

Ground stone: (Purposeful grinding in the shaping and finishing of an artifact was a minor lithic manufacturing technique at Winterville. As noted thereunder, it was employed as a secondary process in the finishing of chipped pebble celts, but as a primary technique of artifact manufacture it is represented only by a few examples. The technique and the choice of materials probably indicate a ceremonial or ornamental function for these artifacts. The first two items were surface finds.) The end of a finely ground, but not polished, greenstone celt or gorget (Pl. 12j); an oval plummet with a smooth to rough finish and grooved at one end (Pl. 12h); and three small

pieces of galena, which have been irregularly but purposefully ground (Pl. 12i).

### Bone Artifacts

Bone artifacts may be divided into four classes-- projectile points, awls, flakers and miscellaneous. All of the artifacts were made from mammalian long bones, usually deer, or deer antler. Where shaped by human agency, the basic manufacturing technique was carving and/or grinding.

#### Conical Point

Illustrations: Plate 14a-d.

Sample: 4.

Material: Bone (2), antler (2).

Method of manufacture: The bone points were carved and polished, the antler points carved only.

Dimensions: These specimens range 35-50 mm. in length.

Form: Conical, with straight or slightly curved sides.

Bases are hollowed out.

Function: Piercing. These are arrowheads which were meant to be placed on the end of the shaft.

Remarks: These points are a good early Mississippian marker.

#### Awl

Illustrations: Plate 14e-g, k-l.

Sample: 13.

Material: Bone.

Method of manufacture: Carving and grinding (whetting).

Dimensions: Variable. Overall dimensions are probably not significant as they are primarily a factor of the kind of bone chosen rather than of human modification.

Form: One end of a deer ulna or a splinter from a deer long bone, or a small mammal long bone has been brought to a point. The point is the only part that has actually been formed, the rest of the artifact being in a natural state or left as broken. These points range from sharp to blunt, and nearly half are broken from use.

Function: Piercing. Undoubtedly, a number of unrelated functions were fulfilled by this rather heterogeneous grouping.

Remarks: Given more information than is available from Winterville, this group should be broken down into potentially more meaningful classes.

#### Flaker

Illustrations: Plate 14i.

Sample: 2.

Material: Antler.

Method of manufacture: None.

Dimensions: Equivalent to the natural range for the prong of a deer antler. These specimens are 63 mm. and 69 mm. long.

Form: That of a formally unmodified deer antler prong.

Function: Flaking. The characteristically scarred tips--the only evidence of human modification--indicate that these were used as flakers in the manufacture of stone artifacts.

Remarks: Both specimens came from occupational levels, and one was associated with a workshop floor.

#### Miscellaneous Bone Artifacts

Five other artifacts made from bone are put into this catchall category. They include: a finely detailed representation of a human hand, which had been carved in the round and broken from a larger whole (Pl. 14m); a deer scapula with the end of the blade cut off, and a badly deteriorated unidentified tool, both associated with burial #9; a piece of carved antler which had been broken and burned (Pl. 14j); a hollow tool with a rounded and worn end, which could have been used as a marrow remover or reamer (Pl. 14h); and an unidentified broken tool.

#### Faunal and Floral Remains

Although the inhabitants--or adherents--of Winterville must have been true agriculturists who derived the bulk of their sustenance from domesticated foodstuffs, there is but little evidence and it comes only from the upper levels. Domesticates included maize and beans which were both present in small amounts in midden deposits on the summits of Mounds K and M. Nuts of the chinaberry and acorn from

Mound S were the only other edible floral remains found.

Some 50 pounds of animal bones were also recovered from the excavations. While this is a meager haul in comparison to the usually large number of bones found at sites of this period, a wide variety of animals is represented. Unfortunately the final analysis<sup>1</sup> has not yet been completed, but preliminary analysis revealed that a number of mammal, bird, reptile, fish and shellfish species were gathered from the riverine, levee and back-swamp ecological zones. Mammals, especially deer, were the most prevalent, while shellfish were surprisingly rare.

The general lack of food remains and the tools with which to cultivate, hunt or process them are further indications of the small resident population at Winterville.

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<sup>1</sup>Identification and comprehensive study of the faunal remains has been graciously undertaken by Carl Falk at the University of Missouri.

## VI. ANALYSIS UNITS

General Remarks

The collection of cultural remains described in the last chapter represents the overall archaeological culture of Winterville. This collection may be divided into more meaningful assemblages through the consideration of the stratigraphic distribution of the cultural remains within the excavations. In order to reconstruct the stratigraphy, the remains are "put back" into the contexts from which they were removed, and their appearance in each excavation is tabulated according to the natural or arbitrary levels which provided the stratigraphic control during the excavation process.

Because of the sheer weight of evidence, primary emphasis in the analysis of the stratigraphy is accorded to pottery, which is listed by relative percentages in each excavation level. The stratigraphic distribution of pottery frequencies are presented in Tables 3-13. It will be noted that in each location stratigraphies are presented only for the principal excavation units (single or double pits). The ceramic contents of those pits which were added to expand an excavation are not tabulated because these pits were excavated in order to follow out a particular feature--such as the burials in Mound B or the burned structure on Mound K--and to expedite the process the dirt was not sifted, although material was saved when observed.

Therefore, distortion through sampling error would be too great for meaningful results. It should be observed, however, that on a simple presence-or-absence basis of comparison the contents of these excavations closely parallel their more carefully excavated counterparts.

Vertical comparisons of the pottery frequencies of each level in an excavation indicate the significant patterns and trends which, with reference to the stratification, serve to relate or distinguish the individual levels. The importance of the stratification largely rests upon whether the layers of deposition resulted from constructional or occupational activity. Constructional layers may be composed of undifferentiated fill, but are often mixed with midden refuse thus accounting for considerable variety in cultural content. Occupational layers, which consist of in situ primary midden deposits and/or actual living floors, provide more reliable stratigraphic data as long as they are relatively undisturbed.

As the distinctions between constructional and occupational layers will be of some further importance in Chapter VII, a key on the left hand side of each stratigraphic table (Tables 3-13) identifies the various layers of stratification in the pit and indicates which levels of excavation are included within each layer. In the event of no significant distinctions in pottery content, contiguous arbitrary levels--whether of one or more layers of stratification--may be combined and considered further

as a single unit. This procedure has the double advantage of increasing the size of the sample in a unit where two or more levels are combined and thereby reducing the possibility of sampling error, as well as focusing our deliberations on a surely more actual, rather than merely arbitrary, segmentation of the cultural content. The combination of levels according to similar pottery content is indicated by the brackets on the right hand side of Tables 3-13.

After the individual levels in each excavation have been combined into larger units on the basis of comparable pottery content, the same ceramic criteria are used to horizontally correlate the units of disconnected excavations (Table 14). The resulting larger units are composed of one or more levels from most of the excavations. Five such units are recognized in the pottery distributions, and these are further defined by the other artifacts contained within them (Table 15). The advantage of these larger units, therefore, is one of economy: they are the means whereby classes of levels, grouped according to pottery content and stratigraphic position, may be described as a single unit. As these units provide the basic groupings which will be utilized for the interpretation of the data in Chapter VII, they are given the generic label of "analysis units" (AU).

#### Analysis Unit 1

Analysis Unit 1 is composed of the lowest culture



bearing levels in Locations I, II, IV, VI and VII. It is best described ceramically by Levels 6I, 25R-AA, 86G-I and 95G<sub>2</sub>-J, but also includes 1F-G, and the culturally mixed levels 45N<sub>2</sub>-R, 56H-I (see AU3). These levels are all characterized by Addis Plain which is the predominant plain pottery, being more popular than all others combined. However, Coker Plain and Neeley's Ferry Plain are also present. Like Addis, the intermediate type, Greenville Plain, is at its peak. Baytown Plain is only significant in Location I, but even there it is accompanied by Neeley's Ferry Plain. Decorated pottery favors the rectilinear incised and punctated of the Addis series, but also includes the introduction of Powell Plain, the Coker series, and the closely related Old Town Red of the Neeley's Ferry series. Tools are restricted to a few plane scrapers, unspecialized scrapers and choppers. The only certain features are house structures at the bottom of Mound M.

### Analysis Unit 2

Analysis Unit 2 consists of the constructional layers in Locations I, II, V and VII and includes Levels 1B-E, 6G-H, 11/12E-K, 25C-Q, 75H-L, 95B<sub>2</sub>-G<sub>1</sub>. These layers represent the principal mound building activities in these locations and as large movements of earth were required there is a considerable mixture in the cultural content, with materials from both Analysis Units 1 and 3 present and variously represented. In this respect, it is of interest to note that it is in these levels that the Baytown

series is most prominently represented (and the Tchefuncte series solely) indicating that much of the dirt came from an older site in the vicinity of, but not actually located at, Winterville.

### Analysis Unit 3

This is the most complex analysis unit in terms of stratification and cultural content. Found throughout the entire site, it is represented in all eight locations by Levels 1A, 5/6C-F, 11/12B-D, 25B, 35H-M, 45E-N<sub>1</sub> (and through admixture, N<sub>2</sub>-R), 56E-G (and through admixture H & I), 75F-G, 86C-F, 95B<sub>1</sub> and 100B-D. Although these are both constructional (11/12B-C, 45F, I-N) and occupational layers, the emphasis is on the latter and include midden refuse strata (1A, 5/6C-F, 56E-G, 86C-F and 100B-D), living floors with associated structures (25B, 35H-M, 45E, G-H, 75F-G and 95B<sub>1</sub>), and burials on old mound surface (11/12D). In ceramics there is the appearance of one new plain pottery--Holly Bluff Plain--in the upper levels, as well as a significant shift to Neeley's Ferry Plain throughout which is now at least twice as popular as Addis Plain. Coker Plain continues, but as a very minor ware, as does Greenville Plain. Although the latter is not as important as it was in Analysis Unit 1, it is generally of finer quality which parallels the fact that the decorated pottery of the Greenville series is at its peak in these contexts. Considerable diversity in decorated pottery is also

represented by late examples of the Addis series and closely related counterparts in the Neeley's Ferry series, as well as a number of new classes in the latter series. The few examples of decorated pottery from the Coker series are believed to have been relocated from earlier levels, so that while they are part of the overall artifactual assemblage they are not a member of the Analysis Unit 3 pottery complex. The ceramic diversity of this analysis unit is well represented by the collection of funereal pottery accompanying the lower layer of burials in Mound B (11/12D): see Plates 3c, h, 4g, 6m, 8f, h, i.

Other artifacts include a considerable array of stone tools, such as scrapers of all kinds and choppers. If the hypothesis that plane scrapers were used for carving bone is correct, then it is surely no coincidence that they are common in these same levels that bone working reaches the peak of its popularity. Awls are the prevalent form of bone artifact. The most characteristic bone and stone artifacts from these levels are the projectile points: conical bone and notched stone (Scallorn).

#### Analysis Unit 4

With the principal mound construction having already been effected in Analysis Units 2 and 3, the levels of Analysis Unit 4 are primarily occupational in composition. However, it appears that a final spurt of constructional activity preceded this occupation on the western side of the site where a final mantle was added to Mound B

(11/12B-C, transitional to AU 3-4 and separating the two layers of burials) and to Mound G (45/46C-D), while all of Mound F (35A-G) seems to have been put up at this time although the associated occupational surface which could confirm this guess has been removed. However, actual living floors have been preserved in Locations IV, V and VI: Levels 45/46B, 55/56D, 75/76D and 86B. In addition, disturbed remnants of this occupation may be observed in the top levels of Locations I, II, VII and VIII: 5/6A-B, 11/12A, 25A, 95A and 100A. Also associated are the layer of burials in 11/12A.

The pottery continues much as in Analysis Unit 3, but Neeley's Ferry Plain now predominates overwhelmingly and Holly Bluff Plain shows a significant increase, while both Addis Plain and Greenville Plain decline. In fact, that the latter two plain wares are present at all is probably due largely to admixture with earlier levels, for the decorated pottery which defines these levels is that of the Neeley's Ferry series, such as Parkin Punctated, Barton Incised and Winterville Incised, and the Leland Incised and related classes of the Holly Bluff series. As might be expected, some of the disturbed surface levels also manifest a few examples of the late pottery characteristic of Analysis Unit 5. Essentially, however, the complex shows a greater coherence and homogeneity in which a small number of classes are emphasized, which contrasts sharply with the diversity of Analysis Unit 3. That this indicates

a settling down through the selection of alternatives is clear in the fact that the characteristic pottery in these levels already existed in Analysis Unit 3, and there are no significant new introductions. The same comments apply to other artifacts.

Thus, it would appear that this analysis unit is closely related to, and actually an extension of, Analysis Unit 3<sup>1</sup>. Essentially the same cultural content is present, although a selective emphasis is evident. In Analysis Units 3 and 4 the site achieved its greatest size, for levels from both units were found in all eight locations. Together they represent the peak of Winterville, which was abruptly terminated by a general conflagration evidenced by the burning of all living floors, and the apparent termination of significant occupation or other activities in the southern part of the site.

#### Analysis Unit 5

A final, late occupation of Winterville is manifested in the uppermost levels at the northern end of the site: Locations IV (45/46A, 55/56A-C), V (75/76A-C) and VI (85/86A). In all cases only occupational layers of midden refuse were revealed, those on the mound summits presumably being the remnants of destroyed living floors (pieces of which were actually observed on the summit of Mound K,

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<sup>1</sup>This close relationship is emphasized by two sherds of L'Eau Noire Incised from the same vessel, one of which was found in 45N, and the other in 45/46C.

outside of Pits 75/76). Although this occupation was restricted, it was either intensive or of long duration judging by the richness and the depth of the midden.

The ceramic content of these levels clearly indicates continuity from Analysis Unit 4. The basic pottery complex is unchanged except that the Holly Bluff series is far more important. In the Neeley's Ferry series, Barton Incised and Winterville Incised are diagnostic, as are their derivatives--Arcola Incised and Belzoni Incised. Parkin Punctated continues but declines in popularity. The only true innovation in ceramics is the appearance of sherds from trade vessels which, however, seem to have had no effect on the indigenous ceramic complex. This extraneous pottery--Bell series from the north, and Chickachae series from the east--is diagnostic for this analysis unit. Among nonceramic artifacts, there is a marked decline in bone working, while in stone working two new significant artifacts appear: Madison points and pebble celts.



Table 4. Stratigraphic distribution of pottery: percentages by level in Pits 5/6, Location I.

Strat. Layers	Level	Sample	Baytown Plain	Mulberry Creek	Larto	Oxbow	Churupa	Coles Creek	Addis Plain	Hardy	Wilkinson	Manchac	Harrison Bayou	Patmos	Unclas.	Coker Plain	Neeley's Ferry Plain	Old Town	Blum	Grace	Pouncey	Parkin	Barton	Winterville	Arcola	Unclas.	Greenville Plain	Anna	Bethlehem	Carter	L'Eau Noire	Chicot	Holly Bluff Plain	Teland		
occ	A	103	9.7		1.0				10.7						1.0	1.0	56.4				1.0	2.9	1.9	1.9	1.0		1.9					8.8	1.0			
	B	139	.7					11.3									78.4		7		1.4	1.4	7	7	7		7					5.0				
	C	502	3.2	2.4	2			10.8							2	2.8	76.8		8		4.8	6.2	6.2	2	2		1.6	4.2				6				
occ	D	1076	6.9	1.5			18.0		2.1						1	5.3	65.0	2.1		1	1	1	2	2		1.6	3.2				4					
	E	705	15.9	3.7			3.1		2.1						1	3.1	48.9	1.1	1.1		1	1	3	3		2.7	1				1					
cons	F	220	17.3	9				23.2								5.9	46.9										5.0									
	G	6	5.0					16.7									33.3																			
occ	I	17	29.4	5.9				41.2									17.6																			
	J	1	100.0																																	
occ?	K	2	50.0																																	
	L	0																																		

500







Table 7. Stratigraphic distribution of pottery: percentages by level in Pit 35, Location III.

Strat. Layers	Level	Sample	Baytown Plain	Mulberry Creek	Addis Plain	Manchac	Dupree	Plaquemine	Coker Plain	Montrose	Unclas.	Neeley's Ferry Plain	Old Town	Blum	Grace	Pouncey	Parkin	Barton	Winterville	Unclas.	Greenville Plain	Anna	Bethlehem	Carter	Chicot	
cons	A	99	54	51	0				1.0	363						1.0				1.0	2.0					
	B	70	37	2				1.4	1.4	415											1.85					
	C	55	41	8				3.6	1.8	418											.91					
occ	D	84	40	5				3.6		429											1.20					
	E	63	33	3				3.2		444	32										1.11					
	F	62	50	0						290											.97					
L&M	G	60	33	1				1.7		333											1.00					
	H	64	28	1				4.7		485											1.41	1.16				
	I	169	18	2				6	4.7	6	562	.6									.83					
L&M	J	172	14	0				1.2	7.0	652											1.11					
	K	286	7	2				.3	4.5	521	.3										.31	2.5				
	L&M	140	50	4				2.9		413											.57					















Table 14. Assignment of arbitrary excavation levels to analysis units.

EXCAVATION UNITS ANALYSIS UNITS	1	5/6	11/12	25	35	45/46	55/56	75/76	85/86	95	100
5						A	A-C	A-C	A		
4		A-B	A	A	A-G	B-D	D	D-E	B	A	A
3	A	C-F	B-D	B	H-M	E-N <sub>1</sub>	E-G	F-G	C-F	B <sub>1</sub>	B-D
2	B-E	G-H	E-K	C-Q				H-L		B <sub>2</sub> -G <sub>1</sub>	
1	F-G	I-L	L-N	R-AA		N <sub>2</sub> -R	11-I		G-I	G <sub>2</sub> -J	

Table 15. Distribution of non-pottery artifacts.

	Round Earplug	Cylindrical Earplug	Elbow Pipe	Palette	Hammerstone	Chopper	Unspecialized Scraper	Plane Scraper	Oval Scraper	Pebble Celt	Scallorn Projectile Point	Madison Projectile Point	Conical Projectile Point	Awl	Flaker
Surface				4	1	1	1		2	4	1	2			
AU 5	1				1	11	12	9	5			2		3	
AU 4			1	1		7	8	10	4				1		1
AU 3	1			3	2	12	14	13	11	1	3	1	3	8	
AU 2	1					1	2	3	1						
AU 1	1					2	4	4	1		1			1	1

## VII. CULTURE-HISTORICAL SYNTHESIS

### Introduction

The objective of this chapter is the spatial-temporal synthesis of the empirical data presented in Chapters V and VI in order to reconstruct the culture-historical contexts prerequisite for the interpretation of cultural processes to be undertaken in Chapter IX.

The procedure for achieving this objective is based upon the definition of artifact types and upon study of the patterning of the distribution of the types. As these types are clusterings of formal (decorative, technical and/or morphological attributes they are eminently suited for historic analysis. The patterning which may be observed in the distribution of such types provides the basic data for the construction of culture-historical contexts. And from these contexts, "based on patterns seen limned against a matrix of other patterns...we are to infer events and processes" (Caldwell 1958:2).

### Typology

The artifact classes presented in Chapter V are well suited to the objective of describing the cultural content of an archaeological manifestation, but they are unwieldy and nondefinitive groupings which are not appropriate units for further analysis. Artifact types, however, are

definitive groupings suitable for manipulation and interpretation: a typology is a classification which is explicitly theoretical in content as opposed to one intended purely as a descriptive categorization. The distinction between description and definition is emphasized by the fact that classes are a necessary, but not sufficient, step in the construction of typologies. While class descriptions are a listing of all major observable attributes--and the range of variation among these attributes--of a class of artifacts, types are abstractions of these classes defined by the particular combination of a much smaller number of diagnostic attributes shared by all members of the class. A diagnostic attribute is but one distinguishable feature (of an artifact) among many, its selection being determined by the objective of the classification.

As the present objective is a culture-historical construction, it is desirable that the criteria which determine the selection of the diagnostic attributes defining the artifactual types operate along historically sensitive dimensions. In this respect, criteria which select formal attributes would be preferred to those which emphasize other (e.g., functional) attributes, as formal attributes will generally have especial temporal-spatial distribution, and the particular combinations of these characteristics manifested in types may be expected to have especially restricted loci. Thus, the combination

of formal attributes which define a type are presumed to have historical significance, and when used for spatial-temporal integration these types are "historical" types (Rouse 1960).

The types defined below, then, are formulated on the basis of formal (technological, decorative and/or morphological) criteria in order to provide units suitable for historic analysis. It will be noticed that there are fewer types listed than there were classes of artifacts. The reason for this is that some classes are typologically insignificant (e.g., unmanufactured and crudely manufactured stone tools, most bone tools), while others are omitted because they were incidental inclusions in the overall artifactual assemblage and never part of a functioning complex at the Winterville locus (e.g., the Baytown series and Tchefuncte series of pottery). All of the types listed are assigned the same labels as the classes from which they are derived (cf., Chapter V).

#### Pottery Types

The pottery has already been described in Chapter V in terms of its paste and its decoration; the pottery types presented below are defined by selected formal attributes of the same criteria. Plain types are defined by certain paste attributes, only, while decorated types are defined by both paste and decorative attributes. The diagnostic attribute categories for paste are temper and

average thickness of the vessel walls; for decoration they are technique of execution, design, and placement on the vessel (Table 16).

Plain types:

Addis Plain (Pl. 3). Diagnostic attributes are medium clay-grit temper, and medium vessel walls (average 6.5 mm.). Other important attributes are a heterogeneous texture, brown color, smoothed and sometimes polished surfaces, and bowl or jar forms.

Greenville Plain (Pl. 5). Diagnostic attributes are medium mixed shell and clay-grit temper, and medium vessel walls (average 6.5 mm.). Other important attributes are a heterogeneous texture, brown color, smoothed and often polished surfaces, and bowl or jar forms.

Holly Bluff Plain (Pl. 7a-j). Diagnostic attributes are fine shell temper and medium vessel walls (average 7.5 mm.). Other important attributes are a homogeneous texture, brown color, smoothed and usually polished surfaces and bowl, or occasionally jar, forms.

Neeley's Ferry Plain (Pl. 8, 11x-c'). Diagnostic attributes are coarse shell temper and medium vessel walls (average 8.5 mm.). Other important attributes are a laminated texture, brown-gray color, carelessly smoothed surfaces and a variety of vessel forms among which jars predominate.

Coker Plain (Pl. 9a). Diagnostic attributes are medium shell temper and very thin vessel walls (averaging

3 mm.). Other important attributes are a laminated texture, gray or occasionally brown color, smoothed surfaces and jar forms.

Decorated types:

Manchac Incised (Pl. 4f-m). Oblique incising on the exterior upper body and rim surface of bowls or jars with Addis (or Greenville) paste.

Harrison Bayou Incised (Pl. 4p-q). Crosshatched incising on the exterior rim surface of jars with Addis paste.

Beldeau Incised (Pl. 4r-s). Crosshatched incising and punctating on the exterior surface of bowls with Addis paste.

Hardy Incised (Pl. 4a-e). Horizontal incising and occasional punctating on the exterior rim surface of bowls with Addis (or Greenville) paste.

Dupree Incised (Pl. 4v-y). Oblique incising and punctating on the exterior surface of bowls with Addis (or Greenville) paste.

Wilkinson Punctated (Pl. 4z-a'). Overall punctating on the exterior surface of jars or bowls with Addis (or Greenville) paste.

Patmos Pinched (Pl. 4n-o). Vertical ridge pinching on the exterior surface of jars with Addis (or Greenville) paste.

Plaquemine Brushed (Pl. 4t-u). Oblique brushing on the exterior surface of jars with Addis paste.



Table 16. Attributes of decorated pottery types.

TYPES	PASTE		DECORATION							SERIES
			Technique			Design		Place		
	Addis Greenville Holly Bluff Neeley's Ferry Coker Other	Incing Trailing Engraving Excising Stamping Brushing Pinching Punctating Cord marking Painting	Vertical Oblique X-hatched Horizontal Curvilinear Non-linear	Recti- linear		Rim Body Interior	Rim Body Interior	Rim Body Interior		
				Vertical Oblique X-hatched Horizontal	Curvilinear Non-linear					
Manchac	X (X)	X		X						Addis
Harrison B.	X	X			X					
Beldeau	X	X			X					
Hardy	X (X)	X				X				
Dupree	X (X)	X			X					
Wilkinson	X (X)			X						
Patmos	X (X)									
Plaquemine	X			X						
Chicot	X									
Carter	(X) X				X					
L'Eau Noire	(X) X									
Anna	(X) X	X (X)								
Bethlehem	(X) X	X (X)							X	
Leland	X	X								
Blanchard	X	X								Holly Bluff
Beland City	X	X X							X	
Fatherland	X	X								
Williams	X	X								Neeley's Ferry
Blum	X	X							X	
Grace	X									
Pouncey	X			X						
Barton	X	X								
Arcola	X	X								
Mound Place	X	X								
Winterville	X	X					X			
Belzoni	X	X					X			
Tyronza	X	X								
Owens	X	X								
Transylvania	X	X								
Parkin	X	X								
Old Town	X									
Montrose		X								Coker
Sharbrough		X								
Powell		X								Powell
Nodena		X								Bell
Walls		X								
Chickachae		X O		X						Chickachae

x (x) in the same column indicates an "either/or" situation in which the parenthetical attribute is the less common.

x x in the same column indicates an "and" situation-- both attributes may be, or are, present.

x = diagnostic attributes

o = secondary attributes

Chicot Red (Pl. 6v-w). Overall red painting on the exterior and/or interior surfaces of bowls with Greenville paste. (Rectilinear engraving is sometimes an added feature.)

Carter Engraved (Pl. 6n-q). Curvilinear and/or rectilinear engraving on the exterior rim surface of bowls with Greenville (or Addis) paste.

L'Eau Noire Engraved (Pl. 6r-u). Rectilinear engraving and excising on the exterior rim surface of bowls or jars with Greenville (or Addis) paste.

Anna Incised (Pl. 6a-g). Curvilinear or rectilinear incising, trailing or engraving on the interior surface of plates with Greenville (or Addis) paste.

Bethlehem Incised (Pl. 6h-m). Curvilinear trailing on the exterior surface of bowls with Greenville (or Addis) paste.

Leland Incised (Pl. 7k-t). Curvilinear trailing on the exterior surface of bowls or jars with Holly Bluff paste.

Blanchard Incised (Pl. 7u). Curvilinear trailing on the interior rim surface of bowls with Holly Bluff paste.

Beland City Incised (Pl. 7x-z). Curvilinear trailing and engraving or punctating on the exterior surface of bowls with Holly Bluff paste.

Fatherland Incised (Pl. 7v-w). Curvilinear incising on the exterior surface of bowls with Holly Bluff paste.

Williams Incised (Pl. 7a'-b'). Curvilinear trailing

on the exterior surface of bowls with intermediate Holly Bluff-Neeley's Ferry paste.

Blum Incised (Pl. 9k-m). Curvilinear or rectilinear incising on the interior surface of plates with Neeley's Ferry paste.

Grace Brushed (Pl. 9i-j). Rectilinear brushing on the exterior surface of jars with Neeley's Ferry paste.

Pouncey Pinched (Pl. 9n-o). Vertical ridge pinching on the exterior surface of jars with Neeley's Ferry paste.

Barton Incised (Pl. 10a-l). Oblique incising on the exterior rim surface of jars with Neeley's Ferry paste.

Arcola Incised (Pl. 11a-d). Oblique incising on the exterior (upper) body surface of small jars with Neeley's Ferry paste.

Mound Place Incised (Pl. 11p). Horizontal incising on the exterior rim surface of bowls with Neeley's Ferry paste.

Winterville Incised (Pl. 10m-z). Curvilinear incising on the exterior rim (and upper body) surface of jars with Neeley's Ferry paste.

Belzoni Incised (Pl. 11e-k). Curvilinear incising and punctating on the exterior body surface of jars with Neeley's Ferry paste.

Tyronza Punctated (Pl. 11n). Oblique incising and punctating on the exterior rim surface of jars with Neeley's Ferry paste.

Owens Punctated (Pl. 11o). Oblique incising and

punctating on the exterior body surface of jars with Neeley's Ferry paste.

Transylvania Punctated (Pl. 11 1-m). Curvilinear punctating on the exterior surface of jars with Neeley's Ferry paste.

Parkin Punctated (Pl. 9p-v). Overall punctating on the exterior surface of jars or bowls with Neeley's Ferry paste.

Old Town Red (Pl. 9g-h). Overall red painting on the exterior and/or interior surfaces of bowls with Neeley's Ferry paste.

Montrose Cord Marked (Pl. 9d-e). Overall cord marking on the exterior surface of jars with Coker paste.

Sharbrough Red (Pl. 9c). Overall red painting on the exterior surface of jars with Coker paste.

Powell Plain (Pl. 9b). Red painting on the interior rim surface of jars with Powell paste.

Nodena Red and White (Pl. 11u-v). Overall and linear red and white painting on the exterior and interior surfaces of bottles or bowls with Bell paste.

Walls Engraved (Pl. 11s-t). Curvilinear engraving on the exterior surface of bowls with Bell paste.

Chickachae Combed (Pl. 11w). Curvilinear "incising" on the exterior surface of vessels (bowls?) with Chickachae paste.

## Other Ceramic, Stone, and Bone Artifact Types

The number of non-pottery artifactual types available for historical analysis is sharply limited. This is primarily due to the general scarcity of non-pottery artifacts at Winterville, but even of the classes available few are suitable for definition as historical types. That is, few are sophisticated enough to exhibit consistently distinctive formal attributes and significant stratigraphic distribution. The alternative of defining functional types would not greatly benefit the present objective due to the insensitivity of the defining criteria in distinguishing historical differences within the relatively brief occupation of Winterville.

In defining the following formal types for historical purposes, morphological and technological criteria are used to select the diagnostic attributes.

### Ceramic artifact types:

Round earplug (Pl. 12a-b). Drum-shaped ornament modeled from clay similar to Addis paste.

Cylindrical earplug (Pl. 12c). Pin-shaped ornament modeled from clay similar to Neeley's Ferry paste.

Elbow pipe (Pl. 12g). Equal arm, biconical smoking pipe modeled from clay similar to Neeley's Ferry paste.

### Stone artifact types:

Pebble celt (Pl. 13 1-n). Chisel-shaped implements with a narrow bifacial cutting edge, chipped from chert and finished by grinding.

Triangular (Madison) point (Pl. 13r-u). Simple triangular arrow point chipped from chert.

Triangular (Scallorn) point (Pl. 13v-y). Triangular, corner notched arrow point chipped from chert.

Bone artifact types:

Conical point (Pl. 14a-d). Conical projectile point carved from bone or antler.

Local and Regional Patterning

The five analysis units described in Chapter VI were derived from a correlation of excavation levels according to the stratigraphic distribution of the pottery. The association of other artifacts and features was also noted. Such units are a convenient means of summarizing the empirical data, but they are not themselves meaningful units of culture-historical interpretation. The description of the content of each of these units represents the material culture at five successive stages in the history of Winterville; however, such descriptions do not either state this history or relate it to the larger context within which the site existed.

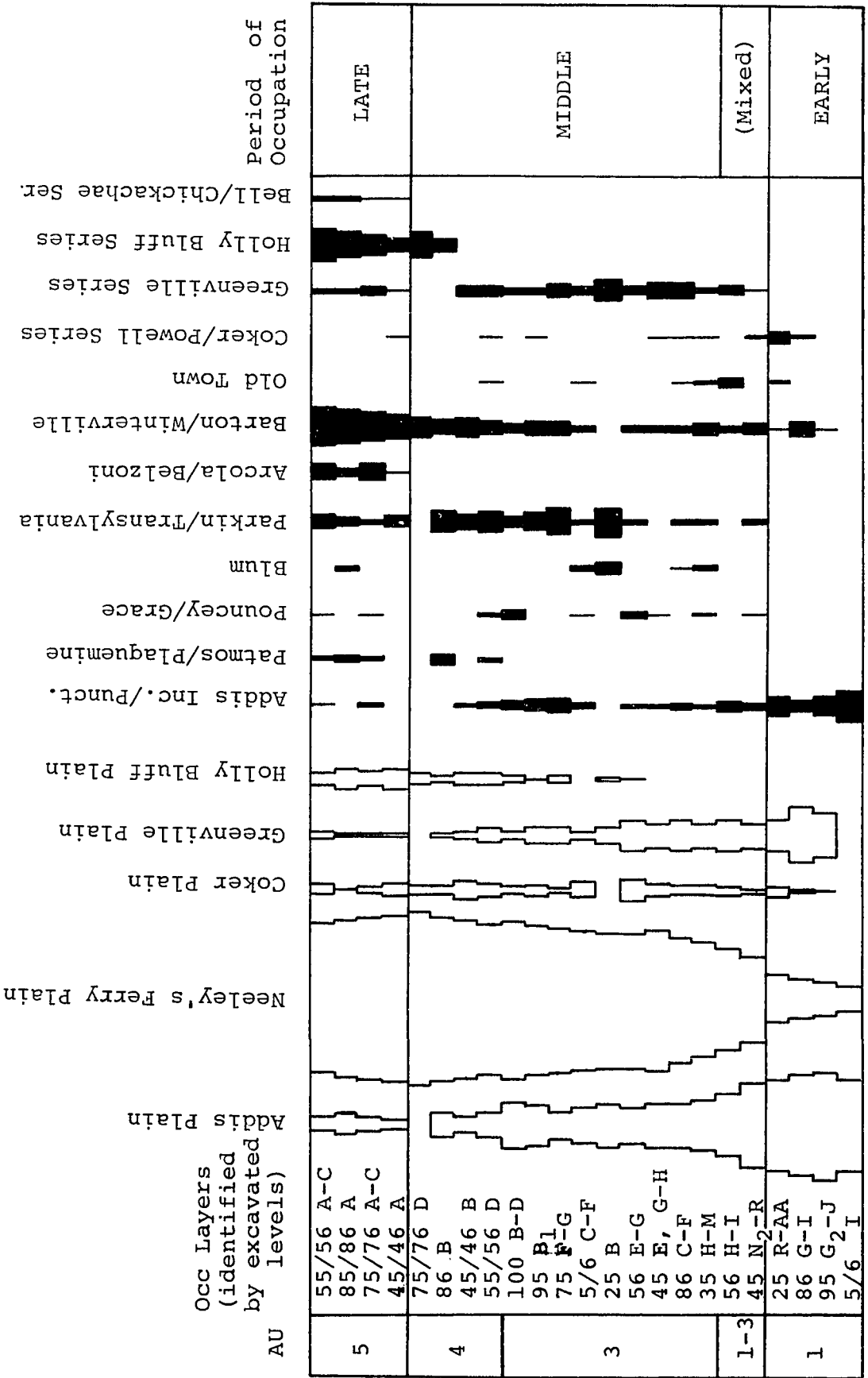
In order to impart culture-historical significance to the analysis units it is necessary to extract the basic patterning and overall trends which may be observed in the cultural content. These patterns and trends serve to distinguish cultural units, here termed "occupations." Occupations, in turn, are the local unit which may be

correlated with the extra-Winterville context for the formulation of phases in a regional chronology.

### Local Patterning

As before, the point of departure is with the pottery. Some idea of the overall patterning in the popularity of pottery types is already available in the stratigraphic analysis presented in Chapter VI, but a clearer picture is possible when only the relatively undisturbed occupational layers in each location are selected to represent the analysis units, and when these layers are seriated according to the relative percentages of pottery types contained within them ("frequency seriation" as discussed by Ford 1962: 39-44; Phillips et al 1951:239; Rouse 1967:181-187; Rowe 1961:327). The content of such layers may be expected to be in truer stratigraphic context than that of constructional layers, and since these layers are usually composed of more than one arbitrary excavation level (see Tables 3-13) the larger statistical sample should improve the accuracy of the analysis. Such a seriation of representative layers (identified by the component excavation levels) from all analysis units except 2, which is entirely constructional, is presented in Table 17. While it is satisfying to note that the overall ordering--in terms of the analysis units--coincides nicely with the results of the stratigraphic analysis (Rowe 1961:330), the real significance for the present purposes is the order manifest

Table 17. Seriation by pottery percentages of occupational layers from Analysis Units 1, 3-5.



□ 10% (Plain Pottery)      ■ 5% (Decorated Pottery\*)

\*Closely related types with similar distributions have been combined for visual clarity.



in the sequence of individual layers. This sequence serves to juxtapose the layers on the basis of similar content, and those which appear to be most closely related may be grouped into distinct occupations. Three occupations are distinguished at Winterville: they may be designated in temporal terms as early, middle, and late.

Early occupation. The early occupation is represented by Analysis Unit 1. Artifacts, this occupation can be discussed only in terms of its pottery types in the absence of other material. In the most representative levels--those relatively undisturbed by later activity, such as 5/6I, 25R-AA, 86G-I, 95G<sub>2</sub>-J--the predominant diagnostic types are those of the Addis series, viz., Addis Plain, Hardy Incised, Wilkinson Punctated, Manchac Incised, Harrison Bayou Incised, Beldeau Incised, Dupree Incised. Also diagnostic are Greenville Plain and Neeley's Ferry Plain. Present in small quantities are Old Town Red of the Neeley's Ferry series, and, in the uppermost levels, the closely related Powell Plain, Coker Plain, Montrose Cord Marked and Sharbrough Red of the Coker series. Habitation is the only activity represented, and although evidence of this occupation was found in the lower levels of most excavations, it seems to have centered in the southeastern portion of the site. That it represents the first occupation at the Winterville locus is proved by the fact that the representative layers are directly associated with the surfaces of the old natural levee

formed by the Channel 2 Mississippi River.

Middle occupation. The middle occupation at Winterville is represented by Analysis Units 2, 3 and 4. Pottery characteristics are the predominance of Neeley's Ferry Plain, but with the continuation of Addis Plain, Coker Plain and Greenville Plain, the last intergrading with and gradually being replaced by Holly Bluff Plain. Diagnostic decorated types are those of the Greenville series, and Parkin Punctated, Barton Incised and Winterville Incised of the Neeley's Ferry series. Also present are Blum Incised, Grace Brushed and Pouncey Pinched of the latter series and the closely related Plaquemine Brushed and Patmos Pinched of the Addis series. Decorated types diagnostic of the early occupation are present, probably largely the result of relocation. Overall, the pottery is a very mixed assemblage of great diversity (and that this was the actual situation rather than a *mélange* resulting from disturbance is amply proved by the associated assortment of funereal pottery accompanying the two layers of burials which were interred at this time--cf. Pl. 3c, h, 4g, 6m, 7c, 8f, h, i). Artifact types include round earplugs, Scallorn projectile points and conical projectile points. Activities were focused on mound construction (Analysis Units 2 and 3) and utilization of the mounds for habitational, ceremonial and funereal purposes (Analysis Units 3 and 4). A larger resident population than in the early occupation is indicated by

the thicker and richer midden deposits associated; and the mobilization of manpower by a motivating and implementing power is seen in the scope of the tremendous construction project during which the site reached its greatest horizontal extent and final form. This occupation appears to have been terminated by a general conflagration.

Late occupation. The late occupation at Winterville is well represented only in the northern part of the site. Although indications of it are evident in surface levels elsewhere, it seems certain that it was generally more restricted in extent than the middle occupation. This occupation is represented by Analysis Unit 5 and is characterized by the presence of Neeley's Ferry Plain and the continuation of Parkin Punctated, Barton Incised and Winterville Incised. The first two types decline somewhat in popularity while the last two reach their peak and are accompanied by the closely related types Arcola Incised and Belzoni Incised. Also diagnostic are the plain and decorated types of the Holly Bluff series, which characterize this occupation, and the presence of imported pottery from the north and east. Some types from the early and middle occupations are present as a consequence of aboriginal admixture. Other artifact types are the cylindrical earplug, Madison projectile point and pebble celt. The only activity represented is mound summit habitation which, as noted above, seems to have been concentrated in--if not restricted to--the northern plaza. Functional

continuity from the middle occupation is indicated by the rebuilding which followed the general conflagration in most locations. However, an important shift in the focus of activities is reflected by the apparent cessation of significant mound construction which, together with the imported pottery, is indicative of a more extroversive attitude by the inhabitants. A general decline seems to have set in, ending in the complete abandonment of Winterville.

### Regional Patterning

The emphasis upon culture history which has characterized archaeological research in the Lower Valley has provided basic chronological frameworks for a number of regions (see Chapter II). Two quite distinct regional chronologies have been proposed for the Yazoo Basin (Phillips, Ford and Griffin 1951, updated by Ford, Phillips and Haag 1955; and Greengo 1964; see Table 1). One of these is for the northern part of the basin, and the other is for the southern, and although they are similar in structure (primary segmentation) rather different sequences of prehistoric events are indicated.

The difference is due to the fact that during the late prehistoric period, the Lower Mississippi Valley was dominated by two quite different, but equally viable, cultures: the Plaquemine in the south and the Mississippian in the north. These cultures are described in detail in Chapter

VIII, but may be briefly summarized here. The Plaquemine culture was characterized by scattered village settlements sometimes incorporating substructural mounds, a mixed hunting-farming subsistence pattern, pottery of the Addis series, and other artifactual types including Scallorn points and round earplugs. The Mississippian culture was distinguished by larger settlement units with large pyramidal mounds, an economy oriented towards agriculture (but also including hunting and gathering), pottery which favored shell tempering and jar forms, such as the Neeley's Ferry series, and numerous artifact types which for our consideration included pebble celts, Madison points and bone points. The initial predominance of these cultures in their respective ends of the valley is reflected in microcosm in the Yazoo Basin, which was subjected to influences from both directions at approximately the same time.

A local or regional manifestation of a culture is a phase: a unit which possesses "traits sufficiently characteristic to distinguish it from all other units similarly conceived, whether of the same or other cultures... spatially limited to the order of magnitude of a locality or region and chronologically limited to a relatively brief interval of time" (Willey and Phillips 1958:22). As the salient features of the late prehistoric cultures and phases in the Lower Valley have already been recognized by previous workers, it is possible to assign the three occupations isolated at Winterville to their proper cultures

and phases simply by ascertaining the affiliations of the types characteristic of each occupation (Table 18).

Crippen Point phase. The early occupation at Winterville is basically a manifestation of the Crippen Point phase of the Plaquemine culture (see Chapter VIII). This phase--known almost exclusively by pottery at Winterville as well as elsewhere--was indigenous to the southern part of the basin, but is found only in a few scattered places along the Mississippi in the central part of the basin. Its appearance at Winterville is the most northerly yet recorded, so that it represents the northern limit of direct Plaquemine influence. The marginality of this early occupation is emphasized by the fact that while the pottery types of the Plaquemine affiliated Addis series predominate, there are also a number of Mississippian types present. Thus, Mississippian influence from the north is strongly represented even in this early occupation, so that it must be considered a heavily modified manifestation of the Crippen Point phase.

Winterville phase. The middle--or climactic--occupation at Winterville is extremely mixed in the manifestation of its cultural affiliations. It is not truly a phase of the Plaquemine or the Mississippian cultures, but a local variant intermediate to both: a phase in which the Plaquemine is undergoing Mississippianization (the interesting aspect of such a "culture" is that hypothetically it would exist in different places at

Table 18. Cultural affiliation of artifact types at Winterville.

Cultures Phases	PLAQUEMINE	MISSISSIPPIAN
Deer Creek	Fatherland Blanchard Beland City Leland Holly Bluff Plain	Chickachae Williams
Winterville	Round earplug Scallorn point Plaquemine Patmos	Walls Nodena Mound Place Arcola/Barton Madison point Belzoni/Winterville Parkin Elbow pipe Winterville Barton Parkin Transylvania Tyronza
Crippen Point	Addis Plain Manchac Harrison B. Beldeau Dupree Hardy Wilkinson	Neeley's Ferry Plain Old Town Coker Plain Sharbrough Montrose Powell Plain

different times, slowly moving south down the river with the expansion of the Mississippian). The diagnostic types are nearly evenly divided between essentially Plaquemine and Mississippian affiliations, and even more significantly there is a true intergradation of attributes shared by these types. Because of its comparative uniqueness--and because it was the high point of Winterville construction and occupation--this phase is named the Winterville phase. While other occupations belonging to this phase could be expected in the Winterville locale no evidence for such have yet been recorded.

Deer Creek phase. The late occupation at Winterville is a manifestation of a fully Mississippianized phase. All diagnostic types are Mississippian or possessed of Mississippian derived attributes. This phase is called the Deer Creek phase of the Mississippian culture in recognition of the number of closely related single component sites which appear along that tributary of the Mississippi River (Fig. 3). It would seem that attention shifted from Winterville as the focus to a wider area, and while no further mound construction was performed at Winterville a number of secondary mound sites were constructed along Deer Creek at this time. Thus, it was during this phase that while Winterville itself exhibits a decline and shrinkage in total area occupied, its direct influence on the surrounding area continued and perhaps even increased.



### The Dating

The dating of the three sequential phases at Winterville was accomplished by the carbon 14 method<sup>1</sup>. Six samples of wood charcoal were submitted to the radiocarbon laboratory at Yale, and the results are presented in Table 19. Column one lists the laboratory number of the sample, column two the provenience at Winterville by pit and level, column three the radiocarbon age and its error in years B.P. (i.e., before 1950), and column four the mean calendar date. Columns five and six are corrections of columns three and four respectively, on the basis of recent findings by Stuiver and Suess (1966). These authors have published a correction table relating radiocarbon ages to actual ages for the last millenium by physically dating wood samples which had already been independently and precisely dated by the tree-ring method. It may be presumed that the calendar dates listed in column six are very close to the actual dates of the samples, and these dates may be proffered with a little more assurance than is usual for radiocarbon dates. It is also reassuring to note that in most cases there is no, or no significant, deviation from the corresponding dates in column four. The one exception is the earliest date, the corrected age of which may correspond to more than one calendar year. In the absence of comparable data, there is no way of being certain which

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<sup>1</sup>An archeomagnetic dating is being processed by Dr. Robert DuBois at Oklahoma, but the results will not be available until the Fall of 1969.

Table 19. Radiocarbon dating of Winterville.

Laboratory Number	Provenience	C14 Age	Calendar	C14 Age (Corrected)	Calendar
Y-2498	75/76B	590±100	AD 1360	(590)	AD(1360)*
Y-2497	70-72B	490±100	1460	530	1420
Y-2495	45E	630±100	1320	640	1310
Y-2494	45P	740±100	1210	740	1210
Y-2496	86D	750±80	1200	750	1200
Y-2493	86I	920±70	1030	(750)/850	(1200)/1100**

\* Unreliable dating as sample probably relocated.

\*\* Two datings are possible in the correction, but the earlier one is the more probable--see discussion in text.

of these dates is the correct one, but because the earlier one is closer to the original carbon 14 age and because this dating is also more compatible with the prehistoric picture it is selected in preference to the more recent date.

The correlation of these (corrected) dates with cultural interpretations is striking. The relative accuracy of the radio-carbon method is confirmed by the seriation of stratigraphic levels shown in Table 17, where it will be noted that the relative positions of the dated levels compare favorably with the dates themselves. Arranged in sequence, the dates fall into groups separated by approximately 100 year intervals; all, that is, except for the stratigraphically most recent date which, however, is from a sample that was probably disturbed and actually came from the underlying burned floor (in any case, the difference between it and a date from the floor is nonsignificant).

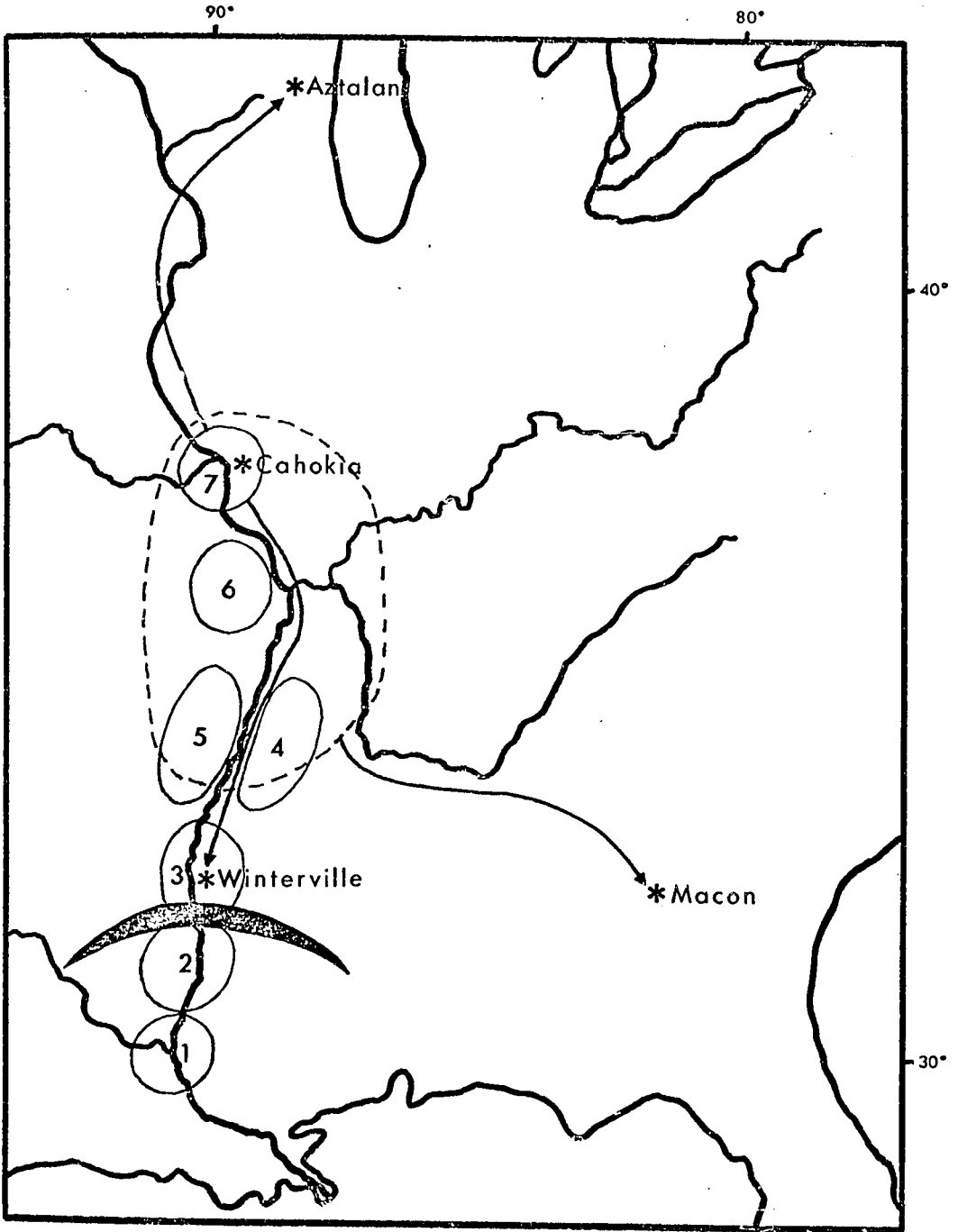
The earliest sample--from the bottom occupational level in Mound L--indicates that Winterville was first settled in the first century of the present millenium, and that the Crippen Point phase was well under way by A.D. 1100. The major mound construction must have commenced soon after this for a pair of dates from the first occupational levels after the construction of Mound L and Mound G (but before G<sub>1</sub> was added) concur in a dating of about A.D. 1310, but that it was put up within a relatively brief period is substantiated by the stratification, and


by the presence of sherds from the same vessel at the very bottom (level N) and the top (level C). This would have marked about the high point of the Winterville phase, which was terminated by a general conflagration dated by the sample from the burned temple on Mound K at A.D. 1420. The Deer Creek phase followed immediately and endured for an unknown period of time, although it seems to have terminated prior to historic contact.

## VIII. THE PREHISTORIC BACKGROUND

Winterville was occupied during the first half of the present millenium, with the peak occupation being around 1200-1400. As this occupation did not take place in vacuo, it is appropriate at this point to summarize the prehistoric setting within which the events at Winterville must be judged.

The orientation of the principal physiographic features in the Yazoo Basin are north-south. These features are the Mississippi River and its tributaries, the most convenient avenues of communication and travel in what was aboriginally a swampy and often impassable lowland. As a consequence, most movements of peoples or influences in at least this part of the valley throughout most of prehistory were north-south; only occasional lateral east-west movements are discernable. In the last chapter, it was noted that the Mississippian and Plaquemine cultures predominated at opposite ends of the Lower Mississippi Valley during late prehistory (Fig. 20). These cultures had deep roots in their respective areas and were well established, viable entities which exhibited a number of similarities, foremost of which were the construction of pyramidal mounds, architecture, subsistence base, and inferred non-material aspects such as advanced socio-political organization and religious development. As the degree of contact between them prior to the occupation of



○ Mississippian Heartland       Plaquemine Frontier      → Movements of Mississippians

Regions: ① Texas-Red River    ② S. Yazoo    ③ Central Yazoo (Winterville)    ④ N. Yazoo-W. Tennessee  
 ⑤ N.E. Arkansas    ⑥ S.E. Missouri    ⑦ S.W. Illinois (Cahokia)

Fig. 20. Location of regions and sites mentioned in text.

Winterville was not great (Willey 1966:297-298), it is probable that the similarities may be attributed to a third force acting upon both regions simultaneously. This third force was certainly Mesoamerican in origin and probably consisted of traders or other small groups, who may well have traveled by water across the Gulf rather than overland (for further discussion of this certain but tantalizingly undocumented contact see Swanton 1924; Vaillant 1932:15; Phillips 1940; Bennett 1944; Krieger 1948; Phillips et al 1951:452-453; Caldwell 1958:60-68; Willey and Phillips 1958: 163; Willey 1966:293, 297). However, as both the Mississippian and Plaquemine cultures were in situ and relatively unassociated developments, a number of significant differences are also manifested in settlement pattern, funeral practices, and artifactual assemblages, especially the ceramics (see Chapter VII). Therefore, a more precise characterization of the contemporary phases to the north and the south (Table 20) is a necessary prerequisite to the discussion of the meeting of the Mississippian and Plaquemine cultures at Winterville.

The heartland of the Mississippian culture may be identified as that part of the valley and adjacent foothills lying between St. Louis and Memphis (Fig. 20). In this wide area a number of traits which were to become diagnostic of the Mississippian culture began to appear at the end of the first millenium A.D. These traits specifically included pyramidal mounds (usually in groups of two or more arranged around a plaza), rectangular, wall

Table 20. Correlation of regional chronologies in the Lower and Central Mississippi Valley.

	Tensas- Red River	S. Yazoo	C. Yazoo (Winterville)	N. Yazoo- W. Tenn.	NE Ark.	SE Missouri	SW Illinois (Cahokia)
	Natchez	Yazoo	Tunica	Historic	Historic	Historic	Historic
AD 1600	/						
	Transylvania	Lake George	Deer Creek				
1400				Walls	Parkin	New Madrid	Trappist
	Fitzhugh	Mayersville	Winterville				
1200	/						
	Early Plaquemine		Crippen Point	Obion	Big Lake	Hayti	Old Village
1000	/						

← Mississippi Horizon



trench, wattle-and-daub house structures, intensification of maize agriculture, extended burials with grave furnishings, and shell tempered pottery. The exact location where this earliest development might have taken place has not been determined, and the probable reason is that while these traits may have appeared at about the same time, they were not brought together into an integrated cultural system until a slightly later date. This integration was accomplished by A.D. 1000 and is epitomized by the Old Village phase (Table 20) at the Cahokia site in Illinois (Fig. 20). It was during this phase that the mound construction of this great site commenced. In addition to mounds and other general Mississippian traits, Old Village is characterized by fine shell tempered pottery with polished surfaces, sometimes incised or painted. Diagnostic types are Powell Plain, Ramey Incised and Monks Mound Red (Griffin 1949; Wray 1952).

At this time occurred the first great diffusion of Mississippian culture to such widespread locations as Aztalan, Wisconsin (Barrett 1933) and Macon, Georgia (Kelly 1938, Fairbanks 1952), as shown in Fig. 20. The authorities have concluded that both of these represent intrusive migrations of Mississippian peoples into Late Woodland contexts. On the basis of similarities in the pottery and other artifacts (e.g., bone projectile points), it seems quite certain that Cahokia was the origin of the Aztalan migration (Griffin 1949). The peoples who founded Macon, on the other hand, probably came from the Tennessee frontier

of the heartland (Willey 1953:371-372, 1966:296).

There were a number of regional phases in the Mississippian heartland contemporary with Old Village (Table 20). All shared the general Mississippian traits listed above and show regional differentiation only in minor respects. South from Cahokia along the river were the Hayti phase in southeastern Missouri (Marshall 1965), the Big Lake phase in northeastern Arkansas (Morse 1968) and the Obion phase in western Kentucky and Tennessee (Kneberg 1952). In all of these, the principal difference from Old Village is the coarser texture of the pottery and greater emphasis upon surface decoration. These phases differ from each other in the use of other tempering agents in addition to shell--sand in Hayti and Big Lake, clay-grit in Obion--and greater popularity of cord marked decoration in Hayti versus incised in Big Lake and Obion.

The Trappist phase followed Old Village at Cahokia. The distinguishing traits of Trappist were an increased population, intensification of mound and earthwork building activity, and greater variety in pottery forms and decorative techniques (Wray 1952). Similar traits are diagnostic of the New Madrid phase which replaced Hayti in southeastern Missouri, Parkin in northeastern Arkansas, and Walls in the vicinity of Memphis. These contemporary phases (Table 20) differed significantly only in the emphasis placed upon various ceramic traits and mound building, and in the pattern of settlement. For example, the New Madrid phase

is distinguished by pottery of superior quality and such sophisticated decorative techniques as negative (resist-dye) and polychrome painting, while pottery from Parkin phase sites is much coarser and exhibits simple incised, punctated or red painted decoration. Large mounds and mound groups are a feature of both the New Madrid and Parkin phases, but whereas New Madrid sites were commonly fortified by encircling palisades, Parkin villages were unfortified and raised on rectangular earthen platforms several feet high (the "St. Francis-type" village recognized by Phillips, Ford and Griffin 1951:343). Of the most interest to the present discussion because of its location--which included the northern tip of the Yazoo Basin--is the Walls phase. Diagnostic artifacts of this phase include the Madison point, pebble celt, cylindrical earplug, elbow pipe and pottery of the Neeley's Ferry and Bell series. The latter is often painted or engraved. Curiously, however, there appears to have been a decline in mound building at this time: "as a rule these sites do not have either large groups of mounds or very large pyramidal mounds" (Griffin 1952:234).

In the southern part of the Yazoo Basin (Fig. 20), the Plaquemine culture is first manifested by the Crippen Point phase at approximately A.D. 1000 (Table 20). This phase, with which the original settlers of Winterville have already been identified, is characterized by pottery of the Addis series and small, widely scattered village sites (Phillips,

in press). Small pyramidal mounds may be present. The economic base certainly included agriculture, but about equal emphasis was probably accorded to hunting, fishing and gathering. Insofar as the evidence is available these are the traits which distinguish the earliest levels at Winterville.

Following the Crippen Point phase in the southern basin was the Mayersville phase. This phase is also characterized by Addis series pottery, but is distinguished by the appearance of such new techniques as brushed and engraved decoration, and occasional shell tempering (Phillips, in press). The last is an indication of Mississippian influence from the north which is also reflected in the larger sites associated with this phase and emphasis upon mound construction. These Mississippian traits predominate in the last prehistoric phase--Lake George--although a number of Plaquemine holdovers are recognizable in the still rather scattered settlement pattern and pottery of the Holly Bluff series.

In the above sequence, a trend toward increasing Mississippianization in the Yazoo Basin is clearly revealed although it was occurring only at the end of the prehistoric period. The extent of Mississippian influence southwards along the Mississippi River was being reached. Thus, in the next physiographic subdivision of the valley to the south--the Tensas Basin--only a few Mississippian traits such as shell tempering, jar vessel forms and large mound

groups are found to be filtering into the basically Plaquemine Transylvania phase at the very end of the pre-historic sequence (Table 20).

In summary, the prehistoric background during the occupation of Winterville was dominated by two distinct but equally viable and highly developed cultures, the encroaching Mississippian from the north and the well entrenched Plaquemine immediately to the south. These cultures were destined to first overlap at Winterville. This event and subsequent developments are the subject of the next chapter.

## IX. THE DYNAMICS OF CULTURE CHANGE AT WINTERVILLE

Introduction

The objective of the preceding chapters was to discover what happened at Winterville and when, and to summarize the prehistoric background. The objective of this chapter is to determine how the sequence of phases observed at Winterville developed, and then to explain this development. The emphasis, therefore, will be upon the study of cultural dynamics: the analysis and interpretation of the processes of culture change as observed at Winterville.

The study of culture change presupposes that change is a phenomenon which can be identified from the empirical data. The taxonomic units derived from the interrelation of form, temporal locus and spatial locus in the last chapter differ along one or more of these dimensions, which was the basis for differentiating them. But difference alone does not equate with change: variability in formal content between two archaeological assemblages with distinct spatial-temporal loci may have been due to any of a number of causes, of which change is only one. To demonstrate change between two such assemblages, it is first necessary to demonstrate a fundamental continuity between them, for change is the fact of becoming different, of changing from something to something. In any context change is, of course, inevitable in the long run scheme of things, but this is not to say that the fact of it can always be

segregated, analyzed and explained. It is therefore necessary to select for study a situation for which ongoing change--that is, formal continuities and discontinuities through a spatial-temporal sequence--can be demonstrated. Only then may it be possible to infer the operative processes of culture change.

#### Analytic Procedure

The interpretation of the processes of culture change rests upon an analytic procedure which can demonstrate and measure the fact of change and distinguish those cultural traits which are particularly appropriate for its study. The cultural "traits" which may be studied can be of any order: attributes, subartifactual combinations of closely related attributes, artifactual combinations of attributes (types), or combinations of types. The only requirement is that due allowance be made for obvious differences in interpretive value (e.g., an artifact attribute is not comparable to combinations of types as proof of relationships). Primary emphasis shall be accorded to pottery because of its proven sensitivity in reflecting and measuring cultural--not just ceramic--change (Ford 1952; see also Deetz 1965 and Krause 1966). This emphasis is also necessary because of the lack of other artifacts in the early part of the occupation, and their general scarcity later, although wherever possible they are utilized to provide additional information. The demonstration and

measurement of culture change is accomplished by describing and tabulating (Table 21) the distribution of traits in the three sequential phases at Winterville. This distribution will provide the data for processual interpretation.

### The Analysis of Change at Winterville

The fact of culture change at Winterville is most clearly demonstrated by the continuities and discontinuities to be observed in the distribution of pottery traits through time. The single attributes, or subartifactual combinations of attributes characteristic of the three sequential phases recognized in the last chapter are listed in Table 21. Note that this is not a tabulation of all possible traits in each complex, but only those of paste, decoration and vessel form, criteria long recognized as being of major relevance in comparative studies of pottery in the Lower Valley (cf. Ford 1936, 1952; Phillips et al 1951; Greengo 1964).

The pottery traits which typify the Crippen Point phase at Winterville are rectilinear incising and nonlinear punctating, cord marking or painting, bowl or jar forms, and clay-grit or shell tempering. However, a stylistic dichotomy is to be noted in the combinations of these traits. Thus, combinations of rectilinear designs, incising, punctating, bowls or jars, and clay-grit tempering (sometimes with a little shell) are quite distinct from





ones exhibiting cord marking or painting on jars of thin, shell tempered pottery. This apparent dichotomy resulted from the influences acting upon Winterville during this time. The former combination of traits characterizes the Addis series of pottery which is derived directly from Plaquemine ceramics to the south. The latter traits are Mississippian and distinguish the types Neeley's Ferry Plain and Old Town Red of the Neeley's Ferry series, the entire Coker series, and the closely related Powell Plain. Of these types, only the Neeley's Ferry Plain is coextensive with the predominant Addis series, while the other types and series are minimally represented and generally restricted to the uppermost levels of the occupation (Tables 3-13). This distribution indicates that we are confronted with two distinct elements of Mississippian influence: first, the general trait of shell tempering (represented by Neeley's Ferry Plain) which was assimilated to the extent of the occasional inclusion of shell particles in otherwise Plaquemine pottery (Greenville Plain), and then the more specific traits of the Coker series, Old Town Red and Powell Plain in the latest levels. The significance of this distribution is the subject of later discussion, but it may be noted here that very different factors are believed to be responsible.

During the Winterville phase, nearly every trait characteristic of the Crippen Point phase has persisted, and a number of new ones appear. Thus, as shown in

Table 21, while there are many continuations from the earlier occupation, almost half of the characteristic traits are innovations, which are again drawn from both Plaquemine and Mississippian sources. While rectilinear designs are still favored, overall designs continue and curvilinear ones are introduced. These are executed by incising, punctating and painting as before, but also by a variety of new techniques: trailing, engraving, excising, brushing and ridge pinching. Decoration may be placed on the interior or exterior surface of vessels which now include two new forms: plates and bottles. The pottery, itself, may or may not contain shell tempering and while it usually does it may not be the sole tempering agent. However, the most significant characteristic of this phase is that the rather clearly demarcated dichotomy of the Crippen Point phase has been superceded by a relatively free intermingling and reassociation of pottery traits, whether of Mississippian or Plaquemine origin, so that their combinations into pottery types are often quite unique in comparison to those found to the north and south. The hybridization of this phase is especially observable in the decorated types of the Greenville series, as well as in some from the Addis and Neeley's Ferry series. The few other artifact types of this climactic phase, however, are clearly identifiable as to culture of origin because they are faithfully executed in their entirety after their northern or southern prototypes. And again, the

Mississippian and Plaquemine cultures are evenly represented, with the conical point and elbow pipe coming from the former and the Scallorn point and round earplug from the latter. Burial practices and settlement pattern show a further mixture of cultural traits. Extended and bundle burials with grave goods are Mississippian traits, while isolated skull burials may be Plaquemine. The rectangular house structures and sheer size of the mounds and site are Mississippian traits, but the unusual double plaza site plan and absence of an attached residential area are probably Plaquemine adaptations.

The Deer Creek phase is characterized by a sharp reduction in the number of attributes found in the indigenous manufacture of pottery. All are continuities from the earlier phases and most are Mississippian in origin. Curvilinear designs are now more common than rectilinear, but both are present and closely related. Execution of design is by incising or the more careful technique of trailing. Punctating is the only other technique and is often found in conjunction with incising or trailing on the same vessel. Vessel forms are jars or bowls only. The pottery is exclusively shell tempered and ranges from fine to coarse in texture. The resultant pottery types are distinctively Mississippian (Neeley's Ferry series) or "Mississippianized," i.e., composed predominantly of Mississippian attributes (Holly Bluff series). Also characteristic of this phase is the presence of a handful of sherds from imported vessels featuring painting,

engraving or "combing" on bottles or bowls of rather different pottery (Bell and Chickachae series). While these vessels seem to have had no effect on the local manufacture of pottery, they are important for indicating trade with other late Mississippian peoples to the north (Bell series from the Walls phase) and east (Chickachae series, which has been identified with the historic Choctaw--see Collins 1927). Other diagnostic artifacts of this occupation are typical Mississippian traits and show a clear break with the past: Madison point, pebble celt and cylindrical earplug, all of which are also found in the closest Mississippian sites of the Walls phase in the northern basin and western Tennessee. No new mounds were constructed during this phase, and the settlement pattern was as before except that local habitation appears to be concentrated in the northern end of the site.

The pattern of continuities and discontinuities which may be observed in the above sequence is a clear example of in situ development indicative of culture change. A basically Plaquemine culture is seen to be subjected to increasing Mississippian influences until a near total replacement of cultural traits has occurred after an initial period of fusion. To understand this sequence of events it is necessary to infer the processes which might have been responsible.

### Explication of Change

In order to explain culture change it is necessary to consider processes. The processes of culture change are the dynamic factors (causes and effects) operative in, or on, a phase which are responsible for changes observed in organization and/or content.

Three basic processes of culture change may be distinguished: invention, diffusion and migration. Invention is a wholly local innovation which results when the inventor modifies one or more old traits in order to produce a new one. As a process, it describes "internal" change: i.e., it occurs only within a single phase from which the modified trait(s) was drawn. The introduction of a new trait from an "external" source is not an invention, although it may be an innovation. This spread of traits between discrete phases is diffusion, and is the process whereby a new trait is added to a phase, or replaces another in that phase. The spread of cultural traits also occurs--and may be greatly expedited--as the result of migration. Migration differs from diffusion in that the spread of traits is due to the movement and permanent relocation of peoples who carry their whole "culture" (interrelated complexes of traits) with them, rather than to the transmission of single or multiple traits from one distinct phase to another through the interaction of people.

In practice, the distinction between these processes is not always clear-cut, and the usual scale for determining

which was responsible for culture change in a given situation is the complexity of the new trait(s). A further complicating factor is that it is possible for any combination of these processes to be operative in the same place and at the same time. Therefore, it is necessary to establish some basic rules for determining the processes of culture change:

Independent invention. Often considered on the basis of negative evidence--absence of proof of diffusion--independent invention can be supported by finding likely antecedents from which a new trait could have been developed in the particular phase under observation.

Diffusion. The diffusion of traits between discrete phases may result from casual interaction between neighboring groups or specialized contact between widely separated groups, such as may occur as a result of intermarriage or trade. It is recognized by the fact that what is an innovation in one phase is indigenous to another, and may in most cases be satisfactorily proved by showing contemporaneity and the feasibility of contact (if not the actual mechanism).

Migration. The proof of migration is not difficult when it is a large scale affair manifested archaeologically as a distinct break in cultural patterns (although such extreme examples only serve to illustrate cultural replacement, not culture change). Migrations of a lesser order, however, such as might occur when a small group

invades a new territory and settles among the indigenous natives without replacing them, may be hard to distinguish from diffusion. One important factor is the magnitude of the migration and whether the new peoples settle together in a separate site--"site unit intrusion"--or at a site also inhabited by the indigenous peoples. The best proof of such immigrations would be to find relatively complete elements (for example, pottery series or other closely related complexes of traits) of different phases in one context, whether region or site, indicating a single large-scale introduction of new traits. It is also necessary to prove the feasibility of such an introduction (Rouse 1958).

Diffusion and migration are both mechanisms of contact between two or more groups of people having different cultures. When one of the participating groups is superior culturally to the other(s) it commonly occurs that the culture of this group heavily modifies or even replaces that of the other(s). This kind of interaction is referred to as acculturation (Beals 1962). When peoples with cultures at a relatively equal stage of development come into contact, however, relatively equal interaction and transmission of traits may result. Interaction of this kind has been termed transculturation (Ortiz 1947, Beals 1962, Rouse 1962).

#### The Processes

The culture history of Winterville has been described as an example of culture change during which initial



cultural contact was followed by a period of hybridization, and then the eventual replacement of one culture (Plaquemine) by the other (Mississippian). As these cultures were described as similarly viable and developed phenomena in Chapter VIII, the first stage of contact and hybridization provides an example of transculturation. The ultimate cultural replacement, however, is instead an example of acculturation nearly to the point of assimilation (Beals 1962). In order to arrive at the processes which might have been responsible for this rather unusual sequence, the major events relating to the development of Winterville must be reviewed and interpreted in the light of the data presented in the last section (Table 22). These events are the initial settlement, the construction of the mounds, and the conflagration preceding the decline and final abandonment.

The initial settlement of Winterville appears to have occurred during a time when the central portion of the Yazoo Basin was uninhabited--or, if inhabited, very sparsely and by small bands possessed of a simple, hunting-gathering culture, who were quickly acculturated by the events epitomized at Winterville. Whatever the situation, there was no effective barrier to the intrusion of new peoples into the region. That the settlement must be attributed to an actual migration is indicated by the fidelity of the cultural traits (pottery of the Addis series) to those of the Crippen Point phase of the

Table 22. Cultural dynamics in the central Yazoo Basin from ca. A.D. 1000 to 1500.

Phase	Events	Cultural Content	Interpretation
1450-1500?	Abandonment	fewer artifact types, the majority of which were developed from preceding prototypes found at Winterville; but also present are a few trade pieces from the north (Walls).	limited interaction, emphasis on consolidation & completion of Mississippianization (acculturation); extra-Winterville shift in focus of activities.
Deer Creek	occupation on mound summits		
1400	Conflagration	tremendous diversity-- local adaptations of continuing Mississippian and Plaquemine influences resulting in a hybrid cultural manifestation.	local florescence-- interaction with wide area, but in situ development which drew inspiration from many sources (transculturation); attention concentrated on construction of Winterville.
Winterville 1300	mound construction & occupation on mound summits		
1200	Cahokia contact	basically Plaquemine, but coexistent are general and then specific Mississippian traits.	Plaquemine immigration & settlement; tentative contact with Mississippians to north through diffusion from Obion-Big Lake phases, followed by direct contact from Cahokia region ca. 1200.
Crippen Point	small village occupation		
1050	Settlement		

Plaquemine culture, other evidence of which is found no nearer than twenty miles to the south. This event, then, was a Plaquemine undertaking: Winterville was an isolated outpost and, in fact, represents the northernmost limit of Plaquemine culture, which during this period was certainly a viable, expanding phenomenon (Fig. 21).

The ensuing occupation has been characterized as dichotomous, and interpreted as reflecting the initial meeting of the two principal cultures in the Lower Valley at this time: the Plaquemine and the Mississippian. For, in addition to the Plaquemine traits mentioned above, minor proportions of Mississippian pottery traits were also present from the very earliest levels of the occupation. These early traits are the most widespread of all Mississippian ceramic traits--shell tempering and jar vessel forms--and were probably diffused from the concurrent Obion or Big Lake phases immediately to the north (Fig. 21). Although it is not possible to infer the actual mechanism of diffusion of these traits, it is certain that large scale movements of people were not involved. Rather, it seems to represent a simple and expectable "zone of admixture between neighboring areas of distinct pottery traditions" (Ehrich 1965:7). Of particular significance is the fact that these traits do not occur solely with each other (which might suggest trade vessels), but were partially absorbed into the local, Plaquemine-derived style, giving rise to a new type: Greenville Plain.

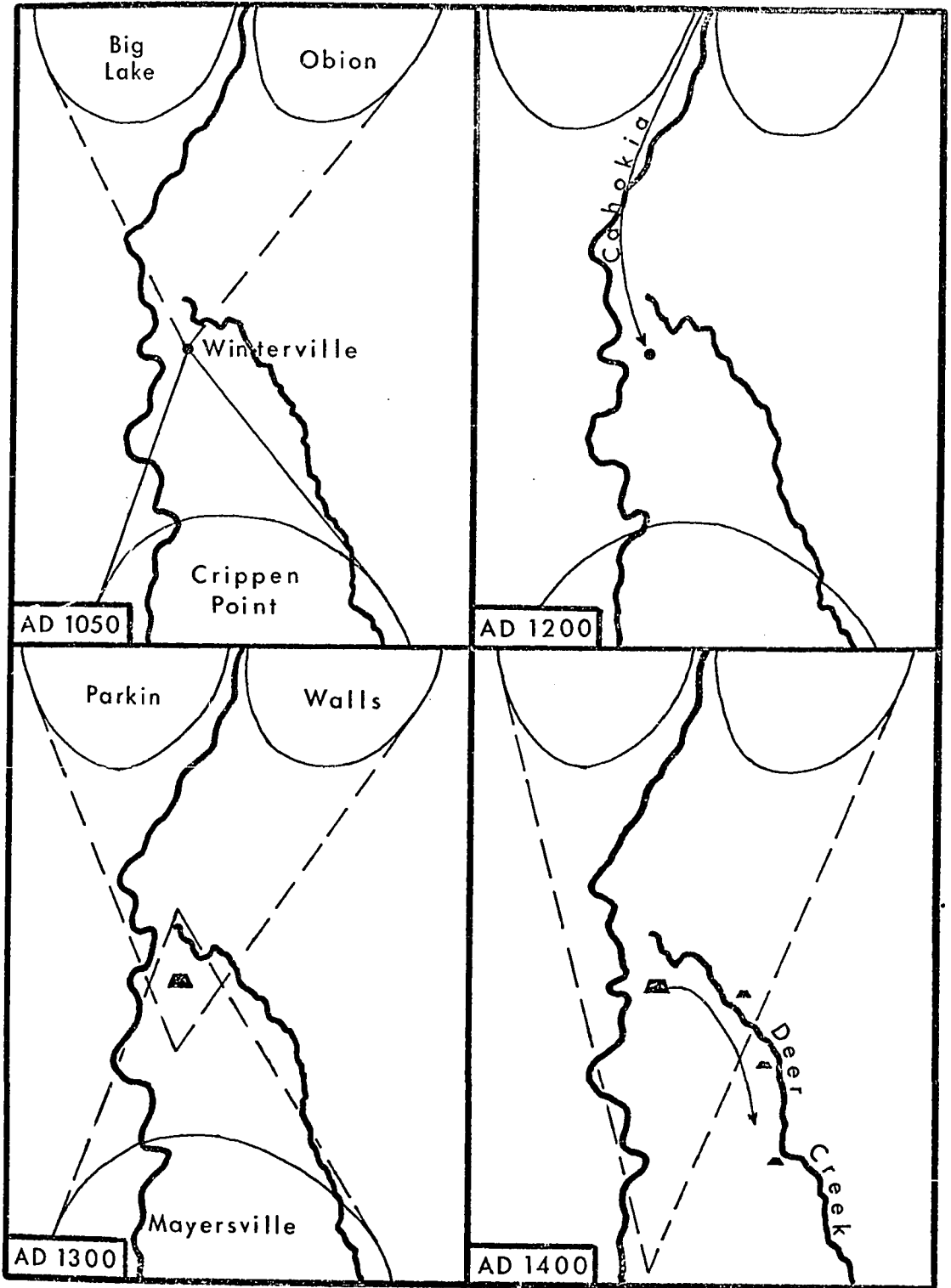


Fig. 21. Diffusion (broken lines) and migration (solid lines) in the Winterville region between A.D. 1000-1400.

However, further evidence of Mississippian influence-- of a very different nature and from a very different source-- is provided by a number of new pottery traits in the upper levels of this same early occupation. These are the types of the Coker series, and closely related Powell Plain and Old Town Red. The large, thin walled, shell tempered jars with polished, painted or cord marked surfaces are completely foreign to the Addis series in style, ruling out the possibility of a local invention. The stylistic dichotomy noted for this occupation is due to the non-intergradation of the attributes of these types with those of the indigenous Plaquemine pottery. As there is an affinity with the earlier Mississippian traits of shell tempering and jar vessel forms, a source to the north is looked for. However, these particular traits are not found at the nearest Mississippian sites of either the Obion or Big Lake phases, and it is not until the Cahokia region of eastern Missouri-western Illinois (Fig. 20) that they are found in conjunction. The type Powell Plain is diagnostic of the Old Village phase at Cahokia, and painting and cord marking are present, the latter treatment becoming most popular in the following Trappist and New Madrid phases. The few sherds of Powell Plain at Winterville are certainly from imported vessels as the paste, firing technique and surface finish are quite different from any other observed at the site, but exactly

similar to examples from Cahokia<sup>1</sup>. The more abundant Coker series was unquestionably produced locally at Winterville, but again the inspiration almost certainly came from Cahokia, the closest source of similar attributes found together in a single complex. This, then, was no casual spread of traits, such as might occur between contiguous areas, but a deliberate contact which jumped over the intermediate areas (Figs. 20 and 21) from where like material has yet to be reported. This bypassing was possible because of the direct route that the Mississippi River afforded between the two sites. That the contact was not merely an example of diffusion by trade or some other such mechanism, but was performed by a small group of peoples coming from Cahokia and settling at Winterville is indicated by the complete lack of intergradation of these traits with the Plaquemine traits. This stylistic dichotomy does not suggest so much the adoption of new ideas by a single group of people as the coexistence of two different groups of people each initially faithful to its own traditions.

The feasibility of such long distance contact and movement of peoples by water is further supported when it is recalled that this was also the time--ca. A.D. 1200--that Aztalan was settled by peoples from Cahokia (Barrett 1933). Although in that case it seems to have been a site

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<sup>1</sup>Preliminary x-ray diffraction tests of Winterville sherds indicate that the Powell Plain sherds are significantly different from other local pottery. However, comparative tests of Powell Plain from Cahokia have not been made.

unit intrusion, and thus a slightly different situation, it provides supporting evidence for the far-flung exploits of Cahokia peoples, as well as some interesting parallels. A considerable amount of forethought and sophisticated leadership is revealed in both cases by the fact that the Mississippi River was the route of contact/migration and intermediate land areas were bypassed, that both Winterville and Aztalan are a considerable distance from Cahokia (respectively 400 and 325 air miles, twice that by water-- see Fig. 20), and that both were located in non-Mississippian culture areas. A possible difference between their receptions in these two areas as well as in the nature of the contact, however, is indicated by the fact that the Aztalan settlers felt it necessary to fortify their village, while Winterville did not require such constructions. The difference may perhaps be attributed to the disruptive influence of a large scale immigration on one hand, versus the acceptance of a small group by a native majority on the other.

The reason for the migration of a small group of peoples from Cahokia to an insignificant border village far to the south is undoubtedly related to the next major event which occurred at Winterville: the raising of the mounds. Whereas there were also mounds at Aztalan, the site primarily seems to have functioned as a typical Mississippian residential town. At Winterville, however, the great mound building project that followed immediately

upon the evidence of Cahokia contact transformed the little Plaquemine village into a great, open, ceremonial center which had but a small residential population. Thus, it is hypothesized that in this case the contact was fundamentally proselytical in nature, and that Winterville was chosen because of its accessible location in what was at that time a non-Mississippian culture area and fertile ground for new ideas. That the mission was successful is attested to not only by the construction itself, but also by the marshalling and inspiring of the manpower required to effect it, all further evidence of sophisticated planning and implementation not previously identified with this part of the Lower Valley.

The original little village of Winterville could not alone have supplied the manpower resources required for the construction of a ceremonial center of such large scope, and it is evident that the enterprise attracted individuals and small groups from many areas around. As the focus of the central part of the Yazoo Basin, Winterville became a cosmopolitan center, and although most of the traits of the early phase continue, a number of new ones appear. The latter are largely introductions diffused from contiguous phases of both the Plaquemine and Mississippian cultures: Mayersville to the south and early Parkin-Walls to the north (Fig. 21). (Significantly, there is no further evidence of contact with Cahokia and the pottery types identified with it in the uppermost pre-mound building



levels are quickly submerged, although some of the attributes continue.) Although of diverse origins, these traits are clearly combined into an integrated, working system. This example of transculturation is especially observable in the pottery which exhibits a hybridization of attributes--old and new, Plaquemine or Mississippian--as they are intermixed in new combinations. In this respect, note especially the decorated types of the Addis, Greenville and Neeley's Ferry series at this time (Table 18). The dynamism of the Winterville phase is due to this inventive experimentation in the combination of traits as much as by the appearance of the new traits themselves. Thus, the resulting culture change was largely an internal phenomenon which developed out of the events of the early phase and prospered under continuing external influence. The latter did not result from large scale movements of peoples, but diffusion of varied traits from a number of sources.

This florescence was terminated by a general conflagration, evidence of which was found on most mound summits. Burned surfaces were common at Winterville and accidental fires must have been frequent occurrences, but while it is possible that all structures could have accidentally burned at the same time, it is unlikely. Nor does it seem to have been the result of warfare for there is no evidence of violence--and that the site itself was an open center without fortifications indicates that peace

prevailed. A possible clue is offered by the relatively undisturbed structure on the summit of Mound K which was remarkably devoid of artifacts, as though it had been ritually cleaned prior to being burned. A ceremonial reason is looked for, then, in this great conflagration: perhaps a purposeful destruction to coincide with the end of an old cycle and the start of a new one.

The conflagration demarcates the Winterville and Deer Creek phases. Whatever the reason and the intended result, this event seems to have marked a profound change in the occupation of Winterville, which never again completely arose from its ashes. After the fire, the site continued to function, but it obviously never regained its former vitality: it continued to be occupied, but only in part and with a smaller population; it continued to serve as a ceremonial center, but no more mounds were built or enlarged; it continued to manifest many of the same cultural traits characteristic of the Winterville phase, but fewer of them were present. The continuity from the Winterville phase was overwhelming, but it is significant that the only traits which were carried on were those of Mississippian origin (Neeley's Ferry series of pottery) or had been "Mississippianized" (e.g., Holly Bluff series). Furthermore, the only new traits introduced were Mississippian pottery and other artifacts which were diffused from the Walls phase upriver: the Bell series of pottery, Madison point, pebble celt, and cylindrical

earplug (the vessel of Chickachae Combed was an unusual import from the hills to the east). Thus, although no major movements of peoples is indicated, Winterville was finally Mississippianized during the Deer Creek phase: a case of eventual acculturation by the expanding Mississippian culture.

Whether Winterville then proceeded to lose influence over the surrounding area or not, it was no longer the sole focus of attention, which now seems to have shifted to the banks of Deer Creek where a number of secondary mound centers were constructed (Fig. 21); hence, the label "Deer Creek phase." This is probably where much of the Winterville population also went, for although there is good evidence of a general population increase throughout the entire region at this period (Phillips et al 1951:449), it was certainly the time of decline and depopulation for Winterville. Significantly, it was also the time that a few elements of the "Southern Cult" appear (Pl. 11r-q; see also McCain and Capers 1954:147)--the apparent religious phenomenon thought to be a revitalization movement (Waring and Holder 1945; Waring 1968; Howard 1968). However, even then it was never prominent at Winterville; nor in the Yazoo Basin, for that matter.

The end of Winterville is not recorded. Any evidence in the ground has been destroyed by recent events. It is probable that after continual decline the site was simply abandoned, and that this abandonment occurred well before

the historic period. In 1541 Hernando DeSoto and his conquistadores traversed the Yazoo Basin and probably crossed the Mississippi River within 50 miles of Winterville (Phillips et al 1951:365-375). Had this greatest of all sites in the vicinity of his crossing still been a going concern it is unlikely that it would have been bypassed without even a reference in one of the narratives. For, as has been noted about far less imposing sites: "the army was held up almost a month preparing for the crossing. It is hardly conceivable that settlements of the importance and magnitude indicated by these remains... would have gone unvisited and unrecorded" (Phillips et al 1951:373).

## X. CONCLUSION

### Recapitulation

In the foregoing pages, the description, classification, analysis and interpretation of the archaeological data has had as the overall objective a cultural and historical reconstruction of Winterville. The steps by which this objective was accomplished proceeded from the description and classification of the data to an analysis of its culture-historical properties, in order to define the cultural and historical contexts prerequisite to the study of cultural dynamics. The resultant reconstruction delineates culture history and further attempts an interpretation of the processes responsible for it, particularly those which relate to culture change. In conclusion, these interpretations are correlated with the larger picture of southeastern prehistory, with especial emphasis upon the single most significant phenomenon in this late period: the Mississippian culture.

### The Position and Significance of Winterville in Southeastern Prehistory

The Yazoo Basin was peripheral to the great developments which marked the Lower Mississippi Valley--and the Southeast--during late prehistory, and yet at one point it occupied a position of central importance in the history

of these developments. Shortly after the turn of the first millenium A.D., the Mississippian and Plaquemine cultures had expanded outwards from their original centers at opposite ends of the Lower Valley until their frontiers overlapped within the Yazoo Basin. Winterville, in the central part of the basin, was located at the approximate latitude that these two cultures first met: and indeed the archaeology of the site reflects this historic fact.

Initially a Plaquemine settlement, and the northernmost outpost of that culture, it began receiving continuing Mississippian influences from the very beginning.

Therefore, the brief occupation of Winterville is of considerable interest in documenting this meeting and the impact of the Mississippian culture upon another culture, especially a viable one with which there were many similarities. In this is one more block of information relating to the significant events during late prehistory in the Southeast.

From the overview of Southeastern prehistory, the chief actor during the last 700 years was the Mississippian phenomenon. Originating in the alluvial valley of the Mississippi River and its tributaries between St. Louis and Memphis in the last centuries of the first millenium, it suddenly burst upon the scene about A.D. 1000 as the zenith of aboriginal sociocultural development in eastern North America. Particular achievements have been noted in the economic, technological, political and religious

spheres--especially important being an advanced agricultural subsistence base and a highly developed socio-religious complex, both manifested in ambitious and carefully planned construction projects--and these usually mark all manifestations of the culture, no matter how widespread. This basic homogeneity indicates that the mechanisms of diffusion often involved the movement of peoples and even of large scale migrations. Via the Mississippi and its tributaries, the Mississippians affected areas as far distant as Florida and Nebraska. The effect of the Mississippian influence upon the indigenous cultural traditions differed widely, probably according to the degree and kind of contact, the strength of the indigenous culture, and the suitability of the environment for Mississippian exploitation.

In many cases, the migration of Mississippian peoples into a new locale is indicated by the establishment of a fortified Mississippian center with a complement of traits quite distinct from the host culture (e.g., Aztalan, Wisconsin and Macon, Georgia). Subsequent interaction then usually resulted in the acculturation of the entire region. In other cases, it is difficult to identify any evidence of migration but the diffusion was strong enough so that acculturation occurred to the extent that the resulting manifestation was recognizably Mississippianized (e.g., Fort Walton in Florida). In all cases, it was acculturation in which the more advanced Mississippian culture initially

overwhelmed or extensively modified a local phase of the simpler cultures extant throughout most of the rest of the East at this time. However, again in nearly all cases, as the contact diminished or the immigrants were absorbed, there was a corresponding change in the initial effect as the Mississippian culture was submerged by the re-emergence of native traits (e.g., Willey 1953). Although the local cultures almost always benefited by such contact through the absorption of some Mississippian traits, a level of development similar to that in the Mississippian homeland was not achieved or maintained after initial contact--with one exception.

The exception is to be found in the southern part of the Lower Mississippi Valley. There, developments similar to those further up the river had been occurring, although perhaps on a slightly lesser scale. Only in this part of the Southeast might there have been an organized resistance--a barrier to Mississippian expansion--or at least a meeting on a relatively equal level, and thus a significant contrast to Mississippian acculturation elsewhere. It is for this reason that Winterville, recognized as a point of initial contact between the Mississippian and Plaquemine cultures assumes a position of importance in the larger picture.

The story of Winterville differs sharply from that of the contemporary Aztalan (Barrett 1933) and Macon (Kelly 1938; Fairbanks 1952). Located in Wisconsin and



Georgia, these latter sites are good examples of the usual pattern of Mississippian acculturation outlined above, and which has been termed "cultural colonization" (Willey 1953: 382). In cultural colonization,

The major processes involved are the implantation by persons, and probably by force, of an alien culture as a colony within the homeland of the recipient culture. Some cultural merging may take place within the colony, but the invading culture is clearly dominant in this limited sphere. Contemporaneously with the foreign occupation of the colony, the recipient culture continues within its old channels in adjacent hinterland, or "refuge," regions. During this period, acculturation of the recipient culture proceeds gradually in the "refuge" regions, apparently by borrowing, imitation, or other contact with the colony. Subsequently, a third culture arises from the "refuge" region as a more or less equal blend and acculturative end product of the contact of the invading and invaded cultures. The total region, both colony and "refuge" zone, are united by this new culture (ibid).

In contrast, the Mississippian and Plaquemine cultures met peacefully at Winterville. There is no evidence of violence and fortifications, nor of the intrusion and replacement of one culture by the other. Rather, after a certain hesitancy, a true conjunction seems to have been achieved between these cultures at the point of contact. The significance of this fact is that this was not a case of immediate Mississippian replacement and acculturation, but first of a dynamic transculturation which resulted in a local florescence. This was certainly due in part to the fact that although movements of people are indicated, they did not involve large groups of Mississippians. Perhaps

the obvious viability of the Plaquemine culture discouraged large scale immigration from the north. In any case, the Plaquemine base proved receptive to the Mississippian advance, and the rapport which developed between them was responsible for the florescence of the Winterville phase, in which Plaquemine traits remained as prominent as Mississippian.

Then, again unlike the usual pattern, this hybridization was followed at Winterville by the ever growing popularity of Mississippian traits through time until a local form of that culture--the Deer Creek phase--eventually prevailed. This situation is even more dramatically illustrated outside of Winterville which went into decline at this point. The Mississippianization of the entire Yazoo Basin is clearly indicated not only by the introduction of new traits from the Parkin and Walls phases to the north, but also by a great increase in the indigenous population: there are literally hundreds of sites in the central part of the basin alone, including many secondary mound centers most of which have attached residential areas in true Mississippian fashion. The evidence available fully supports the accounts of this area in the DeSoto narratives (e.g., Bourne 1904:111-114) which recorded agricultural surpluses and a sociocultural complex compatible with that ascribed to the Mississippians.

To what may this successful Mississippianization be attributed when in other areas with far less viable and

developed local traditions the Mississippian culture was submerged after a brief dominance, even though it had been introduced by a large scale movement of peoples? Certainly, the first and foremost factor was continuing contact and pressure from the north. Although large migrations of Mississippian peoples were not involved, the north-south avenues of communication and interaction were certainly well traveled, as the trade vessels at Winterville demonstrate. The Mississippi River was literally the main-stream of eastern North America, and by virtue of its location Winterville would have been directly affected by all major developments thereon during its occupation.

Also having an important bearing on the Mississippian-ization of Winterville and the Yazoo Basin were the local physical and cultural environments. Ecologically, the situation in the basin would have been more similar to that of the heartland further up the valley than most other parts of the eastern United States were. Thus, the practice of bottomland agriculture could have been continued with much the same methods and success, which in turn would have facilitated cultural diffusion and adaptation. But perhaps the most significant factor of all was the Plaquemine culture itself. Having made similar developments, the Plaquemine peoples may have had religious practices comparable to those of the Mississippians so that they were predisposed to accept the Mississippian religion and other culture traits when offered to them. Such might

be a part of the explanation for the processes of, first, transculturation and then of Mississippian acculturation which may be observed at Winterville.

Winterville's significance to Southeastern prehistory, therefore, was its pivotal role in the initial Mississippian-Plaquemine contact and the eventual Mississippianization of the Yazoo Basin. This is quite different from the sequence of intrusion, domination and then submergence of the Mississippians in non-Mississippian culture areas, a difference attributable in this case to a process of transculturation between two equally viable and relatively similar cultures. Clearly, the Plaquemine culture provided a fertile ground for the perpetuation of Mississippian developments outside of the Mississippian heartland.

#### Beyond the Southeast

The pattern of culture change observed at Winterville was one of transculturation followed by ultimate acculturation as the result of contact between two highly developed cultures. This pattern was shown to be dissimilar from other examples of culture contact and change in the rest of the Southeast at this time.

Nor is a counterpart to be found in the southwestern United States, the other area north of Mexico to be extensively subjected to Mesoamerican influences and to exhibit a high degree of cultural development. There, change was subordinate to continuity, and the various

regional traditions were of long duration. On a relative scale of development, the three principal traditions may be listed in ascending order as follows: Mogollon, Anasazi and Hohokam. Of these the Anasazi was the most viable in that it eventually spread over a large part of the Southwest encroaching upon the territories of the other traditions. The Anasazi encounter with the less developed Mogollon during this climactic phase resulted in a simple case of acculturation. But when the Anasazi came into contact with the third principal tradition--the Hohokam--which was more highly developed, there was little acculturative effect, and even transculturation was limited. In fact, only minimal change can be observed in the cultures of groups from the two traditions, even though they appear to have lived side-by-side for more than a century.

Perhaps the long traditions of conservatism, as well as relatively undeveloped social stratification which might otherwise have brought about a certain degree of cultural fusion, were responsible for the remarkable standoff. This conservative resistance to change is still manifest today among the Pueblos and other groups in the Southwest.

An example of culture change far more similar to the events at Winterville is found during the Postclassic period within Mesoamerica itself. The Toltec invasion of the Maya Yucatán occurred at about the same time that Winterville was founded and again it represents the meeting of two cultures at a similar stage of development, although

perhaps of differing viability. One important contrast to the Winterville situation was that the Toltec venture seems to have involved military operations and subjugation of the native Yucatec Maya. But while a Toltec hierarchy was established, it did not comprise the entire population, and the following interaction resulted in a good example of transculturation. Chichén Itzá, the Toltec-Maya capital, was a ceremonial center along Maya lines rather than an urban clustering in the Mexican style. The architecture was basically Toltec, but with Mayan touches including use of the native hieroglyphic system. Of even greater importance for comparison is that while the Toltec Quetzalcoatl religion was adopted at Chichén Itzá, it owed much to preceding Mayan elements in at least its physical manifestations. After a brief florescence, however, Chichén Itzá gave way to a Maya resurgence, and in this respect the pattern of change conforms more closely to that observed in late prehistory in other parts of the eastern United States than to Winterville.

A pattern of culture contact and change comparable to that observed at Winterville may be found in the South American Andes during the emergence and spread of the Incas among their similarly developed neighbors. But there, again, militarism and also politics were important features in the expansion, whereas at Winterville these were minor factors, if not completely absent.

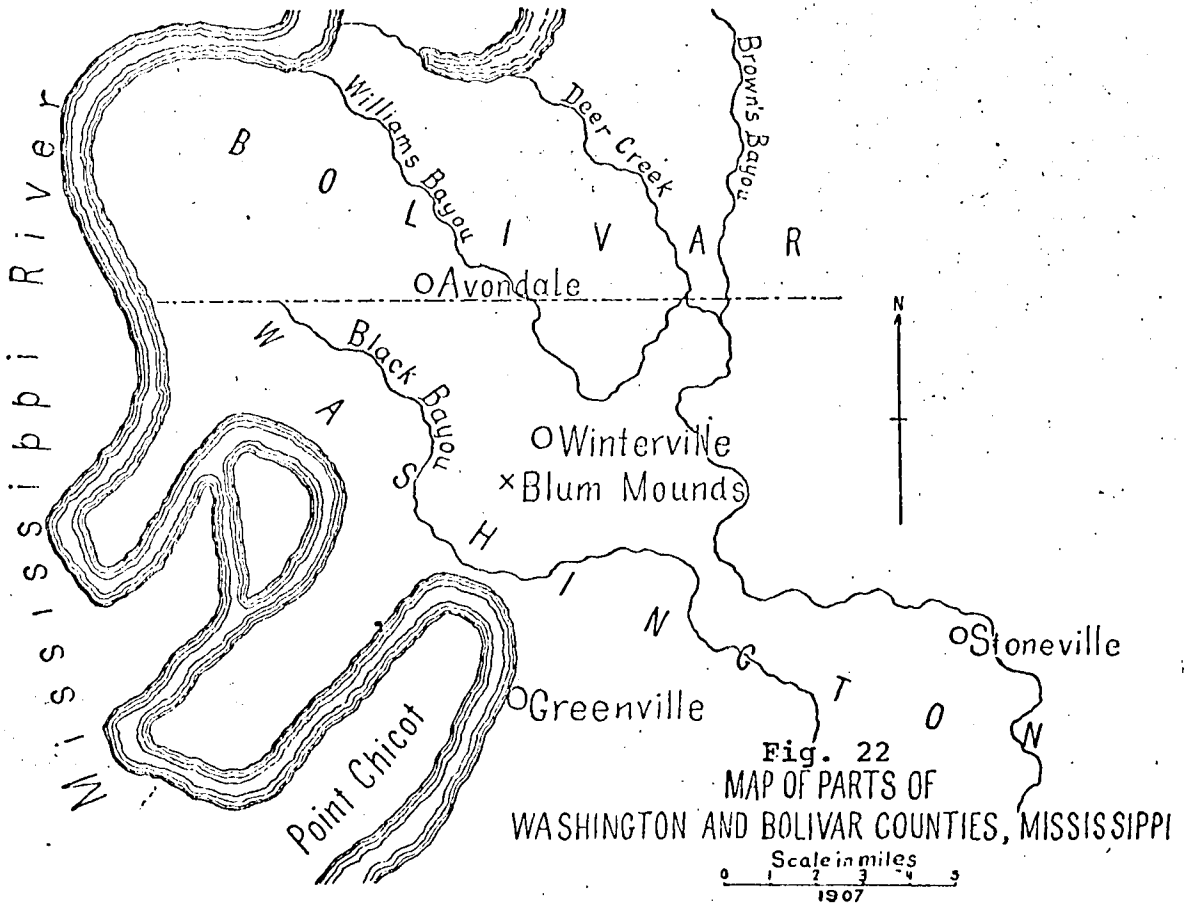
It was religion which seemed to have played the most

important role at Winterville, and in this regard the relationship of the site to the early Mississippian diffusion may be compared to the initial spread of some of the great missionary religions of history. Especially comparable, since similar levels of development are manifested by the protagonists, are the Buddhist conversion of Southeast Asia and the Islamic proselytism of sub-Saharan Africa. In these cases, as seemingly at Winterville, culture contact was effected by missionaries who brought about an enthusiastic accommodation at a local level, manifested in great physical and spiritual attainments. In turn, this religious florescence provided a convenient base for further acculturative developments.

That the concluding phase was anticlimactic at Winterville testifies to the decline following the exuberant reaction to the initial contact. Such a decline might well have provided fertile ground for a new religious movement--as reflected elsewhere in the Southeast, perhaps, by the spread of the Southern Cult--but at Winterville was irreversible and led only to final abandonment. Winterville had served its purpose and the new order of things did not require its participation.

## APPENDIX I: REPORT OF THE EXCAVATIONS BY C. B. MOORE\*

The Blum group of mounds, in Washington county, Miss. (see map), is about four miles in a straight line, in a northerly direction from the city of Greenville;



about one mile in a southerly direction from Winterville station; and two miles NNE. from the Mississippi river at its nearest approach.

The group on a plantation belonging to A. Blum, Esq., of Greenville, Miss., and of New Orleans, La., to whom the warm thanks<sup>1</sup> of the Academy of Natural

<sup>1</sup>The Academy wishes also to express its indebtedness to Messrs. J. B. Williams, Esq., of Greenville, the lessee of the property, and J. H. McKnight, Esq., of Winterville, the superintendent.



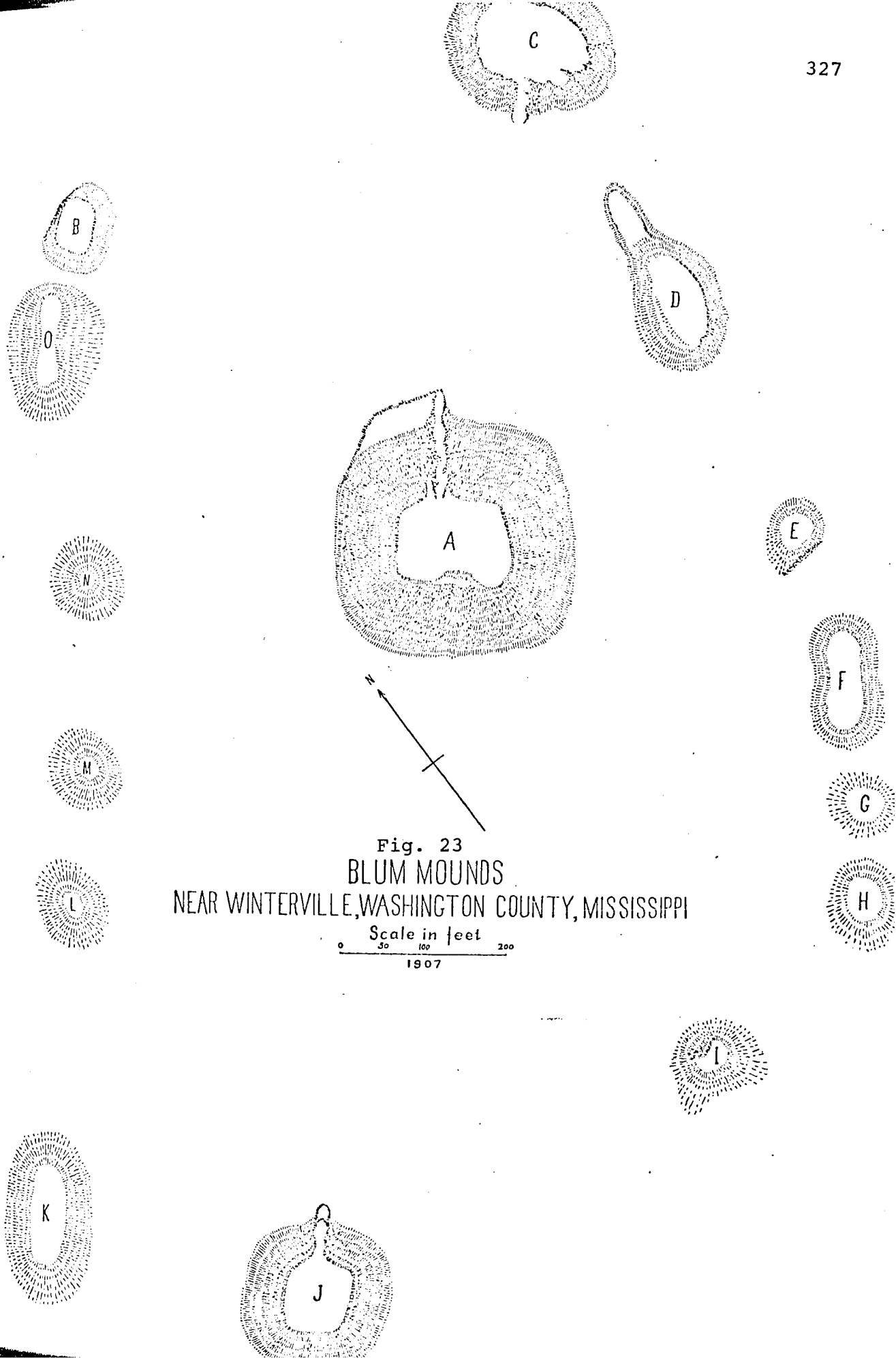


Fig. 23  
BLUM MOUNDS  
NEAR WINTERVILLE, WASHINGTON COUNTY, MISSISSIPPI

Scale in feet  
0 50 100 200  
1907

Sciences are tendered for full and cordial permission to investigate, consists of a great central mound, 55 feet high, surrounded by fourteen other mounds forming an irregular ellipse. One of these mounds is so nearly obliterated, however, that it might well be passed over in an enumeration.

The diameters of this ellipse are about 1600 feet NE. and SW., and 1000 feet NW. and SE.

The central mound, marked A, and the other mounds marked B to O, inclusive, are shown in the accompanying plat of a survey<sup>1</sup> made by Dr. M. G. Miller, at the time of our visit.

Certain small elevations outside and inside the ellipse, probably dwelling-sites, have been disregarded in the plan.

The Blum mounds, uninvestigated previous to our visit, though a few holes had been dug into them (by treasure-seekers, it is said), are not mentioned in the "Mound Reports" of the "Twelfth Annual Report of the Bureau of American Ethnology."

They are not the "Avondale Mounds" referred to in the "Twelfth Annual Report" and in Thomas' "Catalogue of Prehistoric Works," but are unquestionably the group described in the latter work as being "nearly opposite Point Chicot," which group is more fully described in the Smithsonian Report for 1879, page 383 *et seq.*, though the plan accompanying the description gives but little idea of the mounds as they appear at present.

These mounds on the river plain and, consequently, on land subject to overflow, are not, however, exposed to wash of water in time of flood, it is said, the distance from the river being such that the current has no influence, and the water consequently is still.

The summits of the more important mounds of the group, so far as known, have never been submerged, the usual rise of water about the mounds when there is a flood being, we are told, from 3 to 5 feet.

Nevertheless, a number of the mounds (E, F, G, H, I, K, L, M, N, O) have no regularity of outline, a fact due, we believe, to long-continued cultivation, though some of the mounds enumerated have not been plowed over in comparatively recent times.

Even the regularity of most of the larger mounds, the sides of which are too steep for cultivation, is considerably impaired, owing, probably, to wash of rain; to the constant tread of mules, sheep, goats, and hogs, which frequent the mounds in numbers; to the deep and extensive rooting of hogs; and to the general wear and tear of time, which is ever more destructive in the case of mounds like the Blum mounds which are but little protected by the roots of trees and shrubbery.

It might be suggested that, in earlier times, before the erection of the levee, different conditions tending to make stronger the erosive force of the water, may

<sup>1</sup> Though the expedition was amply provided with photographic apparatus, no photographs of the mounds were made. Experience has shown that the work of the camera in connection with mounds is misleading, undue prominence to the foreground being given and inadequate portrayal of the heights.

have existed, or that the mounds may have been much nearer the river (which, as all know, is ever changing its course) and were exposed in flood time to a deeper and fiercer current than is the case at present.

The answer to this would be that Mound J (which is protected by bushes and shrubbery, and does not seem to be frequented by stock) is almost intact, and that this mound has suffered only to the extent of a partial leveling of its causeway, evidently through cultivation.

A current that would wash away any of the mounds, presumably would eat into all of them.

The height of a mound often depends on the side from which the measurement is made. The subjoined list gives the altitudes of the Blum mounds, as taken from within the enclosure.

- Mound A—55 feet.
- Mound B—13 feet 2 inches.
- Mound C—19 feet 6 inches.
- Mound D—17 feet 6 inches.
- Mound E— 6 feet 7 inches.
- Mound F— 9 feet 7 inches.
- Mound G— 4 feet.
- Mound H— 7 feet 7 inches.
- Mound I— 9 feet.
- Mound J—30 feet 10 inches.
- Mound K—12 feet 5 inches.
- Mound L— 7 feet 6 inches.
- Mound M— 7 feet 3 inches.
- Mound N— 8 feet.
- Mound O—10 feet 10 inches.

The Blum mounds and surrounding territory have comparatively no history as to the discovery of artifacts or of human remains. No human bones were seen by us on the surface, though extensive ditching had been done, and much of the level ground and a number of the mounds are regularly plowed over; and only a limited number of fragments of earthenware lay around—all this lack of signs of former occupancy being in marked contrast with our experience at the great group of mounds at Moundville, Ala.

Six days in November and December, 1907, were devoted by us to the Blum mounds, with five of our trained men to dig, it being impossible to engage additional help at the mounds owing to scarcity of men on account of the needs of the cotton-crop. However, as it turned out, a greater force was not urgently called for.

A very long experience in mound-work in southern United States has led us to believe that domiciliary mounds and mounds built as places of worship (which classes of mounds are of considerable size and usually are rectangular in outline with summit plateaus) seldom contain burials. We know, however, there are noteworthy exceptions to this rule, some of which we have enumerated at length

in the account of our first visit to Moundville,<sup>1</sup> and that summit plateaus or parts of them sometimes were used for burial purposes.

We commenced then, to investigate the Blum group of mounds in the same manner as we did the mounds and cemeteries of Moundville, namely, by sinking trial-holes in the summit plateaus of the mounds, and in the level ground where appearances indicated the possible presence of a cemetery, with the intention, should burials be discovered, of prosecuting the search in a more thorough way.

The trial-holes in the Blum mounds were intended to be 6 feet long by 3 feet wide and 4 feet deep, but as the material of which the mounds were made was, as a rule, a tenacious, alluvial deposit, dried comparatively hard and in places still farther hardened by fire, necessitating the use of picks and grubbing-hoes, the dimensions given were not always adhered to exactly. . Sometimes, but not often, the holes exceeded the standard size.

In the level ground the trial-holes were 6 feet by 3 feet and were usually 4 feet deep, but sometimes when ground unmistakably undisturbed was reached, the holes were not carried to a full depth of 4 feet.

We shall now state the extent of the tentative work carried on by us in connection with the Blum mounds, giving the area of each summit plateau where such was present.

Mound A, summit plateau 100 feet by 132 feet, approximately, was accorded twelve trial-holes on the summit plateau and five at its northern corner.

Mound B, with a summit plateau 44 feet by 60 feet, had on it a number of burials made in recent times, which were not disturbed by us. But five trial-holes were put down in this mound.

Mound C, with a summit plateau of irregular outline, 90 feet by 136 feet, received five trial-holes.

Mound D, with an irregular, oblong plateau about 60 feet by 112 feet, was fairly well covered by the seven trial-holes allotted to it. In one hole, just below the surface, was an isolated skull badly decayed. In another were fragments of a skull.

Mound E, part of which had been cut away in the making of a road, received one trial-hole in addition to a close examination of the section laid bare.

Mound F, four trial-holes. A small oblate-spheroidal vessel of coarse ware was found near the surface.

Mound G, five trial-holes. Lying near together in this mound were nine double-pointed fish-scales which Mr. H. W. Fowler, of the Academy of Natural Sciences, has identified as probably belonging to the alligator-gar (*Lepisosteus tristechus*), a fish abundant in the lower Mississippi river.

The scales of this fish, which Du Pratz<sup>2</sup> calls *poisson-armé*, are said by him

<sup>1</sup> "Certain Aboriginal Mounds of the Black Warrior River," Journ. Acad. Nat. Sci., Vol. XIII p. 241 *et seq.*

<sup>2</sup> Histoire de la Louisiane, Vol. II, p. 168, Paris, 1758.

sometimes to have served as points for the arrows of aborigines of the lower Mississippi region. Certain it is that the ganoid scales of the alligator-gar, a fish which sometimes reaches a length of from 8 to 10 feet, would be admirably suited for use as projectile points.

Mound H, five trial-holes.

Mound I, which had been much dug into previously, received four trial-holes.

Mound J, summit plateau 76 feet by 80 feet. Nine trial-holes were sunk into the summit plateau of this mound, resulting in the discovery of a badly decayed skeleton of an adult, at full length on the back, 2.5 feet below the surface.

Ten trial-holes were put into Mound K. A number of fish-scales were found, probably belonging to a young alligator-gar. These scales were too small to have served as arrowpoints, and, moreover, they lay one overlapping the other as if a portion of the fish had been present originally.

Just below the surface of Mound K were three small, coarse, undecorated pots of earthenware, all with flat bottoms. Near these, together, were two small pots, one with two loop-handles, the other with loop-handles on two opposite sides and projections below the rim on two other sides.

With these pots was a small fragment of excellent yellow ware, having part of a design in low relief, painted red.

Ten trial-holes were dug into Mound L. A much-decayed skeleton of an infant was met with about 2 feet below the surface.

Mound M, five trial-holes.

Mound N, ten trial-holes.

Mound O, nine trial-holes.

In the level ground five trial-holes were dug at each of the following sites:

Ridge ESE. of mound J.

Ground adjacent to the SW. corner of Mound C.

Dwelling-site about 40 feet NNE. of Mound D.

Dwelling-site about 100 feet from W. side of Mound J.

Field W. of Mound J.

Field E. of Mound J.

Ground NE. of Mound N.

Field W. of Mound O.

Dwelling-site NE. of Mound C (across the road).

Throughout the digging, sherds were rarely met with. Such as were found in the trial-holes, and those encountered on the surface, were mainly of common ware, though a few, including one we have already described, were of excellent material—one fragment of black ware having an especially high polish on both sides.

Decoration, when present, almost invariably consisted of simple designs rudely incised. Decoration with red paint was several times found. Two specimens tested by Dr. H. F. Keller showed the pigment to be red oxide of iron.

On the surface were a small chisel wrought from a pebble of chert, and a disc

of pottery which had been given its form before baking and had not been cut from a fragment of an earthenware vessel.

From the trial-holes came musselshells which have been identified by Dr. H. A. Pilsbry as *Quadrula perplicata*; *Q. heros*; *Lampsilis anodontoides*.

We are at a loss to account for our limited success in finding burials and artifacts in the neighborhood of the Blum mounds. We know that domiciliary mounds, such as those forming this group probably were, are often without burials in their summit plateaus, but one would expect to find cemeteries in the surrounding level ground. Did such cemeteries still exist in the neighborhood of the mounds, it is curious we failed to find them—for it is rarely one digs to any extent among skeletons, wholly or in part extended, without encountering some of them.

If cemeteries underlie the cultivated fields (and practically all the territory near the mounds has been under cultivation for a long time) one would look for numerous accounts of the finding of bones and artifacts in post-holes, in trenching, and in cultivation; but such accounts, as we have seen, are not forthcoming.

## APPENDIX II:

## LOCATION OF PERMANENT MARKERS AT WINTERVILLE

The datum of the 1967-1968 excavations was located 25.75 meters, on a line  $36.5^\circ$  east of south, from a nail set into the outside edge and near the bottom of the concrete buttress attached to the left jamb of the south door on the northeast side of the museum building. This location was marked with a two-foot iron pipe fitted with a galvanized cap at one end, which was driven into the ground until only the cap protruded above ground surface. This cap was stamped "JPB DATUM."

In the event that the datum should be lost or destroyed, and to provide reference points for possible future excavations, two additional permanent markers were placed at opposite ends of the site. Capped iron pipes were again used, and the caps were stamped with the coordinates of each point in reference to the datum: "N75 E375" and "S190 E100." The elevation of the former point was +.11 m. and of the latter +1.67 m.

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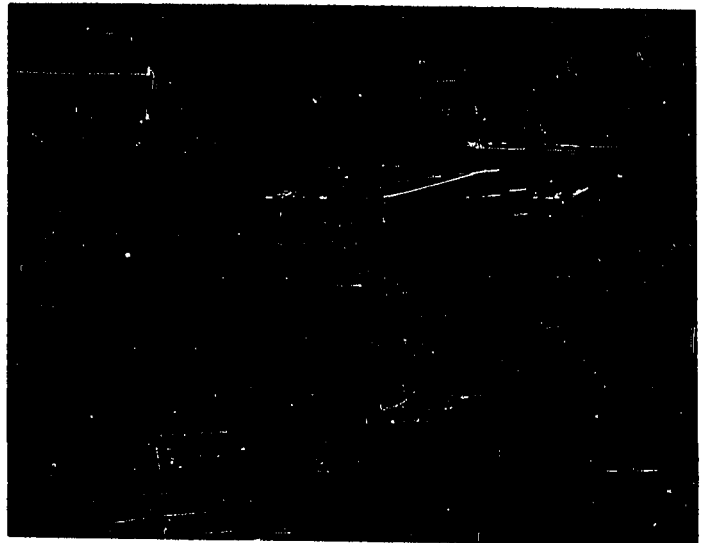
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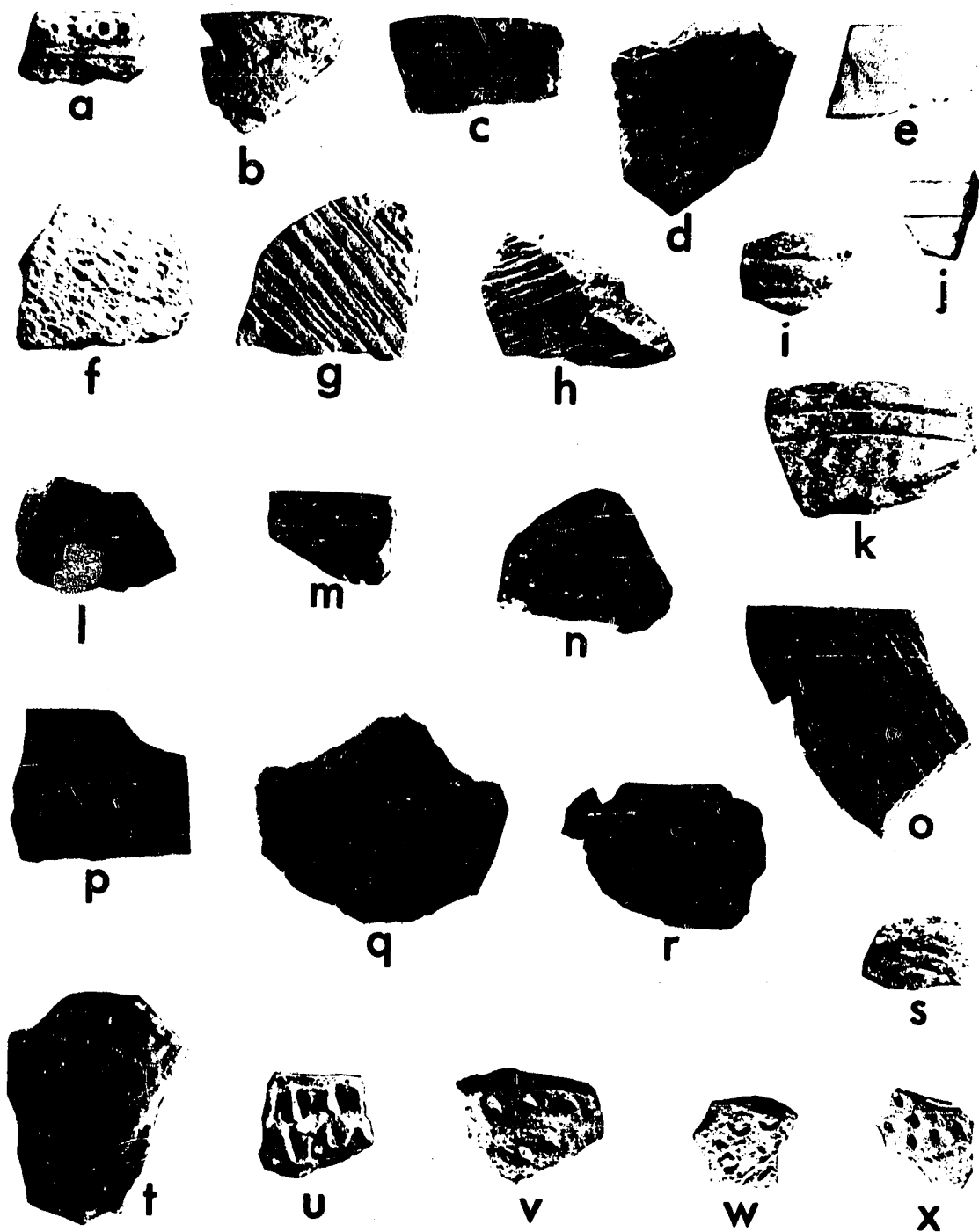


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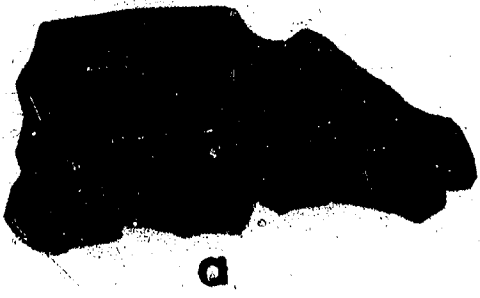


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Architectural Details: a, cane impressions on interior surface of daub fragment; b, cane impressions (detail); c, fragment of daub showing roughening of exterior wall surface; d, fragment of daub with portion of exterior surface finish coat still adhering; e, section of burned floor showing evidence of three successive plasterings in the same structure (a-e reduced 1/2, e app. 1/4).



Pottery of the Tchefuncte and Baytown Series: a, Lake Borgne Incised; b-e, Baytown Plain; f, Withers Fabric Impressed; g-h, Mulberry Creek Cord Marked; i-k, Coles Creek Incised; l, Salomon Brushed; m-n, Larto Red; o, Mazique Incised; p-r, Oxbow Incised; s, Chevalier Stamped; t, Hollyknowe Pinched; u, Evansville Punctated; v-x, Churupa Punctated (all reduced 1/2).



a



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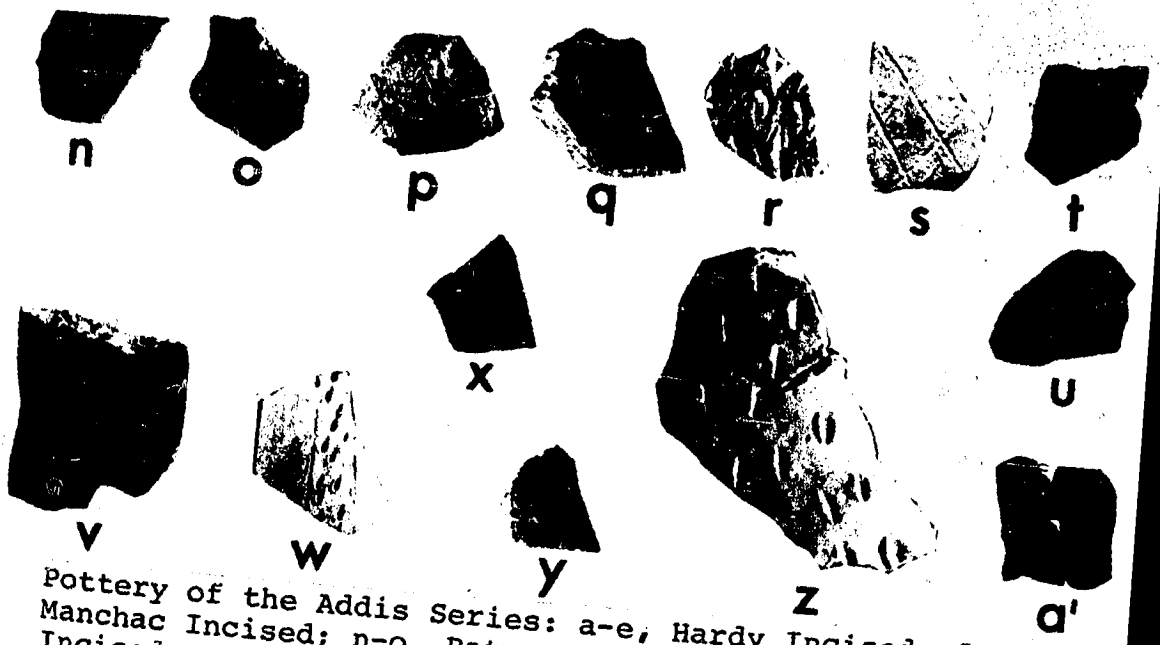
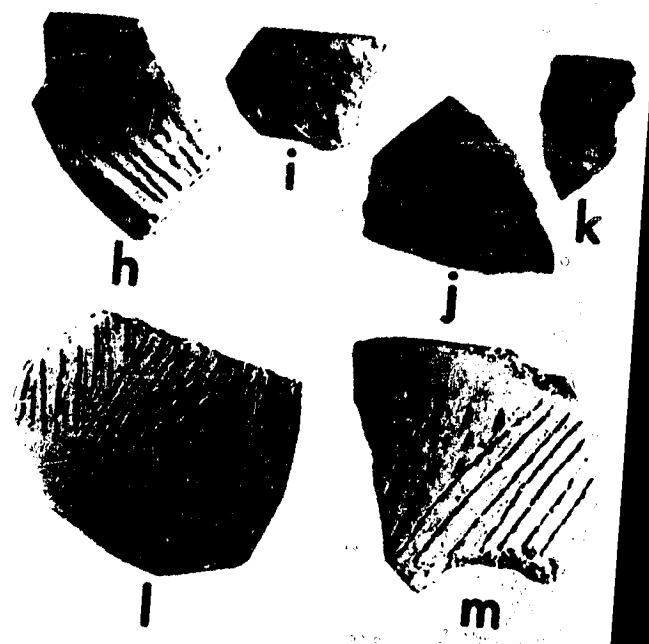
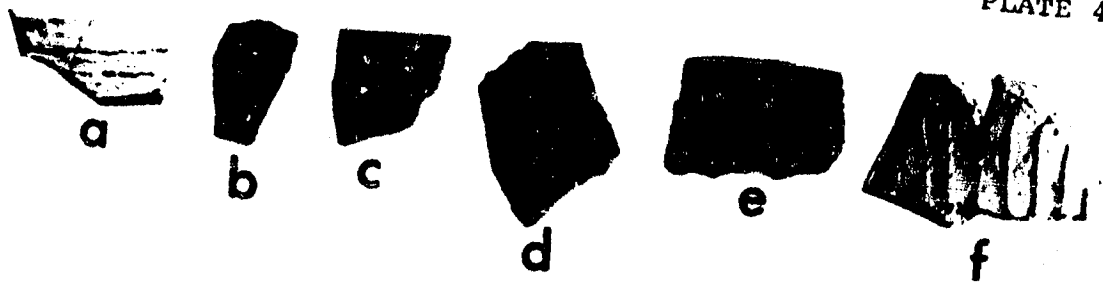


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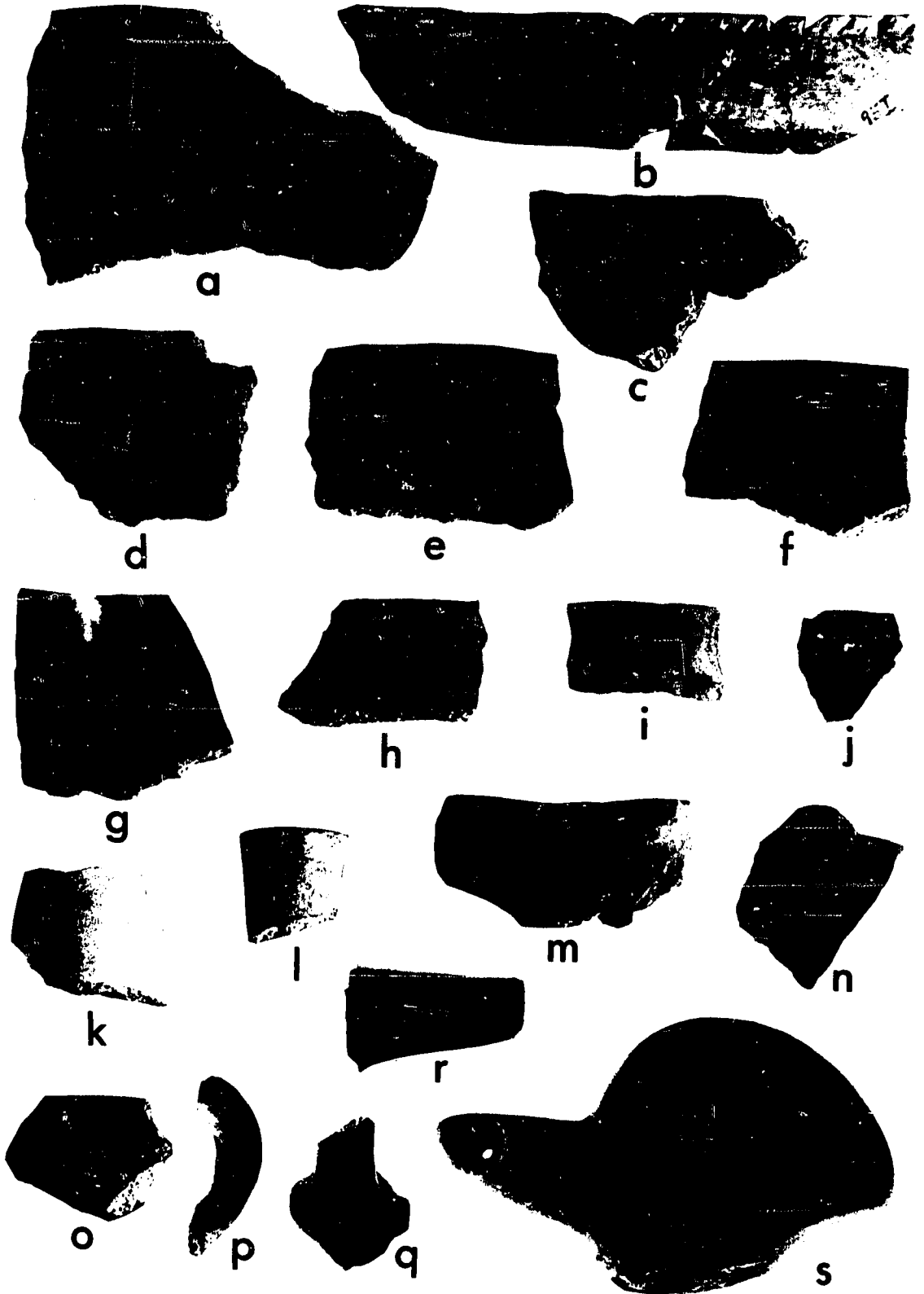


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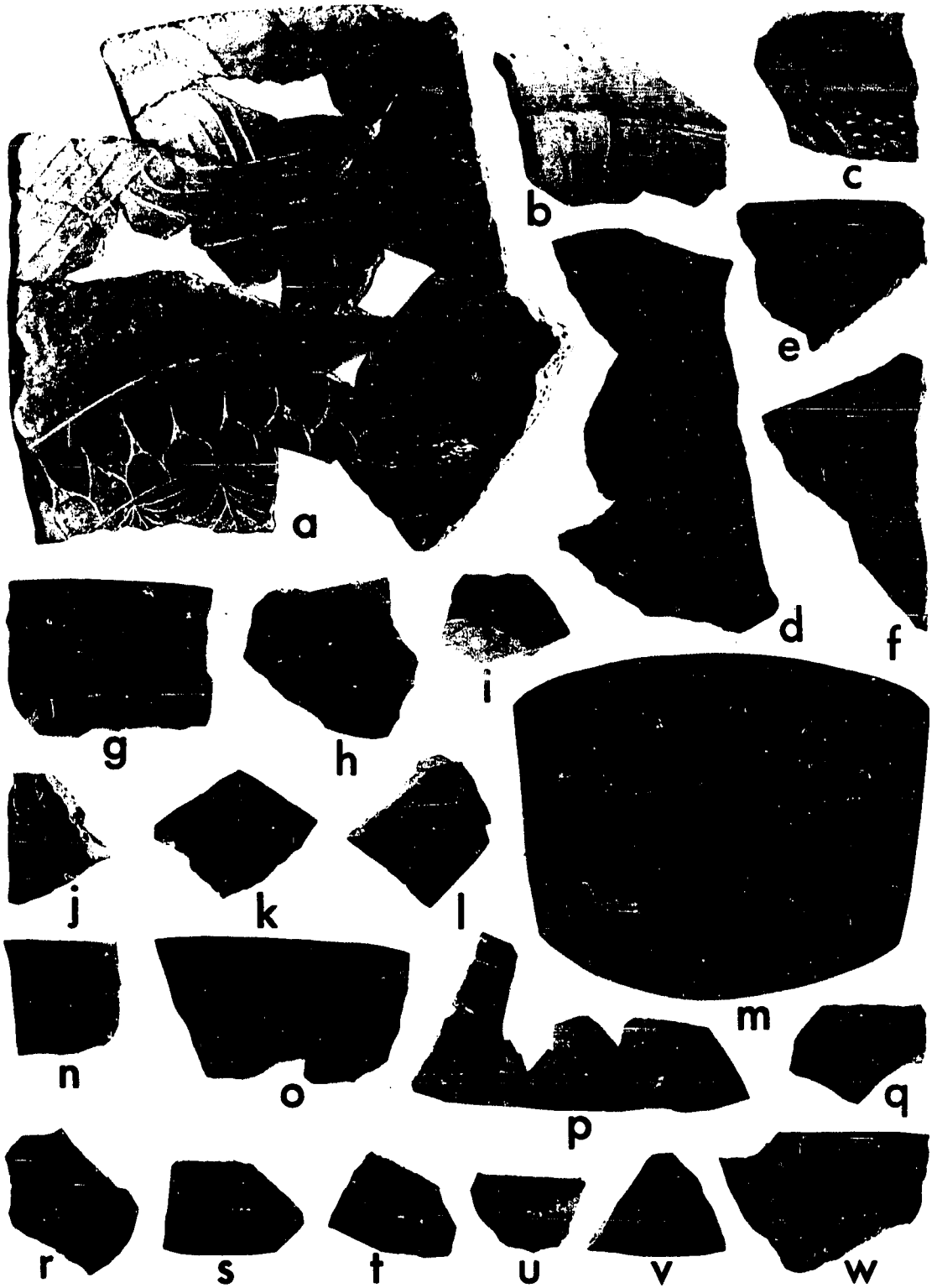
Pottery of the Addis Series: a-l, Addis Plain (a-h, j-k reduced 1/2, i 1/3; l is 1/1).



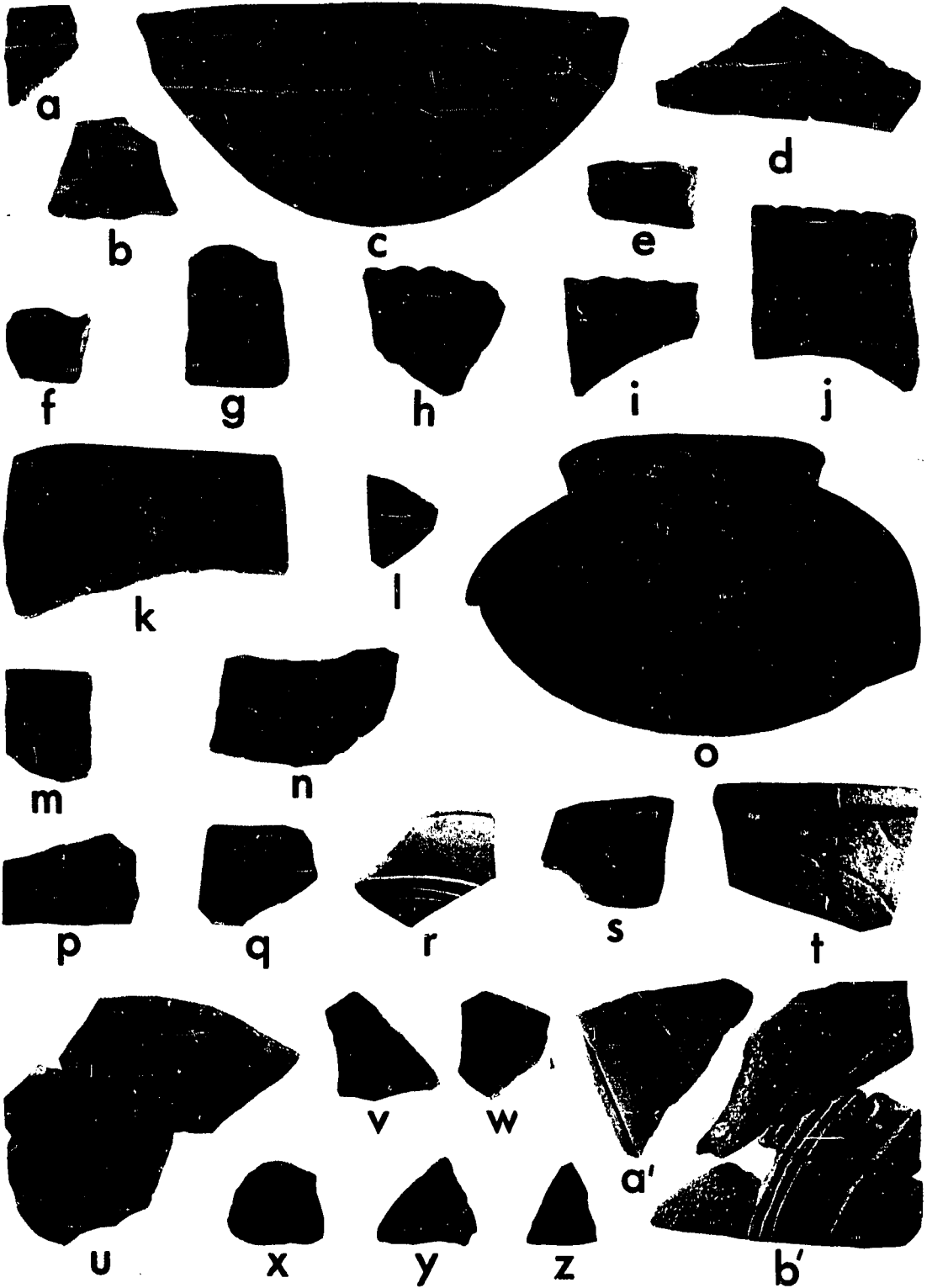
Pottery of the Addis Series: a-e, Hardy Incised; f-m, Manchac Incised; n-o, Patmos Pinched; p-q, Harrison Bayou Incised; r-s, Beldeau Incised; t-u, Plaquemine Brushed; v-y, Dupree Incised; z-a', Wilkinson Punctated (all reduced 1/2).



Pottery of the Greenville Series: a-s, Greenville Plain  
(all reduced 1/2, except s which is 1/1).

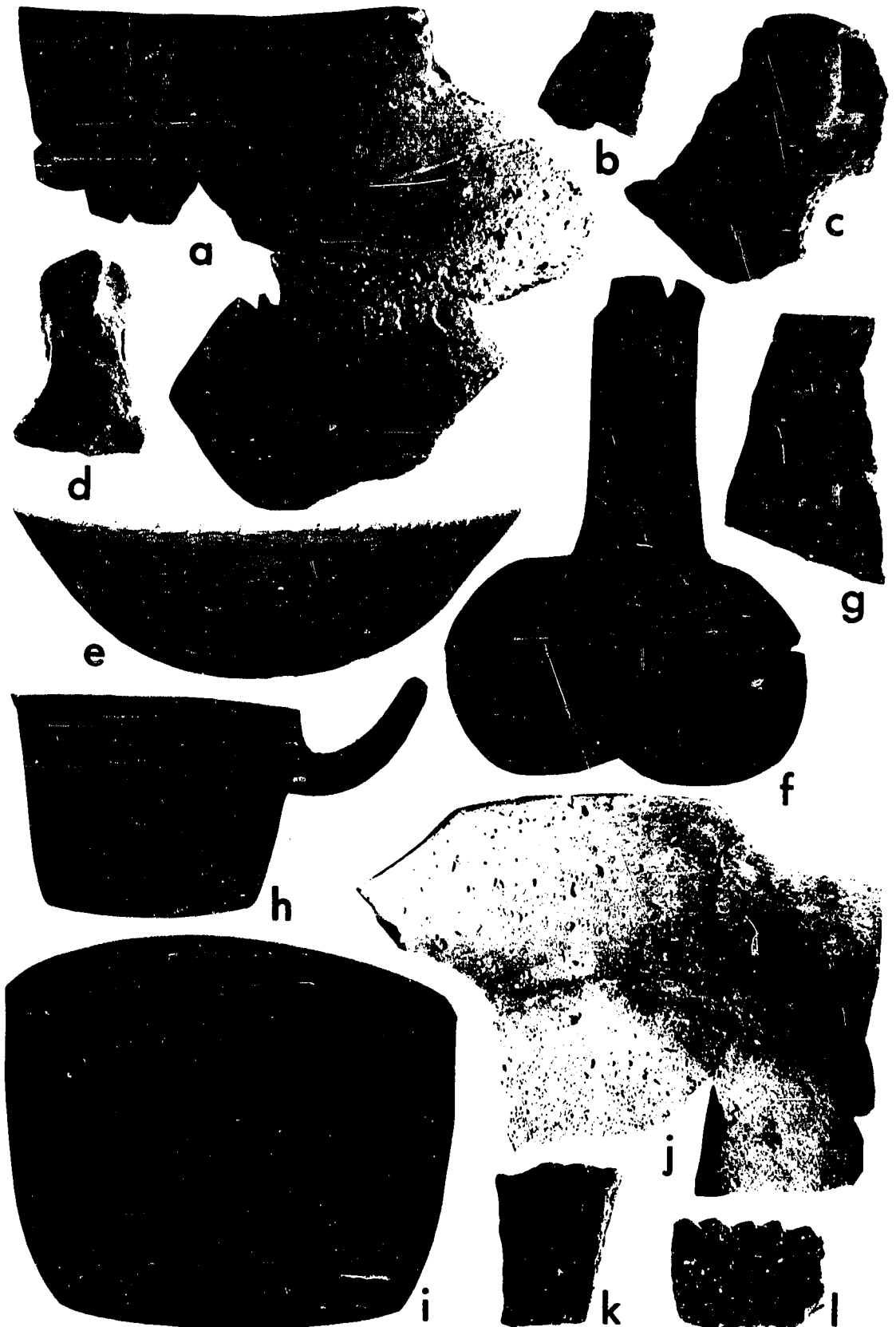


Pottery of the Greenville Series: a-g, Anna Incised; h-m, Bethlehem Incised; n-q, Carter Engraved; r-u, L'Eau Noire Engraved; v-w, Chicot Red (all reduced 1/2).

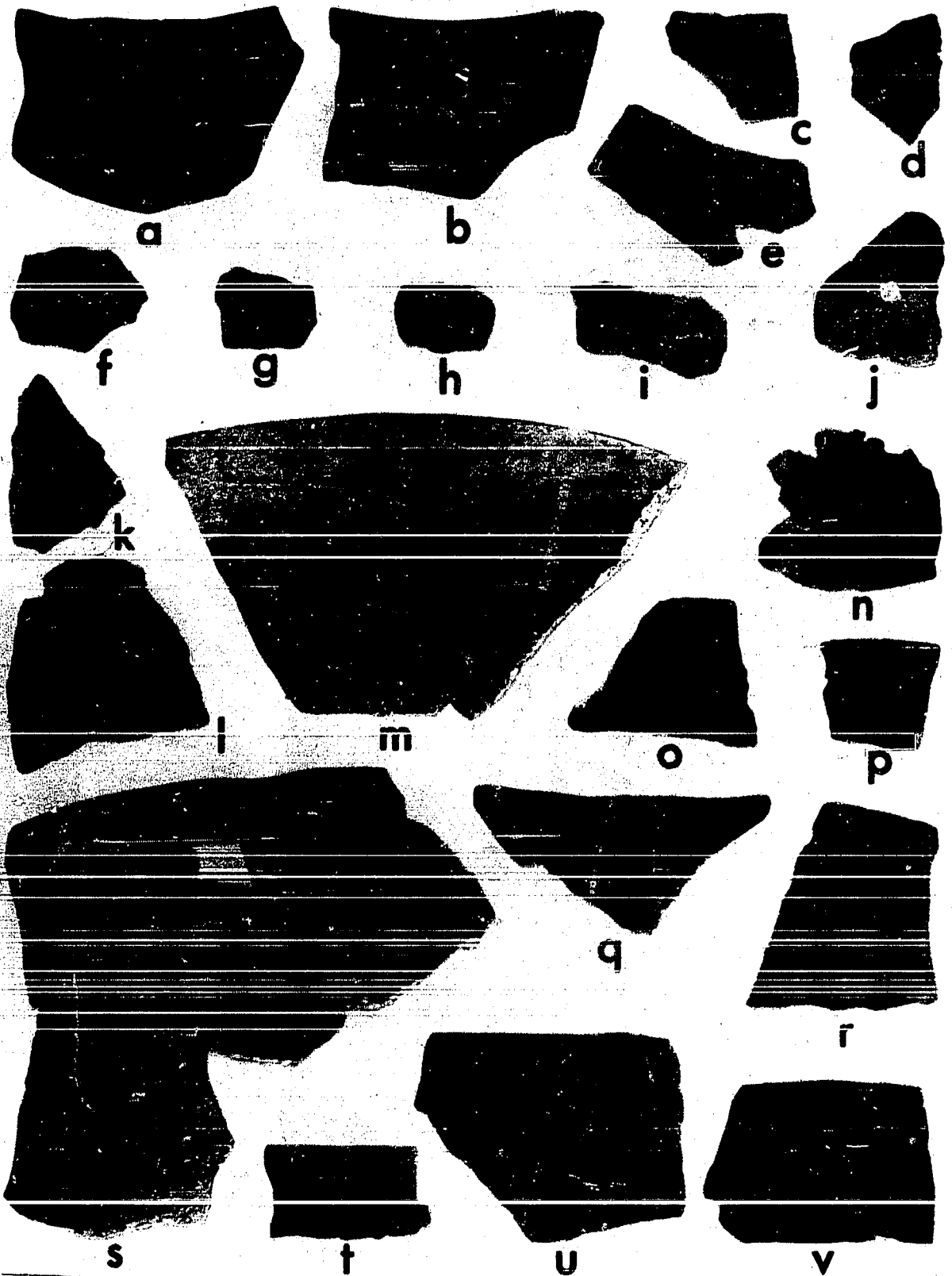


Pottery of the Holly Bluff Series: a-j, Holly Bluff Plain; k-t, Leland Incised; u, Blanchard Incised; v-w, Fatherland Incised; x-z, Beland City Incised; a'-b', Williams Incised (all reduced 1/2).

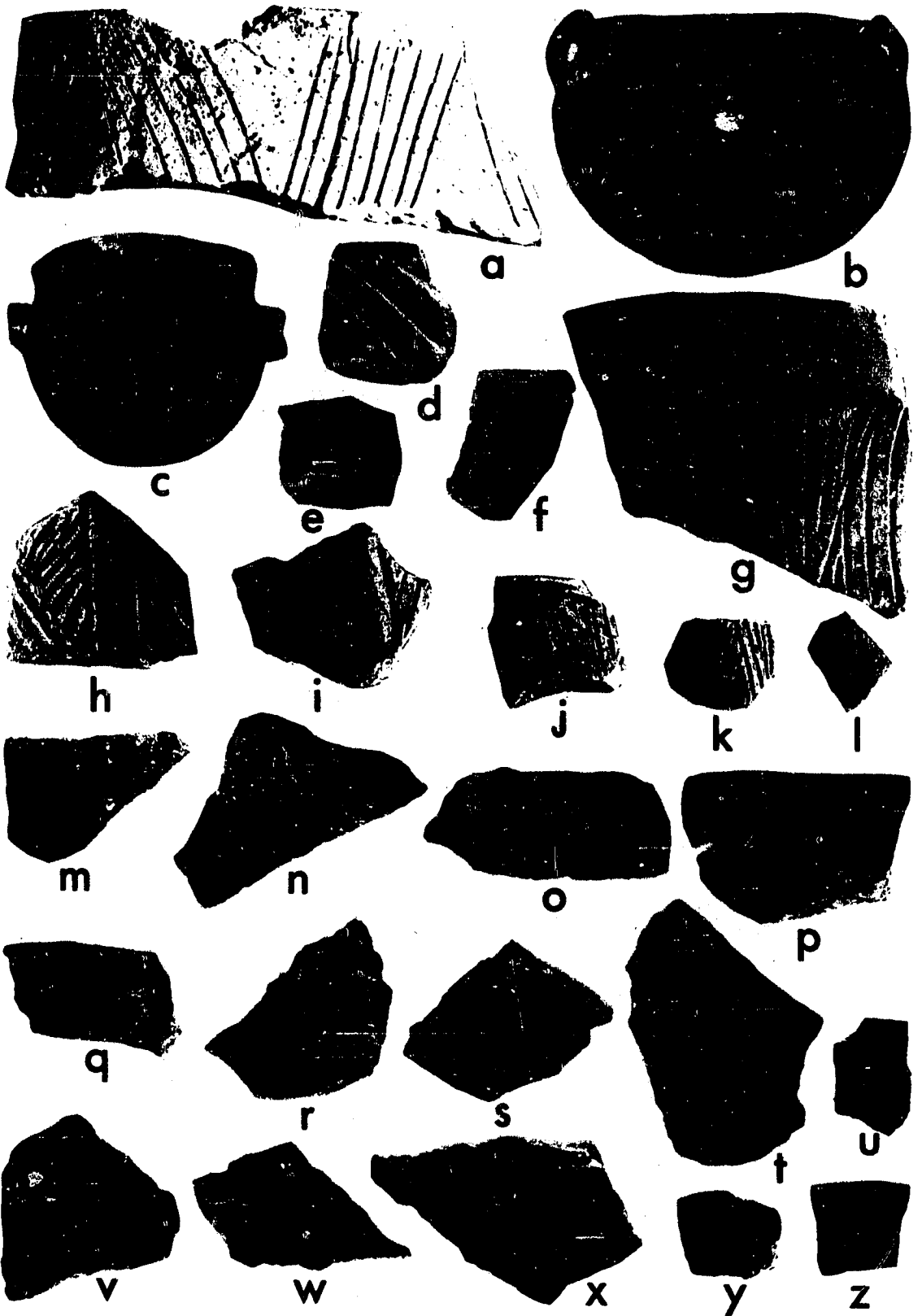




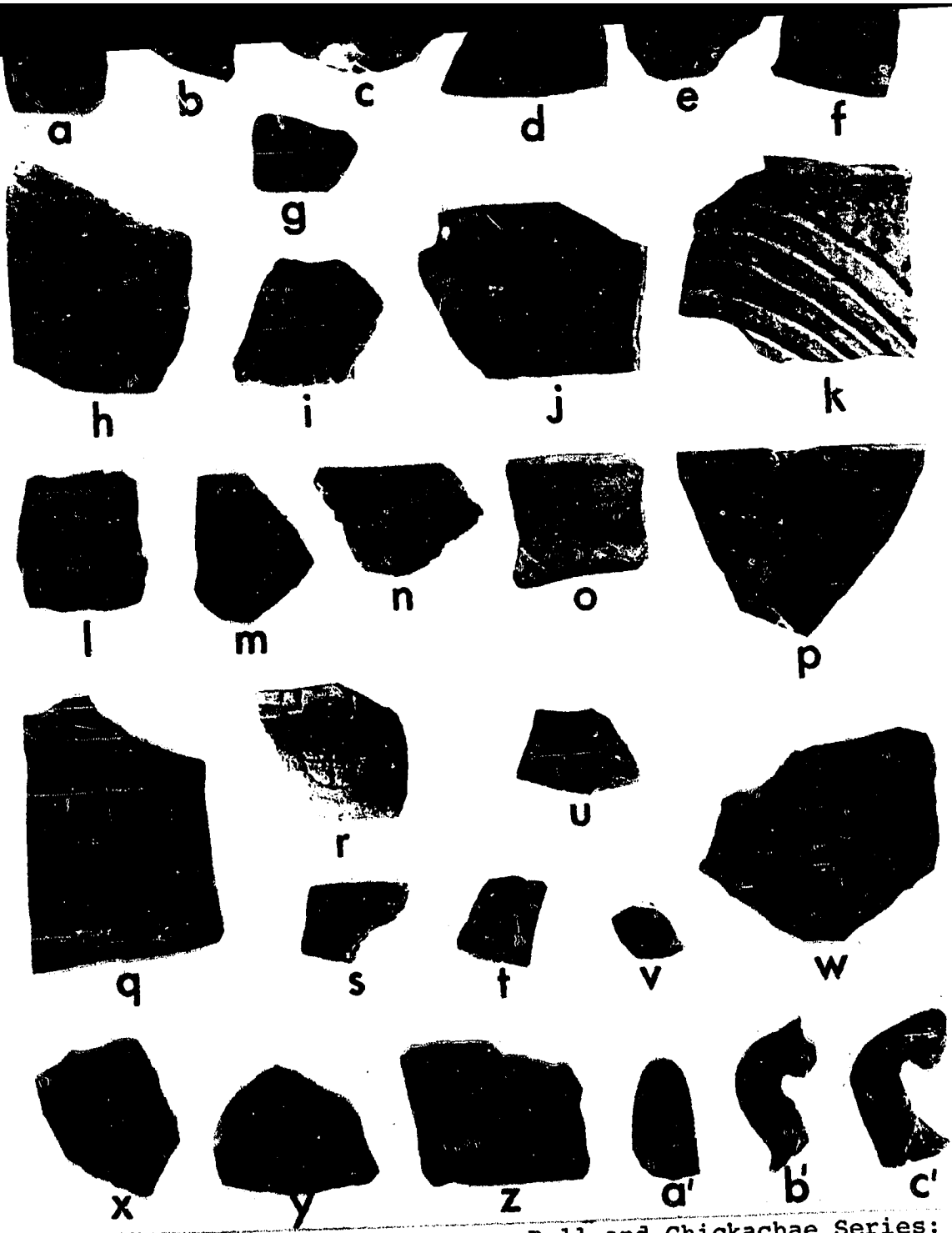
Pottery of the Neeley's Ferry Series: a-l, Neeley's Ferry Plain (a-c, f-l reduced 1/2, e 1/3; d is 1/1).



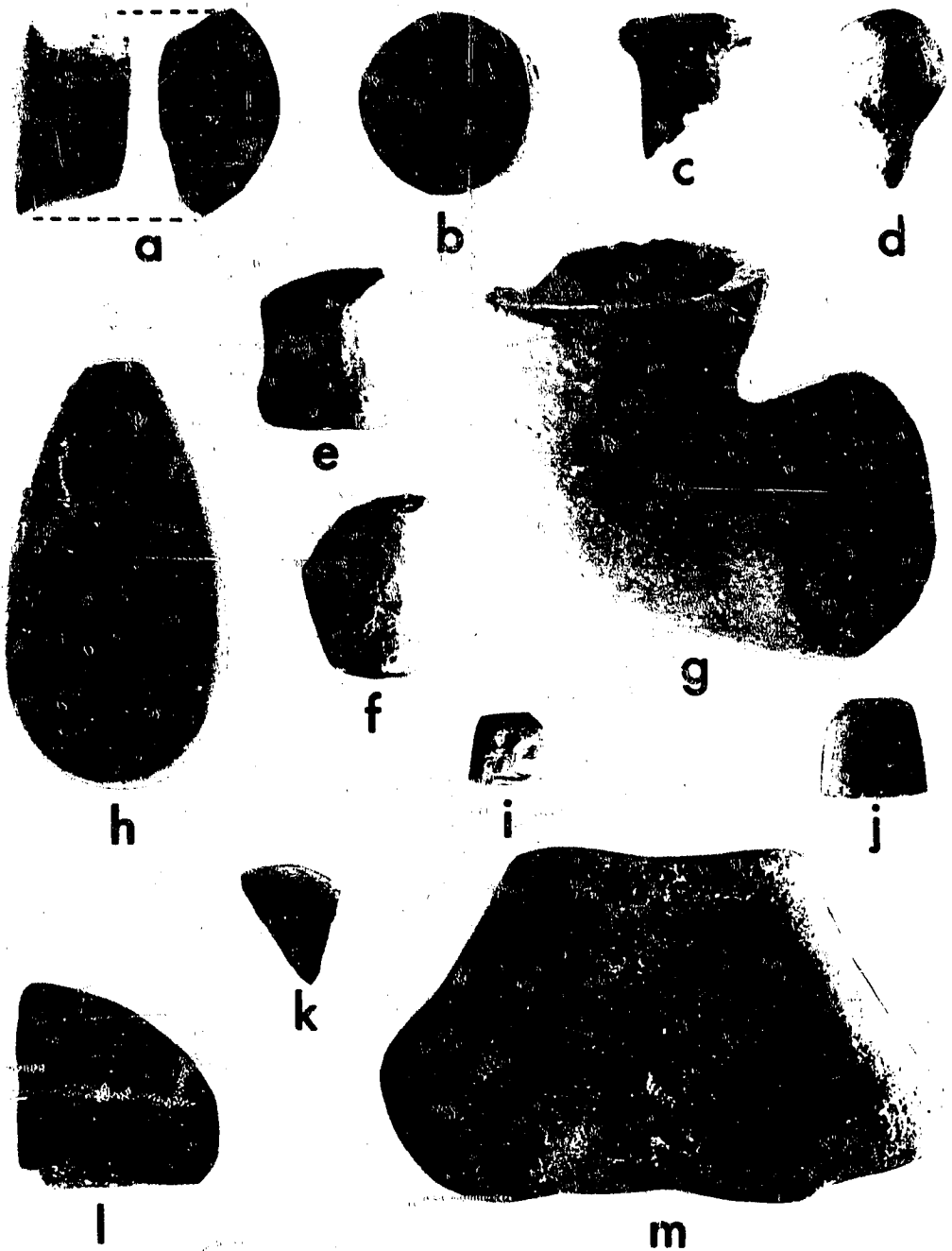
Pottery of the Coker, Powell and Neeley's Ferry Series:  
 a, Coker Plain; b, Powell Plain; c, Sharbrough Red; d-e,  
 Montrose Cord Marked; f, Unclassified Fabric Impressed;  
 g-h, Old Town Red; i-j, Grace Brushed; k-m, Blum Incised;  
 n-o, Pouncey Pinched; p-v, Parkin Punctated (reduced 1/2).



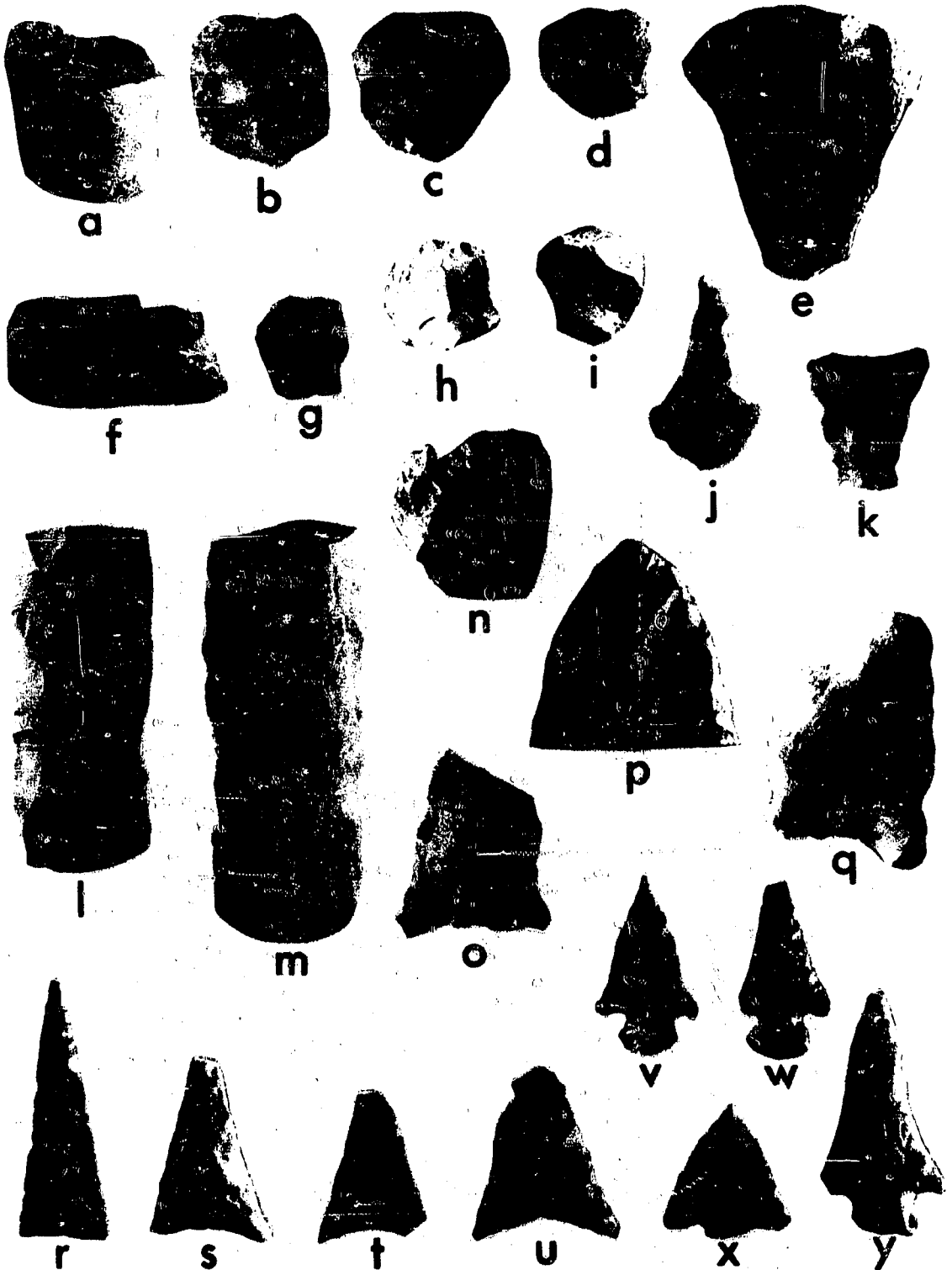
Pottery of the Neeley's Ferry Series: a-l, Barton Incised; m-z, Winterville Incised (all reduced 1/2).



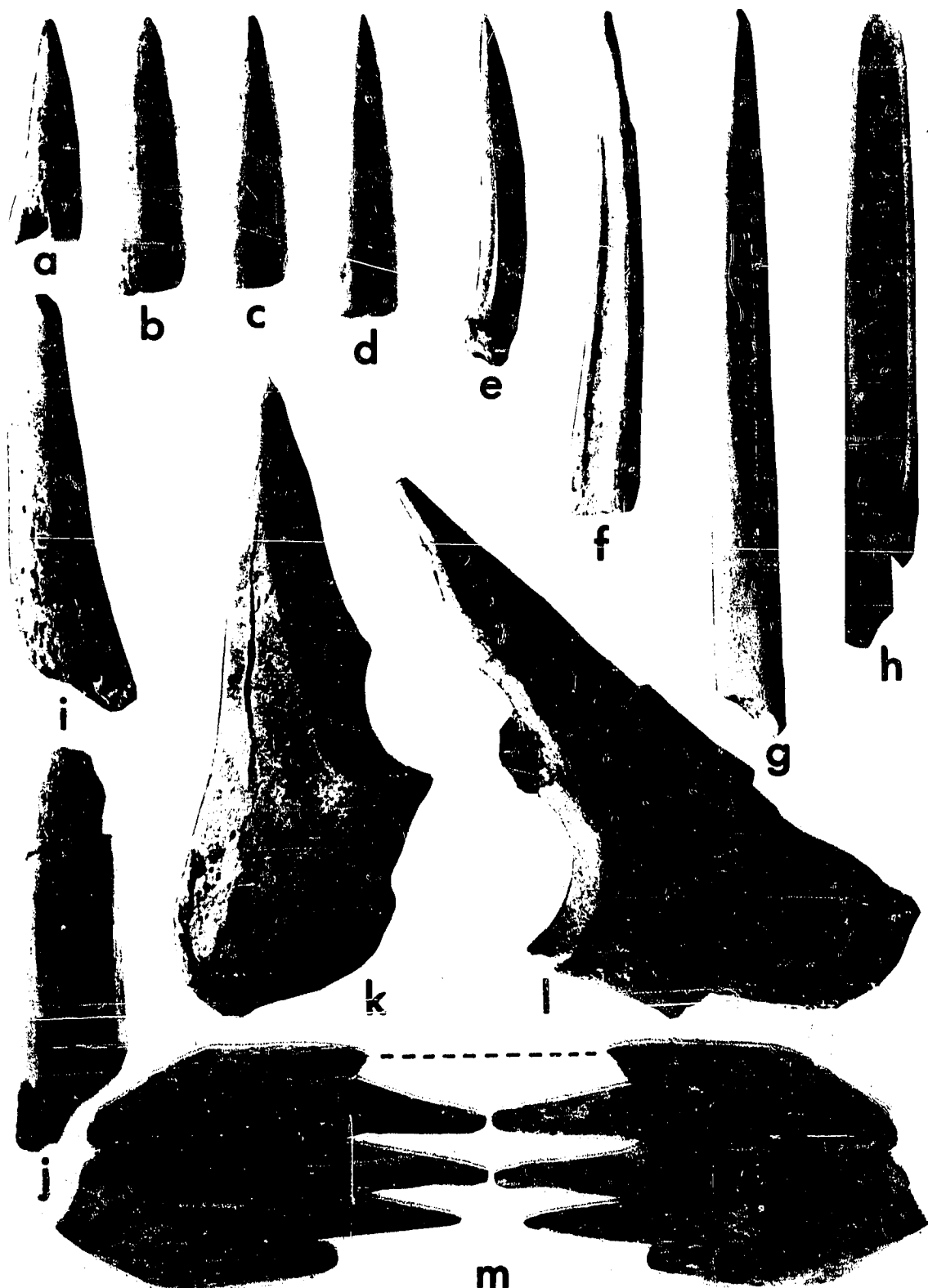
Pottery of the Neeley's Ferry, Bell and Chickachae Series: a-d, Arcola Incised; e-k, Belzoni Incised; l-m, Transylvania Punctated; n, Tyronza Punctated; o, Owens Punctated; p, Mound Place Incised; q-r, Unclassified Incised (Cult?); s-t, Walls Engraved; u-v, Nodena Red and White; w, Chickachae Combed; x-c', Neeley's Ferry Handles (all reduced 1/2, except q which is 1/1).



Miscellaneous Ceramic and Ground Stone Artifacts: a-b, Round Earplug; c, Cylindrical Earplug; d, Unclassified Object; e-f, Legs of Figurines; g, Elbow Pipe; h, Stone Plummet; i, Fragment of Galena; j, Butt of Celt; k-m, Palettes (a-h, l are 1/1; i-k, m are reduced 1/2).



Chipped Stone Artifacts: a, Hammerstone; b-c, Choppers; d, Unspecialized Scraper; e, End Scraper; f-g, Plane Scrapers; h-i, Oval Scrapers; j-k, Drills; l-n, Pebble Celts; o-q, Unclassified Tools; r-u, Madison Points; v-y, Scallorn Points (all are 1/1).



Bone Artifacts: a-d, Conical Point; e-g, k-l, Awls; h, Reamer; i, Flaker; j, Unclassified Object; m, Carving of Human Hand (all are 1/1, except m which is 2/1).