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THE POVERTY POINT CULTURE

Edited by

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EDITOR'S NOTE:

The articles for Bulletin 12 were selected from papers presented at the 26th Southeastern Archaeological Conference held in Macon, Georgia, in 1969, and the 27th Southeastern Archaeological Conference held in Columbia, South Carolina in 1970. Several additional articles were obtained by Clarence H. Webb to add to the volume.

Problems with finances and lack of time to type the publication on the part of the Editor have delayed its publication until 1975. We hope that it has been worth waiting for and that the members will forgive the delay.

Bettye J. Broyles
Co-Editor
October, 1975

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FOREWORD

Clarence H. Webb

The past decade has produced evidences that the Poverty Point Complex is part of a major cultural period in the Southeastern and Central United States. It participates, with the ceramic developments of the South Atlantic and eastern Gulf Coast, in the larger American Formative Period, as particularized by Ford (1969). It is also evident that the Poverty Point Complex, manifested largely along the valleys of a half dozen river systems and the Gulf Coast adjacent to their mouths, is preceded and accompanied by complex developments in late Archaic and early Formative cultures throughout the Southeastern United States and up the central valleys.

The present volume results from concerted studies of several facets of the culture and its antecedents in Louisiana and Mississippi. A brief outline of settlement patterns and presumed economic developments sets the stage for more definitive investigations. Studies at Cedarland-Claiborne on the Pearl River estuary and at the Poverty Point Site touch on the complexity of cultural antecedents and the transition into typical Poverty Point manifestations at the largest known coastal and inland sites, with some exploration of their relationships. Papers on the Poverty Point Site exhibit some results of the first intersite study of internal development and organization, as reflected by artifact distribution, with suggestions of temporal and cultural variations.

Studies at the Terral Lewis and Teoc Creek sites reflect a desirable coordination of efforts of professional and non-professional archaeologists. The Terral Lewis Site was explored by members of the Northeast Louisiana Archaeological Society, was confirmed as a Poverty Point manifestation by Gregory, Webb, and Ford, and was excavated as a joint project by members of the archaeological society and students from Northwestern Louisiana State University under the direction of Gregory. The Teoc Creek Site was discovered by members of the Mississippi Archaeological Association, was confirmed by Webb, Neitzel, and L. B. Jones, was surveyed by Ford, Neitzel, and Webb, was initially excavated by field parties from Mississippi State University and the University of Mississippi under the direction of Koehler and Webb, and was intensively studied by Connaway and Mcgahey for the Mississippi Archaeological Survey.

The interpretation that Terral Lewis is an activity facies devoted to agriculture or horticulture and within the sphere of cultural influence of the Poverty Point Site may be compared with conclusions from Teoc Creek, the earliest known inland site of Poverty Point Complex-- between 1700 and 1100 B.C. A further comparison of diverse econiches and activities is afforded by reports from the Catahoula Lake area of central Louisiana and the coastal and paludal environment at Claiborne. Some evidence of the resources in the Lower Mississippi Valley is reflected in the listing of consumable flora.

A new apprpach to dating techniques with thermoluminescence studies of Poverty Point clay objects compares favorably with prior radiocarbon datings in indications of time and sequence.

Several approaches to the interpretation of the socioeconomic diversity represented in Poverty Point Culture are exhibited. It is hoped that the papers in this Bulletin will broaden the appreciation of Poverty Point Culture as a widespread prehistoric development and of the Poverty Point Site as its major manifestation. No longer does it appear as an isolated phenomenon but, rather, as the economic, cultural, and religious center of an extensive population and-- for its time-- an intricate way of life.

SETTLEMENT PATTERNS IN THE POVERTY POINT CULTURAL COMPLEX*

Clarence H. Webb

Settlement patterns during the Poverty Point period are slowly becoming evident as more sites are discovered and explored. The picture is still fragmentary because many sites have been altered or destroyed by natural forces, cultivation, or land leveling actions, and many remain to be found and tested. The presence of Poverty Point components in deeper levels of known sites has just been disclosed in recent years by deep plowing, trenching, canal or road building, or competent archaeological exploration. We can, therefore, outline only a partial picture, with confidence that it will be amplified within the next decade.

Site Locations

Poverty Point sites occur generally in four kinds of environmental settings: on terraces or old land masses overlooking major river courses, active or relict; on levees of major river channels, generally relict; at river-lake junctions; and coastal, at estuaries or on old lands in marsh areas (Table 1).

A. Terraces overlooking major streams:

1. Macon Ridge-- presumably overlooking relict Arkansas River channels. Included are the Poverty Point Site and the string of sites along the ridge front. From north to south these sites are Head, Neeley, Motley, Lower Jackson, Marsden, Insley, and Mott.

2. Ouachita River-- from north to south these include Calion and Coon Island (Schamback, personal communication in Arkansas, 1968), Monroe, and possibly Wilson and Alabama Landing in north Louisiana.

3. Bayou Bartholomew course of the Arkansas-- Brodnax and Montgomery II sites in north Louisiana.

4. Turkey Creek-- Herman Harris Field in Franklin Parish, Louisiana (Hiram Gregory, personal communication 1971).

5. Braided terraces overlooking relict Arkansas courses southeast of Catahoula Lake-- Caney Island, Paul's Landing, Wild Hog Mound, and Shoe Bayou sites in central Louisiana (Gibson, Gregory, and Hunter, personal communications 1968-1971).

6. Mississippi River-- site at Angola Gate.

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*Paper presented in part at the 27th Southeastern Archaeological Conference held in Columbia, South Carolina, October 30, 1970.

TABLE 1-- LOCATIONS OF POVERTY POINT SITES

Terraces

A. Louisiana

Poverty Point
Head
Neeley
Motley
Lower Jackson
Marsden
Insley
Mott
Monroe
Wilson?
Alabama Landing?
Brodnax
Montgomery II
Herman Harris
Caney Island
Paul's Landing
Wild Hog Mound
Shoe Bayou
Angola

B. Arkansas

Calion
Coon Island

C. Mississippi

McCoy
Hebe

River Levees

A. Mississippi

Jaketown
Teoc Creek
Neill
Stainback
Norman
Garner
Falls
Asack
W. E. Smith
Jacks
Abby
Blue Lake
McGary
Andrew Lee
Murphey
Sky Lake
Kinlock
Paxton Brake?
Mabin
Lake George?
Waller
Savory
Fairview
Nichols
Wills
Metzger I
Columbus

B. Louisiana

Aaron
Ray Brake
Terral Lewis
Panther Lake
Neimeyer-Dare
Parks
Old Saline
Big Bayou
Cross Bayou
Lick Bayou
Honey Brake
Big Hole
Crooks?

C. Arkansas

Deep Bayou
Lloyd's Bayou
Hyneman
Walnut Mound
Frierson

River-Lake Junctions

A. Louisiana

Russell Landing
Pickett's Island
Bayou Jasmine
Linsley
Garcia
Little Woods?
Big Oak?
Tchefuncte?

Coastal

A. Louisiana

Belle Island
Avery Island
Rabbit Island?
Ruth Canal?

RELATED CULTURES

A. Southeast Missouri

O'Bryan's Ridge Phase
Burkett Phase

On river terraces and levees

B. Western Tennessee

On terraces and erosion remnants overlooking streams

C. Northwest Florida Coast

Elliott's Point Complex

Coastal, on bay margins

These sites, located in contact zones, permitted exploitation of upland terrace and lowland valley-swamp environments.

7. Braided surfaces between major meander belts in the Yazoo Basin-- McCoy and Hebe sites differ in being away from major stream coarses in an upland environment.

B. Major river natural levees, mostly relict courses:

1. In the Yazoo Basin of Mississippi, a large number of sites include Jaketown, Teoc Creek, Neill, Stainback, Norman, Garner, Falls, Asack, W. E. Smith, Jacks, Blue Lake, McGary, Andrew Lee, Abby, Murphey, Sky Lake, Kinlock, possibly Paxton Brake and, in the Lower Basin-- as reported by the Lower Yazoo Basin Archaeological Survey (Phillips 1970)-- the Mabin, Lake George, Waller, Savory, Fairview, and Nichols sites. These southern Basin sites, also the Asack and Kinlock sites, are in the Sunflower meander belt. The others appear to relate to the Yazoo-Tallahatchie-Cassidy Bayou meander, the easternmost Mississippi-Ohio meander belt. The demonstration of Poverty Point occupation at many of these sites resulted from surface explorations by members of the Mississippi Archaeological Association (Webb 1968).

2. Eastern meander belt of the Arkansas River-- in Arkansas, below Pine Bluff, the Deep Bayou and Lloyd's Bayou sites apparently are on the same relict Arkansas River course as the Joe's Bayou course in northwestern Louisiana, a few miles east of the Poverty Point Site. Joe's Bayou sites are Aaron, Ray Break, Terral Lewis, and Panther Lake (Webb 1968).

3. Bonne-Idee western course of the Arkansas-- Neimeyer-Dare and Parks sites in northern Louisiana (Webb 1968).

4. Lower course of the Arkansas River, southeast of Catahoula Lake in central Louisiana-- Poverty Point occupations are described at Old Saline and Big Bayou sites (Hunter and Gregory, personal communication 1971) and possible sites at Cross Bayou, Lick Bayou, Honey Break, and Big Hole (Gibson, personal communication 1971). A possible component antedated the Marksville period occupation of the Crooks Mound (Ford and Willey 1940).

5. Pearl River-- in addition to the Claiborne Site on the estuary (Gagliano and Webb, this volume), the Wills Site was located on Pearl River in the outskirts of Jackson, Mississippi (Rands 1958).

6. Tombigbee River-- in the headwaters of the Tombigbee River system, in east-central Mississippi, the Metzger I Site has been described by Marshall (1970) and mention made in the same publication of another site in the same system, near Columbus, Mississippi.

7. Mississippi relict courses in northeastern Arkansas-- the Hyneman, Walnut Mound, and Frierson sites (Dan Morse, personal communication 1968) are probably prototypes of a large number of sites which flank Crowley's Ridge. Yet to be established are possible affili-

ation with Poverty Point cultural complex, with the O'Bryan's Ridge or Burkett Place developments in southeastern Missouri, or a separate phase status for these northeastern Arkansas sites. The O'Bryan's Ridge and Burkett phases were identified in the Cairo Lowland of the Missouri "bootheel", on relict Mississippi channels (S. Williams 1954). They are thought to be related to, but not an integral part of, the Poverty Point Complex. There have now been located eight sites with large numbers of baked clay or sandy "balls" and 25 sites with smaller numbers of these objects in the Cairo, Advance, and Morehouse Lowlands (Marshall and Hopgood 1964; Marshall 1965; Ray Williams 1967-8; Hopgood 1969; Klippel 1969; and Marshall and Roller 1971). There are recent evidences of similar occurrences in the Western Lowlands (Marshall, personal communication 1971). Similar cultural uncertainty prevails in western Tennessee, across the present Mississippi River from the northeastern Arkansas sites. Donovan B. Long of Humboldt, has found baked clay objects of various forms at fifteen sites on the Forked Deer, Obion, and Hatchie rivers (Long, personal communication 1971; Morse 1964), and Gerald Smith of Memphis State University (personal communication 1971) reports similar findings on the Hatchie, Loosahatchie, and Wolf rivers.

Most examples of these riverine settlements are not far removed from uplands, but a major dependence on riverine-swamp ecology, plus incipient horticulture or agriculture, is seen as their way of life. Few sites show animal or plant debris.

C. River-lake junctions:

1. Catahoula Lake, central Louisiana-- Russell Landing is located on Little River just before it flows into Catahoula Lake; Prickett's Island is northeast of the lake, on the outflow toward Ouachita-Black rivers.

2. Lake Pontchartrain-- Bayou Jasmine, Linsley, and Garcia sites are on relict Mississippi natural levees near Lake Pontchartrain (Gagliano and Saucier 1963). If there are Poverty Point components at Little Woods, Big Oak, and Tchefuncte sites, these also are on relict streams near the lake margin, the first two on Mississippi relict channels, the last on a smaller relict stream.

D. Coastal estuary and marsh settings:

1. Pearl River estuary-- the Claiborne Site, on a terrace formation, overlooks the estuary of Pearl River within sight of the Gulf.

2. Rabbit Island, Belle Island, Weeks Island (Neuman, personal communication 1971), and Avery Island sites are situated on uplifts of older land in the marshes along the western side of the Mississippi Delta system. The cultural relationships of the Schwing, Sorrel Bayou, and Ruth Canal sites, along the western courses of relict Mississippi channels and in more of swamp than marsh situations, are yet uncertain. The related Elliott's Point Complex is on the Northwest Florida Gulf Coast.

The coastal or near-coastal paludal-lacustrine-riverine sites reflect ecological settings that differ somewhat from the previously described riverine sites. Excavations at Claiborne (described in this volume) and drag-line spoils at Bayou Jasmine and Linsley (Gagliano and Saucier 1963) show that shellfish (primarily clam, some oyster), small animals, turtles, birds, garfish, alligators, and a variety of small and large fish are manifested in the midden refuse.

Size of Sites

Sites of the Poverty Point Complex show a great diversity in size, from the Poverty Point Site which covers more than 500 acres (well over a square mile if one includes the occupation outside of the constructed village and along the terrace front north to Motlet Mound and south to Lower Jackson Mound), to the McCoy Site in the Yazoo Basin which Robert Stansill (personal communication 1969) described as no more than 100 feet in any diameter, hence less than one-fourth acre in size.

Jaketown and Caney Island sites are the largest known in their respective areas, the Yazoo Basin and central Louisiana, each covering approximately 100 acres (the exact extent of Poverty Point occupation at these multicomponent sites has not been established). Both are conceived of as regional centers of the cultural complex. Intermediate in size are Claiborne, the largest known coastal site; Teoc Creek, Neill, and Savory in the Yazoo Basin; Neimeyer-Dare in extreme northern Louisiana; and Pickett's Island in central Louisiana. Each of these is in the neighborhood of eight to fifteen acres in extent. The Lower Jackson, Insley, Calion, Brodnax, Aaron, Srainback, Norman, Garcia, Falls, and Asack sites are probably in this intermediate category, but the extent of occupation is not well known. The W. E. Smith Site, which extends for a mile along the natural levee at Snow Brake (Webb 1968), may encompass 30-40 acres.

Apparently smaller sites, less than two acres in size, are at Jacks, Hebe, McCoy, Andrew Lee, and Kinlock in the Yazoo Basin; at Wills Site on the Pearl River; at Deep Bayou and Lloyd's Bayou in southeastern Arkansas; and at Terral Lewis near Poverty Point. The extent of occupation around the single mound sites along Macon Ridge and at many other sites is unknown.

The range in size, therefore, seems to be appropriate for a great ceremonial center, for lesser but important regional centers, modest villages, seasonal or activity camps, and for single family occupations.

Arrangement of Occupations

Since the majority of the known Poverty Point sites are situated on natural river levees or on terraces overlooking streams, the arrangement of occupation at the smaller sites tends to be linear, paralleling the streams. This is known at a dozen sites and suspected of many others that are inadequately explored.

It is now apparent that the characteristic arrangement of occupation or mound placement at the larger and more complex sites is the horseshoe,

semicircle, or partial oval. With the exception of the Teoc Creek Site, all sites that exhibit semicircular or arcuate arrangement have mound construction, as noted in the next section.

The occupation plans at Poverty Point, Claiborne, and Teoc Creek sites are shown in other papers of this volume. The diameter of the outer ridge of the semioctagonal figure at Poverty Point is 3,964 feet; that of the innermost ridge is 1,950 feet (Ford and Webb 1956). The outside diameter of the horseshoe at Claiborne is 660 feet; that of the semicircle at Teoc Creek is nearly 1,000 feet. The semicircles at Teoc Creek and Claiborne are formed by midden deposits, slightly elevated above the surrounding surfaces.

Originally (Ford 1954; Ford and Webb 1956) the arrangement of the six series of concentric elevated ridges at Poverty Point was thought to have been a complete octagon, with three-eighths of the eastern side cut away by river action. Subsequent studies of river channel geology by Roger Saucier (personal communication 1968) and of the intersite distribution of artifacts at Poverty Point by Gibson and the author-- demonstrating a concentration of artifacts derived from the terminal phases of Poverty Point occupation and of subsequent cultures along the eastern portions of the present ridges bordering Bayou Macon-- suggest that the village was originally built in its present form and has suffered river erosion to a minimal extent.

At Jaketown, the occupation plan may have been dictated by the terrain, as the authors (Ford, Phillips and Haag 1955) describe the formation of a semicircular or disc-shaped point bar or sand island, produced by antecedent action of the Ohio River, on which occupation occurred. There is additionally an arc of eight small mounds on the relict natural levee, with larger mounds, presumably constructed during subsequent Tchula, Baytown, and Mississippi periods, at the base of the semicircle. The diameter of the base, slightly diagonal to the present Wasp Lake, is approximately 2,800 feet.

The Savory Site, described by the Lower Yazoo Basin Archaeological Survey (Phillips 1970, Part 1: 338-339), has a semicircular arrangement of eight mounds surrounded by occupational debris. The base of the semicircle, fronting on the Sunflower River, is approximately 1,260 feet across, as indicated on Phillips' Figure 125 (ibid.). The author states that the origin of the mounds is uncertain, but that the semicircular pattern seems to have been set in Poverty Point times.

The above five sites have semicircles or horseshoe arcs with their bases on the stream of reference. A sixth site, Caney Island, differs in that the arcuate arrangement of six mounds, 1,180 feet in diameter (Gibson, personal communication 1971), follows the curve of a horseshoe bend (possibly around a point bar similar to that of Jaketown), with the base away from the stream. Cypress Bayou apparently occupies an old channel of the Arkansas River and the site lies on a terrace presemably formed by braided Mississippi A-1 courses. The site was located by Jon Gibson and Donald Hunter in 1968 after the land was cleared for cultivation. The former states (personal communication 1970) that the site covers approximately 100 acres. It is located in Catahoula Parish, Louisiana, southeast of Catahoula

Lake. Gibson and the author, during a visit to the site in 1970, found fragments of Poverty Point objects on or around five of the mounds; Gibson and Hunter have found at least eight varieties or types of Poverty Point objects at the site, but the full extent of Poverty Point occupation and the cultural context of mound construction have not been firmly established. Subsequent occupations include Tchefuncte, Marksville, and Plaquemine; an antecedent late Archaic occupation seems probable (Hunter and Gregory, personal communications 1971).

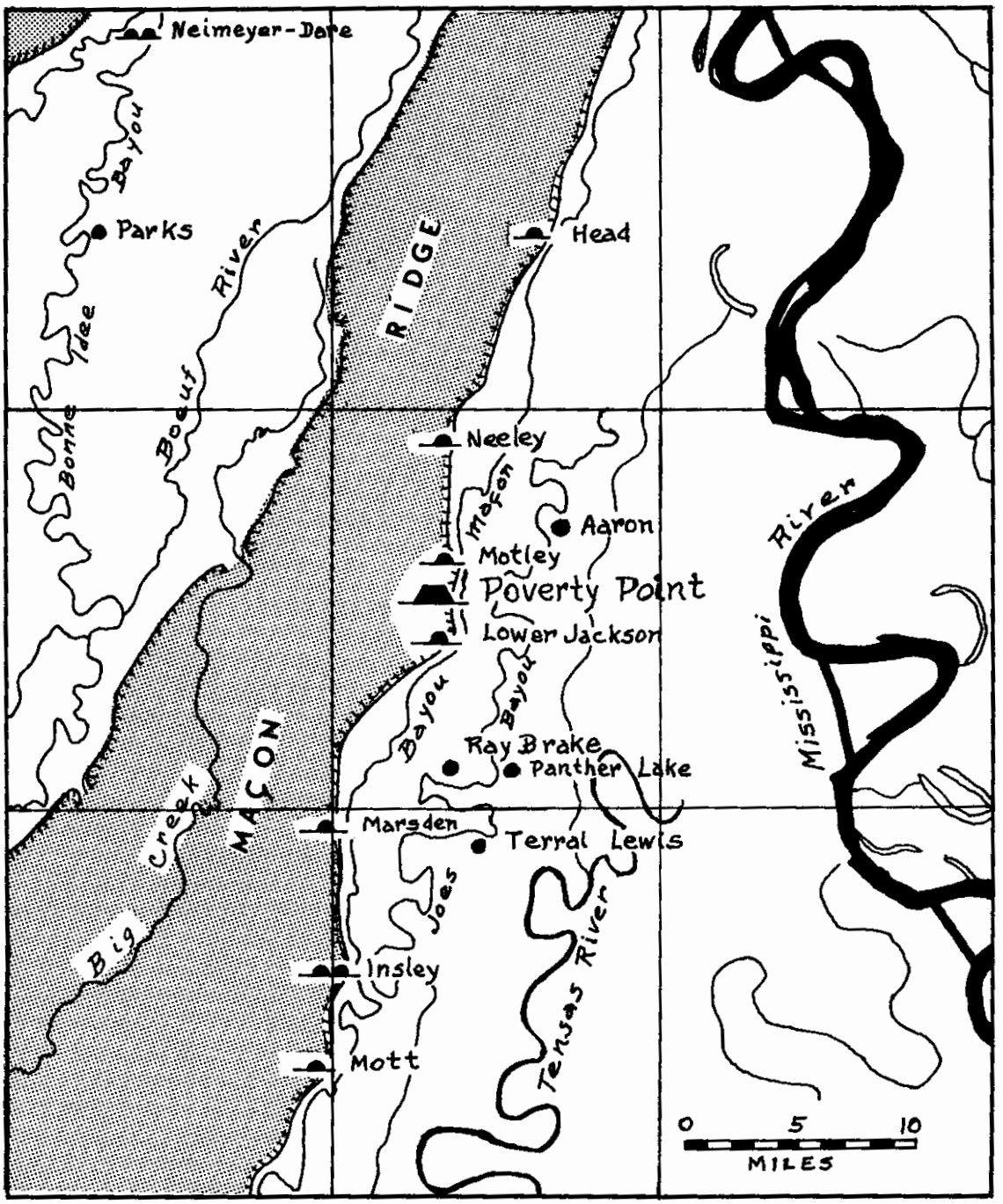
We may conclude that settlement patterns at Poverty Point sites include linear occupations at many smaller sites and semicircular or horseshoe arcuate patterns at larger sites, often with mound construction. There are no evidences of fortifications or other protective constructions, but most settlements are compact. Additionally, major sites are often placed in such a way that the terrain afforded some protection. Poverty Point and Claiborne are flanked by old abraided channels or gullies on each side; Jaketown is on a point bar with low swamps laterally; Caney Island has more than half of its periphery fronting on a horseshoe bend in the river; the Teoc Creek Site has one side and the back of the village adjacent to Teoc Creek swamplands; and Neimeyer-Dare is virtually surrounded by old channels.

Mound Construction

Mounds are now known to have been constructed during Poverty Point times at a number of sites and are suspected at many others. Consistent with its paramount position at the cultural apex, only the Poverty Point Site has monumental and massive mounds. Mound A and Motley Mound, with their terraces and ramps, and the conical Mound B, erected over a crematorium, have been described elsewhere (Ford and Webb 1956). The single mound at Lower Jackson Place, 1.5 miles north of Poverty Point, is a more modest cone. Elsewhere along Macon Ridge, single conical mounds are found at the Head and Neeley sites north of Poverty Point and at the Mott Site to the south. There are five mounds (possibly six originally) at the Insley Site, some 15 miles to the south; one of these was originally over 20 feet high, but the time of construction is uncertain.

The Neimeyer-Dare Site had two conical mounds, now destroyed, approximately five feet in height and 75 to 100 feet in diameter (the characteristic size of the small cones), situated about 150 feet apart. Caney Island Site has been mentioned, with five or six conical mounds that may relate to Poverty Point occupation. The Garcia Site on Lake Pontchartrain was stated by Gagliano and Saucier (1963) to have had a large mound, established by historical accounts but no longer existent. At the Claiborne Site (Gagliano and Webb, this volume) a small cone of sand was situated 1,060 feet east of the semicircle center; it is described as four feet in height and 75 feet in diameter before its destruction.

In Mississippi, the Jaketown Site has been fully described (Ford, Phillips and Haag 1955), with eight small conical mounds related to preceramic Poverty Point occupation; the possibility of initial construction during Poverty Point times of some of the other six mounds at the site is not eliminated. A section through one of the earlier mounds showed occupation phases but no evidences of burials or structures. The Savory semi-



— CEREMONIAL CENTER
— MULTIPLE MOUND SITE
— SINGLE MOUND SITE
— SIMPLE OCCUPATION

FIG. 1. POVERTY POINT INTERACTION SPHERE

circle of eight presumably conical mounds has been described. One conjectures whether the number "8" may have had some significance in tribal organization at the Yazoo Basin sites, as Gibson (personal communication 1970) has thought may have been the case of the number "6" at Louisiana sites (Caney Island, Poverty Point, and possibly Insley).

Poverty Point occupations have been demonstrated at a number of multicomponent sites on which there are single or multiple mounds of uncertain derivation. In Louisiana, such sites are at Russell Landing, Pickett's Island, Wild Hog Mound, Paul's Landing, Marsden, and Ray Brake, with possibilities at other sites. The mound at Ray Brake seems to be of Tchefuncte affiliation and Crooks Mound (Ford and Willey 1940) is Marksville in time. In Arkansas, there are mounds and clay ball deposits at Hyneman and Walnut Mound, again with uncertainty of relationship. The list of mounds with inadequate information is even longer in Mississippi: Norman, Falls, Kinlock, Asack, W. E. Smith, Jacks, Sky Lake, Garner, Blue Lake, Mabin, Paxton, Waller, and possibly others. At some of these sites, the mounds are small conicals consistent in size and appearance with those of Poverty Point provenience.

Houses and Burials

There is still a paucity of information about house construction or burial practices among Poverty Point peoples. The small oval structure indicated by post molds at Jaketown (Ford, Phillips and Haag 1955: 34) is the only known structure of the period. Numerous possible post molds have been found during excavations at Poverty Point, Terral Lewis, Teoc Creek, and other sites, but without a pattern. One of the gullies at Poverty Point transected what appeared to be a house floor beneath Ridge 2 of the North Sector. Masses of burned daub, Poverty Point objects, and other debris lay on the presumed floor and beneath it was a shallow pit containing charred cane. The floor or house debris area seemed to be at least 12-14 feet in diameter at this point. The Monte Sano Site at Baton Rouge (Webb 1968), excavated by Ford and Haag, had a square submound structure 20-21 feet in widths, with massive posts. This site is now thought to be late Archaic in context rather than Poverty Point.

Mound B at the Poverty Point Site covers the only known cremation of the period, if proper interpretation has been placed on the dense layer of submound ash and charred cane containing human bone. We believe that the copper placements in the South Sector of the site, including a double row of 35 copper beads, and other placements of matched and beautifully made large Motley points or polished plummets, may represent burial placements. Similarly, the steatite vessel cache and matched Motley points at Claiborne may be so interpreted. In no instance, however, were human remains present.

Cooking Arrangements-- Subsistence

In contrast with the scarcity of information about houses and burials, the evidence about cooking methods is abundant. Dozens of baking pits or earth ovens have been found at a number of sites; these are typi-

cally 15-20 inches in width and depth, often contain Poverty Point objects, and sometimes have ash or charcoal. Stone vessels or fragments, generally of steatite but sometimes of sandstone, have been found at fourteen sites; sherds of fiber-tempered pottery were recovered from ten sites. The question of Alexander-like sand-tempered and Tchefuncte-like clay-grit-grog-tempered pottery in Poverty Point cultural context is still open, but doubt no longer exists of the fiber-tempered. The methods of use of stone and pottery vessels in food preparation is uncertain, but clay hearths have been found at several sites. Hot rock cooking is also indicated by masses of fire-cracked stones at the Poverty Point and Teoc Creek sites. The manufacture and use of basketry is documented (Ford and Webb 1956).

One draws an inference of the importance of hunting and fowling in the economy from the numerous projectile points, atlatl weights (plus an antler atlatl hook at Poverty Point), and plummets of hematite and magnetite at many sites of the period. One also infers extensive working of wood, hides, bone, and antler from a variety of celts, adzes, scrapers, and lamellar microlithic tools. Pitted stones, mullers, and milling stones are generally less frequent than in late Archaic sites, but the variable occurrence suggests nutting and seed grinding at some sites. Soil tillage is inferred from the occurrence of hoes showing high polish-- as documented in the paper of Gregory, Davis, and Hunter in this volume. This activity suggests horticulture or agriculture, especially with the extensive occupations of fertile natural river levees, but full proof is lacking. Visible food residues are limited to a few sites: persimmon seeds and nut hulls at Teoc Creek and a wide variety of shellfish, animal, fish, and bird bones at Linsley, Bayou Jasmine, and Claiborne sites near the coast (Gagliano and Saucier 1963; Gagliano and Webb, this volume). The shellfish were clams and oysters; animan bones represented deer, alligators, alligator gars, rabbits, squirrels, otters, raccoons, and muskrats. The fish and birds were unidentified.

Trade and Social Organization

These topics have been considered previously (Ford and Webb 1956; Webb 1968; Ford 1969) and are touched on elsewhere in this publication. With respect to the trade network, suffice to note that the entire central basin of the United States was involved at the Poverty Point Site-- from Rocky Mountain obsidian to Appalachian steatite and from Lake Superior copper to Gulf products. A surprising amount of exotic material is found at other sites, especially the regional centers.

James Ford and the author have expressed the opinion (in the above referenced articles) that the society was stratified and well organized, with strong civil and religious leadership, and with specialized artisans. No reasons have developed to alter this opinion, but many details remain to be filled in. Many satellite settlements and activity occupations now seem to be probable, regional chiefdoms and subchiefdoms seem likely, and numerous small mounds suggest a widespread ceremonial-religious concept. Yet it is quite possible that many small settlements had a simple extended family organization, derived from their Archaic predecessors, with only tenuous connections with the great centers.

INTERSITE VARIABILITY AT POVERTY POINT

SOME PRELIMINARY CONSIDERATIONS ON LAPIDARY

Jon L. Gibson

University of Southwestern Louisiana

Tabulation of the large Carl Alexander collection of artifacts from the Poverty Point Site in northeastern Louisiana has provided an enormous number of new data.* Aside from the obvious value of this collection in terms of unique qualitative and quantitative information, the greatest part of the holdings were collected and catalogued by controlled surface lots. For the first time, Poverty Point is beginning to yield quantities of information on intersite artifactual "behavior". No longer must we be content with simple inventorial and historical perspectives of the site, but now we are able to see how these interact with the added dimension of space.

The concentric octagonal arrangement of earthen ridges at Poverty Point has provided a natural design for separating surface collections (Fig. 1). This system described below is essentially like the one set up originally by Ford and Webb (1956: 17) with a little local flavor added by Alexander's intimate knowledge of the terrain. The ridges from inside to outside of the octagon are numbered 1 to 6. The sectors which are compartments of six ridges separated by "aisles" (openings) at the corners of the octagon are lettered according to their orientation with the cardinal directions: north, northwest, west, southwest, and south. For convenience, sectors will be abbreviated hereafter. Thus a typical catalogue reference such as N1 would mean that a particular artifact was found on the interior ridge of the north sector. In addition to the 30 obvious proveniences (five sectors with six ridges each), collections from five other spots have also been maintained. These include: Quincy Hale Gully (QHG, grouped here with S), Mound B Field (MBF, northwest of octagon at Mound B), Gorget Field (GF, north of the octagon across Holland Bayou), West of Mound A (WMA), and Lower Jackson (LJ, south of octagon and of Moore's old Jackson Site).

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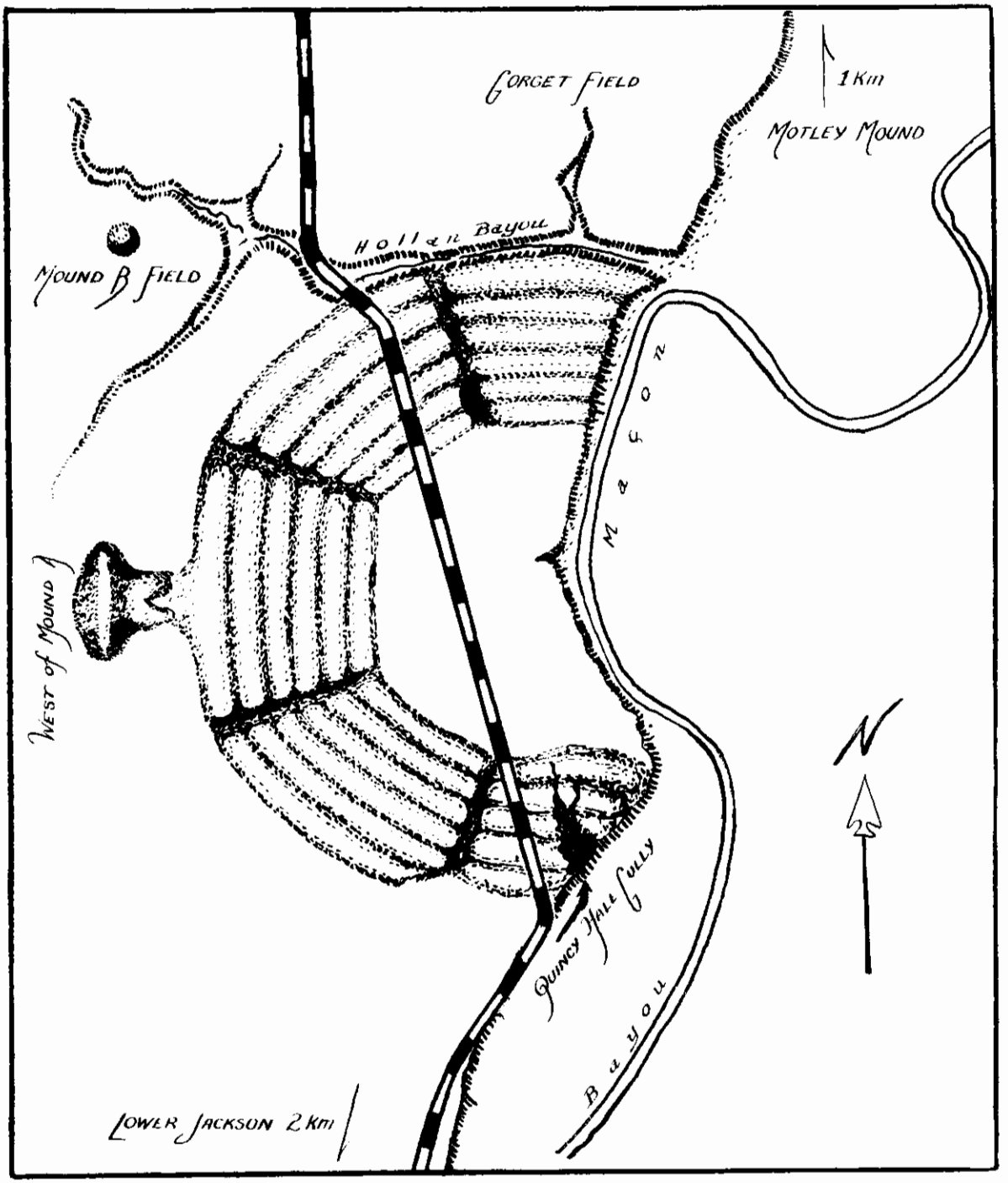
* Over the past year, Clarence Webb and I have been engaged in the tabulation and study of a new provenience-controlled collection of artifacts amassed from Poverty Point by Carl Alexander of Epps, Louisiana, Webb using the material in preparing a second major volume on Poverty Point and I as the nucleus of my Ph D dissertation at Southern Methodist University. Without the generosity of these two gentlemen this study would not have been possible. An original version of this paper was presented at the 27th Southeastern Archaeological Conference held in Columbia, South Carolina, October 28-November 1, 1970.



CONTROLLED COLLECTION AREAS AT POVERTY POINT

NATURE OF THE DATA

It is hard to find a common name for the groups of artifacts under consideration here. Some purposefully vague term such as "problematicals" or "ceremonial objects" might be appropriate were it not for the fact that the former speaks of archaeological intelligence quotients and the latter of an undemonstrated function. Polished stone would include most of the artifacts, but not those of copper or galena. In the original report on Poverty Point, "ornaments" was used (Ford and Webb 1956: 98), but again an a priori judgement about the duty of these objects is implied. Of late, Webb (1968: 315) and Ford (1969: 60) have both substituted the fashionable term lapidary. I too will follow this trend, but will acknowledge certain violations of the defining criteria (see Marckwardt 1966: 761). Looking at this particular aggregate of artifact groups in hindsight, it seems probable that part of the difficulty in selecting a covering name is that some of the groups brought together here may not really belong together. Actually, the underlying assumption "uniting" these groups was that the past behavioral correlates of these artifacts were to be found in the area of intra- and inter-group relations. This now appears to have been a logical but partly unfounded assumption.

Ford and Webb (1956: 98-104), Webb (1968: 314-317), and Ford (1969: 60-70) should be consulted for descriptive amplification of the following groups.

Beads

A total of 118 beads was available for study. Of these only 28 had provenience information. Four of the five cardinal sectors were represented (missing only in NW), as were the adjoining Gorget Field and Lower Jackson locations. The distribution was rather uneven, with a plurality (42.9 per cent) of the specimens deriving from the West sector of the octagon.

The tubular or cylindrical bead, which was the most abundant form in both present and previously reported collections (Ford and Webb 1956: 101-108), also had the widest distribution (Fig. 2). It occurred in N, W, S, GF, and LJ; one more location than its nearest competitor, the barrel-shaped form, which was not represented in NW, MBF, GF, or LJ. The disc bead was found in two locations (W and LJ), the drilled crinoid stem in two (W and S), the miscellaneous form in two (N and W), and the spheroid in one (N). However, with the sources of 90 beads unknown one hardly needs to be reminded that these absences may be more apparent than real.

Bead Half-Products

This is really not a category of the same order as beads; it belongs under the bead concept and is only set apart here to separately examine the transform states of the bead-making industry or bead system. The following forms of unfinished beads (preforms) correspond in a very general way to stages (time sequences) of bead trajectory and in the ultimate preform state (lacking only drilling) to morphological categories. Blocks (cut and/or simply ground), angular blanks (unrounded stock), cylinder blanks (stock for both tubular and barrel forms), disc blanks, and varia are represented.

The present Alexander collection contains 62 bead half-products; the sources of 35 pieces are known (Fig. 2). Blocks have the widest distribution, occurring in five locations; followed by cylinder blanks and blanks (four spots); and by disc blanks and varia (two locations each). The South sector has yielded almost twice as many specimens (combined categories) as the second most productive area, sector N. These loci are followed in order of decreasing yield by W, SW, GF, and LJ. Sector NW and MBF are not represented.

Other Small Objects

Thirty-one objects including zoomorphic carvings, minature copies of larger artifacts, and miscellaneous objects are grouped into this category. Bird figures are a dominant theme portrayed by fat-bellied jasper owls (3 objects), pumice or galena bird heads in the round (4), and a flat outline head of slate. Two claw or canine effigies and a lustrous red jasper replica of an open clamshell round out the zoomorphic objects. Eight tiny facsimiles of plummets and two of grooved axes are carved of red jasper, slate, and mudstone. Two flattened cylinders with transverse perforations, four stone buttons, and five miscellaneous objects complete this inventory.

Provenience data are available for 18 of these items (Fig. 2). Collectively, the group of other small objects distribute as follows: S (7, 38.9 percent), W (4, 22.2 percent), N and SW (3 each, 16.6 percent, respectively), and GF (1, 5.5 percent).

Narrow End Rectangular Tablets

At least seven objects in the Alexander collection are identified as narrow end rectangular tablets, a class of chipped/polished objects defined by Ford and Webb (1956: 98-101). The degree of grinding or polishing on these artifacts ranges from mere traces along lateral margins to complete obliteration of flake scars on all faces and margins.

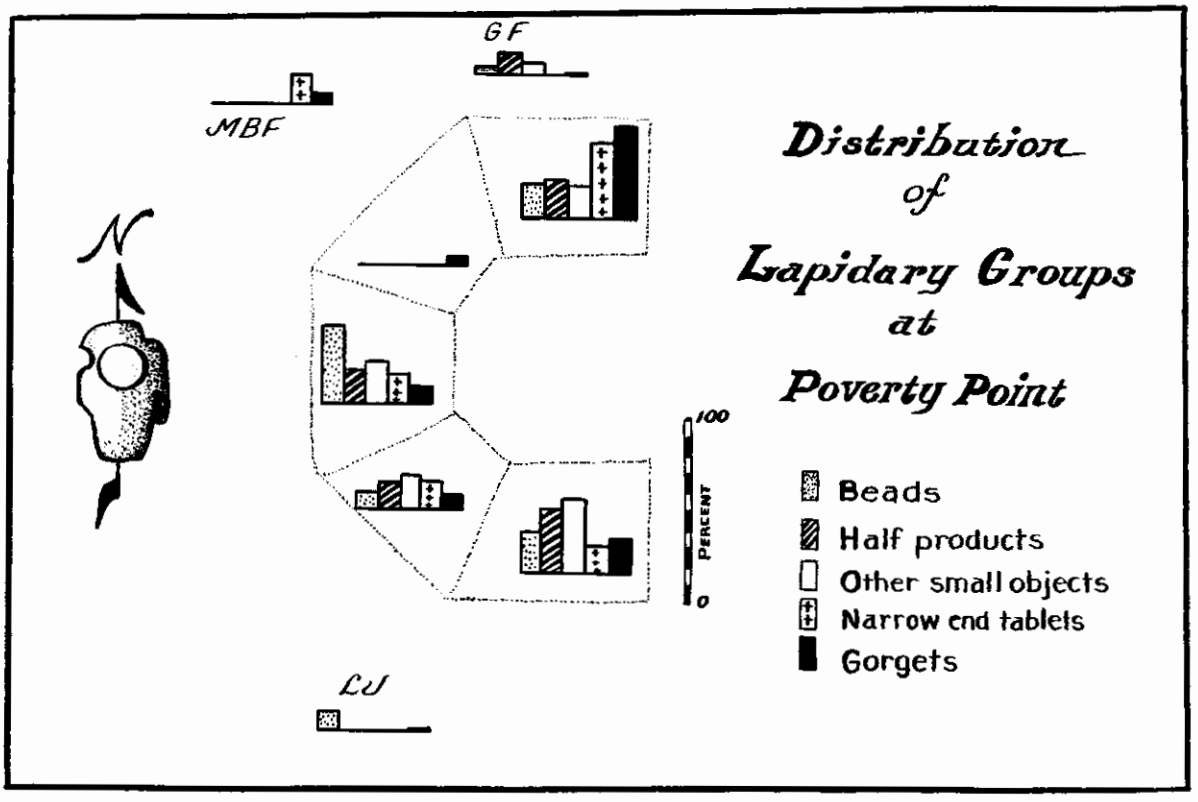
The sources of all seven tablets are known (Fig. 2). Three came from sector N and one from each of the following loci: W, SW, S, and MBF.

Gorgets

Gorgets may seem like strange bedfellows in a lapidary industry, Certainly the materials of which they are made-- shale, slate, mudstone, siltstone, talc, schist, cannel coal, hematite, and galena-- cannot be construed as either "hard" or "precious". Nevertheless, the function of these objects has never been satisfactorily demonstrated, and the possibility that all or some of them may have been "ornaments" cannot be readily dismissed. For this reason then gorgets are discussed under the lapidary rubric.

The Alexander holdings contain 74 recognizable gorgets. All but five specimens have known origins (Fig. 2). Gorgets have been recovered from all sectors of the octagon and from MBF, GF, LJ, and WMA. More of

these objects (50.7 percent) have come from sector N than from any other sector. Sector S is second in production (19.0 percent), followed by W (8.7 percent), SW (7.3 percent), MBF (4.3 percent) and NW (4.3 percent), LJ (2.9 percent), GF (1.4 percent) and WMA (1.4 percent). Generally this distribution reflects total sample distribution.



STATISTICAL CORRELATIONS AMONG CLASSES

With the aid of various statistical tests, degrees of associations between artifact groups were measured. Pearson product moment coefficient of correlation and Spearman rank correlation coefficient were used for this purpose. A coefficient value of 1.00 represents the highest possible positive correlation between variables; a figure of 0.00, no correlation; and one of -1.00, the highest possible negative association. If the frequencies (or ranks) of artifacts in the various groups have highly similar distributions then coefficients will have values in excess of .50; the greater the similarity, the higher the coefficient. If frequencies or ranks "behave" in exactly opposite fashions, then negative values of greater than -.50 will result. Coefficients between -.50 and .50 only hint at the direction of similarity, although the closer the coefficients come to these values, the stronger that hint becomes. Both Pearson and Spearman coefficients are fairly simple to calculate and more importantly for our purposes here can deal with small frequencies. Chi-square, which was also applied, has a stipulation on the relationship between expected cell frequencies and degrees of freedom. Often this could not be satisfied without considerable merging of significant categories. Nonetheless, the probability of associ-

ation determined from the chi-square statistic often lends a measure of corroboration for correlations arrived at by other means.

The following correlations are based on distributions by sectors. Distributions could have just as logically been compared using ridges as the specific locations. In fact, two separate tests were run to see how well ridge distributions matched with sector distributions. Ideally, comparisons by ridge and sector should have furnished the most precise correlations, but in all save one case (gorgets) the number of data in the various lapidary groups are simply insufficient.

Positive correlations exist among all the compared groups of artifacts. Some distributions are, however, more alike than others. A very high order of similarity exists among distributions of gorgets, narrow end rectangular tablets, and Poverty Point objects. Actually, Poverty Point objects were brought into these comparisons as a sort of control measure. The logic governing their selection was conditioned by two factors; first, by the large size of the sample (4,927 specimens) and, secondly, by the probability that clay balls were utilitarian, not ornamental, and should therefore be expected to show a major degree of difference between these functional categories. Such a strong degree of association among these groups was not anticipated, for this suggests possibilities of mutual interrelationships or codependence. Of course, the final decision as to whether or not these associations have cultural meaning must rest with analysis of covariance of all other artifactual configurations at Poverty Point.

When the above correlated groups were compared with all other lapidary groups, much weaker relationships were evidenced (Table 1). In fact, the association between Poverty Point objects and beads was even insignificant ($r = .49$).

The other lapidary groups-- beads, bead half-products, and other small objects-- did not yield high positive coefficients when compared with each other. Even the distributions of beads and incomplete beads (half-products) were not strongly correlated ($r = .42$), and beads and other lapidary objects had the next to lowest association of the whole lot ($r = .44$). Comparatively, beads had the most consistently dissimilar distribution. In other words, when an insignificant or low level correlation was obtained, beads were always involved.

There are only minor rank permutations in the intersite spread of gorgets by materials, and certainly some of these are due to the smallness of the sample from certain sectors. Significant congruency exists between hematite-limonite gorgets ($r = .82$). This simply means that gorgets of these materials vary similarily from sector to sector. High values on one variable are matched by high values on the other; low values by low values. However, sector-ridge comparisons give a much lower degree of parity ($r_{rank} = .51$). Twenty-six of the 35 gorgets from Sector N are made of slate or other nonironstone materials. Chi-square indicates that this greater-than-expected frequency is significant at the .05 level. And it is of no little interest that four similarily styled gorgets made of identical material (streaked gray slate) have different proveniences. All are from sector N but from different ridges (numbers 1, 3, 5, and 6).

A summary of these correlation coefficients is presented in Table 1.

TABLE 1

CORRELATION COEFFICIENTS

COMPARISONS BY SECTOR	SPEARMAN r	PEARSON r
Poverty Point Objects/Gorgets	.94	.91
Tablets/Gorgets	.88	.93
Tablets/Poverty Point Objects	.75	-
Bead Half/Other Lapidary	.73	-
Bead/Gorget	.71	.53
Bead/Bead Half	.67	.42
Bead/Tablet	.62	.55
Bead/Poverty Point Objects	.62	.49
Bead Half/Gorget	.54	.51
Bead Half/Poverty Point Objects	.51	-
Bead/Other Lapidary	-	.44

CONCLUSIONS ON INTERCLASS RELATIONSHIPS

The preceding analysis has been conducted on a fairly gross level using frequency distributions of various artifact groups which are themselves of heirarchically different orders (cf. gorgets, a class, and other lapidary objects, a "catch-all" for several classes). These intromissions have, however, been made necessary by the nature of the data. A large number of analytically separable groups are represented, but each group only has a few numbers. In order to maximize geographic representation, the 30 separate sector-ridge proveniences were combined into five sectors. Thus, it has been necessary to combine not only artifact categories but locations in order to secure statistically representative samples. It remains then to make some judgement on what analysis of this coarse-grained variability can tell us in terms of behavioral correlates of the archaeological record.

Actually, the artifact groups compared herein were selected in order to test the idea that some degree of difference should exist between the distributions of artifacts which were utilitarian and those which were not. Lapidary was a logical choice for the nonutilitarian category. Poverty Point objects were the utilitarian selection, and some questionable groups such as gorgets and tablets were purposefully included.

The high level of similarity exhibited by the distributions of gorgets, narrow end rectangular tablets, and Poverty Point objects is suggestive of strong functional interdependence due either to the nature of the represented groups or to some unknown factor or factors. The use of Poverty Point objects as "baking stones" in earth ovens is well substantiated (Ford and Webb 1956: 44; Gagliano and Saucier 1963: 323-326; Webb 1968: 308). However, it is difficult to see how gorgets or tablets might have functioned in the culinary sphere. In the absence of a vivid imigination, the obvious alternative would be that the similarity among these groups can be correlated with some other factor, such as perhaps women's activities or just household specificity. In any event it does seem quite clear that gorgets-tablets and the other lapidary groups did not occupy similar functional niches in the cultural environment.

The low level of similarity between the distributions of finished and unfinished beads suggests that while the completed beads were pressed into use on the same areas where they were made, some intersite movement among the sectors may have taken place. This is suggested by the inverse ratio of complete beads to half-products in sectors W (2:1) and S (1:2). The extremely low proportion of incomplete to finished beads (about 1:70 judging from the total known sample from Poverty Point and 1:3 in the present sample), while conceivable due to collecting vagaries, can be interpreted as meaning: one, that most beads were made elsewhere and brought onto the site; two, that craftsmen at Poverty Point were so proficient in their work that almost every piece was carried to completion; and three, that beads at Poverty Point served a purpose quite distinct from other Archaic sites where they appear most often as funeral offerings. Credibility of the first suggestion is considerably minimized by the constant ratio of identifiable (form) bead half-products and their correlative bead forms. Chi-square indicates no difference in their distributions (Gibson 1971).

Abstracting from more complete data and statistical correlations which have been presented elsewhere (Gibson 1971), it may be concluded that the distributional patterns of the artifacts in question here are implicative of an egalitarian sociological context. Had either beads or bead half-products shown skewed distributions, then ideas of special production areas and/or unequal access to finished products might have been entertained. But evidence of a ranked or stratified sociocultural milieu has consistently failed to materialize in spite of strong presumptory reasons to believe such might have been the case.

The demonstration of similarities and differences is prerequisite for any scientific interpretation. With analysis of total distributional variability at Poverty Point we should eventually be able to outline the specific patterns of prehistoric residence and activity which have made Poverty Point a rather unique manifestation in the archaeological Southeast; a manifestation which bears the same sort of relation to the ensuing culture history of the Eastern Woodlands as Olmec and Chavin bear to their respective histories and areas. A few significant associations have been presented here only to dispel the notion that there is something mysterious about Poverty Point which defies explanation.

INTRASITE DISTRIBUTION OF ARTIFACTS AT THE POVERTY POINT SITE, WITH SPECIAL REFERENCE TO WOMEN'S AND MEN'S ACTIVITIES *

Clarence H. Webb

Eighteen collections from the Poverty Point Site were studied by James Ford and the author between 1962 and 1967. Some of the results were summarized in my synoptic article in American Antiquity (1968), at which time the collections incorporated approximately 70,000 objects. In 1967, the collection of Carl Alexander of Epps, Louisiana, which constituted a major resource during the study, was acquired by Louisiana State University and Florida State Museum.

Between 1967 and 1970, deep plowing and gully erosion at the site uncovered many additional objects and Alexander gathered another large collection, with careful provenience control. The author's smaller collection was also accumulated during the same period with provenience control by sectors and ridges of the site as described by Gibson in the preceding paper of this volume.

During 1970, Jon L. Gibson and the author, assisted by Alexander, Hiram Gregory, and Sherwood Gagliano, tabulated 18,727 objects from these two collections by types, materials, and/or various typological and use-category attributes as well as by ridge-sector or adjacent area provenience--a total of 33 locations in or around the village. We are in a position to report only gross observations at present, but hope by finer studies (including computer correlations) to make distributional studies that may throw more light on the life of the people who lived or visited at the Poverty Point Site.

It seemed desirable, first, to classify the more than 91,000 objects now available from the site and to examine the numerical distribution into major categories of objects. This is shown in Figure 1. Nearly one-third (32.25 percent) of the collected objects are lamellar blades, cores, and objects made from these blades, illustrating the importance of this industry at the site. Nearly one-fourth (22 percent) consists of Poverty Point clay objects, most of them whole. About one-eighth each (12.26 and 12.8 percent) are projectile points and chipped stone tools or preforms, used flakes, and cores for these tools. These four categories, therefore, incorporate nearly 80 percent of all objects in the collections from the site. Of the remainder, stone vessel fragments and raw materials each are between five and six percent in frequency; plummets and plummet fragments or other objects of hematite or magnetite make up between two and three per cent, as does the combination of lapidary items and polished problematical objects. The final three categories-- ground or polished stone tools, pot-

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