POVERTY POINT SITES IN SOUTHEASTERN LOUISIANA

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ABSTRACT

Two small shell middens, containing numerous Poverty Point objects and associated with a 4000-year-old subdelta of the Mississippi River, have been located in the Pontchartrain Basin. Dated by the radiocarbon method at approximately 1740 B.C., the sites have been established as a separate phase of the Poverty Point horizon. A third site, characterized by abundant imported stone and a well-developed microflint industry, is believed to be contemporaneous with the Poverty Point and Jaketown sites.

IN CONJUNCTION with studies of Recent and Pleistocene geology and geomorphology,* the writers have been conducting an intensive archaeological site survey in portions of southeastern Louisiana and southwestern Mississippi for the past six years. The focus of the survey has been the Pontchartrain Basin, a marginal deltaic lowland of about 1600 square miles located north of and including the city of New Orleans (Fig. 1). The area is characterized by a series of natural levee ridges of abandoned Mississippi River distributaries and small relict beaches isolated by extensive areas of fresh- to brackish-water marsh and dense cypress swamp. Small shallow lakes and sluggish bayous are numerous, especially in the eastern portion of the basin. The lowland is bounded on the north by a relatively higher Pleistocene terrace formation and on the south by the broad natural levees of the present Mississippi River.

An understanding of the Recent geologic history of the Pontchartrain Basin is essential to a correct interpretation of its archaeological remains and, conversely, the remains provide valuable evidence concerning the geologic history. Fundamentally, the basin is the result of the warping and faulting of a late Pleistocene terrace formation which dips southward and underlies the basin at shallow depths. During the waning stages of the last major sea-level rise, the area became a large embayment partially separated from the Gulf of Mexico by a long barrier spit. Shell middens of Late Archaic age, located in close association with active shorelines of the embayment, have yielded radiocarbon dates ranging from 1240 B.C. to 3515 B.C. (Saucier 1962). These sites are characterized by a predominance of oyster (*Crassostrea*) shells, a definite indication of higher-than-present salinities in the basin during this stage. All subsequent shell middens are composed of the brackish-water clam *Rangia cuneata* with varying small quantities of *Crassostrea* and the freshwater mussel *Unio*. Ecological changes reflected in the shell middens of the basin occurred when distributaries of an early Mississippi River subdelta advanced into the area and transformed it from a shallow marine to a deltaic plain environment. Since this initial invasion by the Mississippi River (radiocarbon dated at about 2000 B.C.), the basin has witnessed a succession of subdelta developments and has remained an area composed of marshes, swamps, shallow lakes, and natural levee ridges.

Over 150 sites, mainly small *Rangia* shell middens, have been located in the Pontchartrain Basin area. Age determinations based on an analysis of over 25,000 sherds and other artifacts indicate a period of occupance extending uninterruptedly from Tchefuncte to Historic times. In nearly every case, the sites are situated on the margin of the Pleistocene terrace, on relict beaches, or on distributary natural levees in close association with swamps and marshes. The tremendous importance of these latter environments as an economic base throughout prehistoric times is strongly evidenced by abundant faunal remains in the sites.

As recent as the survey of coastal Louisiana by McIntire (1958), the oldest recognized culture in the region was the Tchefuncte. An Archaic or nonpottery horizon was theorized, but no definite evidence had yet been found. Although not specifically referred to, McIntire likewise found no evidence of a Poverty Point horizon. The status of reported finds of Poverty Point artifacts in the lower Mississippi valley as of this time has been concisely summarized by Ford, Phillips, and Haag (1955: 46) who stated "... the typical occurrence involves a handful of Poverty Point objects, sometimes not more than one or two, usually associated with potsherds and other artifacts pertaining to one or more of the ceramic periods in the area." This would include 33 Poverty Point objects found in eight Tchefuncte sites in the Pontchartrain Basin by Ford and Quimby (1945: 31).

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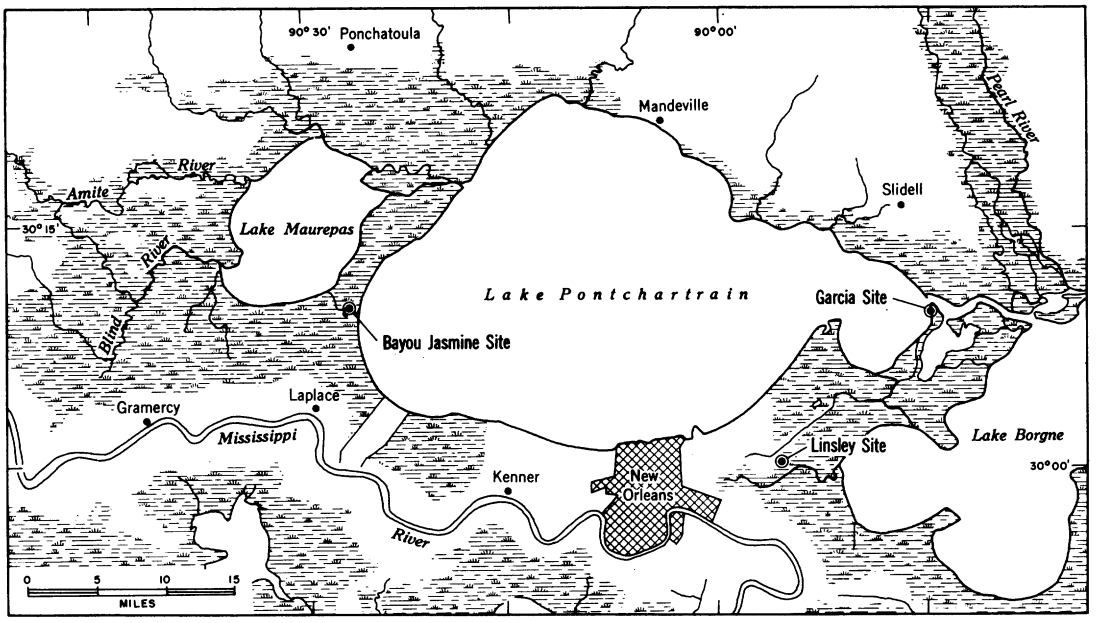

FIG. 1. Poverty Point sites in southeastern Louisiana.

In a recent article, Haag (1961: 322) has concluded that the Archaic is absent on the Recent deposits in the alluvial valley of the lower Mississippi River. In doing so, he makes a strong point that the Poverty Point culture is not Archaic but rather "... is best viewed as transitional from an Upper Archaic tradition to a phase of the Formative." Regardless, it is pre-Tchefuncte in age and essentially nonceramic. It is primarily in this light that several recently discovered Poverty Point sites will be considered.

Between 1957 and 1960, new highway construction and canal excavations uncovered two sites in the Pontchartrain Basin which were buried beneath 6 to 8 feet of marsh and/or swamp deposits. These have been designated as the Bayou Jasmine site and the Linsley site (Fig. 1). An examination of materials exposed on the spoil banks indicated that both sites were small earth and *Rangia* shell middens not exceeding 150 feet in greatest dimension and 2 to 3 feet in thickness. Auger borings at the two sites revealed that they were directly associated with buried distributary natural levees of the initial (4000-year-old) Mississippi River subdelta that developed in the basin area.

Surface collections obtained on several visits to the Bayou Jasmine site consist of three predominant types of materials: large quantities of small animal bone, Tchefuncte period sherds of several types, and Poverty Point objects. In contrast to the Tchefuncte sites in the eastern portion of the basin where Poverty Point objects comprised far less than one per cent of the total assemblage (Ford and Quimby 1945), the baked clay objects form the bulk of the collection from the Bayou Jasmine site. The objects are quite similar in size and shape to those at the Poverty Point site (Ford and Webb 1956), and at least three distinct types are represented.

During excavation for the new Mississippi River-Gulf Outlet Channel in early 1960, midden debris from the buried Linsley site was brought to the surface from a depth of 8 to 12 feet below mean Gulf level and deposited on spoil banks. Thanks to the large size of the dragline bucket used in the excavation, it was possible to examine carefully large units of stratigraphically undisturbed midden accumulation and to make an extraordinarily thorough collection without having to undertake large-scale excavation.

Although essentially composed of earth and shell, it was estimated in the field that approximately 30% of the midden matrix was a mixture of ash, charcoal, and thousands of fragments of small animal bone. Well represented were the remains of alligators, alligator gars, rabbits, squirrels, otters, raccoons, muskrats, deer, and a wide variety of fish and birds. The ash, charcoal, and bone deposits were found to

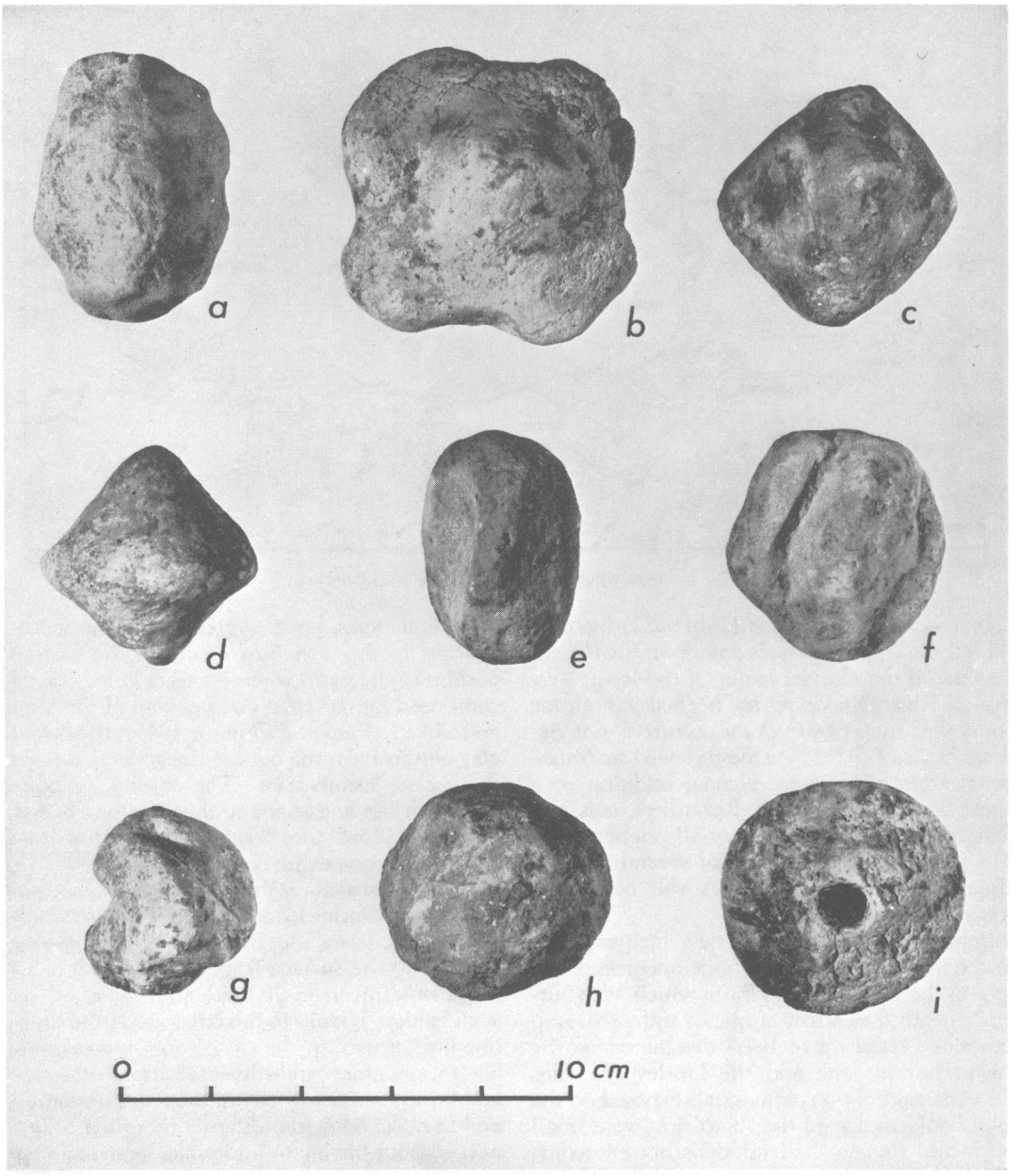

FIG. 2. Poverty Point objects from the Linsley site. *a*, cylindrical with lateral grooves; *b*, biconical, grooved (top view); *c*, biconical, grooved (side view); *d*, biconical, plain; *e*, *f*, melon-shaped; *g*, cross-grooved; *h*, spheroidal; *i*, unusual variety.

occur in three situations: scattered throughout the earth and shell accumulations, stratified in units up to a foot in thickness, and in definitely discernible fire pits.

Well over 90% of the total artifact assemblage obtained at the Linsley site is composed of bone implements of several types and Poverty Point objects (Fig. 2). The collection of the latter consists of approximately 125 well-preserved specimens plus hundreds of unidentifiable fragments (Table 1). In general, they are quite similar in color, workmanship, and com-

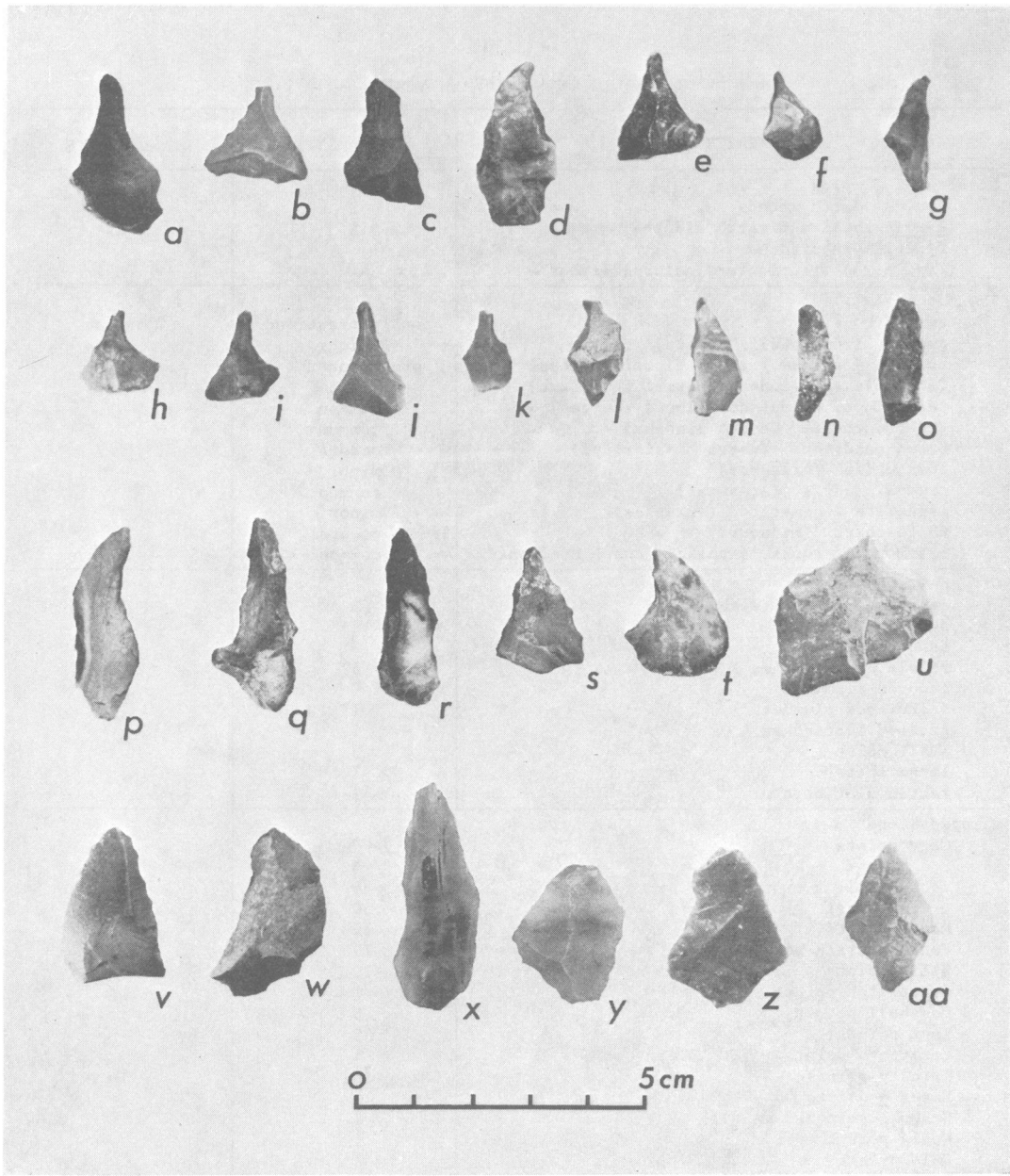

FIG. 3. Microflints from the Garcia site. *a–t*, several varieties of perforators; *u*, graver; *v–aa*, slightly used blades.

position to those from Poverty Point (Ford and Webb 1956) and Jaketown (Ford, Phillips, and Haag 1955); however, their average size is slightly larger, and there is an appreciable difference in frequency of types. The high percentages of cylindrical and cross-grooved types at Poverty Point and Jaketown are replaced at the Linsley site by an abundance of melon-shaped and biconical forms. These types comprise about 70% of the total collection.

It is interesting to note that several whole Poverty Point objects and numerous fragments were found embedded in ash and charcoal deposits in fire pits. This would appear to add

Table 1

Trait Summary and Comparison, Garcia and Linsley Sites

TRAITS	GARCIA SITE	LINSLEY SITE
Structural Complex		
conical earth mounds	X	
Rangia shell and earth middens	X	X
firepits in middens		X
middens on distributary natural levees		X
Raw Materials		
animal bone	poorly preserved	common
pumice (local Gulf beaches)	minor	occurs
terrace & stream gravel (local sources)	predominant	occurs
Catahoula sandstone (central Louisiana)	minor	occurs
ferruginous sandstone (local sources)	common	
orthoquartzite (south Alabama)	common	
brown sandstone (north Mississippi)	occurs	
novaculite (Arkansas)	minor	
crystal quartz (Arkansas)	common	
magnetite & hematite (Arkansas)	minor	
white chert (Missouri)	occurs	
metamorphic rocks (Appalachians & Piedmont)	common	
Ground Stone		
sandstone hones & slabs	5	1
pumice abraders	2	1
sandstone saws	1	
pebble hammerstones	6	
grooved plummets	9	
perforated plummets	1	
grooved boatstones	1	
small celts	3	
large celts	1	
rectangular bars	1	
Chipped Stone		
Gary points		
Large	5	
Small	4	
Typical	30	
Maçon points	19	
Pontchartrain points	79	
Ellis points	10	
Carrollton points	7	
Marshall points	5	
Kent points	65	
Yarbrough points	5	
Trinity points	5	
Meserve points	4	
Desmuke points	2	
Wells points	5	
Hale points	7	
Webb points	1	
Almagre points	1	
Fairland points	2	
Frazier points	4	
"Leaf-shaped" points	2	
Scallorn points	8	
Cliffton points	1	
reworked points	7	
broken and/or unclassified points	108	1

TABLE 1 (CONTINUED)
TRAIT SUMMARY AND COMPARISON, GARCIA AND LINSLEY SITES

TRAITS	GARCIA SITE	LINSLEY SITE
Chipped Stone (Continued)		
large flake scrapers	4	
choppers	2	
expanded base drills	4	
stemmed drills	1	
triangular blades	1	
assymetrical blades	2	
adzes	1	
Cores and Blades		
Poverty Point type cores	1	
irregular cores	9	
unused blades	79	
Jaketown perforators	95	
double-ended perforators	6	
needles	28	
side scrapers or slightly used blades	248	
Miscellaneous Stone		
schist & gneiss slabs	10	
crinoid stem beads	1	
quartz crystals	7	
Bone		
small socketed bone points		7
deer ulna awls		3
pins		1
cut deer toe bones		2
miscellaneous cut bone		8
Poverty Point Objects		
biconical plain		26
biconical grooved		32
cylindrical with lateral grooves		7
cross-grooved		8
melon-shaped		32
melon-shaped with end grooves		1
spheroidal		4
amorphous		7
biscuit-shaped		4
decorated		1
unusual varieties		5
clay figurines		1 ?
unidentifiable fragments		926
Pottery		
Fort Walton Incised	2	
Pontchartrain Check Stamped	2	
Tchefuncte Stamped	1	
Tammany Pinched	1	
Tchefuncte Plain	4	
unclassified plain sherds	54	
fiber tempered plain sherds		1

weight to the theory that the baked clay objects were substitutes for cooking stones and/or fire stones used in roasting among cultures lacking in the art of pottery making. That this particular site, at least, is essentially nonceramic is evidenced by a pottery collection consisting of a single small fiber-tempered sherd.

Three samples of charcoal and one sample of *Rangia* shells from the Linsley site have yielded radiocarbon dates of 1590 ± 120 B.C., 1740 ± 120 B.C., 1890 ± 130 B.C., and 2490 ± 140 B.C.* Of the four dates, the earliest (2490 B.C.) is most inconsistent and is considered to be anomalous. The average of the remaining dates, 1740 B.C., is accepted as a valid date for the site. This accords well with a dating of 2090 ± 140 B.C., which was obtained on a sample of peat and organic clay from directly beneath the distributary natural levee on which the site is situated, and with the general geologic chronology for the area.

The Garcia site, located on the eastern shore of Lake Pontchartrain (Fig. 1), is the most recently discovered site to exhibit Poverty Point traits. A victim of rapid shoreline retreat, this site consists of a heavily wave-washed beach accumulation plus a possibly undisturbed shell deposit lying in 3 to 4 feet of water up to 1000 feet from the shore. Historic records pertaining to an old fortification near the site mention the existence of a large conical earth mound in the immediate vicinity. No evidence of a mound exists at the present time, however.

Although considerable materials have been collected from the site by the writers, the bulk of the total collection is in the hands of several local collectors. Mr. Andrew Garcia, the owner of the site, and Mr. Melvin Glory, of Metairie, Louisiana, have generously made their collections available for study.

Ceramic materials at the Garcia site consist of sherds ranging in age from Coles Creek to Tchefuncte, but no Poverty Point objects have been found. Considering the heavily wave-washed character of the sherds, however, the lack of relatively friable Poverty Point objects is probably more apparent than real.

Evidence for a Poverty Point component at the site consists of a well-developed microflint industry (Fig. 3) plus a variety of chipped and polished stonework. Table 1 includes a more comprehensive list of the artifact assemblage from this site. Most artifacts conform to descriptions of material from Poverty Point and Jaketown (Ford and Webb 1956; Ford, Phillips and Haag 1955).

Projectile point frequencies from the Garcia site compare favorably with those from Poverty Point (Ford and Webb 1956: 75). However, the related Motley and Delhi points and the characteristic slate-gray flint of which they are often made are absent. Cut jasper beads and ornaments as well as soapstone vessels are also conspicuously absent.

Locally available lithic materials, both worked and unworked, are more abundant in terms of total site content than at any other site in the Pontchartrain Basin. While these materials are present at the Garcia site, there is also a significantly high percentage of stone material completely foreign to the area, for example, quartz crystals, novaculite, orthoquartzite, metamorphic rocks of several types, magnetite and hematite. Arkansas, Missouri, and the Appalachians and Piedmont are the nearest sources of some of these materials (Ford and Webb 1956).

On the basis of the evidence now available at these sites, the writers feel warranted in designating two of them, the Bayou Jasmine and Linsley sites, as a separate phase of the Poverty Point horizon. For this, the name Bayou Jasmine phase is suggested.

Summarizing the pertinent aspects of the Bayou Jasmine phase, it can be stated that known sites are small *Rangia* shell and earth middens associated with distributaries of an early (4000-year-old) Mississippi River subdelta. The artifact assemblage is characterized by bone points and tools and an abundance of Poverty Point objects. A complete absence of human skeletal remains and the presence of large quantities of animal bone suggest a specialized and perhaps seasonal occupation oriented toward hunting and gathering in a paludal environment. Radiocarbon dates establish the Bayou Jasmine phase as being considerably older than previously dated Poverty Point sites. The average date of 1740 B.C. for the site is about 1000 years earlier than the average for the Poverty Point site, and about 1200 years earlier than the average for the Jaketown site (Ford and Webb 1956: 121–2).

On the basis of the well-developed microflint industry and the general artifact assemblage at the Garcia site, the writers feel that it is more contemporaneous with the Poverty Point and

* Analyzed by the Exploration Department, Humble Oil and Refining Co., Houston, Texas.

Jaketown sites and therefore younger than the Bayou Jasmine phase sites. The abundance of imported stone at the Garcia site suggests a strong relationship with the extensive Poverty Point trading system. Additional traits are considered as being intrusive into the area, probably having their origin northward in the lower Mississippi valley.

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