

ARCHEOLOGICAL SURVEY ON 65 ACRES OF LAND ADJACENT TO BAYOU DES FAMILLES

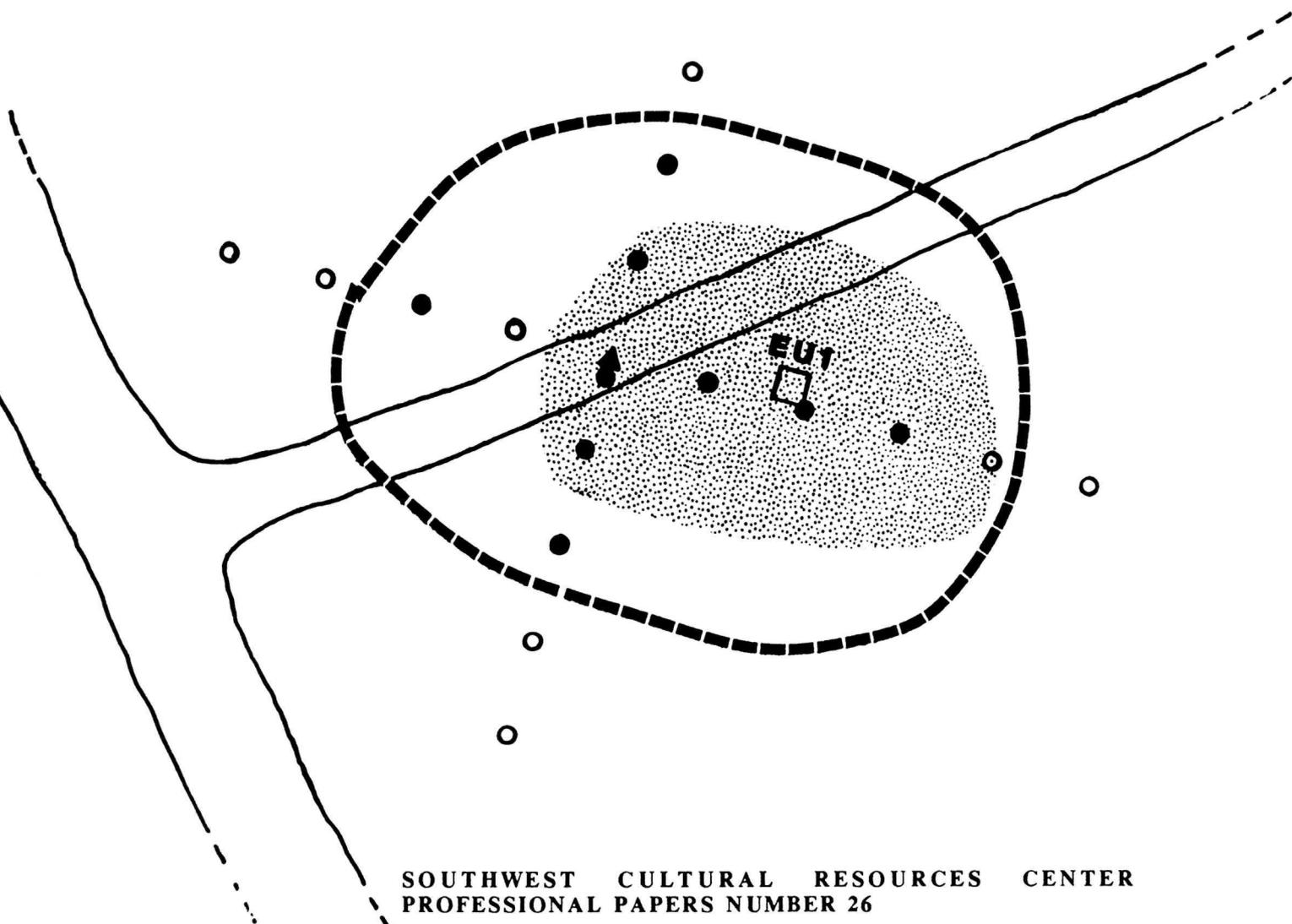
BARATARIA UNIT, JEAN LAFITTE NATIONAL
HISTORICAL PARK AND PRESERVE, LOUISIANA

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**Archaeological Survey on 65 Acres of Land
Adjacent to Bayou des Familles**

Barataria Unit, Jean Lafitte National
Historical Park and Preserve, Louisiana

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ABSTRACT

Work reported in this volume was performed by Earth Search, Inc. in partial fulfillment of Contract No. RFQ7029-8-0029 with the National Park Service, Southwest Regional Office, Santa Fe, New Mexico. An intensive pedestrian survey was conducted in order to locate and define archaeological sites on 65 acres within the Core Area of the Barataria Unit, Jean Lafitte National Historical Park and Preserve, Jefferson Parish, Louisiana.

As a result of the survey effort, eight new archaeological sites were recorded. The only historic site in the survey corridor was the late nineteenth century Christmas Plantation Engine Foundation (16JE196). The other seven sites, 16JE200, 16JE201, 16JE202, 16JE203, 16JE204, 16JE205 and 16JE206, were Rangia scatters. Excavations at all of these sites except 16JE203 and 16JE205 yielded aboriginal sherds. The majority of sherds from the sites were undecorated.

In addition, excavations were conducted at 16JE163 and 16JE164 on the west bank of Bayou des Familles. The proximity of these two sites indicates that they probably represent two loci from a single occupation. Eight decorated sherds recovered here suggest that the two sites are from the Mississippi period.

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TABLE OF CONTENTS

Abstract	ii
Acknowledgements	iii
List of Figures	vii
List of Tables	viii
 INTRODUCTION.	 1
 ENVIRONMENTAL SETTING.	 4
Physiographic and Biological Setting.	4
Geomorphic Formation of the Barataria Basin.	6
Climate.	7
Soils.	7
Plant Communities.	10
Ethnobotany.	12
Fish.	12
Reptiles and Amphibians.	13
Birds.	13
Mammals.	13
Exploitation of Faunal Species during the Prehistoric Period.	14
<i>Rangia cuneata</i>	15
Prehistoric Human Ecology.	17
 CULTURE HISTORY.	 19
Culture and Chronological Terminology for Prehistory.	19
The Tchula Period.	22
The Marksville Period.	24
The Baytown Period.	27
The Coles Creek Period.	28
The Mississippi Period.	29
Aboriginal Occupation during the Colonial Period.	33
Europeans in the Colonial Period.	35
Late Spanish Colonial Period and Antebellum Land Ownership.	37
Christmas Plantation.	38
 PREVIOUS INVESTIGATIONS.	 40
 RESULTS OF SURVEY AND SITE DESCRIPTIONS.	 41
Methodology for Pedestrian Survey.	41
Methodology for Site Definition.	42
Field Conditions.	43
Christmas Plantation Features.	43

The Christmas Plantation Engine Foundation (16JE196)	44
Summary of Prehistoric Sites Recorded.	49
16JE200.	53
16JE201.	56
16JE202.	61
16JE203.	64
16JE204.	64
16JE205.	70
16JE206.	70
16JE163 and 16JE164.	75
 ANALYSIS OF ABORIGINAL CERAMICS.	 80
Typological Analysis.	81
Baytown Plain <i>var. Reed</i>	81
Baytown Plain <i>var. Sartaria</i>	81
Baytown Plain <i>var. Jean Lafitte</i>	82
Bell Plain <i>var. St. Catherine</i>	82
Baytown Plain <i>var. Addis</i>	82
Grog and Clay Temper.	83
Sherds at 16JE200.	84
Sherds at 16JE201.	84
Sherd at 16JE202.	86
Sherds at 16JE204.	87
Sherds at 16JE206.	88
Discussion of Ceramic Assemblages: 16JE200, 16JE201, 16JE202, 16JE204 and 16JE206.	89
Sherds at 16JE163.	92
Discussion of Sherds from 16JE163.	96
Sherds at 16JE164.	99
 DISCUSSION.	 100
Linearity of Site Location along Bayou des Familles.	100
Size and Relative Locations of Shell Scatters Close to Bayou des Familles.	100
Sites and "Non-Sites" within the Core Area.	102
Cultural Affiliation of Small Sites Close to Bayou des Familles.	103
 RECOMMENDATIONS.	 106
Context for Evaluation.	106
Research Value of Prehistoric Sites within the Present Study Area.	107

Specific Recommendations Concerning Prehistoric Sites within the Present Study Area.	108
Recommendations Concerning Future Survey Efforts within the Core Area.	110
REFERENCES CITED.	111

LIST OF FIGURES

Figure 1. Barataria Unit project area including the Core Area and the Park Protection Zone (from Speaker et. al. 1986). 2

Figure 2. Map showing the locations of Phase I and Phase II study areas. 3

Figure 3. Site 16JE203, showing physical environment within the Barataria Unit. 5

Figure 4. Map showing soil associations for the study area and vicinity. 8

Figure 5. The dotted line encloses a 3.5 kilometer transect from Bayou des Familles to Lake Salvador. Soils are associated with the following floral and faunal communities: Commerce with natural levee, Sharkey with lower natural levee, Barbary with swamp, and Allemands and Kenner with fresh water marsh. 18

Figure 6. Map of Southeastern Louisiana showing locations of major archaeological sites.
Key: 1) Bayou Goula; 2) Sims; 3) Coquilles; 4) Scarsdale; 5) Big Oak and Little Oak Islands; 6) Fleming, Isle Bonne, and Bayou Villars; 7) Bayou Du Pont; 8) Bayou Cutler; and 9) Buras Mounds. 20

Figure 7. Plan view of the Engine Foundation (16JE196). 45

Figure 8. Profile of interior of the northwest wall of the Engine Foundation (16JE196). 47

Figure 9. Site Map of 16JE200. 54

Figure 10. Profile of the south wall of EU1, 16JE200. 55

Figure 11. Site Map of 16JE201. 57

Figure 12. Profiles of the east wall of EU1 and EU extention, and north wall of EU1, Locus A, 16JE201. 59

Figure 13. Profiles of the east and west walls of EU1, Locus B, 16JE201. 60

Figure 14. Site Map of 16JE202.	62
Figure 15. Profile of the west wall of EU1, 16JE202.	63
Figure 16. Site Map of 16JE203.	65
Figure 17. Profile of the west wall of EU1, 16JE203.	66
Figure 18. Site Map of 16JE204.	68
Figure 19. Profiles of the south and west walls of EU1, 16JE204, and plan view of the burned Rangia feature.	69
Figure 20. Site Map of 16JE205.	71
Figure 21. Profile of the west wall of EU1, 16JE205.	72
Figure 22. Site Map of 16JE206.	73
Figure 23. Profile of the west wall of EU1, 16JE206.	74
Figure 24. Site Map of 16JE163 and 16JE164.	77
Figure 25. Profiles of the north and east walls of EU1, 16JE163.	79
Figure 26. Schematic illustration of settlement pattern and site size in the study area vicinity.	104

LIST OF TABLES

Table 1. Nutritional and Caloric Values Per 100 Grams (From Byrd 1976:27).	16
Table 2. Coastal Louisiana Culture Sequence and Chronology.	21
Table 3. Inventory of Aboriginal Sherds at 16JE200, 16JE202, 16JE204, and 16JE206.	50
Table 4. Ceramic Sherds Recovered from 16JE163 and 16JE164.	51
Table 5. Decorated Sherds: Comparison Between Sims Site and 16JE163.	93

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INTRODUCTION

Work reported in this volume was performed by Earth Search, Inc. in partial fulfillment of Contract No. RFQ7029-8-0029 with the National Park Service, Southwest Regional Office, Santa Fe, New Mexico. An intensive pedestrian survey was conducted in order to locate and define archaeological sites on 65 acres within the Core Area of the Barataria Unit, Jean Lafitte National Historical Park and Preserve, Jefferson Parish, Louisiana. Location of the Barataria Unit is shown on the map in Figure 1. The 65-acre study area shown in Figure 2 was located on the east bank of Bayou des Familles. It was north of the Phase I area where intensive survey was conducted by R. Christopher Goodwin and Associates, Inc. in 1987 (Poplin 1987).

The initial Scope of Services for this project required survey of 72 acres. However, test excavations of sites within the northernmost seven acres were conducted by Dr. Richard Shenkel of the University of New Orleans and Ms. Susan Hammersten of Florida State University prior to commencement of field work. Therefore, this seven acres was deleted from the study area. Instead, a rigorous program of site definition and hand excavation was conducted at six colonial period sites reported by Swanson (1988). Results of

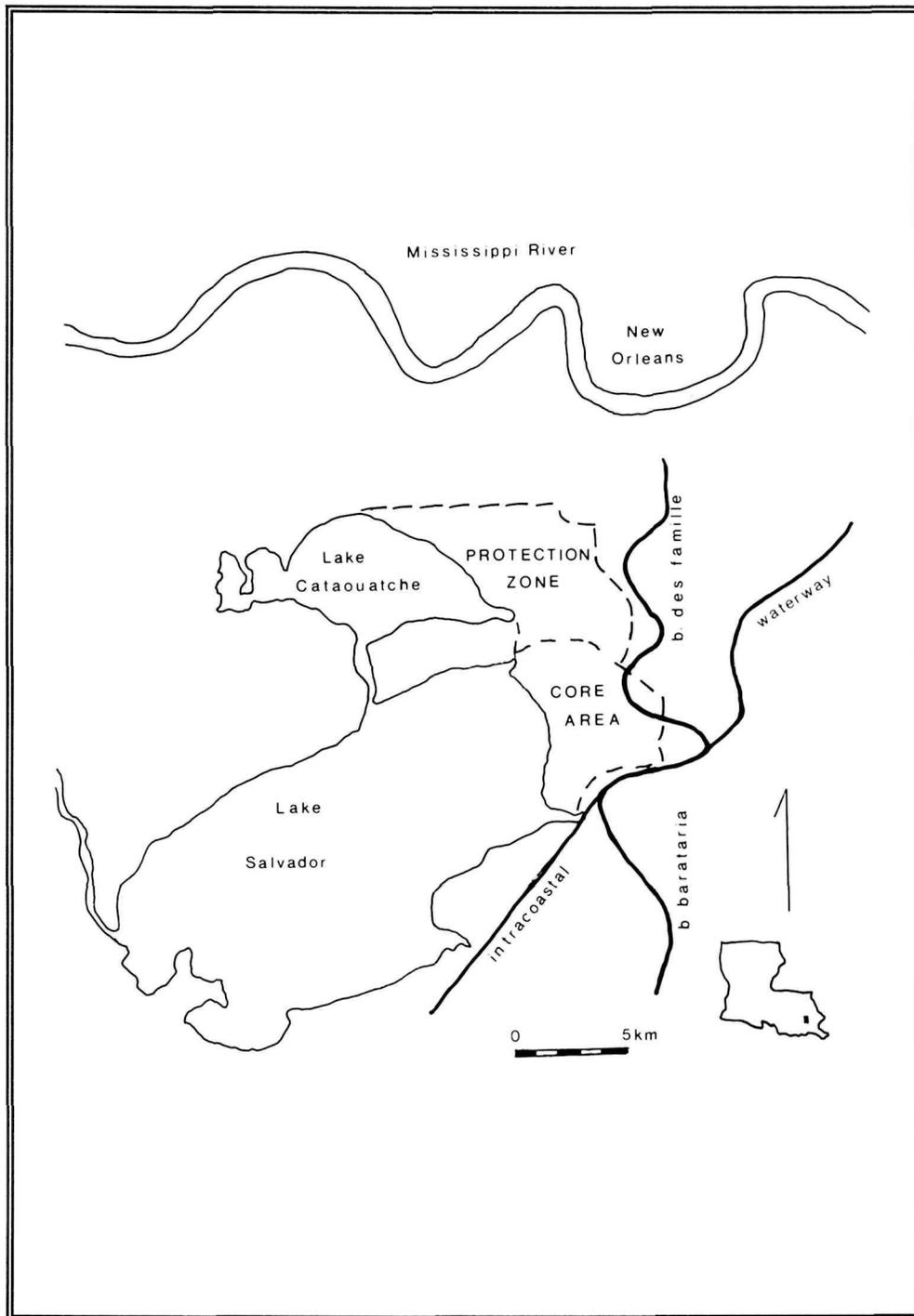


Figure 1. Barataria Unit project area including the core area and the park protection zone (from Speaker et. al. 1986).

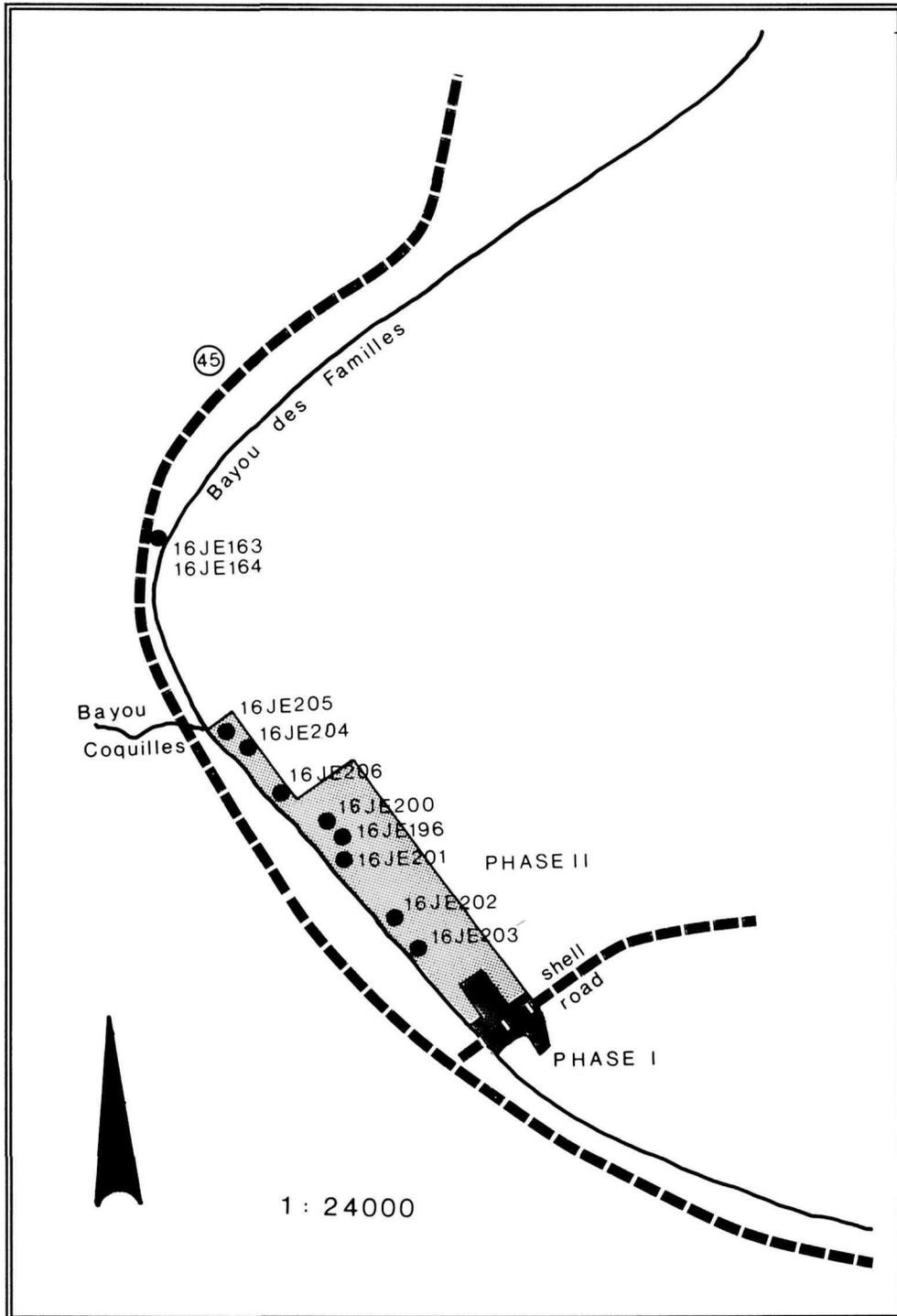


Figure 2. Map showing the locations of Phase I and Phase II study areas.

this aspect of field work are reported in a companion volume (Yakubik 1989). Two prehistoric sites on the west bank of Bayou des Familles with possible historic period components were also investigated. Results of excavations on those sites are reported in this volume.

Field work commenced on July 23, 1988, concluded on August 20, 1988, and consisted of 75.5 person days. Artifacts, field notes and photographs of the various sites and excavations are curated at the Jean Lafitte National Historical Park and Preserve, New Orleans, Louisiana.

ENVIRONMENTAL SETTING

Physiographic and Biological Setting

The study area for this project lies within the core area of the Barataria Unit of the Jean Lafitte National Historical Park and Preserve, situated within the Barataria Basin (Figures 1, 2, and 3). The basin itself encompasses approximately 400,000 hectares (990,000 acres). It is approximately 129 kilometers (80 miles) long. Lake Des Allemands lies near its headwaters, while the Gulf of Mexico is the Basin's southern terminus. Several large, shallow lakes are situated within the Basin. These lakes are interconnected by bayous and surrounded by marshland. The marshland itself is bordered by higher ground that is the result of alluvial deposition from formerly active Mississippi River distributaries (White et al. 1983:101-102).

Barataria Basin is a broad, low-lying region that represents an abandoned Mississippi River delta complex and the adjacent estuarine and offshore waters associated with that complex. It is characterized by a set of ecological parameters which are integrated into a dynamic ecosystem with enormous biological productivity. The prime integrating feature of this ecosystem is water. Primary units of the system are forests, fresh water marshes, brackish marshes, saline marshes and the offshore area. The Basin lies within an area that is, at present, subsiding and eroding (Bahr and Hebrard 1976:1-3).



Figure 3. Site 16JE203, showing physical environment within the Barateria Unit.

Geomorphic Formation of the Barataria Basin

The Mississippi River deltaic plain is the composite result of previous and present progradations of the river. Four delta complexes have produced the modern deltaic plain, which encompasses most of southern Louisiana. These are termed the Teche complex, the St. Bernard complex, the Lafourche complex and the Plaquemines-Modern complex. The complex that preceded these is termed the Maringouin delta complex (Frazier 1967:288,296).

During the progradation phase that formed each of these delta complexes, sediments were deposited into shallow waters at the mouths of distributaries. Landforms associated with such progradation are termed "lobes." Usually one course within the complex was favored over the others, so that the majority of the river's discharge and its associated sediments flowed through a single trunk. The result was formation of a natural levee as floodwaters deposited the sediment load adjacent to the stream. The natural levee increased in height so that eventually only the highest of the seasonal floodwaters overflowed. Vegetation flourished as conditions on the natural levee stabilized. Eventually, however, continued progradation led to an overextension of the distributary network. The result was diversion of the river's waters into an underdeveloped upstream distributary. Thus, the cycle of delta formation began again (Frazier 1967:288).

The abandoned distributary was no longer capable of prograding or of aggrading the delta plain. Subsidence began as the result of compaction of the underlying clays. At the distal end, barrier islands formed as distributary-mouth-bar sands were reworked by waves. Between these islands and the mainland, a bay environment was created (Frazier 1967:288).

Bayou des Familles was associated with the St. Bernard delta complex, and it is "lobe seven" in Frazier's sequence of sixteen lobes. It was the main distributary of a broad delta lobe that formed about 3500 to 2500 B.P. Radiocarbon dates indicate that deposition associated with flow through Bayou des Familles was occurring until approximately 2000 B.P. Other distributaries were active contemporaneously with des Familles. Subsequent to the abandonment of Bayou des Familles, Bayou Barataria formed as a distributary on the course of the modern Mississippi River. Bayou Barataria

reoccupied the distal portion of Bayou des Familles so that this portion of the old delta plain was again built up. This was occurring shortly after 1400 B.P. (Frazier 1967:301).

Climate

The study area is located within the subtropics, and weather is strongly influenced by the nearby Gulf of Mexico. Rainfall exceeds 160 cm (64 inches) annually. Periods of greatest rainfall generally occur in August and September. October is, on average, the driest month. The mean annual temperature is about 21 degrees Centigrade (70 degrees Fahrenheit), with a mean low in January averaging 11 degrees Centigrade (52 degrees Fahrenheit) and a mean high in July of about 29 degrees Centigrade (84 degrees Fahrenheit). The growing season exceeds 260 days (White et al. 1983:103). Hurricanes and storm surges occur intermittently, and these have profound effects on floral, faunal and human communities within the Barataria Basin.

Soils

Two of the soil associations discussed in this section occur within the study area. These are Commerce silty clay loam and Sharkey clay. Both are characteristic of the natural levee associated with Bayou des Familles. Barbary muck, Allemands muck and Kenner muck are also discussed because these represent soils associated with nearby swamps and freshwater marshes, both of which are habitats well-suited to plants and animals that probably were important to both the prehistoric and historic period economies in the area. Locations of these soil associations are shown in Figure 4.

Soils associated with higher areas of the natural levee immediately adjacent to Bayou des Familles are categorized as Commerce silty clay loam (Figure 4). These are poorly drained, firm mineral soils. The surface layer generally is a dark grayish brown slightly acid silty clay loam about 5 inches (11 cm) thick. Below this and to a depth of about 72 inches (158 cm) is a grayish brown, neutral silty clay loam. Thin layers of clay are sometimes present in this subsoil. The Commerce soil has high fertility and moderately

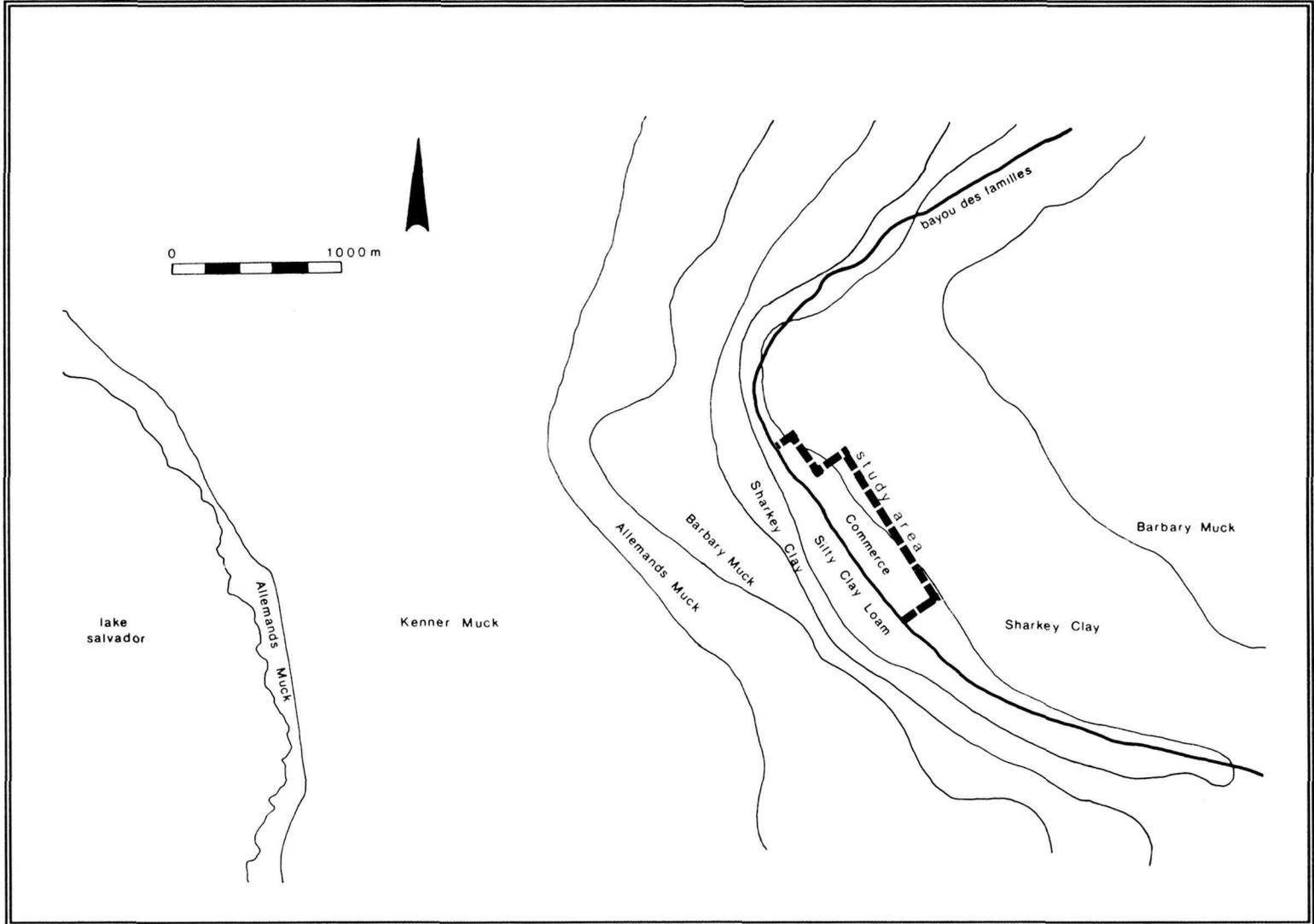


Figure 4. Map showing soil associations for the study area and vicinity.

slow permeability. Run-off is slow, and water usually stands in low places for a short period following heavy rains (Matthews 1983:15-16).

Commerce soil is well-suited to pasture and to cultivated crops. Vegetables are the predominant crop grown on these soils at present, but it is also suitable for sugarcane, soybeans and corn. However, the soil is slightly sticky when wet, and it is hard when dry so that it can be worked only within a limited range of moisture content (Matthews 1983:16).

The soil on the lower portion of the natural levee and at a somewhat greater distance from Bayou des Familles is classified as Sharkey clay (Figure 4). It is a poorly drained, firm mineral soil. The surface layer is a dark gray or very dark grayish brown strongly acid clay. It extends to a depth of about 4 inches (9 cm). Underlying subsoil, extending to a depth of about 60 inches (132 cm) is a dark gray, mottled, neutral and moderately alkaline firm clay. Sharkey soil is very slowly permeable. Water runs off at a slow rate, and it stands in low places for short periods after heavy rains. Fertility is high (Matthews 1983:18).

Sharkey clay is well suited for pasture, but it is only moderately well suited to cultivated crops. Vegetables have predominated as the crop grown on this soil, but it is also suitable for cultivation of sugarcane, soybeans, grain sorghum and rice. The plow zone is sticky when wet and hard when dry. It becomes very "cloddy" if worked when either too wet or too dry. A further problem is that wetness delays tillage operations in most years. Also, a drainage system is needed for most crops (Matthews 1983:18-19).

At a still greater distance from Bayou des Familles, soil is classified as Barbary muck, which is a very poorly drained, semifluid soil that occurs in swamps (Figure 4). It is flooded or ponded during most of the year. The areas in which this soil occurs are an important habitat for wetland wildlife. Without drainage and flood protection, the soil is unsuitable for pasture or for crops (Matthews 1983:15).

Two additional soils are located at even greater distances from Bayou des Familles. The first is Allemands muck, and the second is Kenner muck (Figure 4). Both are semifluid organic soils that occur in freshwater marshes. These soils are almost continuously flooded by several inches of fresh water, but in storms they may be covered by two or more feet of water. Areas

associated with these soils represent habitats for wetland wildlife. They are not suitable for pasture or for crops (Matthews 1983:12-13,15).

Plant Communities

The study area for this project lies primarily on the east side of Bayou des Familles. Deposition associated with this former distributary has resulted in a strip of relatively high land, approximately one meter above mean sea level. To the east and west of this "natural ridge," elevation declines. These elevation changes have led to the development of distinctively different plant communities. One of these is a "hardwood bottoms" community occurring on the highest land along Bayou des Familles. The "cypress-tupelo" forests, also paralleling the bayou, occur east and west of the bottoms community. These are located at slightly lower elevations. An intermediate swamp is located between these two communities. Similar floral associations characterize other natural waterways within Barataria Basin. Large tracts of marsh occur in surrounding areas (White et al. 1983:102).

Elevation of the land dramatically affects distribution and composition of plant communities within the area. Differences of only a few centimeters of elevation are associated with striking changes in vegetation. This is largely the result of the effects of soil saturation (White et al. 1983:103).

Hardwood bottom forests along Bayou des Familles are dominated by the water oak (*Quercus nigra*). Subdominants include the sweet gum (*Liquidambar styraciflua*), hackberry (*Celtis laevigata*), and live oak (*Quercus virginiana*). Other forest species include the box-elder (*Acer negundo*), honey-locust (*Gleditsia triacanthos*), American elm (*Ulmus americana*) and the Nuttall oak (*Quercus nuttallii*). The most common shrub species are palmetto (*Sabal minor*) and green haw (*Crataegus viridis*), but thickets of possum-haw (*Ilex decidua*) also occur. Within forest gaps, elderberry (*Sambucus canadensis*) and French-mulberry (*Callicarpa americana*) occur. Introduced species such as the camphor tree (*Cinnamon camphora*) are also present (White et al. 1983:103-104).

Vines are found throughout the bottomland forest, and few trees are observed without them. The most common of these include poison-ivy (*Rhus*

toxicodendron var. *vulgaris*), Virginia creeper (*Parthenocissus quinquefolia*), supple-jack (*Berchemia scandens*), pepper-vine (*Vitis rotundifolia*), muscadine (*Vitis rotundifolia*) and hemp-weed (*Mikania scandens*) (White et al. 1983:104). Herbaceous ground cover is generally absent.

The cypress-tupelo swamps, located a greater distance from Bayou des Familles, are dominated by bald cypress (*Taxodium distichum*) in areas where it has been re-established after logging. Water tupelo (*Nyssa aquatica*) is often either a sub- or co-dominant species. Red maple (*Acer rubrum* var. *drummondii*) and ash trees (*Nyssa aquatica*) represent the other sub-dominants in this community. Shrubs include wax-myrtle (*Myrica cerifera*) and button-bush (*Cephalanthus occidentalis*), while vines are cat-briar (*Smilax* spp.), trumpet-creeper (*Campsis radicans*) and poison ivy. Herbaceous ground cover, absent in the bottomland community, includes smart-weed (*Persicaria punctata*), alligator-weed (*Alternanthera philoxeroides*), swamp potato (*Sagittaria lancifolia*) and water hyacinth (*Eichhornia crassipes*) (White et al. 1983:105).

Between the hardwood bottom forest and the swamp forests, an intermediate swamp forest sometimes occurs. It can be extensive due to gradual slope of the land. Swamp red maple, American elms, and water oaks are common here. Palmettos create a dense understory, which is nearly impenetrable in some locations (White et al. 1983:105).

The above-described communities probably were present throughout the period of prehistoric occupation within the area. Their extent, however, may have changed due to episodes of deposition and subsidence. Studies of a plant community in the 1930s along an abandoned distributary channel about 30 miles northeast of the park, and of a swamp forest within the upper drainage area of the Barataria Basin resulted in species lists similar to those outlined above (White et al. 1983:104,106).

The other predominant plant community within the Barataria Basin occurs in the marsh areas. Marshes are categorized according to their degree of salinity, and the areas covered by the various marsh communities have certainly changed through the period of prehistoric occupation due to variation in fresh water influx compared to salt water intrusion.

The ecological distinction between a swamp and a marsh is the absence

of trees in the latter. Marsh soils are peat and muck, and elevation of these is less than one meter above mean sea level in the vicinity of the study area. This elevation is comparable to that of Lake Salvador on which the marshes border. Cord grass (*Spartina patens*) is dominant in the brackish or intermediate marsh, while swamp-potato (*Sagittaria lancifolia*) predominates in freshwater marsh. Numerous other species co-occur with these (White et al. 1983:106-107).

A complete floristic inventory for the core area of the Barataria unit is available in White et al. (1983:113-129).

Ethnobotany

A floristic inventory of the Coquilles site (16JE37) recorded 65 different plant species, all of which are endemic to North America (Dunn 1983). There is documentary evidence for utilization of 57 of these species (87.7%) by Southeastern Indian tribes. These plants can be categorized according to their uses: (1) food and beverage plants; (2) curative and medicinal plants; (3) plants used for construction and utilitarian items; and (4) plants used for textiles, dyes and paints. Some plants had multiple uses. Although there is no evidence that all of these plants were actually used by occupants at Coquilles and at other sites within the park, their availability indicates that the floral resource base in the area was both rich and diverse (Dunn 1983:351,356). In addition to these plant resources found along the natural levee, other species endemic to nearby marsh and lakeshore environments were undoubtedly utilized.

Fish

Barataria Basin hosts a diverse assemblage of species of fish. They are highly mobile, and seasonal movements of fish populations are widespread. The result is that marine fish penetrate inland to fresh water habitats, while fresh water species are sometimes found in more saline environments. Also, the lower reaches of freshwater streams probably serve as nursery areas for the young of some marine species (Bahr and Hebrard 1976:69).

Reptiles and Amphibians

Barataria Basin hosts at least 26 reptilian species, of which 14 are snakes. The American alligator (*Alligator mississippiensis*) and various species of turtle are common. At least 14 species of amphibians occur or are likely to occur in the Basin. Most of these are frogs and toads (Bahr and Hebrard 1976:74-77).

Birds

At least 216 species of birds are known to occur in the Barataria Basin. Approximately 43% of these are passerines. Some species of this group are permanent residents, while others are only present seasonally. The remainder of the 216 species are predominantly waterfowl, many of which are migratory. Because the Basin sits at the terminus of the Mississippi flyway, which is the largest waterfowl migratory route in North America, birds represent a potentially abundant source of food, feathers, and bone for tools (Bahr and Hebrard 1976:6-7,78-115).

Mammals

Important fur-bearing species present within the Basin are the muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), mink (*Mustella vison*) and otter (*Lutra canadensis*). Nutria (*Myocastor coypus*) are a recent introduction and were not present during the prehistoric or historic periods.

Other mammals known to occur in the area include the Virginia opossum (*Didelphis virginiana*), the nine-banded armadillo (*Dasypus novemcinctus*), the swamp rabbit (*Sylvilagus aquaticus*), the fox squirrel (*Sciurus niger*), the fox (*Vulpes fulva*), the bobcat (*Lynx rufus*), the beaver (*Castor canadensis*), the civet cat or spotted skunk (*Spilogale putoris*), and the white-tailed deer (*Odocoileus virginianus*). In addition, several species of terrestrial rodents and of bats are endemic (Bahr and Hebrard 1983:118-126). The mammalian faunal inventory would have been even more extensive during the prehistoric period (Speaker et al. 1986:26-29).

Exploitation of Faunal Species during the Prehistoric Period

Faunal analysis at Coquilles (16JE37), a multicomponent prehistoric site discussed further in **Previous Investigations**, provides information concerning exploitation of fauna in the Barataria Basin by prehistoric peoples (DeMarcay n.d.). Data are derived from three carbon dated contexts. These represent the periods (1) A.D. 280-320, (2) A.D. 410-450, and (3) A.D. 570. During each of these periods, deer (*Odocoileus virginianus*) bones are the most commonly occurring faunal remain, although the percent representation is declining. For each of the three periods, the other two most frequently recovered fauna are the muskrat (*Ondatra zibethicus*) and various species of gar (*Lepisosteus* sp.). Other frequently represented genera within these three contexts are drumfish (members of the family Scianidae), catfish (*Ictalurus* sp.), and turtles (members of the order Testudines). Bowfin fish (*Amia calva*) occur frequently only in the A.D. 280-320 context (DeMarcay n.d.:14-15).

Five of the seven most frequently exploited taxa are aquatic. It is likely that other aquatic taxa are underrepresented, because the screening procedure that yielded this sample was only through 1/2- and 1/4-inch mesh. Use of this regimen is more likely to result in retrieval of mammalian fauna rather than smaller aquatic species. Further, the proportion of deer in the sample may be over-represented because in a different study (Beavers 1982a, below) at the same site, deer long bones were splintered. Also, *Rangia cuneata* shells are present in large quantities in the three midden contexts. Thus, the aquatic habitats in and around the Coquilles site may have provided occupants of the locale from about A.D. 300 to 600 with the majority of their food items (DeMarcay n.d.).

A different study of late Marksville and Baytown period components of the Coquilles site yielded slightly different results. Deer represented 33% of all fauna, fish 18%, small mammals 13%, turtle 9%, and bird 2%. An additional 26% of the faunal remains were unidentifiable (calculated from Beavers 1982a:Table 5). However, deer bones recovered for this analysis were splintered so that this species is said to be grossly over-represented (Beavers 1982a). Thus, considerably more than 27% of the faunal remains must be represented by fish and turtle, again indicating that dietary items were

largely obtained from the aquatic environment.

The percentage representation of birds is surprisingly but consistently low in both of these studies. As stated above, the Barataria Basin lies at a terminus for the Mississippi flyway. Vast numbers of migratory species either pass through or winter in the area. Many of these are large waterfowl (order Anseriformes) so that their remains should be represented even in 1/4 inch screens. In other parts of the Lower Mississippi Valley, seasonal presence of these birds is considered to be one of the major factors that allowed large-scale prehistoric human occupations. However, their low frequency in the context under discussion suggest that this abundant resource was underexploited.

Rangia cuneata

All of the recorded prehistoric sites located in the course of this and previous surveys are associated with *Rangia cuneata* shells. This association characterizes prehistoric period sites throughout southern Louisiana. This brackish water mollusc represented an important resource for pre-European occupants of the region.

Byrd (1976) examined the nutritional and caloric value of the *Rangia* in order to determine its relative importance to prehistoric diet. She notes that a 100 pound deer might be expected to contribute 50 pounds of edible meat. In order to provide the equivalent 50 pounds of *Rangia*, it would be necessary to harvest 25,300 clams. That would produce 50,600 clam shells which, based on clam size at the Morton shell midden, would represent a volume of 11.8 cubic feet. Thus, clams provide only relatively small amounts of meat per volume of discarded shell (Byrd 1976:25).

In addition to providing only a small amount of meat, *Rangia* have relatively low nutritional values compared to other food items utilized during the prehistoric period. This is dramatically illustrated by Table 1 which compares the protein, fat, carbohydrate and caloric content contained in 100 grams of various food items (Byrd 1976:27):

As the table demonstrates, other kinds of meat yield greater amounts of protein than does *Rangia*. Its fat content is lower than the other food

Table 1. Nutritional and Caloric Values Per 100 Grams
(From Byrd 1976:27)

	Protein	Fat	Carbo- hydrate	Calories
Clam (raw, meat only)	12.6	1.6	2.0	76
Oyster (raw)	8.4	1.8	3.4	66
Deer (raw, lean meat)	21.0	4.0	0	126
Raccoon (roasted)	29.2	14.5	0	255
Duck (raw)	21.3	5.2	0	138
Catfish (raw)	17.6	3.1	0	103
Grape (raw)	1.3	1.0	15.7	69
Persimmon (raw)	0.8	0.4	33.5	127
Hickory (nut)	13.2	68.7	12.8	673
Pumpkin (raw)	1.0	0.1	6.5	26
Corn (modern, field, raw)	8.9	3.9	72.2	348

items presented with the exception of grapes, persimmons and pumpkin. Carbohydrate yield is somewhat higher than other meats, but it is low compared to plant foods. And finally, only oyster, grape and pumpkin have a lower caloric value. The caloric equivalent of a 100-pound deer would be about 42,000 clams, representing 19.6 cubic feet of clam shells. The volume of *Rangia* shells in a prehistoric midden is, therefore, disproportionate when the contribution of this food is compared to that of other food types that leave fewer and more compact remains (Byrd 1976:27-28).

Despite the fact that *Rangia* are relatively low in food value, they were exploited throughout the prehistoric period in coastal Louisiana. This exploitation may be due to the fact that little risk or expenditure of energy is involved in obtaining *Rangia*. In some brackish waters, these clams are relatively abundant. They can be gathered by hand in shallow waters and by rake in deeper waters. So long as large, dense clam beds are available, little energy expenditure is necessary to obtain them (Byrd 1976:28).

In addition, there are other possible reasons for the apparently heavy exploitation of *Rangia* by prehistoric peoples. Contributions this clam might have made to trace element intake and other aspects of diet remain undetermined. Also, the large volume of clam shells that result from clam harvests represent an important source of "fill" in low-lying areas subject to flooding. All of southern Louisiana represents such an area. It is possible that Indians were deliberately using *Rangia* shells to provide greater topographic relief on portions of the natural levee and in the marsh.

Prehistoric Human Ecology

The subtle changes in elevation discussed above, and their profound effects on floral communities and associated faunal communities, probably influenced foraging strategies of prehistoric occupants of the area. A transect drawn parallel to the levee ridge encompasses a relatively unchanging ecological zone. However, a transect drawn perpendicular to the natural levee crosses a series of ecological zones in a relatively short distance. The transect in Figure 5 would cross the "hardwood bottoms" community, an intermediate swamp, a cypress-tupelo swamp, and a marsh prior to terminating

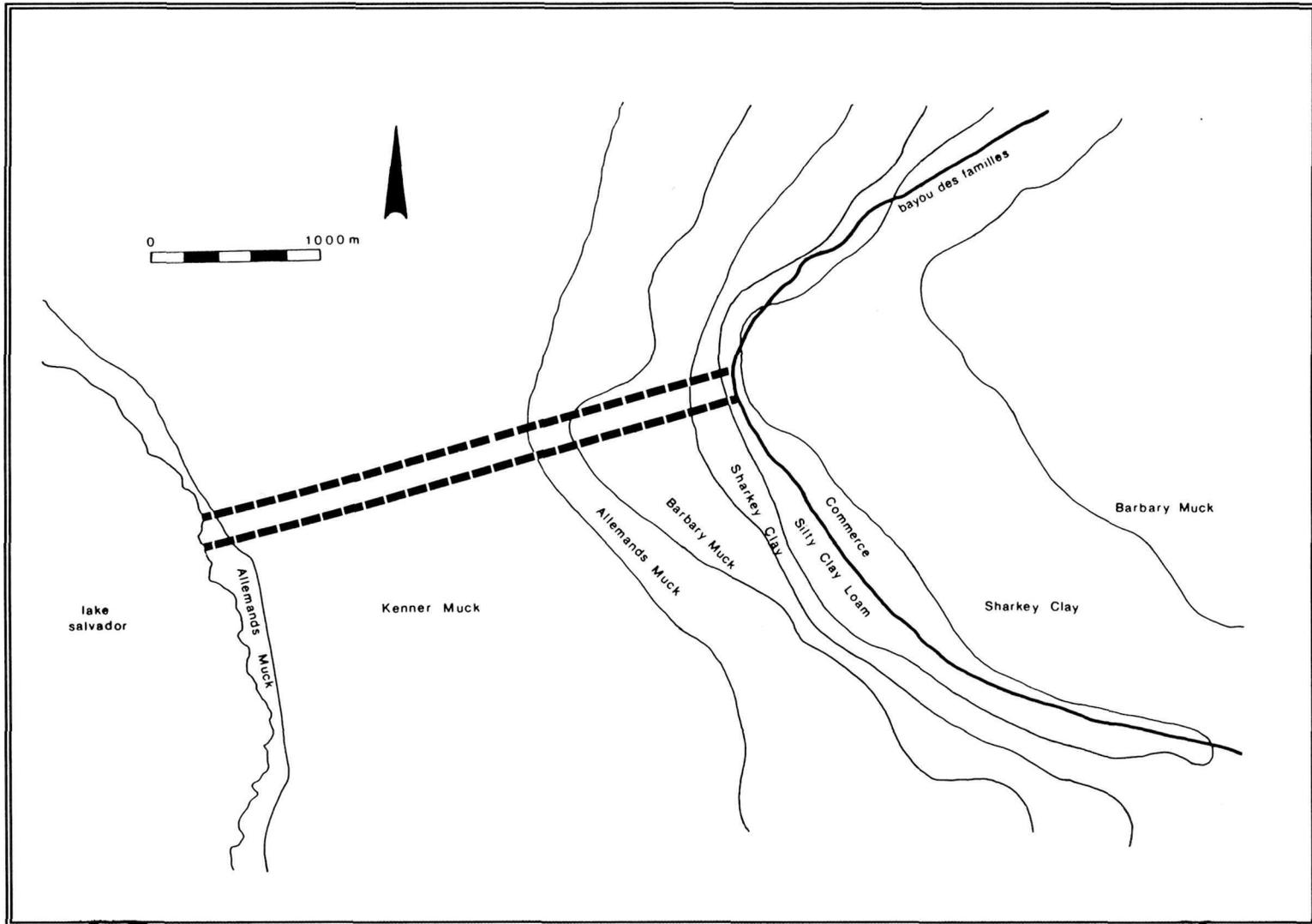


Figure 5. The dotted line encloses a 3.5 kilometer transect from Bayou des Familles to Lake Salvador. Soils are associated with the following floral and faunal communities: Commerce with natural levee, **Sharkey** with lower natural levee, Barbary with swamp, and Allemands and Kenner with fresh water marsh.

at a lake shore. Thus, utilization of a relatively narrow corridor perpendicular to the natural levee would have allowed efficient exploitation of a series of floral and faunal communities (Beavers 1982b:105-106).

CULTURE HISTORY

This discussion of prehistoric culture begins with the Tchula Period, for it is likely that this is when an adaptive strategy allowing full exploitation of the Mississippi River delta and the coastal plain was developed. That adaptive strategy, of which the harvesting of *Rangia cuneata* was an integral part, was maintained through subsequent occupations. The general location of prehistoric sites discussed in this chapter are shown on the map in Figure 6.

Historic land use within the Barataria Unit of Jean Lafitte National Historical Park and Preserve has been reported both by Holmes (1986) and by Swanson (1988). Swanson (1988) in particular has provided an excellent, detailed discussion of the history of the area under consideration here. In the final sections of this chapter, historical and archival research compiled to date are summarized briefly.

Cultural and Chronological Terminology

Cultural and chronological terms used in this chapter are based on the framework for the Lower Mississippi Valley as outlined by Phillips (1970) and as modified and expanded by Gagliano et al. (1979) and Wiseman et al. (1981). "Periods" in Table 2 represent the basic Lower Mississippi Valley chronology. "Cultures" appear in the archaeological record as new features, new assemblages and new styles. They represent "major continuities" in the framework. "Phases" are geographically specific expressions of a cultural tradition, and ideally they have chronological significance within the larger period to which they belong. Table 2 presents this framework in schematic form. The table presents phases for the eastern (Pontchartrain) province of the Mississippi River delta.

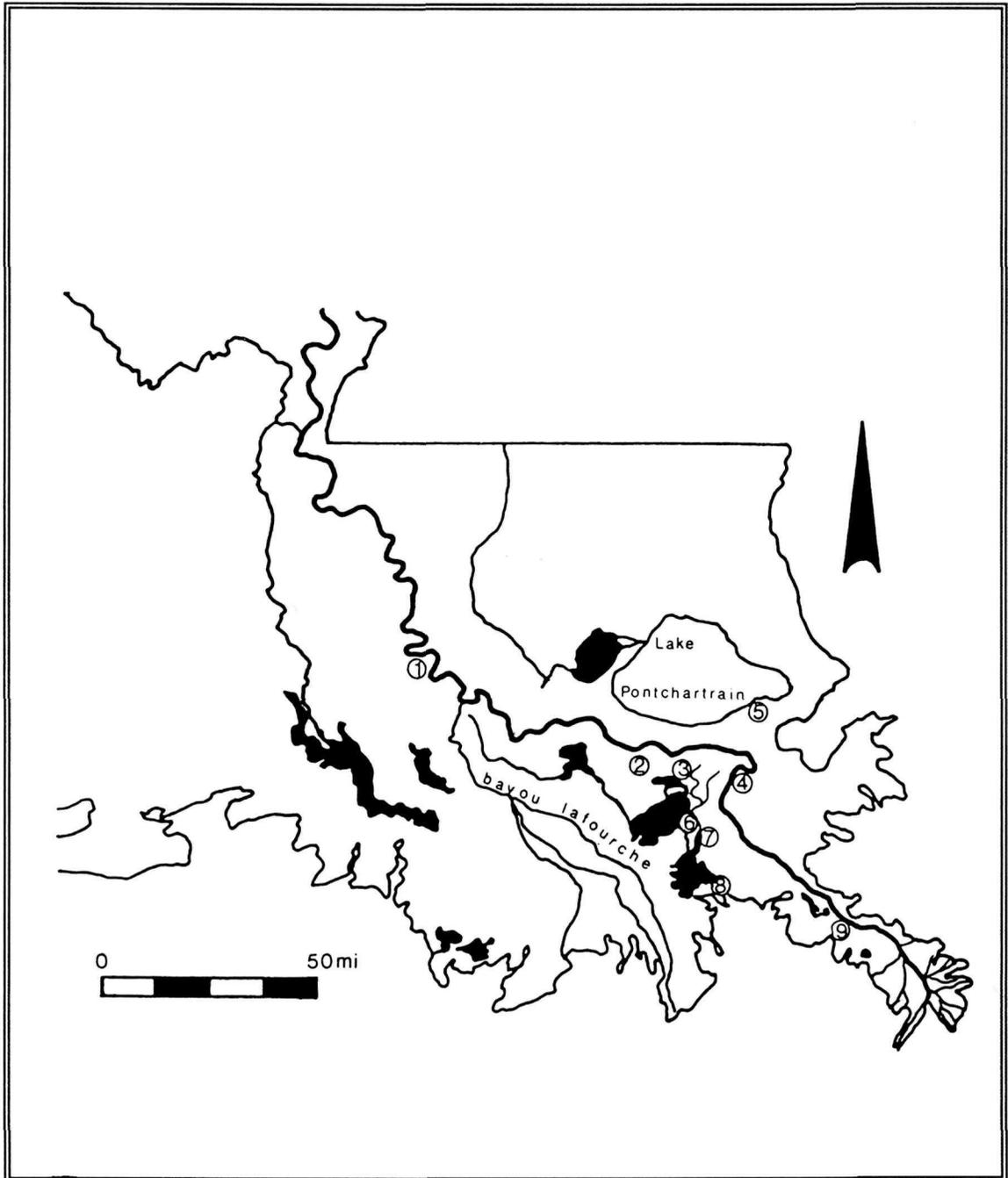


Figure 6. Map of Southeastern Louisiana showing locations of major archaeological sites. Key: 1) Bayou Goula; 2) Sims; 3) Coquilles; 4) Scarsdale; 5) Big Oak and Little Oak Islands; 6) Fleming, Isle Bonne, and Bayou Villars; 7) Bayou Du Pont; 8) Bayou Cutler; and 9) Buras Mounds.

Table 2. Coastal Louisiana Culture Sequence and Chronology (adapted from Gagliano et al. 1979).

Time Interval	Period	Culture	Phase
Present	Historic	Various Cultures	Various Tribes
A.D. 1700	Mississippi	Natchezan ↑↑	Delta Natchezan Bayou Petre
A.D. 1300		Mississippian ↑	Medora
A.D. 1000	Coles Creek	Coles Creek	Bayou Ramos
A.D. 850			Bayou Cutler
A.D. 700	Baytown	Baytown	Whitehall
A.D. 300	Marksville	Hopewellian-Marksville	Coquilles Magnolia
A.D. 200			Smithfield Labranche
A.D. 0	Tchula	Tchefuncte	Beau Mire
250 B.C.			Pontchartrain

The Tchula Period (250 B.C. to A.D. 0)

Tchula period occupations in the Lower Mississippi Valley are associated with the Tchefuncte culture. The period has been called "the early ceramic period" because, with the exception of fiber-tempered pottery, it was the interval during which initial pottery complexes appeared in the Lower Mississippi Valley. Sites are few and scattered, and there are no universal markers. However, within subareas such as South Louisiana, regional markers, primarily Tchefuncte type ceramics, have been identified (Phillips 1970:7, 8, 15, 76).

Peoples of the Tchefuncte culture were the first to engage extensively in the manufacture of ceramics. Fiber-tempered and some grog-tempered or temperless sherds have been recovered from earlier Poverty Point contexts. These may represent primarily trade goods from the earliest pottery-making cultures to the east. The basic Tchefuncte ware is temperless or grog-tempered, with accidental inclusions of small quantities of sand and vegetable fiber. Sand-tempered wares represent a minority constituent of Tchefuncte site assemblages (Shenkel 1984:47-48).

Four phases of the Tchula period have been identified in South Louisiana. The Pontchartrain phase is defined on the basis of sites around the edges of Lake Pontchartrain and Lake Maurepas. On the prairie terrace surface just to the west, evidence is found for a Beau Mire phase, which is believed to postdate the Pontchartrain phase. The Lafayette phase is defined on the basis of sites associated with the old Teche-Mississippi course. In Southwest Louisiana, Tchefuncte sites are attributed to a Grand Lake Phase (Gagliano et al. 1979:4/2 - 4/3).

Although both inland and coastal plain Tchefuncte sites have been identified within Louisiana, only adaptations associated with the latter are well understood. The closest sites to the present project area which have been extensively excavated are Big Oak and Little Oak Islands, along the southeastern shore of Lake Pontchartrain.

Big Oak is a stratified site with two distinct Tchefuncte components. The lowest occupation had a high artifact content but no shell refuse. Its radiocarbon date is 520 B.C. Above it is a *Rangia cuneata* shell midden, also

containing numerous artifacts. Artifacts are primarily Tchefuncte, and the radiocarbon date is 300 to 200 B.C. The Little Oak Island site is 2000 meters east of Big Oak. It is a thin earth midden lying atop a natural shell beach, and has been dated to 215 B.C. Thus, the Little Oak occupation and the shell midden occupation at Big Oak are contemporaneous (Shenkel 1984:44-46).

The relationship between Tchefuncte components at Big Oak and Little Oak provides considerable insight into activity patterning related to subsistence and to settlement. The ceramic assemblage (based on pottery types, vessel size, and vessel shape) for the basal Big Oak occupation is most similar to that at Little Oak. Although they are not contemporaneous, both assemblages are derived directly from an earth rather than a shell midden.

These earth midden occupations by Tchefuncte peoples are interpreted as residential. Associated vessels were utilized for cooking and for storage. The shell midden occupation at Big Oak yielded a higher proportion of undecorated vessels than did the contemporaneous earth midden at Little Oak, and the vessels were generally smaller. These utilitarian ceramics were associated with gathering and with transport back to the village site (Shenkel 1984:49-51).

Faunal analysis confirmed the differential function of these sites. Fresh water drum predominated in both the Big Oak shell midden and the contemporaneous Little Oak earth midden. However, remains of these fish were primarily bony mouth parts at Big Oak, while interneural and dorsal spines predominated at Little Oak. Thus, fish heads were mixed with shells at Big Oak, while fish bones were mixed with other earth midden debris at Little Oak. Apparently fish were obtained near Big Oak and at least initial cleaning occurred here. Big Oak appears to represent a large-scale faunal processing activity area. Cooking and consumption of these fish then took place at the Little Oak residential center. For the contemporaneous occupations at Big Oak and Little Oak, the three most important dietary constituents, in terms of estimated weight, were fresh water drum (40%), *Rangia* meat (37%) and deer (8%) (Shenkel 1984:60-61).

Interestingly, Tchefuncte occupations at Big and Little Oak are associated with a well-developed lithic technology. Over 100 projectile points have been recovered, as well as unifaces and bifaces, some of which have

been worked into special-function tools such as picks and burins. Some ground-stone tools have also been recovered. The source of raw materials for stone-tool manufacture is streams flowing into northern Lake Pontchartrain. These are 30 to 40 kilometers from the sites. At Little Oak, primary, secondary, and bifacial thinning flakes are found. This indicates that all stages of lithic reduction were occurring. Occupants must have obtained raw materials either by travelling to streambed quarry sites to the north or by trading. Some exotic stones and some of the bifaces may have been collected from Archaic and Poverty Point sites north of the lake.

Tchefuncte occupations around Lake Pontchartrain and at Weeks Island to the west may represent the beginnings of exploitation of the Mississippi River delta and coastal plain. The adaptive strategy developed by Tchula period occupants of the region was then maintained by subsequent populations in coastal Louisiana. Collection of *Rangia cuneata* was a key part of this adaptation (Shenkel 1984:67).

Virtually all of the post-Tchefuncte sites found in South Louisiana are associated with a *Rangia* midden. This clam is most abundant on muddy bottoms which receive occasional influxes of either fresh- or salt water that promote spawning. Spring floods and storm surges provide these influxes. In addition to *Rangia*, its predators and other aquatic species are represented on these sites.

Big Oak and Little Oak were abandoned at about the time Lake Pontchartrain changed from a brackish to a fresh water environment. This ecological change made the waters an unsuitable *Rangia* habitat. Rather than adapt to a new environment, the Indians simply moved. Similar prehistoric cycles of occupation, abandonment, and in some areas, reoccupation, may be related to environmental shifts associated with the evolving Mississippi River delta (Shenkel 1984:65-67).

The Marksville Period (A.D. 0 to A.D. 300)

The Marksville period is associated with a Hopewellian culture and tradition manifested throughout the Lower Mississippi Valley (Phillips 1970:7, 17-18, 886). The phase designation for sites in southern Louisiana from the

earlier part of this period, and associated with Lake Pontchartrain occupations, is LaBranche. Sites to the east of the present course of the Mississippi River, including the Scarsdale site at English Turn and the Magnolia Mound site in St. Bernard Parish, are assigned to the somewhat later Magnolia phase (Phillips 1970:898-899; Gagliano 1979:4-19). Late period Marksville occupations in the Barataria Basin are assigned to the Coquilles phase (Beavers 1982a:20-21).

The Hopewell culture's two major centers of development were in Ohio and Illinois, and date to between 200 B.C. and A.D. 400. Diffusion of aspects of the culture may have resulted from the activity of traders who established a wide-ranging network, sometimes termed the "Hopewellian Interaction Sphere." In addition to diagnostic pottery types of the Marksville period, conical burial mounds were characteristic of the culture. Interments are generally associated with grave goods. Some of these were manufactured from exotic raw materials (Neuman 1984:142-168).

Excavations at the Coquilles site (16JE37) on Bayou des Familles provide the most complete picture of Marksville occupations in southeast Louisiana below New Orleans. The site is multi-component, and excavations there have yielded data concerning the relationship between Marksville occupations and those of the subsequent Baytown period. Ceramic assemblages from upper and lower levels of these excavations exhibit differences in the ratio of decorated to plain ceramics and the ratio of stamped to incised designs. From the upper levels, only 9% to 19% of the pottery was decorated, while 30% of the pottery from lower levels was decorated. Also, upper levels showed a higher number of incised designs while lower levels contained more stamped designs (Giardino 1984a:46-47).

These differences parallel those recorded by Beavers (1982a:23-25) for earlier excavations at the same site. Within some of Beavers' excavation units, a sterile, sandy stratum was interposed between upper and lower components. Absence of this sterile stratum in other parts of the site suggests it may be a result of cultural rather than natural deposition. Nevertheless, the ceramic frequency differences suggest that there was an "earlier" and a "later" occupation of the Coquilles site (Giardino 1984a:55).

Interestingly, ceramic artifact analyses by Beavers (1982a) and by

Giardino (1984a) indicated that despite the differences discussed above, the majority of excavated pottery should be assigned to a Marksville period occupation. However, carbon dates indicate that the upper component assemblage actually belongs to the subsequent chronological interval represented by the Baytown Period (below). Although ceramic type frequencies change, they do not exhibit sufficient change to indicate the presence of a new cultural tradition. This apparent continuity in ceramic assemblages suggests that at least within the Barataria Basin, late Marksville culture extends into the subsequent Baytown period with few apparent changes in the archaeological record. Similar difficulty in distinguishing late Marksville and Baytown occupations has been encountered elsewhere in the Lower Mississippi Valley (see Phillips 1970).

A radiocarbon date of A.D. 115 was obtained at the base of the mound at Coquilles. Other dates from this feature cluster around A.D. 200. Unlike more "typical" mounds of the Marksville period, the Coquilles mound has yielded no evidence of interments, prepared floors, or burial platforms. This negative evidence has led to the suggestion that the mound was constructed to improve habitation and refuge conditions in times of tidal surges or heavy floods (Giardino n.d.a:13-14). However, some elderly informants remember the discovery of human burials during the course of previous shell removal episodes (Giardino n.d.a:13-14). Thus, function of the mound at the Coquilles site remains undetermined.

A house floor within the village portion of the Coquilles site yielded carbon dates of A.D. 280-320, consistent with a late Marksville period occupation. The associated structure was circular, with timbers averaging six to eight centimeters in diameter. Large quantities of daub are evidence of the nature of construction materials. A hall-like entrance was oriented towards the southwest. Two infant burials were found almost directly below the wall. This structure represents the only Marksville period house discovered in southeastern Louisiana (Giardino n.d.a:15-17).

The Baytown Period (A.D. 300 to A.D. 700)

The Baytown period has been defined as the interval between the end of Hopewellian/Marksville culture and the emergence of Coles Creek culture. In the southern half of the Lower Mississippi Valley, there are no area-wide horizon or period markers (Phillips 1970:901).

The Baytown period is often referred to as the "Troyville period" by Delta archaeologists. Because of the lack of diagnostic markers for the period in southeastern Louisiana, it is often assimilated with the subsequent Coles Creek period, and the two are together referred to and discussed as "Troyville/Coles Creek cultures" (e.g. Neuman 1984). Gagliano (et al. 1979:4/20) notes that the entire eastern coastal zone of Louisiana is subsumed within a single phase, called Whitehall. He considers it likely that work in the Barataria Basin will allow a separate phase designation for that area.

The upper component of the Coquilles site (16JE37) is now attributed to the Baytown period (see above). As discussed previously, almost 35% of all sherds from the lower (Marksville) components of the Coquilles site are decorated, whereas only 7% to 16% of sherds from the upper (Baytown) levels are decorated. This difference may be due to the fact that Baytown period peoples usually decorated only the necks of vessels, a practice which results in representation of a greater proportion of "plain body sherds" in archaeological remains. Other explanations have, however, been proposed. One other difference between Marksville and Baytown period pottery at the Coquilles site is that incised designs predominate in the later period, while stamped designs predominate in the earlier (Beavers 1982a:22-25; Giardino n.d.a:18-22).

A circular house structure at Coquilles was carbon dated to A.D. 410-450, thereby placing it within the Baytown period occupation. It is similar to the Marksville period house discussed above, but one major difference has been noted. The Baytown house was constructed with poles that average six to ten centimeters more in diameter than those of the earlier house. Daub, however, was used in the construction of both (Giardino n.d.a:24-25).

Recovery of houses from both Marksville and Baytown periods, and

carbon dates ranging from about A.D. 200 to A.D. 570, suggest that a stable village-type occupation was located at the confluence of Bayous des Familles and Coquilles for about 400 years. Although some changes in proportions of ceramic types have been noted, there is continuity between the two assemblages. This continuity appears to reflect long-term and possibly continuous occupation of the site.

The Coles Creek Period (A.D. 700 to A.D. 1000)

The Coles Creek period is the interval that begins with the emergence of Coles Creek culture in the southern part of the Lower Mississippi Valley and ends with the establishment of "full-blown" Mississippian culture in the northern part of the Valley (Phillips 1970:18). Although it appears to represent a population zenith in the eastern delta province, many sites tentatively classified as Coles Creek may actually be from the Baytown period (Wiseman et al. 1981:3/5).

Coles Creek culture was characterized by small ceremonial centers with mounds. These were surrounded by villages of varying size. The culture developed in the area between the mouth of the Red River and the southern part of the Yazoo Basin. Its influence filtered into the delta region of southeastern Louisiana (Brown 1984:95).

Mounds associated with the Coles Creek culture generally are larger and exhibit more construction stages than those associated with the earlier Marksville culture. A more significant difference is that Coles Creek mounds are pyramidal and flat-topped, and they were used as substructures for religious and/or civic buildings. In contrast, Marksville peoples generally built conical burial mounds (Neuman 1984:167).

In southern Louisiana generally, the early phase for the Coles Creek period is Bayou Cutler, and the late phase is Bayou Ramos (Brown 1984:97-99). However, in southeast Louisiana, only the Bayou Cutler phase is recognizable. The type site for the Bayou Cutler phase is Bayou Cutler I (16JE3), located within Barataria Basin (Gagliano et al. 1979:4/27-4/30). The Bayou Cutler phase, as defined by Kniffen, is identified by an absence of shell-tempering in pottery, presence of lugs or ears on vessel rims, incised lines on rims,

absence of handles on vessels, and a large percentage of check-stamped decoration. Phillips (1970:921) identified types and varieties that exhibit these characteristics (Wiseman et al. 1981:4/3, 4/9).

Pontchartrain Check Stamped pottery is the most typical Coles Creek period ceramic of the delta region. Check stamping probably was a utilitarian technique that produced desired results during the manufacture of pottery. Thus, it may not have been solely a decorative style (Brown 1984:115,123). Pontchartrain Check Stamped pottery was contemporaneous with similar types being produced in northwest and eastern Florida. This similarity, as well as similarity of rim modes from the three areas during this period, suggests contact between Coles Creek peoples of the Louisiana delta and Gulf Coast occupants to the east (Brown 1984:115-122). However, ceramic designs also show influence from the Mississippi River alluvial valley (Wiseman et al. 1981:3/5).

The Mississippi Period (A.D. 1000 to A.D. 1700)

The beginning of the Mississippi period is marked by the emergence of Mississippian culture in the northern part of the Lower Mississippi Valley and Plaquemine culture in the southern part (Phillips 1970:18-19). The Barataria phase is associated with early Mississippi period occupations within the Barataria Basin (Holley et al. in Gagliano 1979:4/36-4/41). It is the equivalent of the Medora phase as defined by Quimby for the Baton Rouge area.

During the Barataria phase, the "Barataria Complex," as defined by the neighboring sites Fleming (16JE36), Bayou Villars (16JE68), and Isle Bonne (16JE60), probably reached the height of its importance. Shell middens, shell mounds, earth and shell mounds, and probable extensive habitation areas are represented in this complex. Some sites along the des Familles-Barataria trunk represent small habitation locales and/or special activity areas (Gagliano et al. 1979:4/45).

The Bayou Petre phase follows the Barataria phase. It is most strongly expressed in St. Bernard Parish to the east. The final phase of the Mississippi period within the area is termed "Delta Natchezan". It is best represented at

the Bayou Goula site (16IV11) to the north and at sites along Bayou Lafourche to the east. Many sites in the Barataria Basin exhibit a mix of Bayou Petre and Delta Natchezan traits so that assignment to either phase is problematic (Gagliano et al. 1979:4/41).

The Bayou Petre phase, as defined by Kniffen, is identified by a high percentage of shell-tempered sherds, handles on vessels, simple nodes or lugs on rims, undecorated rims, gritty-textured ware, greater use of curvilinear lines and coarser wares than during the Bayou Cutler phase of Coles Creek, and an absence of check-stamped pottery. This list of traits is still applicable, although check-stamped pottery is at least a minority ware in many Mississippi period sites in Louisiana. Type assignments for Bayou Petre wares from the eastern delta are generally the same as those for the eastern Gulf coast, evidence for contact between the two areas (Wiseman et al. 1981:4/3-4/4).

The Plaquemine culture itself is sometimes considered to be the classic development of temple mound construction in the lower portion of the Lower Mississippi Valley. However, archaeological excavations demonstrate that it actually represents a late prehistoric development of the preceding Coles Creek culture. Multi-mound construction and artifact assemblages are evidence that link the two. Absence of European trade goods indicates that the Plaquemine culture reached its zenith prior to contact (Neuman 1984:258-259).

The Medora Site, the type site for Plaquemine culture, is located in West Baton Rouge Parish adjacent to Bayou Bourbe, a distributary of the Mississippi River. It consisted of two mounds separated by a 400 ft long plaza. One of the mounds was fully excavated with the exception of two small blocks. About one-third of the second mound was completely excavated, and test trenches were dug into its other parts. Also, a network of test trenches was excavated in other parts of the site (Quimby 1951:88-92).

Excavation of a pre-mound level at Medora uncovered numerous postholes and two rings, one inside the other, comprised of wall trenches and post molds. These were 45 and 25 feet in diameter. Fire pits and a "clay altar" were located within the smaller ring. Some post molds suggested square structures as well. Wattle-and-daub was apparently the technique of house

construction. The larger mound showed evidence of episodic construction, with pits and/or structures on the upper surface of each successive modification. Atop the smaller mound, either one or two structures was located, and these were marked by postmolds and a wall trench (Quimby 1951:94-101).

Excavations at Medora recovered 18,508 sherds, of which only 44 were shell-tempered. Paste characteristics in the Plaquemine sherds were uniform. The paste was soft, clay-tempered and poorly fired. Color was variable but grays and tans predominated. Surface finish was smooth, and had a soft and chalky feel. About ten percent of the collection was decorated. Brushing and incising were the most common decorative techniques, but engraved and punctated sherds did occur. Although this was a single component site, some Coles Creek types occurred, including Pontchartrain Check Stamped. These types exhibited the same or nearly the same paste characteristics as the Plaquemine types, and were considered an integral part of the Plaquemine complex. Further, Plaquemine pottery appeared to be "...an outgrowth of Coles Creek pottery (Quimby 1951:123-124, 129).

The Bayou Goula site also yielded data concerning the nature of a Plaquemine occupation in south Louisiana. The site is located on the west bank of the Mississippi River about 25 miles downstream from Baton Rouge. At the time of excavations, two badly eroded mounds were present, separated by a plaza about 600 feet long. The river was about 500 feet from the site (Quimby 1957:98-99).

The Plaquemine component was represented by two mounds and by artifacts in a thin midden deposit within an old humus level that was lying atop a bed of silt. The midden was beneath four to five feet of more recent alluvium. The mound rested on the humus layer. The excavated mound showed evidence of three construction phases (Quimby 1957:104-105, 114-117).

Plaquemine component pottery types from non-mound portions of the site were dominated by Addis Plain, as was the case at Medora. Surprisingly, Pontchartrain Check Stamped was the most frequently occurring decorated type. One shallow depression about three feet in diameter was lined with canes, grass and leaves. Also, a small deposit of fragmentary, burned corncobs was uncovered (Quimby 1957:105).

Lying above the four to five feet of relatively sterile alluvium was evidence of the historic period occupation of the site by Bayougoules and other groups. The village had been visited in the late seventeenth and early eighteenth centuries by Iberville and other Europeans, some of whom left descriptions of material culture and of ceremonial activity associated with the mounds. Unlike the Plaquemine component here or at Medora, European goods were found in association with aboriginal wares in this late component which was termed Delta Natchezan (Quimby 1957:97-103, 134-141, 147-161).

Features associated with the Delta-Natchezan occupation were primarily burials, of which eleven were found in the larger mound. Both European and aboriginal artifacts were recovered in association with these interments (Quimby 1957:118-119).

European material included trade beads, glass bottle fragments, kaolin pipe fragments, copper and brass ornaments, and various metal items. European ceramics were found, but have been described only in a summary fashion as "crockerly" and "earthenware." Although Addis Plain dominated ceramic types from the Delta Natchezan occupation, a number of shell-tempered types were recovered. Sherds of the shell-tempered plainware Mississippi Plain *var. Fatherland* were the second most frequently occurring, while no sherds of this type were recovered from non-mound portions of the Plaquemine component. This innovation in techniques of pottery manufacture was considered one of the markers for the Delta-Natchezan culture (Quimby 1957:134-144).

The Buras Mound site in Plaquemines Parish, based on ceramic analysis, also represents a late Mississippi period occupation. It is one of southernmost aboriginal sites in the Mississippi River delta region. Although it is subsiding rapidly, four mounds arranged around a central plaza were observed in 1981. Buried shell middens are also present (Gagliano and Weinstein n.d.).

Faunal remains from the site include two species of *Rangia* as well as other shellfish, fish, reptile and mammal bones. Floral remains included hackberry, greenbriar, walnuts, and charred cobs of maize. The latter were found in a concentrated area. Ceramic analysis indicates influence both from the eastern Gulf area and from the Mississippi River alluvial valley. A

relatively high percentage of sherds were shell tempered. Although no European trade goods have been reported, the Buras Mounds site may represent a very late prehistoric or early protohistoric occupation in the delta. DeSoto's men reported the presence of hostile Indians who still used the atlatl in this vicinity (Gagliano and Weinstein n.d.).

Aboriginal Occupation during the Colonial Period

Identities and locations of Indian tribes in Louisiana cannot be determined for any period prior to about 1700. At about that time, literate French settlers and visitors began to record their observations regarding aboriginal occupants of the area. Even so, it remains difficult to sort pre- and post-contact culture traits. This is especially true for the lesser tribes living along the Mississippi River and other areas within southeastern Louisiana (Kniffen et al. 1987:45).

The primary Houma village in 1700 was located near present-day Angola. Iberville reported 140 cabins here, arranged in a circle, and estimated the population to include 350 warriors. The Bayougoula settlement (above), with a population of 400 to 500, clustered around a village near the modern town of Bayou Goula. The Acolapissa lived in six towns along the Pearl River and other streams flowing into Lake Pontchartrain. Their settlement pattern may have been diffuse. After 1700, they moved closer to Lake Pontchartrain, and in 1718 established a village on the Mississippi River above New Orleans (Kniffen et al. 1987:49-51).

The Quinapisa, who may have derived from the Acolapissa, lived at a village on the right bank of the Mississippi River near Hahnville in 1682. Prior to that, they lived in several villages nearer the mouth of the Mississippi. By 1700 their numbers had diminished, and they merged with the Mugulasha and moved to the Bayougoula village. In an unexplained bout of internecine hostility, numbers of them and the Mugulasha were slaughtered by the Bayougoula. Little is known of the latter tribe who disappeared from the historic record after the 1700 massacre (Kniffen et al. 1987:51-52).

The Tangipahoa may have lived at one time near the Acolapissa on the Pearl River. However, by 1682 some of them had moved to the Mississippi

River and established a village two leagues below that of the Quinapisa. That town was destroyed by the Houma and Okelousa, and its survivors fled back to the Pearl River. The tribe may ultimately have settled along the river that bears their name (Kniffen et al. 1987:52).

Little was recorded concerning the Okelousa. They are thought to have lived on lakes to the west of and above Pointe Coupee. Described as the 'wandering people west of the Mississippi,' they formed an alliance with the Houma to destroy the Tangipahoa village. In 1699, the combined population of the Okelousa, Chawasha and Washa was estimated at 700, of whom 200 were warriors (Kniffen et al. 1987:52-53).

The Chitimacha population in 1650 has been estimated as 4,000. Their tradition indicates a former home in the Natchez area, and the Natchez claimed kinship ties with the Chitimacha. They had settlements on the Mississippi River and Bayou Plaquemine. After the appearance of the French, two divisions of the tribe may have occupied lower Bayou Teche and upper Bayou Lafourche. The Chitimacha are among the lower Mississippi tribes that displayed the highest cultural attainments in the southeast (Kniffen et al. 1987:53-55).

In 1699, the Washa lived around a central village on upper Bayou Lafourche. However, they ranged widely and shared the resources peculiar to the lower Mississippi and the Gulf coast. After the arrival of the French, the Washa moved frequently. Sibley reported that they originally lived in the Baratavia area. By 1718 they had established a village on the Mississippi near the Cote des Allemands post. The Chawasha were said by the French to have the same character as the Washa. They also lived on Bayou Lafourche, near the principal Washa village. In 1718, that village was visited by a party of Natchez, Yazoo and Chiksaw who attacked the Chawasha, killed the chief and members of his family, and carried away eleven slaves, one of whom was the chief's wife. After New Orleans was established, the group settled on the Mississippi River at a downstream location. In 1730, that village was attacked by a group of black slaves directed by Governor Perrier (Kniffen et al. 1987:55-56).

The protohistoric and early historic periods were traumatic for aboriginal society in southeastern Louisiana. The effects of disease and of

the ever-increasing European population are reflected in the declining aboriginal population and in the migrations by remnants of various tribes. Internecine warfare typified relations between the various groups (Giardino 1984b).

Louisiana Indians feared and detested slavery more than any other European institution. One Tunica woman was reported to have hanged herself to have avoided it. However, Europeans held slaves from a number of tribes. These slaves derived primarily from tribes that had traditionally exhibited hostility toward the Europeans. However, Indians from larger and more militant tribes such as the Caddo, Chickasaw and Choctaw were usually not enslaved (Kniffen et al. 1987:65).

Europeans in the Colonial Period

The French discovered the headwaters of present-day Bayou Barataria in 1722, and named it Bayou Ouaches for the aboriginal residents of the area. Bayou des Familles was originally referred to as Bayou Barataria. Early French interest in Barataria was encouraged by the region's extractive industrial potential. Lumber, game, fish, furs, and shell all were plentiful. In addition, plantations and ranches (vacheries) soon were established (Swanson 1988:80)

The extraction of shell from the region deserves further mention because of its obvious impact on prehistoric cultural resources. Shell mining began in the early eighteenth century. Claude Joseph Dubreuil, an early Barataria landowner, stated in 1740 that there were "everywhere so many shells that New Orleans and its environs will never lack lime" (Swanson 1988:19). The vast shell resources of the area were noted as late as 1874, even though shell mining had been a major industry in the region for well over a century. Shells at this date were used for "street grading and garden walks in New Orleans" (Swanson 1988:20).

In 1726, Jean-Baptiste Massy, Jean-Baptiste Bourbeau, and Charles Frederig de Merreilleux received a grant for 40 arpents fronting both sides of Bayou Ouaches (Barataria) with a depth of 120 arpents on both sides. The grant included the vast majority of the present study area (Swanson

1988:80-81). The partners were contracted to lumber local oak and ash, and they built roads within the tract to facilitate this effort. Bourbeau was later killed in the Natchez massacre, and Massy dissolved his partnership with de Merveilleux. Massy eventually moved to Barataria, where he raised cotton, tobacco, and livestock. His headquarters consisted of a great house, a steward's house, 10 cabins, a cotton storehouse, and two tobacco curing houses. The location of the headquarters is unknown (Swanson 1988:82).

Following Massy's death in 1734, his widow retained the tract on the west bank of present-day Bayou Barataria. This was the portion which included the present study area. The tract was utilized as a horse ranch for nearly two decades. The east bank of Massy's holding was acquired by Claude Joseph Dubreuil. The latter probably engaged in lumbering, shell mining, and cattle raising (Swanson 1988:83).

Jean Antoine Bernard Dauterive received a grant for 90 arpents front and 110 arpents depth along the west bank of Bayou Ouaches, or present-day Barataria, in the 1750s. This grant included Massy's former holding, and encompassed all of the present study area. His structural complex, located on a shell mound on the east bank of the confluence of Bayous des Familles and Barataria, consisted of a great house, cabins, and a dovecote. Dauterive raised a variety of livestock and indigo (Swanson 1988:84).

Dauterive subdivided his plantation into 10 arpent front tracts in 1768. The four easternmost tracts, which include the study area, were purchased by the fur traders Antoine Boudousquie and Elie Hugues that year. The latter sold his interest to Alexandre Guerbois in 1772. Boudousquie and Guerbois sold the easternmost 20 arpents front to Pedro Alberto Bonne in 1774, and partitioned the remaining 20 arpents. Boudousquie received the tract adjacent to Bonne's, but there is no evidence that he utilized it. Guerbois resided on his property in the vicinity of present-day Crown Point. He made little use of his back lands within the study area. The remainder of Dauterive's lands remained in the possession of his heirs (Swanson 1988:84-87).

In 1779, the Spanish government acquired Bonne's 20 arpent front tract. The parcel was intended for use as a settlement for Canary Island immigrants (Islenos). Because a large portion of the tract consisted of backswamp, Spain repossessed adjacent unused lands, including the backlands of Boudousquie,

Guerbois, and Dauterive's heirs along Bayou des Familles. This bayou, known as Barataria until this time, was renamed des Familles for the settlement of Islenos which extended for seven miles north of present-day Bayou Barataria along both banks of des Familles (Swanson 1988:94-95). A detailed discussion of the Islenos settlement is included in the companion volume for this study (Yakubik 1989).

The settlement was unsuccessful, and many of the 57 families (252 individuals) were relocated to Islenos communities in present-day St Bernard Parish and at Valenzuela on Bayou Lafourche by 1783 (Din n.d.:63-64). Most of the remaining settlers were removed by the government following an 1802 crevasse (Swanson 1988:98).

Late Spanish Colonial Period and Antebellum Land Ownership

The abandoned Islenos lands were regranted by the Spanish in the 1790s. Flooding, which was the major reason for the demise of the Islenos settlement, also caused many of the new grantees to abandon their lands. This resulted in the nullification of grants, and the subsequent regranteeing of vacant lands. In addition, ownership of these late eighteenth century grants conflicted with ownership of the earlier Dauterive tracts. As a consequence, land title for the area was in litigation by the mid-nineteenth century (Swanson 1988:138).

Ownership of a few of the tracts within the vicinity of the study area may be identified for the late eighteenth and early nineteenth centuries. Louis Pelteau received a grant of 20 arpents front and 40 arpents depth on both sides of Bayou des Familles in 1794. The upper property line was approximately 250 feet above the Shell Road below the southernmost portion of the study area. Pelteau, who farmed his land, resided on the east bank of the bayou, but the location of his residence is unknown. Pelteau's heirs sold the land to John McDonogh in 1829 (Swanson 1988:139-140).

In addition, Pablo Suarez Ruiz, one of the Canary Islanders, received a grant in 1800. His lands comprised Sections 3 and 38, and part of Section 1 of T. 15 S., R. 23 E. His widow, Maria Olivares, resided on the property until her death in 1807. She was the last remaining Canary Islander in

Barataria. Her probate records indicate that structures on the property at the time of her death included a main cabin, three Negro cabins, a dairy, and a chicken house. These were most likely located on the east bank of Bayou des Familles. Olivares willed the property to Luis and Marie Bouligny at her death (Swanson 1988:142-146), and it was eventually acquired by John McDonogh (Swanson 1988:155).

Less clear is the location of the Nicholas Dome tract. Granted in 1794, and subsequently sold to Noel Jourdan, it was acquired by John McDonogh in 1833. U.S. Surveyor General's Office documents indicate that the 12 arpent front parcel was located below the Suarez tract in Section 57 of T. 15 S., R. 23 E. However, conflicting records suggest the tract may have been located to the north, above the Suarez holdings (Swanson 1988:141-142).

By the mid-1830s, John McDonogh held much of the land in the vicinity of the study area, although Swanson (1988) indicates that he did not utilize it. Portions of McDonogh's acquisitions were crossed, and ultimately superseded by the earlier land titles from the subdivision of the Dauterive tract. For example, ownership of Section 11 in T. 15 S., R. 23 E. was confirmed to the widow of Alexandre Guerbois. She, like McDonogh, did not utilize the land. The complicated antebellum title history of the project area vicinity is reported in detail in Swanson (1988:153-175). The land that includes the study area was wooded and had not been cultivated for a half a century at the time it was developed as Christmas Plantation (Swanson 1988:181).

Christmas Plantation

In two separate acts in 1865 and 1866, Rufus King Cutler and Pierre Ernest Beauvais purchased a total of 50 by 20 arpents fronting both banks of Bayou de Familles. The east bank portion of the property included land formerly held by the Widow Guerbois. At the end of 1866, Cutler sold his interest in the plantation to Beauvais, who ran Christmas Plantation for the next 27 years (Swanson 1988:181-182).

Beauvais improved the plantation for sugar cultivation. The drainage system of the plantation is still evident today (viz. Chapter 5). This included

a main front ditch which paralleled the bayou, and perpendicular outfall ditches. This system was critical to the success of the plantation, since cane requires good drainage.

Also, an elevated feature, today referred to as the "Old Derrick Road," may have been erected at this time. The road, which probably later was used as the bed of a plantation railway (below), has the appearance of a levee. Cultivation on Christmas Plantation was restricted to the area south of this feature (Swanson, personal communication 1988). Thus, the original purpose of the feature may have been to protect the fields from flood waters.

In addition, structural improvements were erected. By 1876, these include a sugar house, quarters, a main residence, a cane shed, and a cistern. The structures were located on both banks of the bayou in the vicinity of the Shell Road below the southernmost portion of the study area (Swanson 1988:205-206).

Sugar reports for the postbellum period indicate that Beauvais produced low to moderate sized crops of sugar between 1871 and 1884 (Bouchereau 1871-1884). Numerous debts forced Beauvais into bankruptcy by 1876, and he lost the plantation to the New Orleans National Banking Association. The plantation was leased to Beauvais' son for three years, at which point the elder Beauvais reacquired the property (Swanson 1988:183).

Interestingly, Beauvais leased one arpent lots of the plantation for cultivation on the share system (Swanson 1988:183-185). This is unusual, since sugar cultivation is more easily accomplished utilizing day labor than share cropping (Taylor 1976:125). Share cropping was more common in the areas of Louisiana where cotton was the staple crop (Goodwin et al. 1986).

By 1880 the plantation was doing sufficiently well for Beauvais to acquire 530 superficial arpents at the north end of his property. However, the wood frame sugar house burned in 1885 (Bouchereau 1886). Beauvais began rice cultivation, and his debts mounted over the following years (Swanson 1988:186-187). Ironically, it was drought, rather than the flood waters which had driven out so many previous landholders, which may have brought the final demise of Beauvais' operation. Swanson (1988:188) reports that he complained in 1892, "I have been pumping night and day for two weeks and elevating twice as much water as ever before and have not yet

been able to saturate the whole field the drought is so severe." Beauvais sold the plantation in 1893 to C.J. Brown, his major creditor.

Brown similarly found Christmas Plantation to be a drain on his resources. He re-established cane cultivation, and in 1899 he contracted the nearby Southside Plantation to process and sell his cane and to build a railroad connecting Christmas and Southside. An agreement between Brown and the Southside Plantation Company in 1901 proves that the railroad had been constructed at this date. The presumed location of the railroad bed is along the "Old Derrick Road" at the northern end of the project area. A windlass derrick for loading cane onto the railroad cars was located alongside the road (Swanson 1988:188-189, 207-209).

Flood waters from a crevasse ultimately ruined Brown's crop, and he sold the plantation to George Shaw in 1903. The latter leased Christmas to Southside until the beginning of 1904, which may have been the end of active use for the former plantation (Swanson 1988:188-189).

In 1910, the east bank of Christmas Plantation was subdivided for residential sale. Most of the streets were cut, and a pecan orchard was planted in the southern portion of the project area to encourage land sales. However, few lots were sold, and residential development never occurred. During the following years, the area was utilized for hunting and trapping, as well as for oil and gas exploration (Swanson 1988:264-303).

PREVIOUS INVESTIGATIONS

Prior to initiation of fieldwork reported in the following chapters, a literature review was conducted focusing on results of previous archaeological investigations in the Core Area of the Barataria Unit of Jean Lafitte National Historical Park and Preserve. The most important of these was Beavers' (1982b) archaeological site inventory. That report summarized efforts by the University of New Orleans beginning in 1975. It also reported results of an intensive survey effort initiated in 1981 to provide a "reliable inventory of cultural resources present within the boundaries of the Marsh Unit - Core Area" (Beavers 1982b:4). Results of that survey were synthesized in a subsequent archaeological assessment of the Core Area (Speaker et al. 1986).

A series of sites was recorded along both banks of Bayou des Familles as a result of the work by University of New Orleans (Beavers 1982b:Figure 23). However, an examination of the report under discussion and of the Louisiana State Site Files housed at the State Archaeologist's Office indicated that no sites had been reported for the present 65-acre study area.

No sites had been recorded in the course of the survey effort for the Phase I construction area adjacent to the present study corridor. However, one shell scatter was reported south of the Shell Road and adjacent to the east bank of Bayou des Familles (Poplin 1987).

Excavations at the Coquilles site (16JE37) have resulted in a series of studies focused on floral and faunal remains and ceramic analyses (Dunn 1983; DeMarcay n.d.; Beavers et al. 1980; Giardino 1984a). These also were utilized for interpretations presented throughout this report. Similarly, culture histories prepared by Holmes (1986) and Swanson (1988) were examined, and these were an invaluable source of background information.

RESULTS OF SURVEY AND SITE DESCRIPTIONS

Methodology for Pedestrian Survey

The grid system utilized during Phase I survey (Poplin et al. 1987) was reestablished and extended over the present study area. Transect lane spacing was 20 m, and shovel tests were excavated every 20 m along each transect. Shovel test dimensions during pedestrian survey were 30 x 30 cm with a depth of 30 cm. Fill from each shovel test was carefully examined by trowelling through it and by breaking up peds.

Each transect was assigned a sequential letter designation, with Transect A located nearest the bayou. Each shovel test within a transect was assigned a sequential number so that shovel tests within transect A, for example, could be referred to as A-1, A-2, A-3, etc. It should be noted that no cultural materials were recovered during shovel testing. Instead, sites were located by the observation of *Rangia* shell on the ground surface. Areas of *Rangia* scatter were flagged and their locations were recorded. Each scatter was assigned a temporary site designation (e.g. ESI 1, ESI 2, etc.).

Methodology for Site Definition

A program of site definition was executed at locations of *Rangia* surface scatters. A temporary datum was established on each scatter in the area of the heaviest concentration of shell. At minimum, auger tests were excavated at 5 m intervals along two bisecting lines, resulting in characterization of horizontal extent of the subsurface shell deposits in four directions. Because of the small size of the majority of the sites, auger tests were excavated at 3 m intervals or less in many cases. Depth and density of shell deposit was characterized for each productive auger test. Horizontal definition was considered complete when two sterile tests had been excavated in each of four directions. This regimen was supplemented with the excavation of judgmentally placed auger and shovel tests to further refine definition of the sites. Results of auger test excavations provided information concerning horizontal extent of sites and depth of deposits present.

One by one meter excavation units were placed in the area of the densest subsurface shell concentrations at each site. These were excavated in either 10 cm levels or natural levels to sterile substrata, or to depth of water table. All excavated soil was screened through 1/4 inch mesh. Artifacts, faunal material, and shell samples were collected from each level and placed in plastic zip-lock bags labelled with the site designation, excavation unit designation, level number, depth, excavator's initials, and date. At least one profile of each excavation unit was drawn. Strata within each excavation unit were characterized according to soil type and Munsell color.

A site map was prepared for each site using compass and tape. It depicted locations of auger tests, shovel tests, excavation units, locations of surface scatters of shell, and locations of important natural and cultural features.

One historic feature was located during survey. This appears to represent the brick foundation for the steam engine associated with the Christmas Plantation water wheel. Methods utilized for defining this feature are discussed below.

Field Conditions

Ground visibility within the survey area was relatively good. In most areas, a complete canopy has been established by the overstory so that herbaceous plant growth is sparse. Also, environmental conditions are similar to those in tropical forests in that the majority of decaying vegetative matter is rather quickly recycled. As a result, actual ground surface is visible in many areas.

The environmental setting presents a rather idyllic picture of abundant and easily obtained resources. However, this survey was conducted during July and August, and the field crew developed a different and perhaps more realistic view of environmental conditions. The weather is hot and humid, and the air is thick. Two tropical storms passed through the area in less than one month.

Following periods of abundant rainfall, the mosquito population increases rapidly. Their numbers are so great that a constant background drone is always audible. Deer flies are also present. Snakes, particularly copperheads, are frequently observed. Life for prehistoric and historic period occupants of the area was undoubtedly made more difficult by these conditions.

Christmas Plantation Features

One of the most striking aspects of survey through the portion of Christmas Plantation within the study area is the preservation of the plantation features. The remains of the drainage system are particularly obvious. The front ditch paralleled the bayou for the length of the study area. The perpendicular outfall ditches were noted at approximately 30 to 40 meter intervals. The main outfall ditch was easily identified because of its considerably greater depth and breadth. The integrity of these features demonstrates how little the area has been disturbed during the twentieth century.

Similarly, the "Old Derrick Road," which is the probable location of the plantation railroad, was easily identified in the northern portion of the

study area. As noted in the historic overview, it has the appearance of a levee approximately 1 m high and 5 m wide. The area north of the road appears to be lower than the formerly cultivated fields to the south. There is also less ground vegetation, while larger palmettos occur on the north side of the road.

The pecan grove planted at the time of subdivision (**Culture History**) is another visible feature within the study area. The grove was first noted during survey as trees with slight hummocks between them, and arranged in rows. Evidence of the grove is most noticeable in the southeastern portion of the study area.

Three major areas of modern trash were noted during transect survey. One of these consisted of a sink, plastic Coca-Cola bottles, wood, plywood, plaster, and other structural debris. The second scatter was near a relict footpath and consisted of an approximately 60 m long scatter of Coca-Cola bottles, beer cans, rope, clear bottle glass, sneakers, and auto parts. Adjacent to the end of this scatter, a rusted, modern cable was located in a shovel test. The final major scatter of trash included auto parts, bottles and bottle glass, and parts of a chain link fence.

The Christmas Plantation Engine Foundation (16JE196)

This foundation, discussed and illustrated in Swanson (1988:203j-m,207-209), was relocated during pedestrian survey. The foundation is located on the edge of the main outfall ditch for Christmas Plantation, 1.9 m southeast of the base of the ditch bank. Adjacent to the northwestern wall of the foundation is a large tree whose roots have overgrown the wall. The foundation is surrounded by a brick scatter which extends from the structure 3.8 m northeast, 4.6 m southwest, and 3.9 m southeast (Figure 7). This scatter of bricks is suggestive of brick walls which collapsed outward, although the number of bricks still present at the site indicate that the superstructure walls either were relatively low or that bricks were removed, possibly for re-use elsewhere. A few bricks were noted within the ditch, as well as on the opposite bank.

The foundation was cleared of debris and vegetation, and the structure

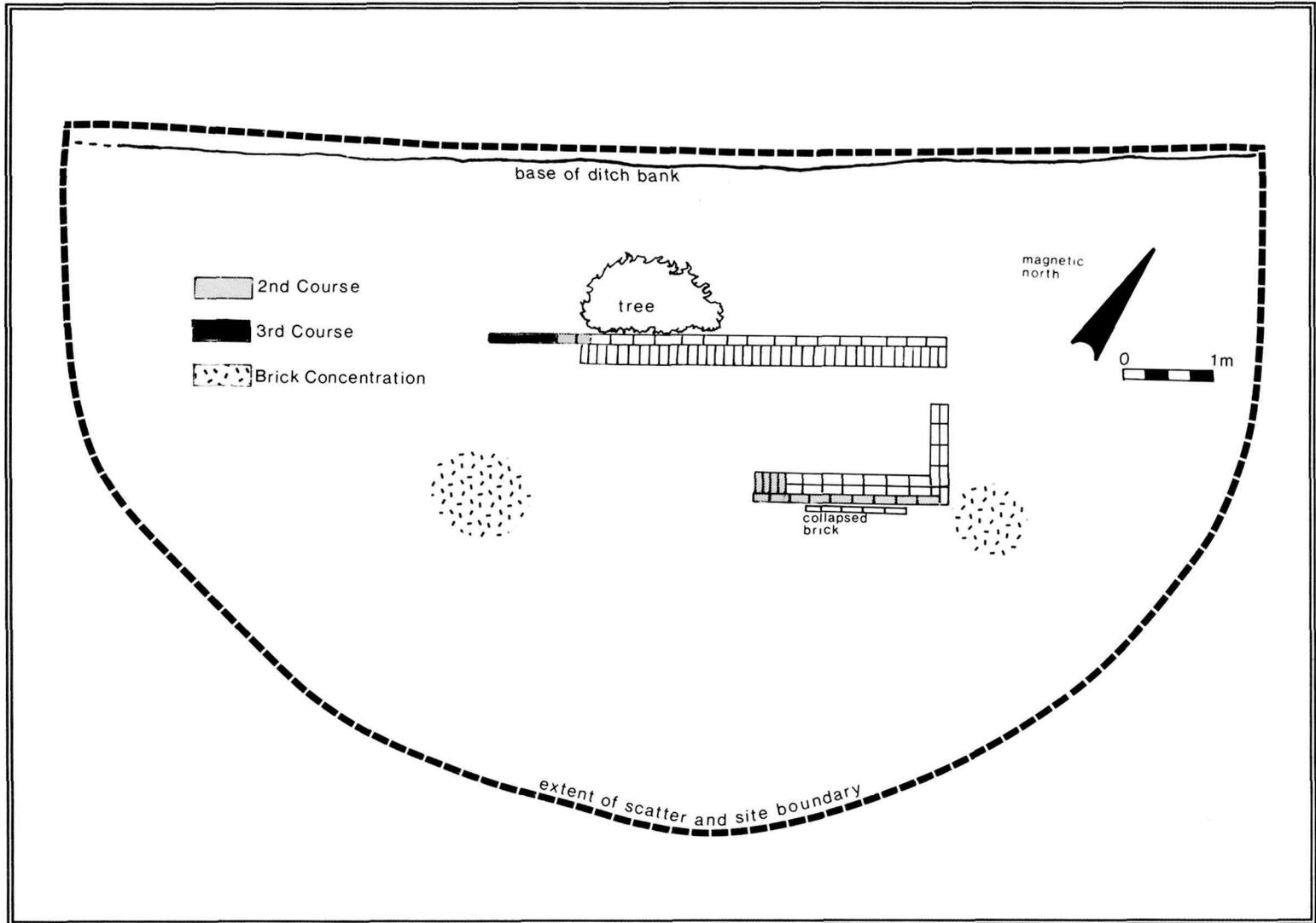


Figure 7. Plan view of the Engine Foundation (16JE196).

was mapped (Figure 7). No attempt was made to excavate the remains of the foundation because this would have jeopardized the preservation of the structure. Instead, a profile was drawn in an area previously exposed by animal burrowing (Figure 8). One square cut, late nineteenth century nail was recovered during cleaning and clearing for profiling.

Detailed examination of the site was limited to the foundation itself. Numerous hornets' nests were located within the brick rubble surrounding the structure, and examination of one concentration of brick resulted in the crew being swarmed.

The foundation consists of the remains of three continuous brick supports four courses of brick deep. The northwestern wall of the foundation is approximately 5 m long, the northeastern wall is approximately 1.1 m long, and the southeastern wall is approximately 2.2 m long. Width of the foundation from exterior to exterior of the outermost bricks on the top course of the northwest and southeast walls is approximately 1.8 m (Figure 7).

A profile of the interior of the northwestern wall of the foundation is shown in Figure 8. This, in conjunction with the plan view in Figure 7, shows that the upper two courses of bricks consist of an interior row of headers, and an exterior row of stretchers. The interior row of bricks on the bottom two courses consist of stretchers (Figure 8). The unevenness of the courses illustrated in the profile is probably the result of disturbance from the tree adjacent to the wall.

The uppermost course on the northeastern wall consisted of two rows of stretchers, while that of the southeastern wall formerly consisted of three rows of stretchers, the outermost row having collapsed (Figure 7). As was the case on the northwestern wall, the second course of the southeastern wall consisted of an interior row of headers and an exterior row of stretchers. Examination of the southeastern wall in the area of an animal burrow showed that it also was four courses deep.

Examination of the courses in the area of the animal burrow along the northwestern wall showed that each successive course of the foundation was larger than the one above it. The purpose of this is the even distribution of the building's weight (Spaulding et al. 1926). In the case of the interior of the northeastern wall, the second course extended 5.5 cm further than the

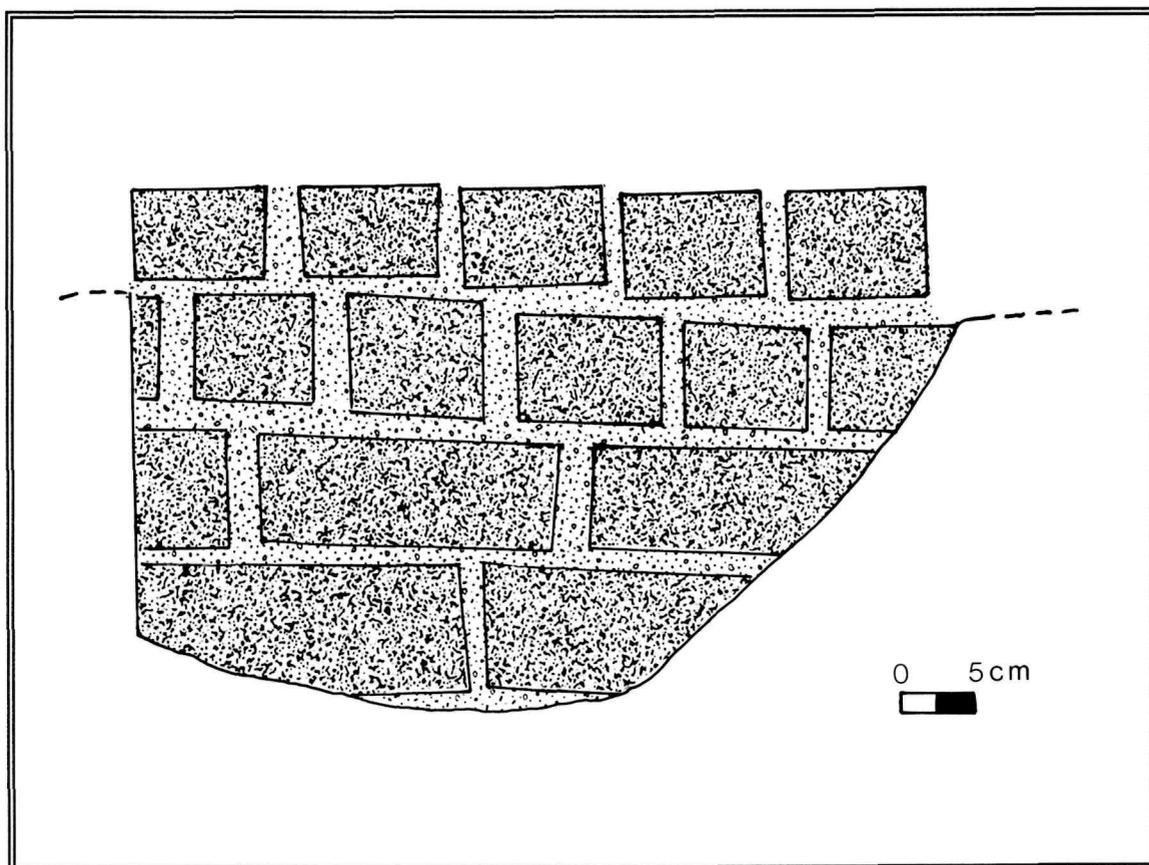


Figure 8. Profile of interior of the northwest wall of the Engine Foundation (16JE196).

first, the third 7.3 cm further than the second, and the fourth 4.0 cm further than the third. It was noted during clearing the structure along the southern portion of the northwestern wall that the lowest course of bricks was set in a sloppily applied bed of mortar.

Bricks utilized in the structure appear to be manufactured rather than hand-made. The bricks measured 9-9.5 cm in width, 21-21.5 cm in length, and 6-6.5 cm in thickness. Some fragments of very soft, light reddish brown (2.5YR 6/4) and red (2.5YR 4/6) bricks were noted during cleaning. These may be remains of older, reused bricks.

Although brick fragments were noted in the interior of the foundation's walls, there was no evidence of a brick floor. Instead, the former structure may have had a wooden floor. Alternatively, the floor of the structure was dirt, and the foundation supported a brick superstructure, as suggested above.

The location and size of the foundation suggests strongly that the structure formerly housed a steam engine, probably the portable Harrisburg type noted as being among the Christmas Plantation moveables in 1901 (Swanson 1988:207). Such an engine would have powered a water wheel to assist field drainage, or a pump (like the Menge pump also noted among the Christmas Plantation moveables in 1901) to flood the rice fields (Swanson 1988:207-209). However, no coal or charcoal was recovered during clearing of the foundation. It is possible that the remains of fuel for the engine were deposited elsewhere on the site, but, as noted above, examination outside the foundation was necessarily limited.

In and of itself, the feature does not exhibit qualities of significance or research potential necessary for inclusion on the National Register of Historic Places. However, it does represent the only above-ground structural remains of Christmas Plantation located to date. In combination with the system of ditches, it is part of a complex representing the topography of a late nineteenth century sugar and rice plantation.

This historic feature is outside the area of direct impact of Phase II construction. Indirect impact, consisting of increased numbers of visitors to the area, is unlikely to alter the character of the site as it now exists because it consists of a solid brick foundation and associated brick rubble.

No further archaeological investigations are recommended at this site.

Summary of Prehistoric Sites Recorded

Seven areas that included surface scatters of *Rangia* were recorded as archaeological sites within the 65-acre study area on the east bank of Bayou des Familles. Test excavation units at five of these yielded aboriginal sherds. Each of the sites is discussed in detail below. In addition, two adjacent sites (16JE163 and 16JE164) on the west bank of Bayou des Familles were investigated. Results of excavations there are also presented in this chapter. Table 3 presents a summary of ceramic types and numbers recovered from each of the sites on the east bank of the bayou. Table 4 summarizes sherd identification for the two sites on the west bank of the bayou, 16JE163 and 16JE164. A detailed discussion of results of ceramic analysis is presented in the following chapter.

Table 3. Inventory of Prehistoric Sherds at 16JE200, 16JE201, 16JE202, 16JE204 and 16JE206.

16JE200.	0-2 cm	1	Baytown Plain	<u>var. Jean Lafitte</u>
	2-12 cm	1	Coleman Incised	<u>var. unspecified</u>
16JE201,	Locus A, EU1:			
	33-43 cm	1	Baytown Plain	<u>var. Jean Lafitte</u>
		1	Baytown Plain	<u>var. Reed</u>
		1	Baytown Plain	<u>var. Addis</u>
16JE201,	Locus A, EU1 extension:			
	Str. I	2	Baytown Plain	<u>var. Reed</u>
	Str. II	1	Baytown Plain	<u>var. Reed</u>
		1	Baytown Plain	<u>var. Satartia</u>
16JE201,	Locus B:			
	Auger Test	1	Baytown Plain	<u>var. Satartia</u>
	Excavation Unit:			
	0-10 cm	1	Coles Creek	<u>var. Hardy</u>
		2	Bell Plain	<u>var. St. Catherine</u>
		1	Baytown Plain	<u>var. Satartia</u>
	10-20 cm	5	Baytown Plain	<u>var. Satartia</u>
		1	Baytown Plain	<u>var. Reed</u>
		1	Baytown Plain	<u>var. Jean Lafitte</u>
		2	Bell Plain	<u>var. St. Catherine</u>
	20-30 cm	1	Baytown Plain	<u>var. Satartia</u>
		1	Bell Plain	<u>var. St. Catherine</u>
16JE202,	Excavation Unit:			
	15-25 cm	1	Bell Plain	<u>var. St. Catherine</u>
16JE204	Surface	3	Baytown Plain	<u>var. Satartia</u>
	Excavation Unit:			
	0-10 cm	3	Baytown Plain	<u>var. Satartia</u>
		2	Baytown Plain	<u>var. Reed</u>
	20-30 cm	11	Baytown Plain	<u>var. Satartia</u>
		15	Baytown Plain	<u>var. Reed</u>
		2	Baytown Plain	<u>var. Jean Lafitte</u>
		13	Bell Plain	<u>var. St. Catherine</u>
	30-40 cm	1	Baytown Plain	<u>var. Reed</u>
		5	Bell Plain	<u>var. St. Catherine</u>
16JE206	Excavation Unit:			
	0-10 cm	1	Baytown Plain	<u>var. Satartia</u>
		1	Bell Plain	<u>var. St. Catherine</u>
	10-20 cm	5	Baytown Plain	<u>var. Satartia</u>
	20-30 cm	1	Baytown Plain	<u>var. Satartia</u>

Table 4. Ceramic Sherds Recovered from 16JE163 and 16JE164.

16JE163		
<u>Provenience</u>	<u>N</u>	<u>Type and Variety</u>
N0E5	1	Baytown Plain <u>var. Reed</u>
N5W10	3	Baytown Plain <u>var. Reed</u>
	4	Baytown Plain <u>var. Addis</u>
	8	Baytown Plain <u>var. Satartia</u>
S5W0	1	Baytown Plain <u>var. Satartia</u>
N15E15	1	Baytown Plain <u>var. Addis</u>
N0W10	1	Baytown Plain <u>var. Addis</u>
S15E5	2	Baytown Plain <u>var. Reed</u>
	1	Baytown Plain <u>var. Satartia</u>
	1	Baytown Plain <u>var. Addis</u>
N10W10	4	Baytown Plain <u>var. Addis</u>
N15W10	3	Baytown Plain <u>var. Addis</u>
	1	Baytown Plain <u>var. Satartia</u>
	1	Coles Creek Incised <u>var. Hardy</u>
N0W0	1	Baytown Plain <u>var. Satartia</u>
S5W10	1	Baytown Plain <u>var. Satartia</u>
S15W5	1	Baytown Plain <u>var. unspecified</u>
S10W10	1	Baytown Plain <u>var. Reed</u>

Table 4 (continued). Ceramic Sherds Recovered from 16JE163 and 16JE164.

Excavation Unit at 16JE163

L. 1 (0-10 cm)	1	Unidentified clay artifact
L. 2 (10-20 cm)	1	L'Eau Noire Incised <u>var. Australia</u>
	1	Possible painted (<u>var. Anna?</u>)
	23	Baytown Plain <u>var. Addis</u>
	1	Maddox Engraved <u>var. unspecified</u>
	13	Baytown Plain <u>var. Satartia</u>
	10	Baytown Plain <u>var. Reed</u>
	1	Coles Creek Incised <u>var. Hardy</u>
L.3 (20-30 cm)	7	Baytown Plain <u>var. Addis</u>
	5	Bell Plain <u>var. St. Catherine</u>
	32	Baytown Plain <u>var. Satartia</u>
	6	Baytown Plain <u>var. Reed</u>
	1	L'Eau Noire Incised <u>var. Anna</u>
	2	Unidentified zoned punctate
	1	Unidentified clay fragment
L. 4 (30-40 cm)	1	Baytown Plain <u>var. Reed</u>

16JE164

<u>Provenience</u>	<u>N</u>	<u>Type and Variety</u>
Surface	1	Coleman Incised <u>var. unspecified</u>
Shov. Test 1	6	Baytown Plain <u>var. Jean Lafitte</u>
Shov. Test 2	2	Baytown Plain <u>var. Jean Lafitte</u>

16JE200

This prehistoric site was first noted on transect survey when a diffuse surface scatter of *Rangia cuneata* shells was observed. *Rangia* were also recovered in a transect survey shovel test.

As is shown on the site map in Figure 9, the light surface scatter of shells measures approximately eight meters at its greatest extent. The shape of the scatter is ovoid. After a site datum was established, a series of auger tests were used to define subsurface extent of the site. Locations of auger tests yielding *Rangia* and of tests that were sterile are shown in Figure 9. Based on these tests, the north/south extent of the site is approximately five meters, while the east/west extent is 7.5 meters. The surface extent of the site is marked by a very slight rise in elevation.

A 1 x 1 m excavation unit was excavated to a depth of 42 cm in order to define stratigraphy and to determine whether artifacts were present. Soils were screened through 1/4-inch mesh in the field. Level 1 was only excavated to a depth of 2 cm below surface in order to remove topographic irregularities within the unit. Subsequent levels were each 10 cm in depth.

A profile of the south wall of this unit is shown in Figure 10. Three strata were observed. The uppermost, at 0 to 11 cm below surface, was a 10YR 5/2 (grayish brown) clayey silt. From 11 to 26 cm below surface lay a 10YR 4/2 (dark grayish brown) clayey silt with *Rangia* shells and shell fragments. Individual shells within this stratum are shown in Figure 10. That profile demonstrates that the shells were somewhat dispersed. A solid lens or bed of *Rangia* was not present. The lowermost stratum within the unit was a 10YR 5/3 (brown) silty clay with some mottling.

An auger test in the floor of this unit demonstrated that the 10YR 5/3 silty clay extended to a depth of 86 cm at this location. From 86 cm to 142 cm below surface lay a 10YR 5/1 (gray) silty clay.

One sherd, classified as Baytown Plain var. *Jean Lafitte* (**Aboriginal Ceramics**, below), was recovered from Level 1, 0 to 2 cm below surface. One sherd provisionally described as Coleman Incised var. *unspecified* was recovered from 2 to 12 cm below surface. The latter suggests a Mississippi period affiliation for the site. Ceramic analysis for 16JE200 is discussed in detail in the following chapter.

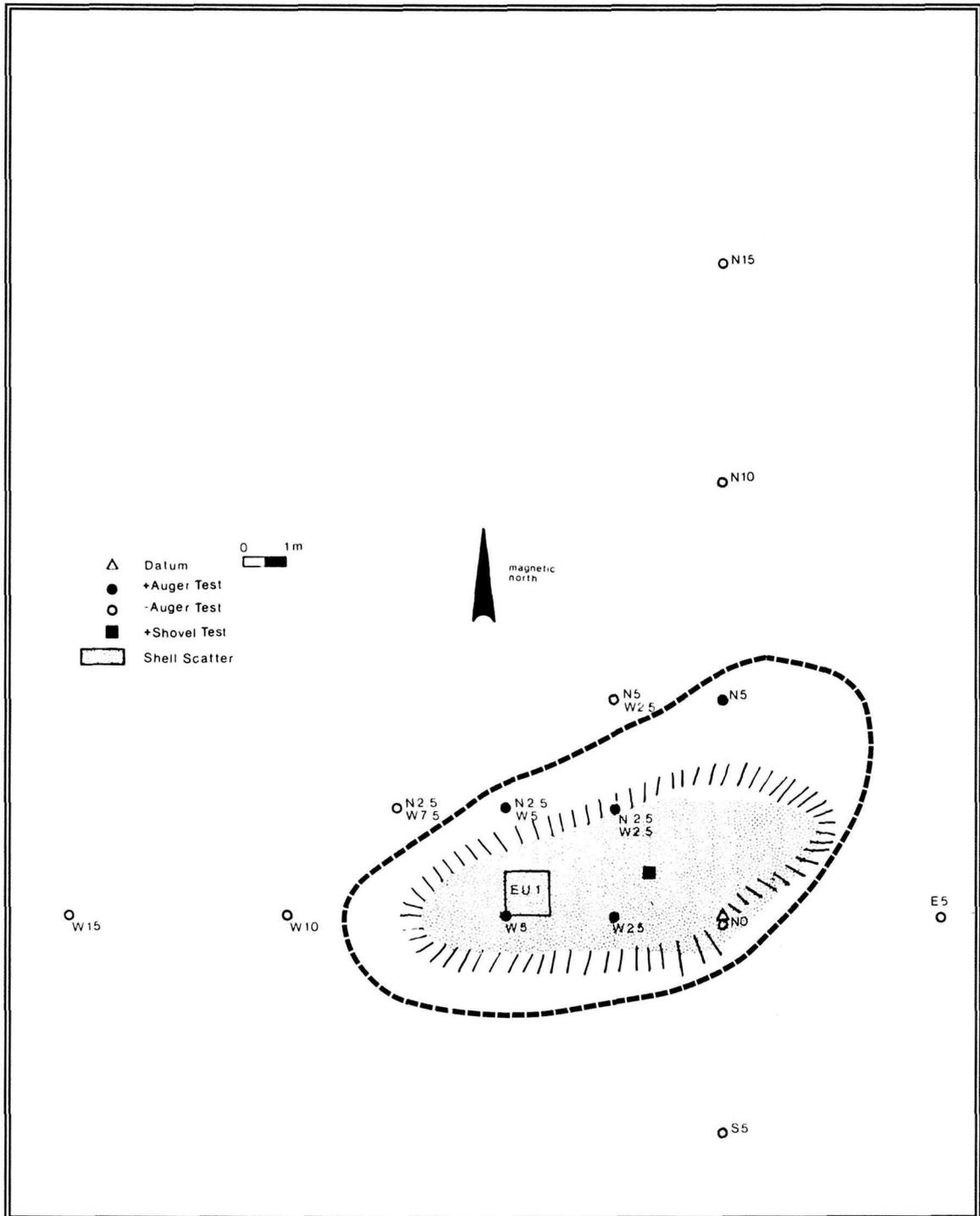


Figure 9. Site map of 16JE200.

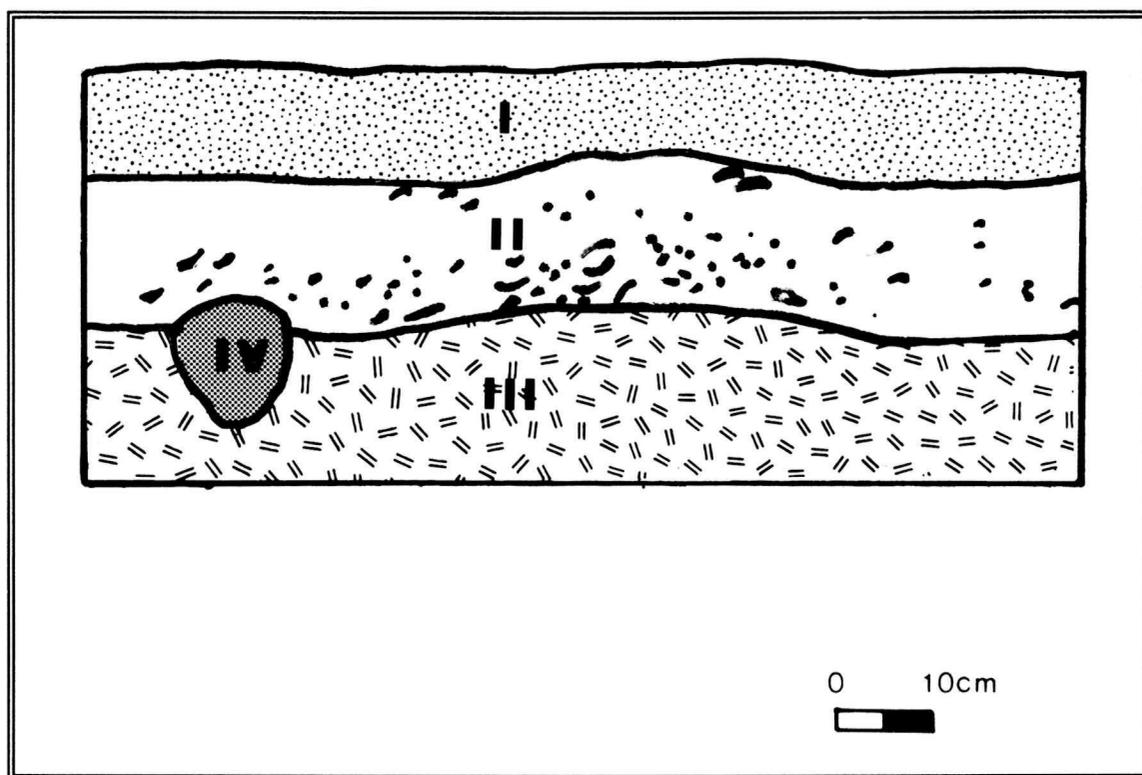


Figure 10. Profile of the south wall of EU1, 16JE200. KEY: I=10YR 5/2, Grayish brown clayey silt; II=10YR 4/2, Dark grayish brown clayey silt with *Rangia* shells; III=10YR 5/3, Brown mottled silty clay; IV=Rodent hole.

16JE201

This prehistoric site was initially noted due to the presence of a small, low density surface scatter of *Rangia* shells, labelled Locus A on the site map in Figure 11. Subsequently, two additional surface scatters were observed in the vicinity of the first. These are shown as Locus B and Locus C in Figure 11.

Locations of all excavations and of important features in the vicinity of this site are shown on the map in Figure 11. Auger tests at Locus A were placed at 3 meter intervals on a north/south and an east/west line. Subsequently, additional auger tests were placed at 1.5 meter intervals along these same lines. This regimen of auger tests revealed that subsurface extent of *Rangia* was extremely limited. It extended only 3 meters in a north/south direction, and the same distance in an east/west direction.

The auger tests at Locus A revealed that a solid lens of *Rangia* was present below surface. In addition, charcoal was recovered in an auger test placed 1.5 m south of the datum. A 1 x 1 m excavation unit was placed (Figure 11) in order to provide more information about this charcoal feature and the apparently related lens of *Rangia*. All soils were screened in the field through 1/4-inch mesh. Depths discussed below are relative to ground surface at the southwest corner of the unit (unit datum), which had the highest elevation.

The first level was excavated from 0 to 8 cm below surface in order to remove topographic irregularities from within the unit. Subsequent levels were 10 cm in depth, except for Level 3 (below) which was excavated for only 5 cm in order to expose a *Rangia* lens present at 23 cm.

Only one *Rangia* and some burned bark were recovered from Level 1. Level 2 (8 to 18 cm) yielded additional *Rangia* shells and evidence of a burned tree root in the northeast corner. Fired clay balls were associated with this burn feature. Additional evidence of burned tree roots was noted in Level 3 (18 to 23 cm). A solid lens of dense *Rangia* was noted in the northern one-third of this unit, beginning at 23 cm. The burned tree root lay directly above the lens, indicating that a tree or stump had burned subsequent

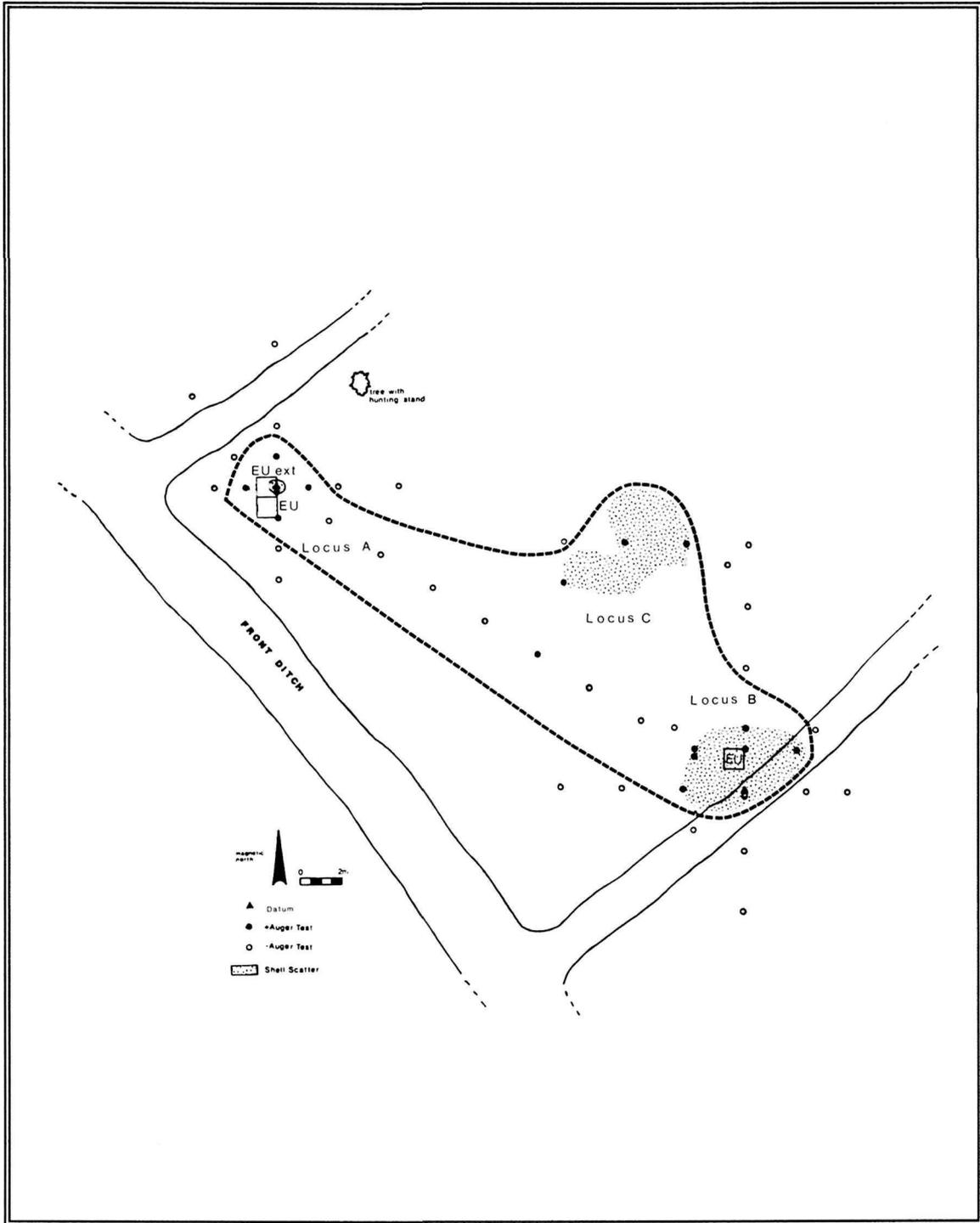


Figure 11. Site map of 16JE201.

to deposition of the shell.

Level 4 (23 to 33 cm) revealed that the burned roots were underlain by fire-hardened clay. *Rangia* was again concentrated in the northern one-third of the unit. The shell lens was sloping off to the south, and the southern edge of the lens was present within the unit. Level 5 (33 to 43 cm) revealed that at 38 cm, *Rangia* shell ran along the east wall to the southeast corner. Below 40 cm, no shell was recovered. Three Baytown Plain sherds were recovered from the 33 to 43 cm level. Identification of these sherds at the variety level is presented in Table 3.

Figure 12 shows the strata that were observed in the north wall of this unit. Stratum I was a 10YR 3/2 (very dark grayish brown) silt with some charcoal flecks and *Rangia* shell fragments. Stratum II was a 10YR 4/1 (dark gray) silty clay. Stratum IIIa was a 10YR 3/2 (very dark grayish brown) silty clay containing charcoal flecks and large amounts of *Rangia* shell. Stratum IIIb was a 10YR 6/6 (brownish yellow) clayey silt with charcoal flecks and dry, friable *Rangia* shells. This stratum was the "fired clay" associated with the burned tree root, and *Rangia* shells within it were grayish and powdery due to the burn episode. Finally, Stratum IV was a 10YR 4/1 (dark gray) plastic clay with mottling.

Because the shell lens was concentrated in the northern one-third of the unit, this 1 x 1 m excavation unit was expanded to the north to create a 1 x 2 m unit, thereby providing greater exposure of the shell feature. The north wall of the initial unit was used to provide control for excavation of the unit extension by natural levels. Figure 12 shows the east wall profile for the initial excavation unit and for the extension.

Stratum I (described above) in the unit extension yielded two Baytown Plain sherds, as did Stratum IIIa, the shell lens. These sherds are identified at the variety level in Table 3. The shell lens had its greatest vertical extent in the west wall of the unit, where it measured 18 cm. In the east wall, (Figure 12) the lens was 16 cm at its thickest.

Locus B was first noted as a very light scatter of *Rangia* shells and shell fragments at the edge of a Christmas Plantation drainage ditch, about 27 meters southeast of Locus A. A 1 x 1 m excavation unit was excavated in 10 cm levels to a depth of 30 cm within Locus B near a location where an

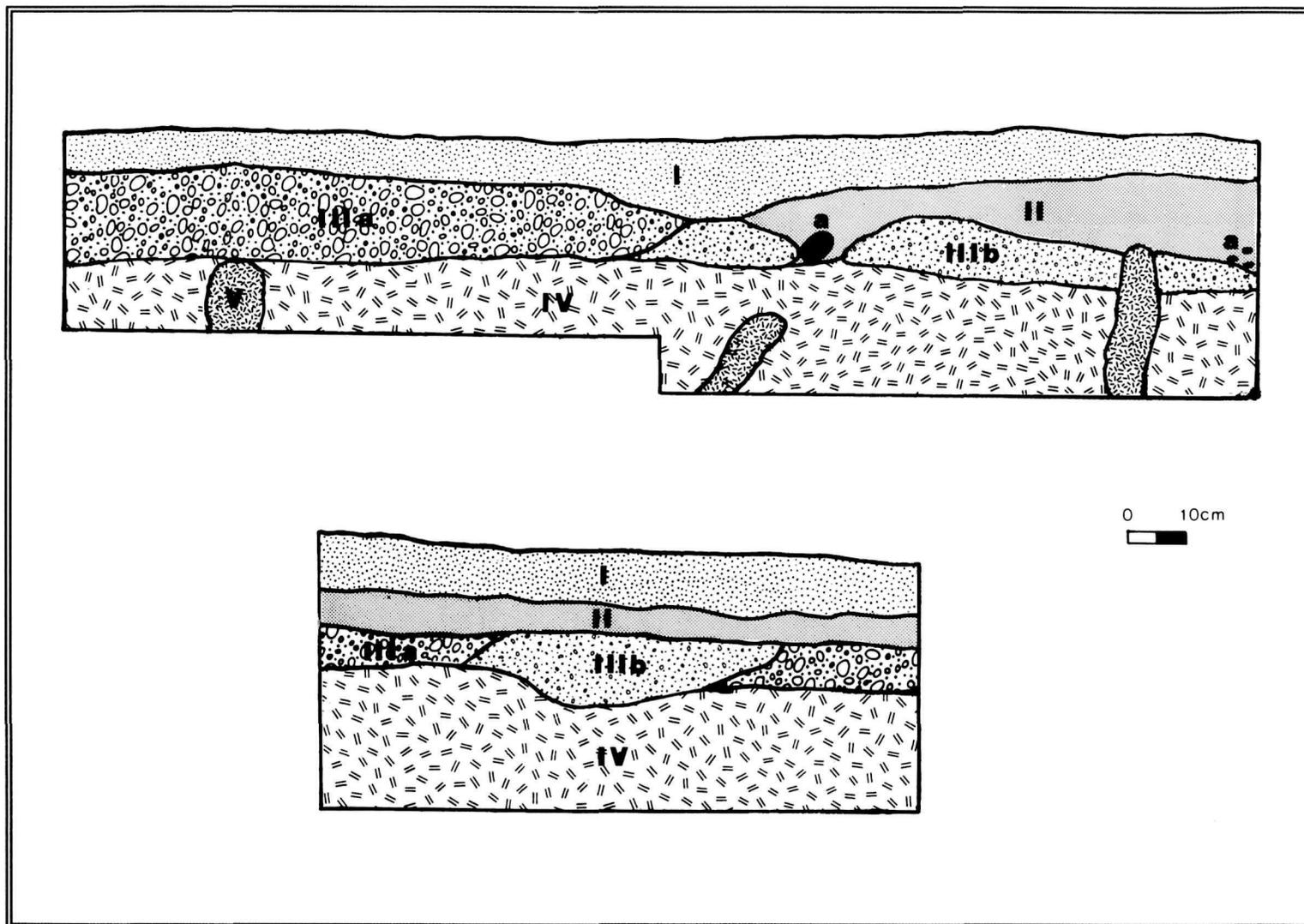


Figure 12. Profiles of the east wall of EU1 and EU extension, and north wall of EU1, Locus A, 16JE201. KEY: I=10YR 3/2, Very dark grayish brown silt with charcoal flecks and *Rangia* shell fragments; II=10YR 4/1, Dark gray silty clay; IIIa=10YR 3/2, Very dark grayish brown silty clay with charcoal flecks and large amounts of *Rangia* shell; IIIb=10YR 6/6, Brownish yellow clayey silt with charcoal flecks and dry, friable *Rangia* shell; IV=10YR 4/1, Dark gray mottled plastic clay; V=Crawfish disturbance; a=Lumps of fired clay.

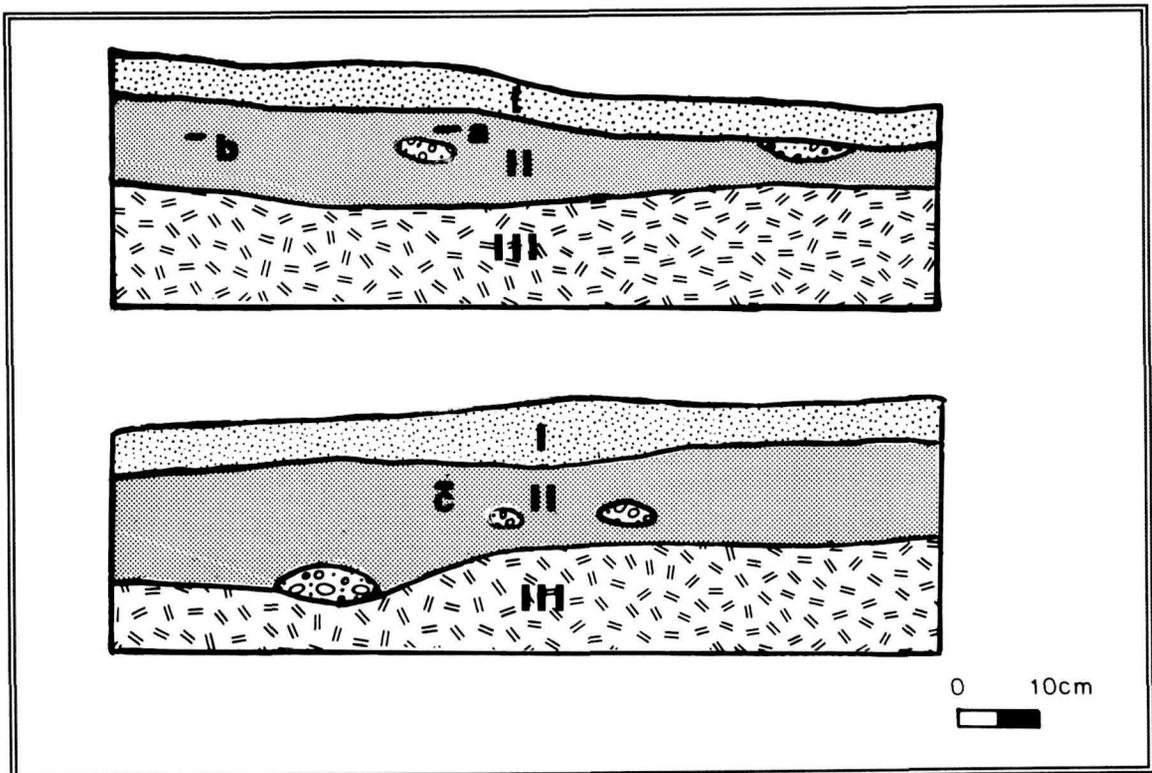


Figure 13. Profiles of the east and west walls of EU1, Locus B, 16JE201.

KEY: I=10YR 5/2, Grayish brown silt; II=10YR 3/2, Very dark grayish brown silty clay with diffuse *Rangia* shell and shell fragments; III=10YR 4/1, Dark gray silty clay; a, b, and c = Baytown Plain var. *Satartia*.

auger test yielded one Baytown Plain sherd (Table 3).

Profiles of the east and west walls of the 1 x 1 m excavation unit at Locus B are shown in Figure 13. Three strata were observed. Stratum I was a 10YR 5/2 (grayish brown) silt. Stratum II was a 10YR 3/2 (very dark grayish brown) silty clay with diffuse *Rangia* shell and shell fragments. No lens, or solid bed, of *Rangia* was present within this unit. Stratum III was a 10YR 4/1 (dark gray) silty clay.

As is shown in Figure 13, two sherds were observed within Stratum II in the east wall. These were at nine and ten cm below surface. One sherd was present within Stratum II in the west wall, ten cm below surface. In addition, three sherds were recovered from screened fill within Level 1 (0 to 10 cm), seven sherds within Level 2 (10 to 20 cm), and two sherds within Level 3 (20 to 30 cm). Sherds were concentrated above the basal stratum within the unit and appeared to lie within pockets of shell. The only decorated sherd was identified as Coles Creek Incised *var. Hardy*. The remaining 14 sherds were either Baytown Plain or Bell Plain. Identification at the variety level is presented in Table 3.

The location of Locus C of this site is shown on the map in Figure 11. It lies approximately 12 meters northwest of Locus B. This locus was an additional light surface scatter of *Rangia* shell and shell fragments. Auger tests shown on Figure 11 were used to define subsurface extent.

16JE202

This site was first noted as a light surface scatter of *Rangia* shell on the ground surface within and near a Christmas Plantation drainage ditch. Auger tests depicted on the site map in Figure 14 demonstrate that the site dimensions are 15 meters north/south and 20 meters east/west.

A 1 x 1 m unit was excavated to a depth of 35 cm below surface. Level 1 was 0 to 5 cm in order to remove surface irregularities. Subsequent levels were 10 cm in depth. Soils were screened through 1/4 inch mesh. The profile for the west wall of this unit is shown in Figure 15. Three strata were observed. Stratum I was a 10YR 3/2 (very dark grayish brown) clayey silt with a small amount of shell. Stratum II was a 10YR 3/1 (very dark

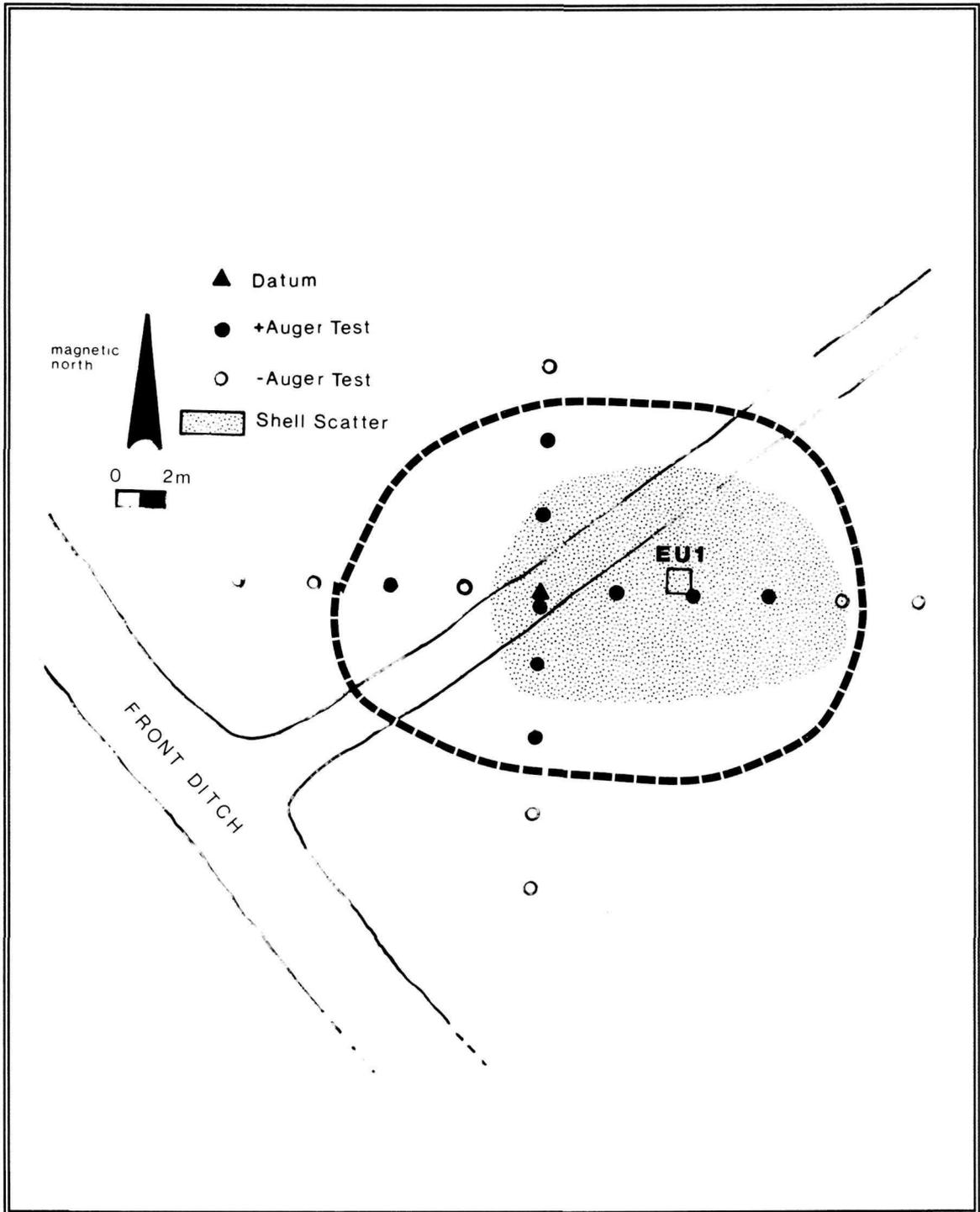


Figure 14. Site map of 16JE202.

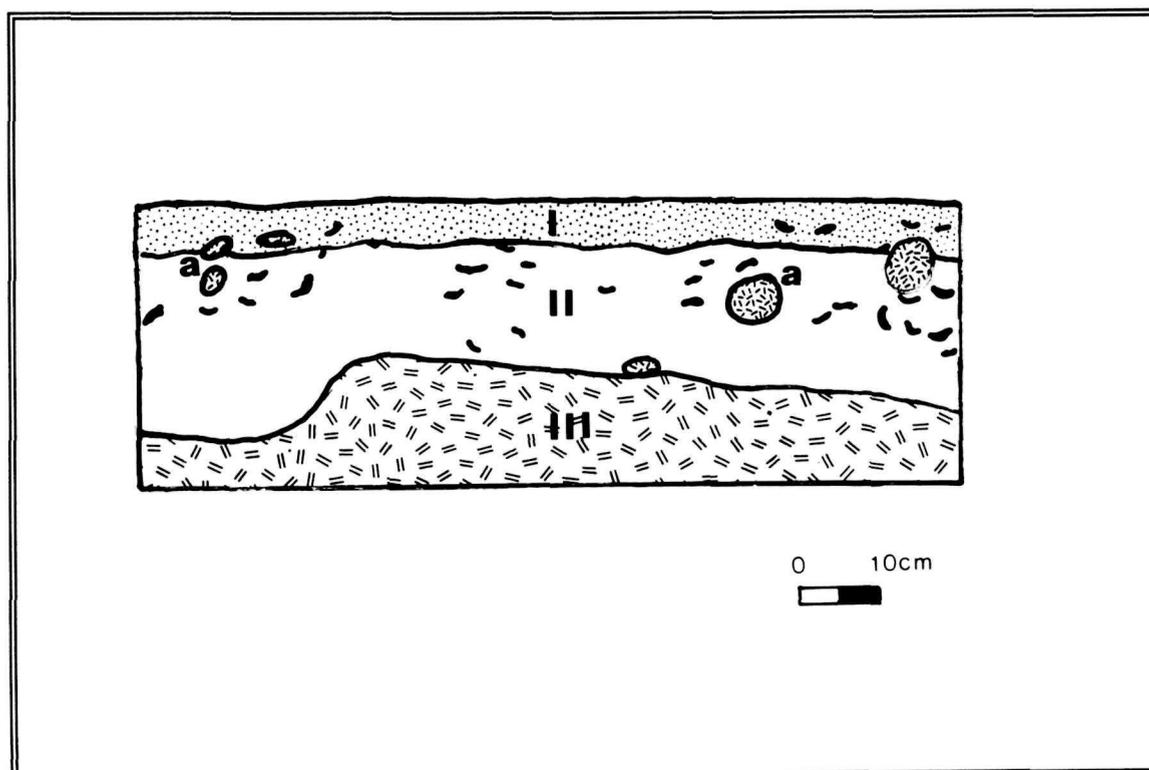


Figure 15. Profile of the west wall of EU1, 16JE202. KEY: I=10YR 3/2, Very dark grayish brown clayey silt with small amounts of *Rangia* shell; II=10YR 3/1, Very dark gray clayey silt with *Rangia* shell; III=10YR 4/2, Dark grayish brown mottled silty clay; a=Tree roots.

gray) clayey silt with shell concentrated in the uppermost half. Stratum III was a 10YR 4/2 (dark grayish brown) silty clay with mottling.

The unit yielded only one sherd (Bell Plain *var. St. Catherine*), recovered at 15 to 25 cm (Level 3) below surface.

16JE203

This site was first observed as a very diffuse scatter of *Rangia* shell and shell fragments within and near a Christmas Plantation drainage ditch. As is shown on the site map in Figure 16, the southernmost extent of the site is located bayouward of the front ditch. North/south extent is 30 meters, while east/west extent is 26 meters. The site is oblong, however, with its longest axis (33 meters) oriented approximately northeast/southwest (Figure 16).

A 1 x 1 m unit was excavated in 10 cm arbitrary levels. All soils were screened through 1/4 inch mesh. However, no cultural materials were recovered. Figure 17 is a profile of the west wall. Two strata were observed. The upper was a 10YR 3/2 (very dark grayish brown) clayey silt. The lower was a 10YR 5/3 (brown) silty clay. *Rangia* were interspersed through Stratum I at depths of 7 to 20 cm below surface. No lens of *Rangia* shell was present within the unit.

16JE204

This prehistoric site was first observed as two discrete surface scatters of *Rangia* shells depicted on the site map in Figure 18. The northernmost scatter was a nearly circular area that was entirely covered by shell. Three sherds of Baytown Plain *var. Satartia* were recovered from the surface. The southern scatter was more diffuse. Site dimensions are 32 meters north/south and 10 meters east/west.

A 1 x 1 m unit was excavated in 10 cm levels within the northern scatter of shell. Three levels, to a depth of 30 cm, were fully excavated. A fourth level was excavated to 35 cm in the southwest corner of the unit. This level was below water table, resulting in termination of excavation efforts.

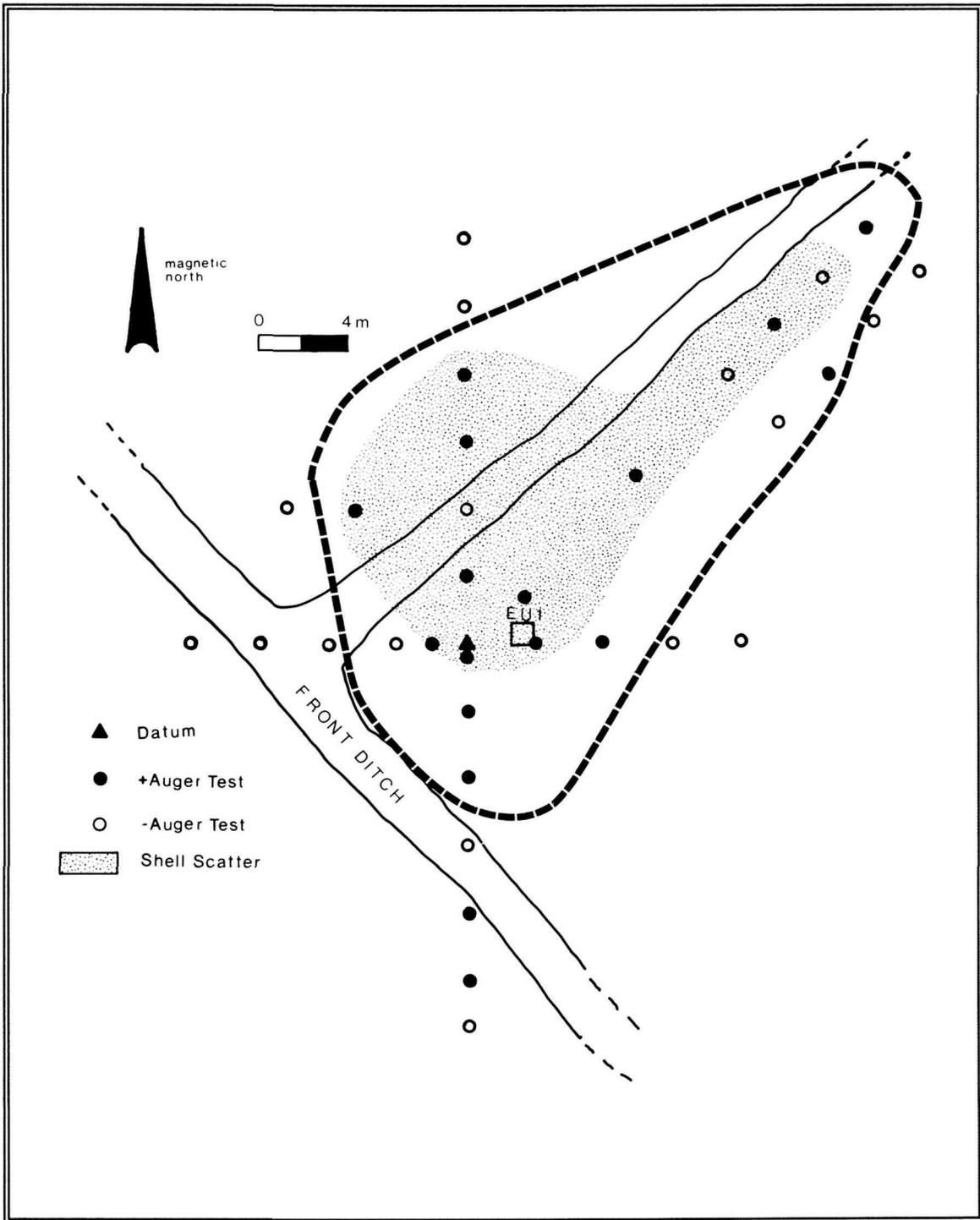


Figure 16. Site map of 16JE203.

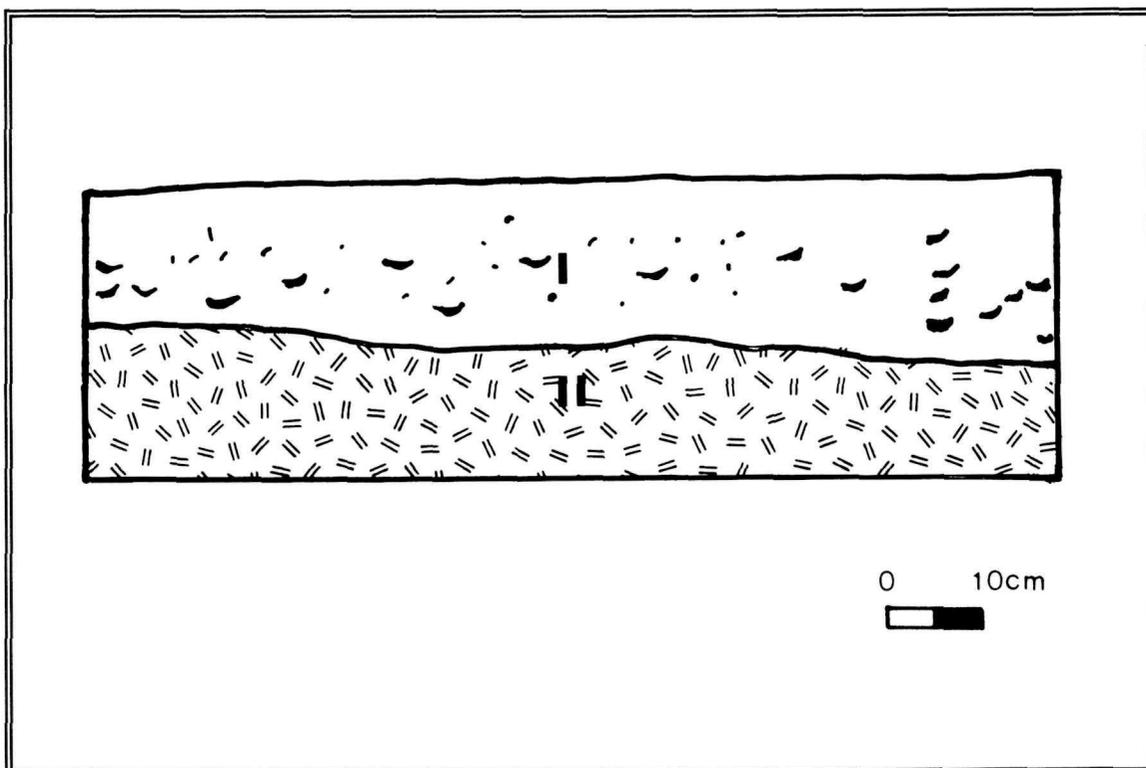


Figure 17. Profile of the west wall of EU1, 16JE203. KEY: I=10YR3/2, Very dark grayish brown clayey silt with *Rangia* shell; II=10YR 5/3, Brown silty clay.

Profiles of the south and west walls are shown in Figure 19. Two strata were observed. The upper was a 10YR 2/1 (black) silty clay matrix in which *Rangia* predominated. The lower stratum was a 2.5Y 5/0 to 4/0 (gray to dark gray) clay which was largely devoid of shell.

A feature consisting of burned *Rangia* shells and carbon was first noted in the southeast corner of the unit at 7 cm below surface. This feature is shown in plan view at 10 cm below surface in Figure 19 and can also be seen in the south wall profile in Figure 19. Its long axis, oriented southeast to northwest, measured 60 cm. However, it continued to extend into the southeast corner of the unit. The feature was 30 cm wide. It extended to a depth of 16 cm below surface. The feature in profile is thin, measuring only 9 cm from top to bottom. The soil matrix of this feature was a 10YR 3/1 to 4/1 (dark gray to very dark gray) silty clay, somewhat lighter than the black stratum within which it was located. Interestingly, no fire-hardened or fire-reddened clay was observed within or around the feature. The implication, therefore, is that the *Rangia* shell may not have been burned in situ. Other smaller and more diffuse pockets of burned *Rangia* shell were observed throughout the unit.

As is shown in the profiles of the south and west walls (Figure 19), Stratum I extended 15 cm deeper in the southwest corner than in other parts of the unit. Although no soil differences could be observed between this area and the remainder of Stratum I, it is possible that it represents a pit. This suggestion is supported by the observation that the majority of sherds recovered from this unit were located in or near the southwest corner at 20 to 30 cm below surface.

A total of 52 undecorated sherds were recovered from the excavation unit at this site. Four of these were from 0 to 10 cm below surface. Interestingly, the 10 to 20 cm level yielded no sherds while the level immediately below (20 to 30 cm) yielded 41. Six sherds were recovered from the partially excavated 30 to 40 cm level. One sherd was recovered from the south wall at 5 cm below surface. All of the sherds were identified as either Baytown Plain or Bell Plain. Identification at the variety level is presented in Table 3.

An auger test was excavated in the floor of this unit to determine

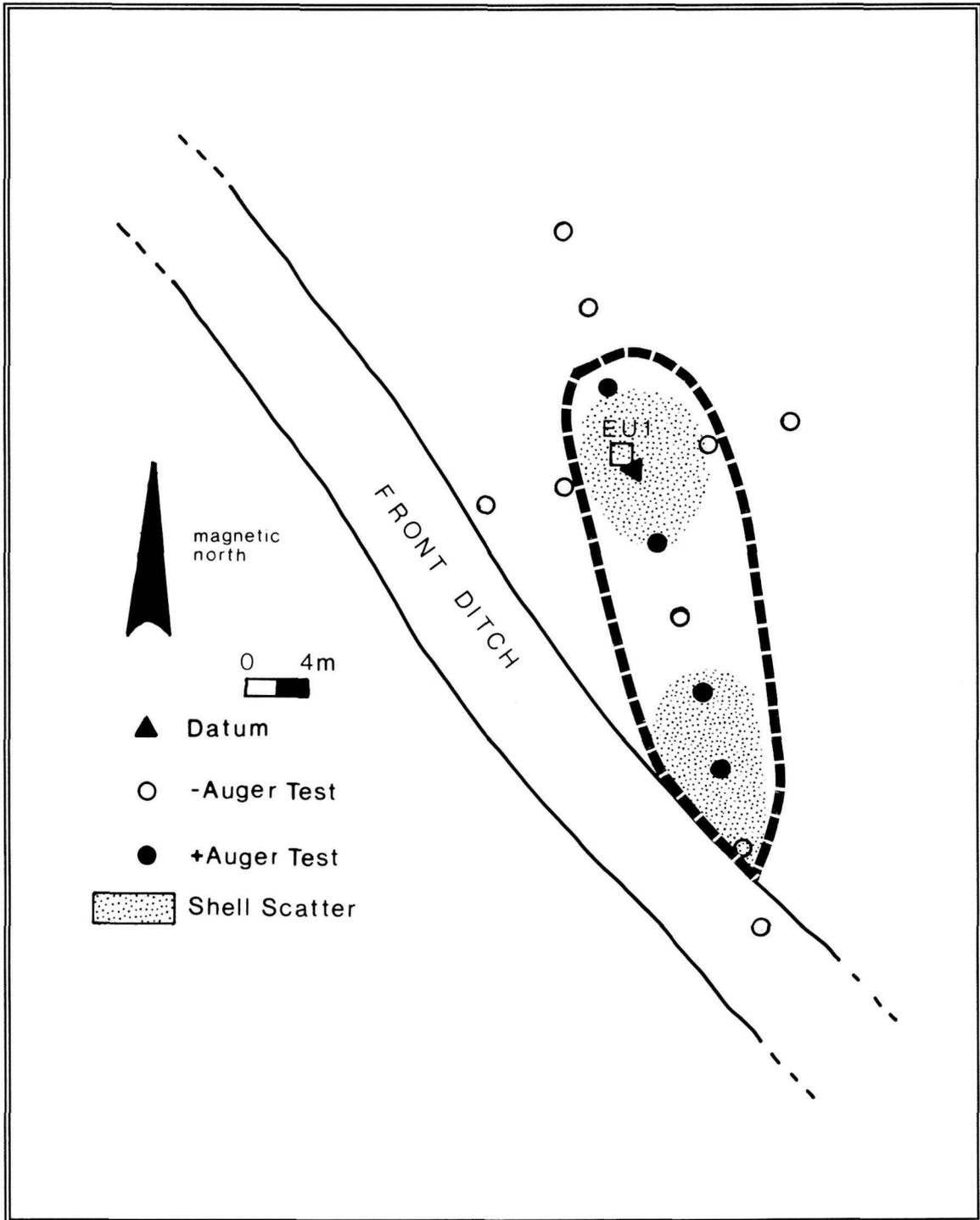


Figure 18. Site map of 16JE204.

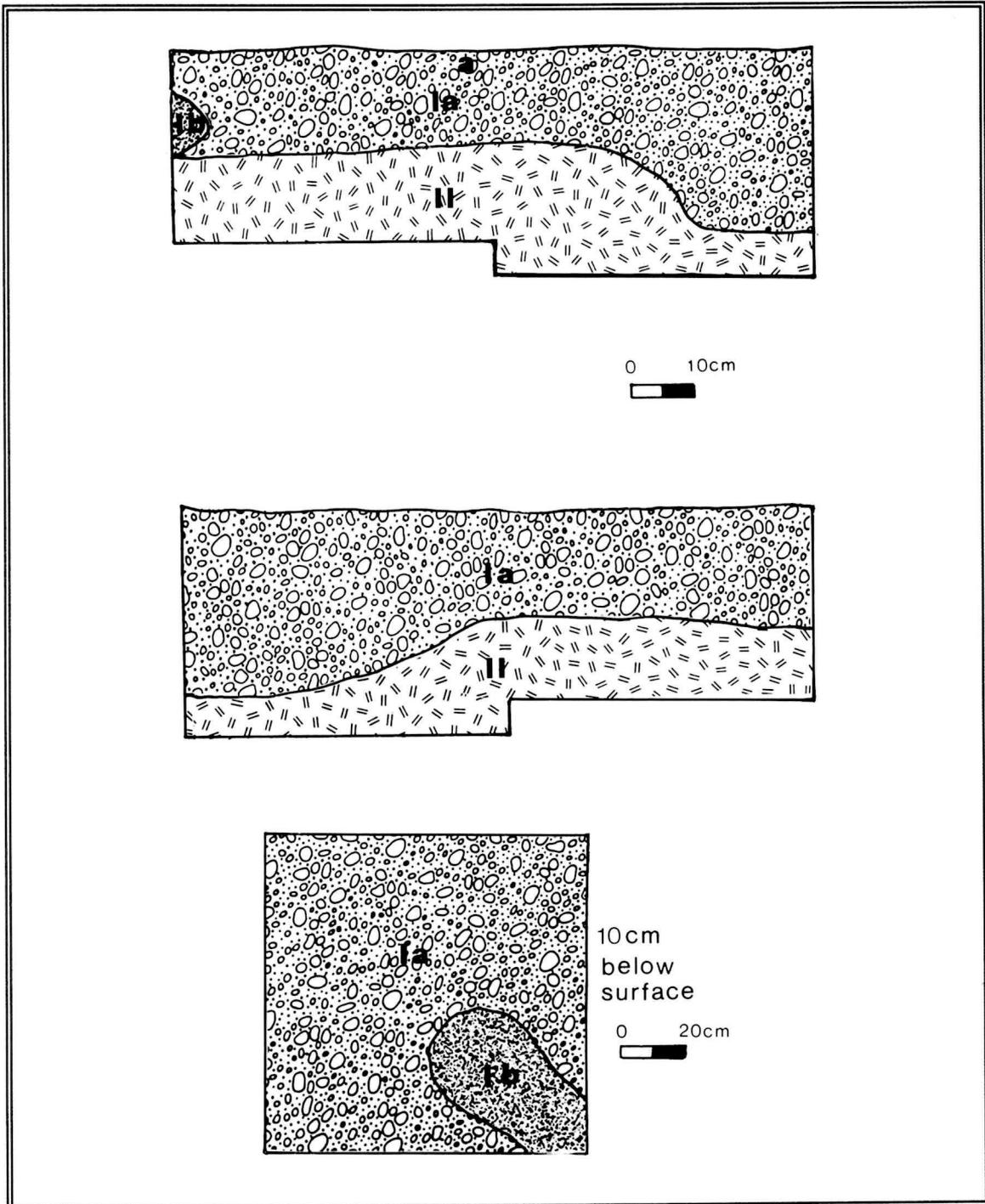


Figure 19. Profiles of the south and west walls of EU1, 16JE204, and plan view of the burned¹ Rangia feature. KEY: Ia=10YR 2/1, Black silty clay matrix in which Rangia shell predominates; Ib=Burned Rangia shell and carbon; II=2.5Y 5/0 to 2.5Y 4/0, Gray to dark gray clay; a=Baytown Plain var. Sartartia.

whether additional shell might lie at lower levels. None was noted until 116 cm below surface when *Rangia* shell and unmodified wood (possibly palmetto) were recovered.

16JE205

This site was first noted as two light surface scatters of *Rangia* shell shown on the map in Figure 20. Auger tests and shovel tests were used to define extent. Results of this regimen indicated that the site was extremely disturbed. In three different areas where shell was recovered in one test, a second test placed only one meter away yielded no shell. None of the tests yielded cultural materials.

A 50 x 50 cm excavation unit was placed adjacent to the site datum. One piece of lead shot was recovered from the 0 to 10 cm level. A few *Rangia* shells and shell fragments were observed in the 10 to 20 cm level, while the 20 to 30 cm level was devoid of shell. Strata observed in the west wall of this unit are depicted in Figure 21.

In addition to the two ditches which cut through the site, the ground surface is generally irregular here. It is characterized by what appear as "rut-like" features and by hummocks. Swanson (1988:236) depicts a nineteenth century road that passed through the area. That road may have disturbed a prehistoric site here. Alternatively, the shell may represent remnants of the road.

16JE206

This prehistoric site was first observed on transect survey as a diffuse but fairly extensive scatter of *Rangia* shell on both sides of the Christmas Plantation front ditch. As the site map in Figure 22 shows, the north/south extent of the site is 20 meters while the east/west extent is 20 meters.

A 1 x 1 meter unit was excavated in 10 cm arbitrary levels. All soils were screened through 1/4 inch mesh. Figure 23 shows the west wall profile for the unit. Three strata were observed. The upper was a 10YR 3/1 (very dark gray) silty clay with intermittent shell. Below this was a *Rangia* shell

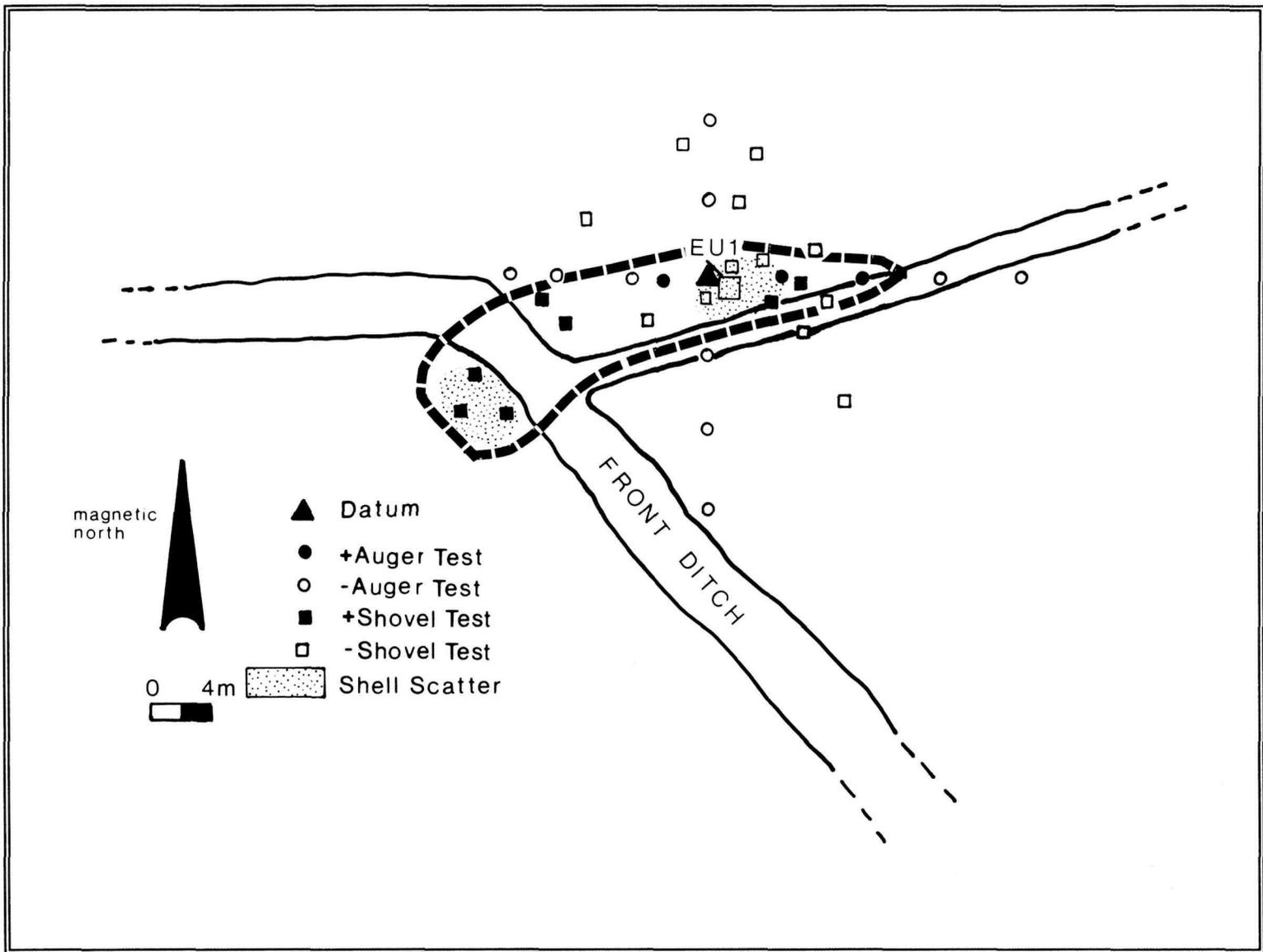


Figure 20. Site Map of 16JE205.

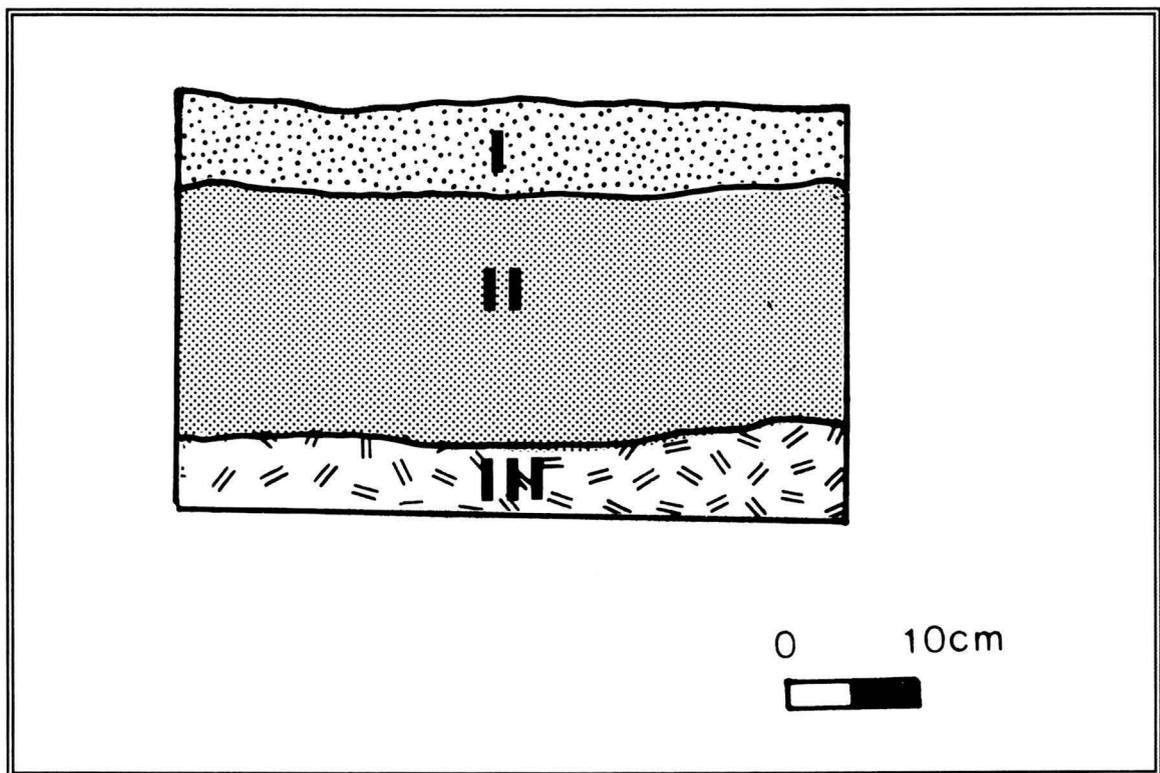


Figure 21. Profile of the west wall of EU1, 16JE205. KEY: I=10YR 3/1, Very dark gray-silty clay; II=10YR 4/1, Dark gray mottled silty clay with some *Rangia* shell; III=10YR 5/1, Gray mottled silty clay.

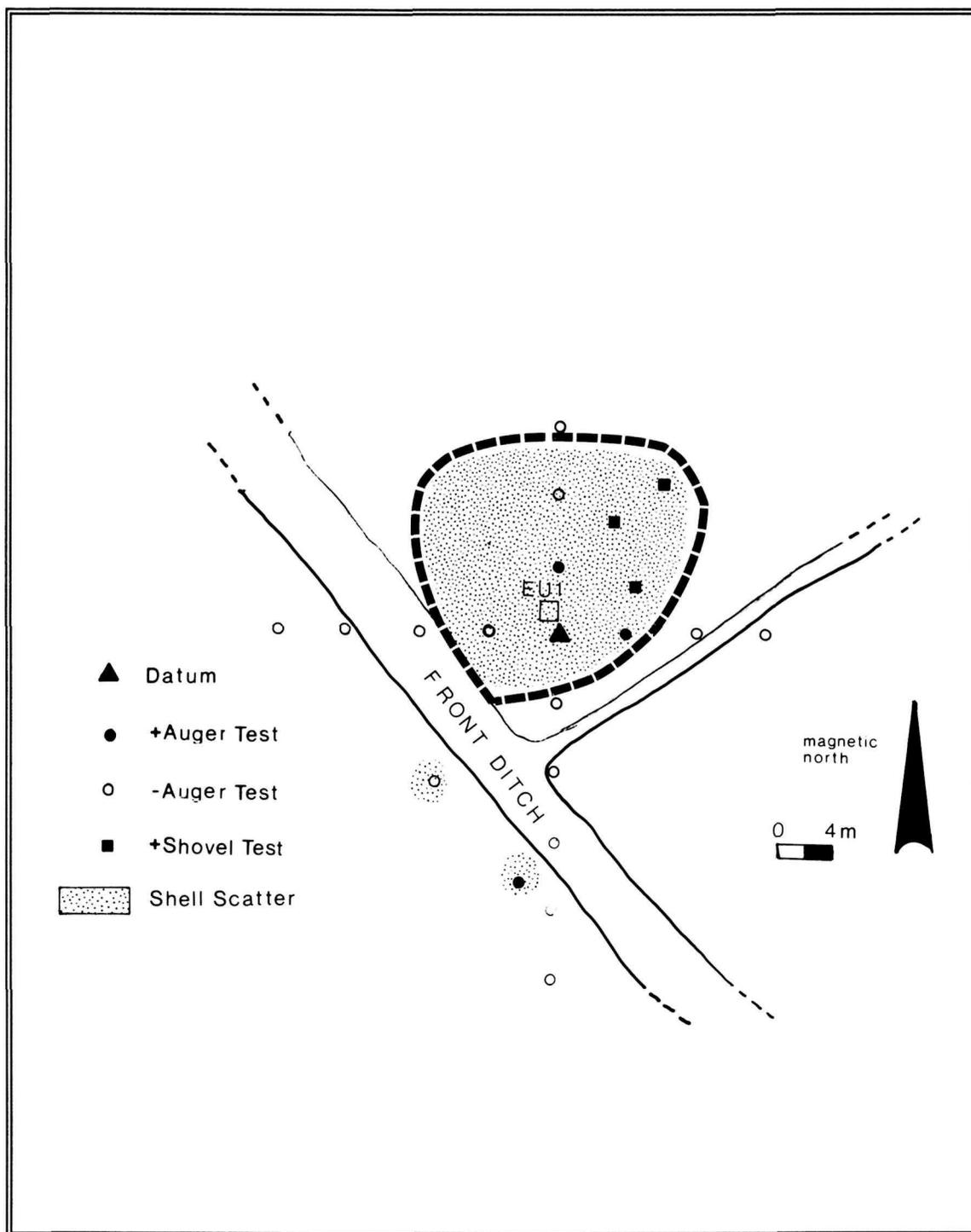


Figure 22. Site map of 16JE206.

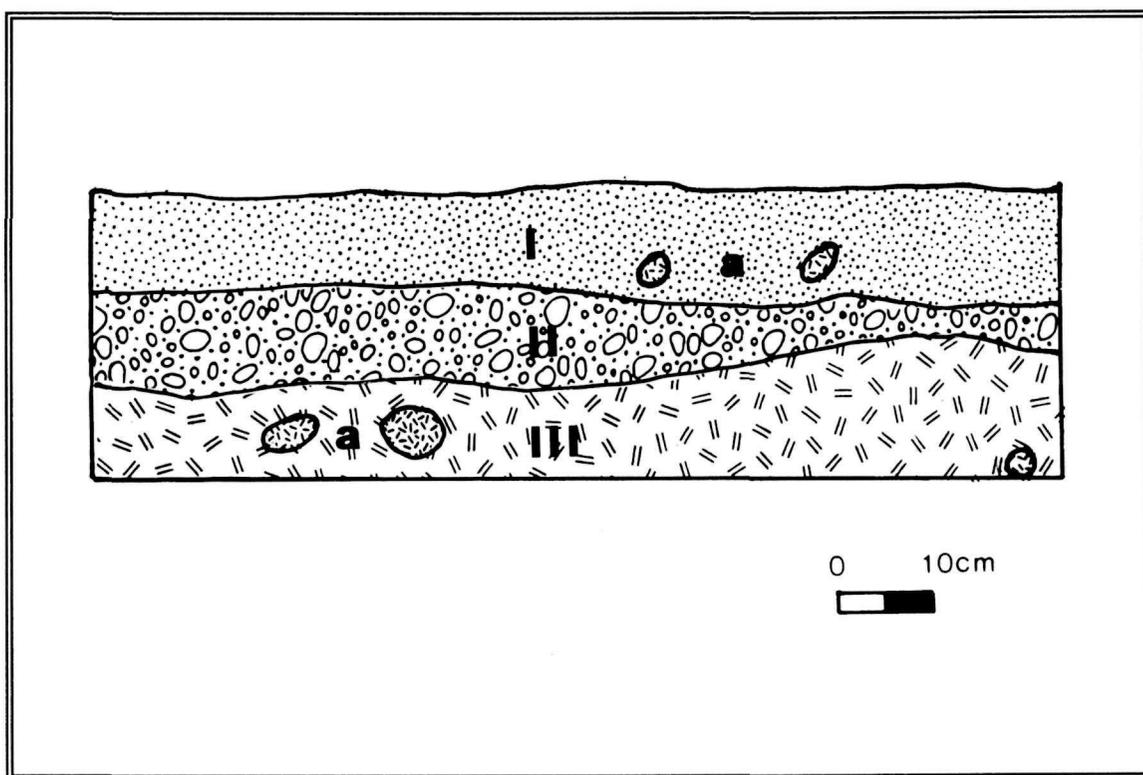


Figure 23. Profile of the west wall of EU1, 16JE206. KEY: I=10YR 3/1, Very dark gray silty clay with intermittent *Rangia* shell; II=10YR 4/1, Dark gray silty clay matrix in which *Rangia* shell predominates; III=10YR 5/1, Gray silty clay with 10YR 5/4 (yellowish brown) mottling.

lens in a 10YR 4/1 (dark gray) silty clay matrix. Below this was a 10YR 5/1 (gray) silty clay with 10YR 5/4 (yellowish brown) mottling.

Eight sherds were recovered from this unit. Two of these were from the 0 to 10 cm level and one was from the 20 to 30 cm level. The remaining five sherds were recovered from the shell lens within the 10 to 20 cm level. Seven sherds were identified as Baytown Plain *var. Satartia* and one as Bell Plain *var. St. Catherine* (Table 3).

16JE163 and 16JE164

Previous Investigations.

Beavers (1982b:App. D) reported that 16JE163 was an Earth and shell midden cut by two ditches running northwest by southeast. Site is squarish, measuring about 20 m N-S by 35 m E-W. It is multicomponent with a historic site (brick, square nail, Spanish olive jar) overlaying a prehistoric component that is probably of the Marksville period.

Historic period artifacts collected from the surface in 1981 by DeMarcay and reported by Beavers (1982b:Appendix D) consisted of one "Spanish olive jar" fragment, six bricks (or brick fragments), and one square nail.

Level 1 of an excavation unit on the site reportedly yielded four aboriginal sherds, all of which were classified as Baytown Plain *var. unspecified*. Historic materials from Level 1 consisted of 3 "Spanish olive jar" fragments, 26 bricks (or brick fragments), and one "iron stove door." Aboriginal artifacts from Level 2 were three sherds classified as Marksville Incised *var. unspecified*, one sherd of Churupa Punctated *var. Boyd*, twelve sherds of Baytown Plain *var. Marksville*, and seven sherds of Baytown Plain *var. unspecified* (Beavers 1982b:Appendix D).

Beavers (1982b:Appendix D) described the nearby site 16JE164, located "about 37 m east of UNO 7 [16JE163]," as a "Circular shell midden about 20 m N-S and 18 m E-W." No artifact counts were presented for the site nor was pottery classified as to type and variety. Rather, Beavers (1982b:Appendix D) simply states that "Only plain pottery [was] recovered." He interprets the site as a "Possibly small residence site, possibly small special function site."

Because of the possibility that historic period artifacts reported by Beavers might represent an occupation by settlers from the Canary Islands

(**Culture History**), excavations were conducted on these two sites concurrent with excavations on six other such sites located by Swanson (1988) and discussed in a companion volume (Yakubik 1989). However, one mule shoe and one brick fragment were the only historic period artifacts recovered in the course of excavations and site definition at 16JE163 and 16JE164. Further, ceramic analysis indicates that the aboriginal component dates to the Mississippi rather than the Marksville period.

16JE164. Figure 24 shows that 16JE164 lies on the immediate western edge of Bayou des Familles. Here, evidence of a backfilled 1 x 1 m excavation unit was noted. No evidence of such a unit was noted on the adjacent site. Thus, it appears that Beavers (1982b:Appendix D) erred in reporting on which site the unit was placed. Artifacts listed above may actually have come from 16JE164 rather than 16JE163.

The surface shell scatter beside the bayou and apparently representing Beaver's 16JE164 was between 6 m and 13 m in east-west extent. Its greatest north-south extent was 20 m. One hand-made brick fragment was recovered from the surface of this scatter, near the backfilled excavation unit depicted in Figure 24. Also, one clay tempered sherd with curvilinear incisions was recovered from the surface. It was tentatively identified as Coleman Incised *var. unspecified*. This sherd suggests a Mississippi period, (possible) Bayou Petre phase affiliation for the site. The pitted surface of this sherd suggested it may have been shell tempered. Classification would then change to Leland Incised, but temporal affiliation of the site would remain the same.

One 50 x 50 x 50 cm shovel test excavated adjacent to the backfilled unit (Figure 24) yielded six sherds of Baytown Plain *var. Jean Lafitte*. Four of these were from a single vessel. A second nearby shovel test, also 50 x 50 x 50 cm, yielded two additional sherds of the same variety (Table 4).

16JE163. The proximity of the two sites (Figure 24) suggests that they may represent two activity loci associated with a single occupation. They are separated by a relatively low area that lies between the two shell scatters depicted on Figure 24. The area between the smaller shell scatter and the western boundary of 16JE163 is relatively high. The two "ditches" Beavers (1982b:Appendix D) reported on 16JE163 are shown as linear depressions on

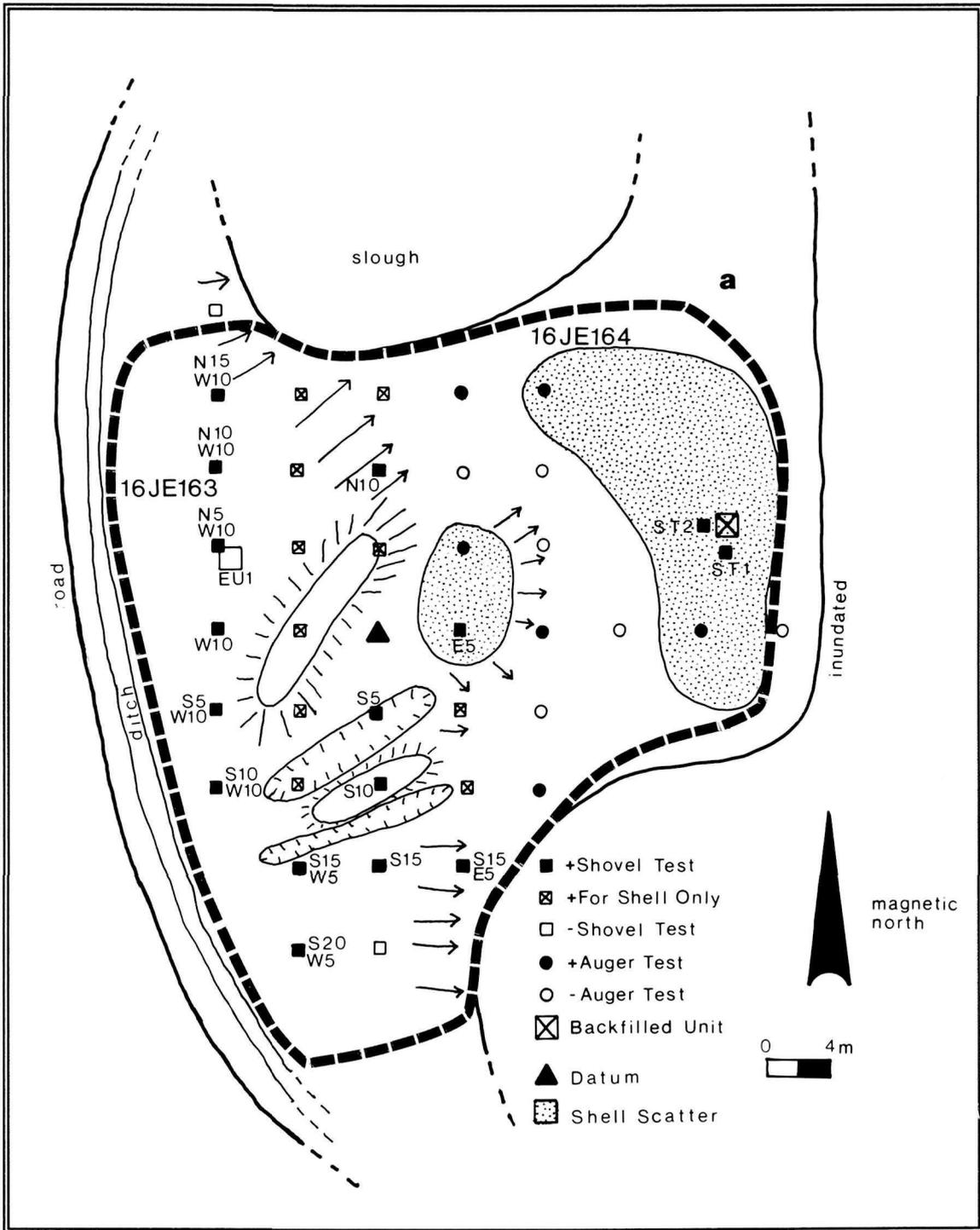


Figure 24. Site map of 16JE163 and 16JE164.

the site map. However, the alignment is southwest to northeast.

Both shovel and auger tests were utilized to define the extent of 16JE163. Auger tests N0 to N15 along the westernmost line of tests (Figure 24) yielded evidence of relatively dense subsurface *Rangia* shell concentrations. Elsewhere *Rangia* shell was diffuse with the exception of the area of the surface concentration measuring 8 m x 5 m, located just east of the site datum (Figure 24). Ceramics recovered from the shovel and auger tests proveniences are identified in Table 4.

The shovel test at N5W10 yielded the greatest number of artifacts, 15 aboriginal sherds (Table 4). Therefore, this location was selected for placement of a 1 x 1 m excavation unit. The location also placed the unit within the highest portion of 16JE163 and in the area where subsurface shell appeared to be somewhat concentrated. Excavation proceeded by 10 cm arbitrary levels, and all soil from the unit was screened through 1/4 in mesh. Figure 25 represents the north and east wall profiles. Three strata were observed. The uppermost was a 10YR 3/2 (very dark grayish brown) silt. Stratum II was a 10YR 3/1 (very dark gray) silty clay with diffuse *Rangia* shell. Stratum III was a 10YR 4/3 (brown) clayey silt.

Level 1, 0-10 cm below surface, yielded only one unidentified clay artifact, indicating that Stratum I, the very dark grayish brown silt, is almost culturally sterile. Level 2 yielded the only historic period artifact recovered from the unit, a mule shoe, shown in the east wall profile in Figure 25 at approximately 15 cm below surface. From the same level came 50 aboriginal sherds identified in Table 4. Level 3 yielded an additional 54 sherds, while Level 4 yielded only one. Thus the highest concentration of cultural materials was from 10 to 30 cm below surface.

Discussion. All of the seven decorated sherds from the unit (Table 4) at 16JE163 suggest a Mississippi period occupation at the site. The curvilinear incisions on the decorated sherd from 16JE164 suggests the same temporal affiliation. The lack of spatial separation between the two sites indicates that they probably represent two activity loci associated with a single occupation. Differential activity patterning between the loci may be indicated by the nature of the sherds recovered from each. The ceramic differences are discussed in the following chapter.

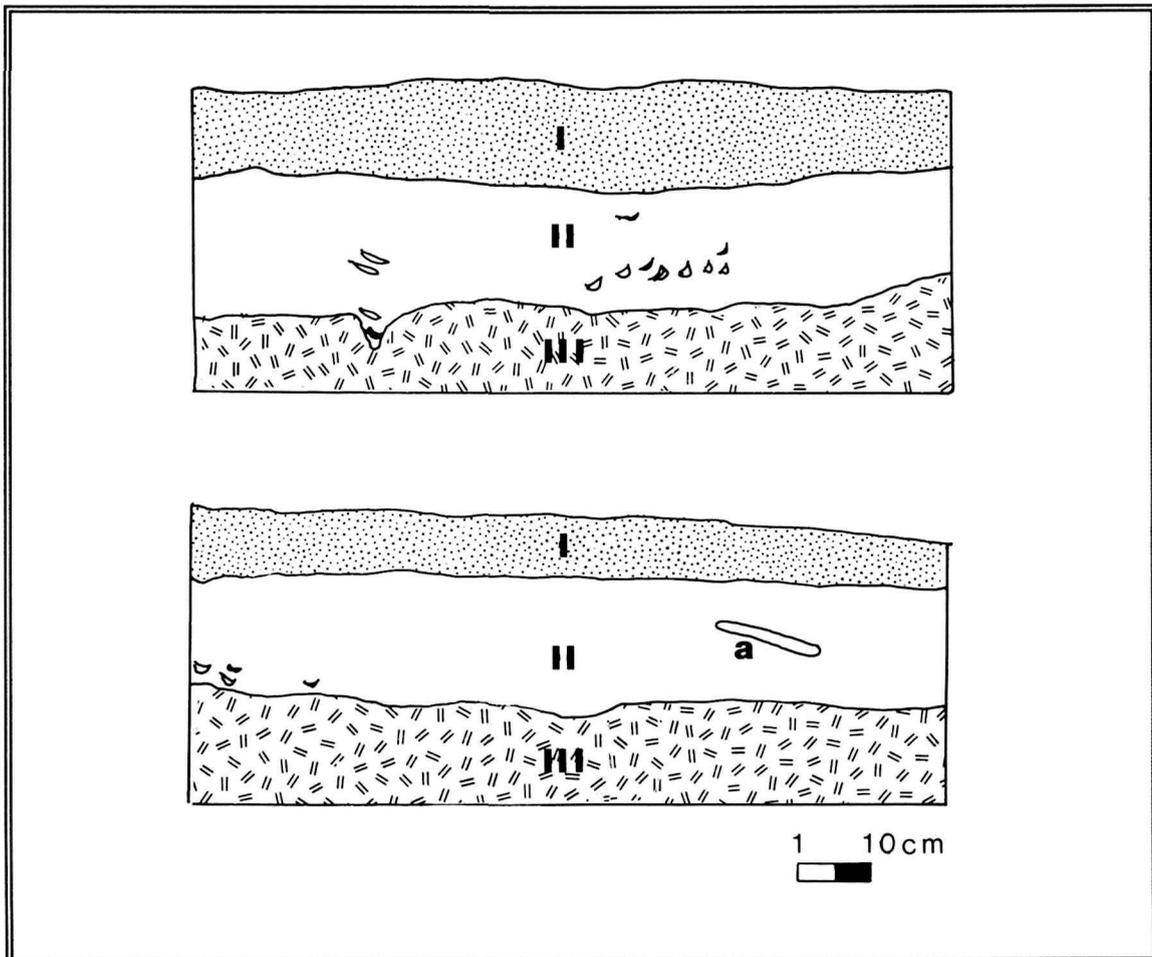


Figure 25. Profiles of the north and east walls of EU1, 16JE163. KEY: I=10YR 3/2, Very dark grayish brown silt; II=10YR 3/1, Very dark gray silty clay with *Rangia* shell; III=10YR 4/3, Brown clayey silt; a=Horseshoe.

The mule shoe appears anomalous in the cultural context in which it appears. If the site represented an historic period aboriginal occupation, other European trade goods would be more likely to appear in the cultural assemblage than a mule shoe. Similarly, if this site represented a Canary Islander occupation similar to those reported in a companion volume (Yakubik 1989), a greater quantity of Euro-American goods would certainly appear in the midden context. The historic component previously reported, then, was not confirmed by these investigations. It is possible that in 1981 a roadside garbage scatter was spread over this area. If so, it has since been removed.

ANALYSIS OF ABORIGINAL CERAMICS

by Marco Giardino, Ph.D

The ceramic analysis presented here consists of the attributal and typological identification of 240 sherds recovered from nine sites in the Barataria Unit of the Jean Lafitte National Historical Park and Preserve dating from the protohistoric or the late Mississippi Period. Each sherd is described in terms of color, paste, temper, and, where applicable, decoration and rim style. The typology and associated descriptive terms follow the system formalized by Phillips (1970) for the Lower Mississippi Valley. The ceramics are listed by provenience in Tables 3 and 4.

Five varieties of ceramic plain ware were identified during this analysis. Most of these wares are common in aboriginal sites from the Louisiana delta spanning more than 2000 years of occupation, from Marksville to the Protohistoric period. Without absolute dates and/or clear associations with decorated sherds, the placement of these plain sherds in a temporal context is quite difficult. Carbon dates and larger assemblages are necessary in order to place collections in which utilitarian wares predominate in a chronological framework.

Most of the ceramics reported in this chapter are poorly made and appear to represent utilitarian wares. This interpretation suggests that the sites themselves served as locales for temporary occupations, possibly related to specialized procurement activities. That interpretation is supported by the relatively small size of the sites, and by the apparent absence of any stratification.

Typological Analysis

Varieties encountered in this assemblage are described below. Following this initial description, a typological analysis is presented. It should be noted, however, that because the majority of sherds are plain ware and tend to grade into each other, typological assignments are somewhat tenuous. The use of already established plain types during this analysis was employed to facilitate comparisons with previous studies in the region. Only one new variety was developed during this analysis (Baytown Plain *var. Jean Lafitte*). Analysis of additional and larger assemblages from the Barataria Basin is necessary to justify the establishment of this variety as a legitimate (i.e., consistently sortable) ceramic type.

The five plain ceramic types employed in this study are Baytown Plain *var. Reed*, Baytown Plain *var. Satartia*, Baytown Plain *var. Jean Lafitte*, Bell Plain *var. St. Catherine* and Baytown Plain *var. Addis*. Each type is slightly modified in this report to account for the local ceramic idiosyncrasies, particularly the sand content and the presence of contorted and very contorted pastes. The description of individual attributes of each sherd is included to facilitate replication of this study without necessitating adherence to the types herein employed.

Baytown Plain var. Reed

This type is described as a coarse, thick paste ceramic with large angular inclusions that look like ground-up sherds. The surfaces are crude and bumpy. Rims are amorphous and thickened (Phillips 1970:53). In this assemblage, those ceramics typed as *var. Reed* were dark brown or gray. They were poorly oxidized, with very contorted (highly laminated) paste and large clay and/or grog particles. One other distinguishing feature of these sherds was the addition of small amounts of sand.

Baytown Plain var. Satartia

Phillips (1970:53) describes this variety as similar to *var. Reed* but

without the necessary thickness. Also, *var. Satartia* has a more compact paste, and a smoother, harder, sometimes even lustrous surface. In this ceramic analysis, sherds classified as *var. Satartia* are beige or red in color, better oxidized than *var. Reed*, with slightly less contorted paste, and mostly grog and clay tempering. In some cases, a small amount of charcoal is present in the paste, grading, therefore, into varieties of *St. Catherine*.

Baytown Plain var. Jean Lafitte

This is a new, but tentative variety established during this study to classify a subset of the assemblage which did not fit within established varieties. Sherds classified as *var. Jean Lafitte* were usually black, and they were made on fine or slightly contorted paste. They contained small particles of clay temper and large amounts of sand. Some sherds are polished, similar to some examples of *var. Satartia*.

Bell Plain var. St. Catherine

This ceramic ware is common in late Mississippian sites in south Louisiana (Giardino n.d.b; Phillips 1970:61). It is described as having compact, granular paste with fine inclusions of shell, very fine grit, or charred organic materials. In the ceramic sample from the Barataria Unit of Jean Lafitte National Historical Park and Preserve, this ware also includes small amounts of sand. The surface colors are normally reddish or beige. Shell is very rare in these sherds, and when present appears to be an incidental inclusion.

Baytown Pain var. Addis

This type is described as having small granular particles of variegated color and smooth matte surfaces, producing a mottled effect (Phillips 1970:49). Only one sherd from this collection was sufficiently well-made to be assigned to this type. Most other sherds, although similar to Addis in temper and color (i.e. warm shades of brown), were too highly contorted to fit comfortably under this rubric.

Grog and Clay Temper

Before proceeding with the description of individual sherds, it is necessary to provide a clarification of the grog/clay temper attribute. Grog tempering is normally described as the inclusion of sherd fragments in the paste. Clay tempering, in this respect, refers to the large and medium fragments of angular, white materials commonly found in the local wares. Weaver (in Phillips 1970:53), believed that the inclusion of ground-up sherds and other angular inclusions resulted from careless preparation of the clay. This observation was echoed by Ford and Quimby (1945:67) in their discussion of Tchefuncte pottery. The same can be said for the ceramics under discussion. The angular fragments are often numerous and large, contributing significantly to the highly contorted nature of the ceramic pastes.

There is a consistent correlation in the ceramics under discussion between the type of temper and the degree of oxidation of the sherds. Red particles (i.e. grog temper) occur most frequently on sherds that are fully or mostly oxidized. White angular fragments (i.e. clay temper) are most common on sherds that are poorly oxidized and that exhibit black or dark gray surfaces. The situation is clearer in those ceramic artifacts that are oxidized on the exterior surface but black on the interior. In these cases, the tempering materials on the exterior surface are red, and on the interior surface white. This suggests that these inclusions are all clay particles, possibly resulting from a premature drying of the clay and by the poor sorting of the materials by the potter.

There seems to be no diagnostic value in the present analysis for separating these two tempering materials, particularly since they often co-occur on a sherd and seem to correlate with firing methods (i.e. grog particles appear on red or oxidized surfaces and white clay ones on black or poorly oxidized surfaces). In rare instances, the red grog particles are present on the surfaces of poorly oxidized sherds. This may indicate that clay particles from previously baked vessels were crushed and re-included in subsequent vessels. In this case, the second firing would have oxidized the temper particles, while the rest of the vessel, undergoing one firing in a reducing or low heat environment, produced the black and gray colors

characteristic of poorly fired or reduced vessels.

In sum, both clay and grog temper, as defined here, are probably the same material, differing only by the degree of heat to which the ceramic surfaces are subjected during firing. Grog and clay particles are similar in size and distribution in many of the ceramics excavated from the Lower Mississippi River Valley.

Sherds at 16JE200

Excavation Unit, Level 1. One plain body sherd, classified as *var. Jean Lafitte* was recovered. It is poorly fired, black in color, and clay tempered with a high sand content. The paste is slightly contorted.

Excavation Unit, Level 2. This level yielded one decorated sherd on paste very similar to the one described above. The sherd exhibits curvilinear, parallel, U-shaped incisions executed on wet paste. The decoration is similar to Winterville Incised *var. Angola*, but the sherd is not shell tempered which is normal for this type. Paste is similar to Baytown Plain *var. Jean Lafitte*. The type is provisionally described as Coleman Incised *var. unspecified*. Coleman Incised is a clay tempered Mississippian ware (Phillips 1970:69).

Sherds at 16JE201

Excavation Unit 1, Level 5, Locus A. Three plain body sherds were found in this level. The first is classified as *var. Jean Lafitte* because it has a fine paste with clay/grog tempering and a high degree of sand inclusions. One is *var. Addis*, and it contains very little tempering, primarily of fine clay. The sherd is well oxidized and exhibits a fine paste. The last is characterized as *var. Reed*, because it exhibits a contorted paste and large particles of clay temper.

Excavation Unit Extension, Stratum I, Locus A. Two sherds, both plain body fragments, were recovered from this stratum. The first is a gray color, has a contorted paste, and exhibits clay, grog, and some sand tempering. It is classified as Baytown Plain *var. Reed*. The second sherd is black, and has a very contorted paste with large clay tempering and some sand. It is also

classified as *var. Reed*.

Excavation Unit Extension, Stratum II, Locus A. Two plain body sherds were recovered from this level. One is *var. Reed*, and has a very contorted paste with large grog tempering. The other sherd is classified as *var. Satartia*. It has a less contorted paste, and grog and charcoal tempering. The surface color is gray. A brown mottling occurs on the sherd which is post-depositional, since it is present in the area of the break.

16JE201, Locus B, Auger Test N0. One sherd of *var. Satartia* was recovered. It exhibits large clay and smaller grog tempering in a contorted paste. The sherd is fully oxidized, being red throughout the paste.

16JE201, Excavation Unit, Level 1, Locus B. Three sherds, including one decorated rim, were recovered in this level. The rim is Coles Creek Incised *var. Hardy*. It is decorated by three deep, V-shaped rectilinear incisions executed on wet paste. The decoration begins immediately below the lip of the vessel. The lip is round, the rim outfolded, the vessel direct. The sherd is poorly oxidized, and is grog and clay tempered. Some pitting on the sherd resembles leaching on the surface where shell may have been present. The paste is a coarse variant of *var. St. Catherine*. *Var. Hardy* is associated with the early portion of the Mississippi period in parts of the Lower Mississippi Valley (Phillips 1970:74). Quimby (1942:267) stated that it was present at all historic Natchezan sites.

The other two sherds from this level are plain, and both are classified as Bell Plain *var. St. Catherine*. Both have slightly contorted pastes containing fine particles of clay, grog, charcoal, and possibly some shell. One sherd exhibits a slight amount of surface polishing. One sherd is fully oxidized, while the other is slightly less so.

16JE201, Excavation Unit, East Wall Profile Artifact A (within Level 1), Locus B. This one plain sherd is ascribed to *var. Satartia*. The mottled brown surface gives the appearance of an eroded clay slip, but condition of the sherd does not allow a definitive statement.

16JE201, Excavation Unit, Level 2, Locus B. Eight artifacts, mostly plain body fragments, were recovered from this level. One piece is an amorphous fragment of fired clay, but it is not daub. The other artifacts are plain body sherds of various types. Most common are the *Satartia* variety,

represented by three sherds. Two of these are fully oxidized, one only slightly so. All three show contorted pastes and large pieces of grog and clay tempering. One sherd also includes small particles of charcoal. This last artifact is a portion of a vessel wall that has been thickened in the area of the vessel neck. The shape of the vessel cannot be determined from the fragment.

Two plain sherds from this level are typical of *var. St. Catherine*. Both are red on the exterior and partly into the core of the sherd. The rest of the core and the interior surface are black. The slightly contorted paste includes a heterogeneous group of tempering materials including shell, charcoal, clay, and grog.

One example of *var. Reed* is present. It exhibits oxidized surfaces, contorted paste and large grog/clay tempering. The final sherd is *var. Jean Lafitte*. It contains a large number of sand particles as well as fine grog and charcoal. The paste is fine but highly friable. The fully oxidized surfaces appear water worn.

16JE201, Locus B, East Wall Profile, Artifact B (within Level 2). This one plain sherd is *var. Satartia*. It exhibits large clay and grog tempering with a fair amount of charcoal. The paste is contorted and poorly oxidized.

16JE201, Locus B, West Wall Profile, Artifact C (within Level 2). This sherd also is *var. Satartia*. It exhibits the carination and neck thickening of the typical Mississippian jar. No lip is preserved. The fully oxidized sherd is grog tempered and has a contorted paste.

16JE201, Locus B, Level 3. Two plain body sherds are contained in this excavation level. One is *var. St. Catherine*. It is partly oxidized and has dense clay and grog tempering with charcoal inclusions. The paste is slightly contorted. The other sherd is closer to *var. Satartia*. It exhibits large grog temper and a contorted paste. This sherd is mostly oxidized.

Sherd at 16JE202

16JE202, Excavation Unit, Level 3. One plain body sherd recovered here was classified as *var. Reed*. The paste is heterogeneous, but is more contorted than normal for *var. St. Catherine*. It also contains significant

quantities of sand.

Sherds at 16JE204.

16JE204, Surface. Three sherds, all fitting and exhibiting fresh breaks, are described as *var. Satartia*. It should be noted however, that these sherds exhibit paste nearly contorted enough to fit the description of *var. Reed*. The poorly oxidized sherd(s) include fine clay and large grog tempering.

16JE204, Excavation Unit, Level 1. This level contained four sherds, two of which are congruent. One sherd was classified as *var. Satartia* due to the contorted nature of the paste. The temper includes the expected large clay tempering, but also significant amounts of charcoal. The sherd is fully oxidized.

A second sherd is the fragment of a round lip. The paste is similar to *var. Satartia*. The lip was separated from the vessel in the area of the fold.

The two fitting sherds are ascribed to *var. Reed*. They are partly oxidized, with contorted paste and large clay and grog inclusions. Sand particles are also present. The sherds are remnants of a rim from a direct or slightly outflaring vessel, probably a jar. The rim is thickened by outfolding that has been subsequently smoothed. The lip is flat. One sherd is broken at a coiling juncture.

16JE204, Excavation Unit, South Wall Profile (within Level 1). This body sherd was *var. Satartia*. It is white in color except for the interior surface, which is black. The paste is contorted and contains grog, clay, and charcoal tempering in large quantities.

16JE204, Excavation Unit, Level 3. A total of 41 sherds, including four plain rims were present in this 10 cm level. Eleven sherds are classified as *var. Satartia*, five of which contained significant quantities of sand. Fifteen sherds are classified as *var. Reed*, of which 11 contained sand in the paste. Two sherds are identified as *var. Jean Lafitte* and 13 as *var. St. Catherine*. In this last group, six sherds exhibited pastes more contorted than normal for this type. This closely resembles the situation in Level 4 of 16JE204 (below). All sherds in this level are characterized by very rough surfaces, indicating sloppy or hasty manufacture. Two sherds contain spalling

marks, and one is broken at a coiling juncture.

Forty-nine percent of the sherds from this level contain significant amounts of sand. Nearly 80% are well oxidized, and all but one exhibit contorted or very contorted paste. Thirty-four percent of the ceramics are tempered with grog, clay, shell and charcoal (i.e. heterogeneous tempering).

The rims in the sample from this unit are also poorly made. One possible lip fragment exhibits fine paste and large grog tempering, but the rest of the rims are made on very contorted paste. They are mostly heterogeneously tempered, and poorly oxidized. One rim is flat, the other three round. The flat rim is unfolded but thickened with a slight exterior bevel. It apparently represents a fragment of a direct vessel. One rim exhibits a severe interior bevel and infold. It too represents the remains of a direct vessel. The remaining two rims are thickened, one by interior and the other by exterior folding of the lip.

16JE204, Excavation Unit, Level 4. Six plain body sherds were contained in this level. All but one can be assigned to *var. St. Catherine*. Most of these sherds are poorly oxidized and contain a wide variety of tempering particles including grog, clay, charcoal, shell, and sand. One example of *St. Catherine* is finely worked, but the rest exhibit a very contorted paste. As mentioned above, this is not the normal paste for this variety. These sherds were assigned, nonetheless, to the *St. Catherine* variant on the basis of tempering, but could represent a new variety closer to Reed but with heterogeneous paste. One sherd in this level is not classified as *St. Catherine*. It is nearly untempered, containing very slight amounts of grog and clay. It is closest to *var. Reed* due to the very contorted paste, but lacks the normal density of tempering materials common to this type.

Sherds at 16JE206.

16JE206, Excavation Unit, Level 1. Two plain body sherds were recovered from this level. One of these is *var. Satartia*, and it represents the remnant of a flat lip. This sherd also includes charcoal tempering in addition to clay and grog. The other sherd is constructed on fine paste, is well oxidized and contains heterogeneous tempering, including sand. It is

classified as *var. St. Catherine*. The sherd is marked by a smoothing blemish.

16JE206, Excavation Unit, Level 2. Five sherds were recovered in this excavation level, four of which fit and exhibit fresh breaks. These are discussed as a single artifact. The sherd is decorated by a single rectilinear incision executed on dry paste. The paste is similar to *var. Satartia*. The other sherd from this unit is a flat rim with an incised line directly below lip, in the area where the outfold was smoothed over. The rim derives from a vessel with unflaring or direct shape. The rim sherd is well oxidized and the paste resembles *var. Satartia*.

16JE206, Level 3. One poorly oxidized sherd is contained in this excavation unit. It is classified as *var. Satartia*.

Discussion of Ceramic Assemblages: 16JE200, 16JE201, 16JE202, 16JE204 and 16JE206

Ceramic analysis for sherds from these sites indicates that all may date from late prehistoric or early historic periods. This conclusion is preliminary since it is based on a very small sample of decorated sherds. The presence of a Coleman Incised sherd and of Bell Plain *var. St. Catherine* sherds at 16JE200 and 16JE201 suggest that these two sites at least represent Mississippi period occupations. The sherd of Coles Creek Incised *var. Hardy* at 16JE201 could indicate a slightly earlier date (possibly Plaquemine), but the type does have a long chronological history and has been recovered from several protohistoric sites in the Lower Mississippi Valley (see discussion of 16JE163, below).

The vast majority of the plain sherds recovered from these five sites represent Baytown Plain, either *var. Reed* or *var. Satartia*. The newly described *var. Jean Lafitte* is found in association with these other plain types and with Coleman Incised in 16JE201, Level 2. Varieties *Reed* and *Satartia* are common in archaeological deposits dating from as early as Late Marksville (Phillips 1970:53). Similar plain ceramics are common on Late Mississippi sites like Sims (16SC27) (Giardino n.d.b). *Variety Satartia* was common in the ceramic industry from the Coquilles site (16JE37) (Giardino n.d.a). Consequently, the presence of these two varieties of Baytown Plain in an archaeological context does not provide clear temporal and/or cultural

information. The fact that they co-occur at the sites under discussion with demonstrably late decorated types such as Coleman Incised and Coles Creek Incised *var. Hardy* appears to represent evidence for the long and wide distribution of these two Baytown Plain varieties.

The sites under discussion here are all ceramically similar. They share traits not previously described in southeastern Louisiana. Among them is the high percentage (39%) with sand inclusion in the ceramic paste. As was discussed above, *var. Jean Lafitte* is defined on the basis of sand in the paste. In addition, sand is present in some examples of *var. Reed* and *var. St. Catherine*. This frequent inclusion of sand in ceramics from apparently late prehistoric sites in the Barataria Unit may be an important regional trait. At the Coquilles site within components dated as Late Marksville, one percent of the sherds had significant amounts of sand included in the paste. The increased frequency of sand-tempered wares on sites under discussion here may be a diagnostic temporal trait useful in future classifications of area ceramics. The occurrence of sand in a high percentage of sherds is unusual in local ceramics, possibly because the vast majority of soils in the region are composed of particles of much smaller size.

Among the possible explanations for the presence of sand are conscious sorting by the potters or changing geological conditions. The latter could include episodes of greater stream activity in the immediate vicinity of the sites. However, it should be noted that no evidence for sand-laden deposits was recorded in the course of excavations on the various sites.

The presence of sand and the contorted, clay tempered nature of the wares from the ceramic industries under consideration suggested initially that the deposits from these sites may have dated from the Tchefuncte period. Tchefuncte ceramics are often grog tempered with small quantities of sand and vegetable fibers (Shenkel 1984:47). In Tchefuncte assemblages, sand tempered wares are a majority constituent (Shenkel 1984:48). Ford and Quimby (1945:67) describe two principal types of Tchefuncte wares. One is soft and chalky, tempered with angular clay fragments. The other is tempered with fairly large portions of sand (see also Toth 1977:52). Nearly 20 percent of Tchefuncte assemblage sherds contained "fair amounts of fine sand" (Ford and Quimby 1945:67). In addition, Tchefuncte wares exhibit

careless grinding and sifting of clay, poor wedging, and low firing temperatures. All of these traits are also common among the sherds from the present survey.

Further analysis and research indicated that the potential for a Tchefuncte affiliation of these sites should be dismissed. The absence of temperless sherds (with the exception of one sherd in 16JE204, Level 4) argued against the earlier temporal affiliation. Temperless wares are common in Tchefuncte deposits (Shenkel 1984:47-48). Certainly, the absence of decorated sherds from the Tchefuncte period helped in dismissing the Tchefuncte assumption, even though there were very few decorated sherds recovered from the sites under discussion. Finally, the geomorphological conditions of the area during Tchefuncte times have been described as "unlikely" for occupation of the study area (Beavers 1982b:122). Serious examination of the possibility of Tchefuncte affiliation of the sites was warranted due to the paucity of decorated types recovered, the non-diagnostic nature of many of the plain ceramics, and the presence of sand tempered wares not commonly found in Mississippian period contexts. In addition, Tchefuncte materials recovered in the course of other surveys in the vicinity of the study area were from surface collections and dredge spoil contexts (Beavers 1982b).

One final observation is advanced concerning the ceramic assemblage and their archaeological context. Most wares from these sites are crude and apparently were hastily manufactured. This would imply a utilitarian function for the vessels. The sites from which they derive are mostly thin layers of *Rangia* shells with limited horizontal distribution. These appear to be short-term occupation sites, possibly associated with limited procurement activities. The ceramics utilized for these undetermined activities were most likely manufactured for immediate use. They probably were not curated when damaged. This assumption is not yet tested and should be viewed as one focus for future study.

Sherds at 16JE163

A total of 142 sherds were recovered in the course of excavations at 16JE163. Of these, 106 derived from the 1 x 1 m excavation unit. Table 4 presents ceramic counts for the various proveniences on the site, and identifies sherds at the type and variety level.

No significant ceramic differences were apparent in the materials excavated from the four 10 cm levels in the excavation unit. Consequently, ceramics from all levels within that unit and from the other proveniences are considered contemporaneous and are discussed herein as a single component.

Decorated Sherds. Of the 142 sherds, eight sherds were decorated while nine represented rim fragments. Diagnostic sherds present in this assemblage include Maddox Engraved *var. unspecified* (1), Coles Creek Incised *var. Hardy* (2), unidentified zoned punctate (2), L'Eau Noire Incised *var. Anna* (1) and L'Eau Noire Incised *var. Australia* (1). All of these types were present at the Sims site Area 3 Bayou Petre component (**Culture History**). Table 5 compares occurrences of these types for the two sites. Carbon dates and thermoluminescence assays indicate this component of the Sims site represented a late eighteenth and early nineteenth century occupation (TL A.D. 1808; C-14 210 + 65 B.P. [A.D. 1740, calibrated to A.D. 1810] (Giardino n.d.b)).

Plain Sherds. Undecorated ceramics from 16JE163 represent five principal types. These are Bell Plain *var. St. Catherine* (5), Baytown Plain *var. Satartia* (41), Baytown Plain *var. Reed* (24), Baytown Plain *var. Addis* (38), and Baytown Plain *var. Jean Lafitte* (13). In general, ceramic pastes from this and from the other sites reported in this volume are sandier than their typological norms, and they exhibit more polish than is expected normally.

Baytown Plain var. Satartia (41). These sherds from 16JE163 exhibit fine to slightly contorted pastes tempered with clay, some sand and fragments of white materials described by Phillips (1970) as "vulcanic tufa." Surface colors include beige, brown and red, indicating the complete or near complete oxidation of the ceramics. The surfaces are compact and often polished and lustrous. Some sherds appear to be slipped, although no detailed analysis of this trait was undertaken. When the temper is more heterogeneous (i.e.

Table 5. Decorated Sherds: Comparison Between Sims Site and 16JE163.

TYPE	SIMS SITE	16JE163
(dec n=8)		
Maddox Engraved <u>var. unspecified</u>	11 (2.4%)	1
L'Eau Noire Incised <u>var. Australia</u>	13 (2.8%)	1
L'Eau Noire Incised <u>var. Anna</u>	10 (2.1%)	1
Coles Creek Incised <u>var. Hardy</u>	14 (3.0%)	2
Unidentified Zone Punctate	5 (0.4%)	2
Possibly Painted: <u>var. Anna?</u>	0	1

includes charcoal and grog tempering), *var. Satartia* sherds from 16JE163 grade into Baytown Plain *var. Addis* (below). This transition is especially noticeable when the ceramics are polished and slipped. In general, *var. Satartia* sherds from this site are slightly thicker than indicated by Phillip's (1970:53) type description.

Var. Satartia rims from 16JE163 are normally thickened by infolding of the lip, followed by smoothing to reduce thickness somewhat. Lips are flat in all cases. Decorated sherds made on *var. Satartia* paste include Maddox Engraved *var. unspecified* and Coles Creek Incised *var. Hardy*.

Baytown Plain *var. Addis* (38). These ceramics from 16JE163 exhibit a fine paste with small particles of heterogeneous temper, including clay, charcoal, grog and some other minerals. As is true for most ceramics from the Barataria Unit reported in this study, the *var. Addis* sherds contain some sand and have granular surfaces. Sherds are mottled red, orange and beige, and they are polished, especially on the interior. *Var. Addis* sherds grade into *var. Satartia* when they are tempered by larger amounts of white aplastics. One *var. Addis* sherd from Level 1 of the excavation unit is untempered and may be a water-worn lip fragment.

Var. Addis vessel shapes from 16JE163 include small bowls and plates, mostly unflaring or direct. Also recognizable are fragments of constricted jars, a shape commonly associated with Mississippian designs such as Buras Incised and Moundville Incised. Those two decorated types are common in Bayou Petre components in southeastern Louisiana. Rims have both round and flat lips which are normally thickened by folding inwardly, after which they are smoothed. One rim may be notched on its exterior, although this could also have resulted from spalling. Spalling was common on ceramics from 16JE163. Finally, a portion of a rim strap and a possible "node" or podal support were represented among sherds classified as *var. Addis*.

Baytown Plain *var. Reed* (24). This variety exhibits at 16JE163 a contorted, friable paste with clay tempering. The aplastic tempering materials are often very large. Some sand is also present in *var. Reed* sherds. Surface colors range from dark brown and black to beige and brown, indicating poor oxidation. These sherds from 16JE163 are less contorted than *var. Reed* specimens recovered from other prehistoric sites within the park and discussed

above. Also, examples from 16JE163 are more polished than is expected for this type, even when the ceramic is not well made and the paste is contorted. When well made and polished, *var. Reed* sherds resemble a thick version of *var. Addis* since they include, in some cases, charcoal, grog and other types of tempering. Also, ten *var. Reed* sherds from 16JE163 are transitional toward *var. Satartia* because they are well made, polished and clay tempered.

Rims classified as *var. Reed* are direct or slightly inflaring, with lips that are either tapered or finished by infolding and outfolding, after which they were smoothed down. Most lips are round. Several are fragments of plates with exterior bevelling, a feature commonly found on plates from Area 3 of the Sims site.

Most of the decorated sherds from 16JE163 are manufactured on *var. Reed* paste. These include Coles Creek Incised *var. Hardy*, L'Eau Noire Incised *var. Anna* and *var. Australia*, and two unidentified zoned punctated sherds resembling Churupa Punctate.

Baytown Plain var. St. Catherine (5). Paste for these sherds from 16JE163 is fine and compact, with heterogeneous temper that includes sand and shell. The surfaces often feel chalky, and the sand content is minimal. As in the other plain varieties, the surfaces of *var. St. Catherine* sherds from this site are well polished and lustrous. Rims indicate plates with direct shapes, infolded, smoothed and with flat lips. This ceramic type was very common at Area 3 of the Sims Site and is a majority ware at the Buras Mound, located in Plaquemines Parish. Both of these other site components represent the Bayou Petre phase. At 16JE163, sherds of *var. St. Catherine* are a minority. Whether this distinction reflects temporal or cultural differences is presently unclear. It should be noted that in 1976, Steponitis (1976:121-122) reclassified *var. St. Catherine* under the type Addis Plain.

Baytown Plain var. Jean Lafitte (13). The definition for this new variety is based exclusively on the high sand content included in the paste. These sherds also include clay, charcoal, unidentified white particles and other types of aplastics common in other varieties of Baytown Plain recovered at 16JE163. Sherd surfaces are very granular. *Var. Jean Lafitte* pastes are fine, often beige and well oxidized, although some black colors occur in this variety. As in other varieties from this site, the surfaces of *Jean Lafitte*

sherds are well polished, especially on the interior. Rims are infolded, then smoothed. The lips are round and direct. Plates are the most common vessel shape in this small sample.

Baytown Plain var. unspecified (1). One rim sherd is classified as Baytown Plain var. *unspecified*. The paste is densely tempered with clay and sand. These aplastics stand out in relief from the sherd's surfaces. The paste is light gray and has a granular texture. The rim is from an infolded bowl with a slightly thickened, slightly flattened lip.

Discussion of Sherds from 16JE163

Decorated sherds from 16JE163 appear to represent the Bayou Petre phase of the Mississippi period (Kniffen 1936; Gagliano et al. 1979; Giardino n.d.b). This small ceramic assemblage, consisting of only eight decorated sherds, is very similar to that from Area 3 of the Sims site (16SC2) (Giardino n.d.b; Table 5 this report).

Other similarities between the Sims site Area 3 component and 16JE163 include the presence of slipped wares. Nearly 69 percent of the Sims site ceramics appear to be slipped, and this trait is also common at 16JE163. More detailed analysis, including examination of thin sections, is necessary to confirm this observation (see also Gagliano et al. 1979). Polished surfaces resembling those found in the Baytown Plain varieties *Little River* and *Percy Creek* are another shared trait between Sims and 16JE163 (Giardino n.d.b:275). Quimby (1942:266) includes polished surfaces as a diagnostic trait of Natchezan ceramic industry of the late Mississippi period. An additional similarity between the Sims site and 16JE163 is the presence of Baytown Plain var. *St. Catherine*. Nearly 80 percent of all sherds at Sims and 79 percent at the Buras Mounds, also a Bayou Petre component from the lowermost Mississippi River delta, belong to this variety (Giardino n.d.b:273; Gagliano et al. 1979).

Evidence of the late date for 16JE163 is also supported by the presence of a rim sherd occurring in Level 2 of the excavation unit. It is similar to the "standard" Mississippian jar (Phillips, Ford and Griffin 1951:147). These vessels are constricted with round bottoms and straight or flaring rims

(Quimby 1942:266). The vessel is common at the Sims site (Giardino n.d.b:263) and at the Buras Mounds. At these two sites, such jars are often decorated with arcades and punctations, in which case they are classified as Moundville Incised or Buras Incised, depending on the tempering agent. This vessel shape is common in the late prehistoric and protohistoric archaeological sites in the Lower Mississippi Valley. Similar vessel shapes occur in Mississippi period assemblages from as far north as Kentucky and southern Illinois (Gagliano et al. 1979), and as far east as Florida where they commonly occur during the Fort Walton (Willey 1949) and Safety Harbor phases, both of which represent the late Mississippi period (Milanich and Fairbanks 1980).

Zoned punctated sherds from 16JE163 resemble those found at the Sims site and are classified as Churupa Punctate *var. unspecified*. Since this type is most common in earlier prehistoric components (i.e. Marksville and Troyville), its presence in the protohistoric will require additional classification, at least in terms of variety, following more intensive study of their distribution.

Coles Creek Incised *var. Hardy* also has a long history in the southern Mississippi Delta region. Besides Sims (Giardino n.d.b:260), this variety occurs in the protohistoric context at the Emerald Mound (Cotter 1952) and at the Fatherland site (Neitzel 1965). Phillips' (1970:74) apparently errs in claiming that production of this variety ceased prior to the protohistoric period.

The single example of Maddox Engraved from 16JE163 also resembles examples from Sims, and it is much less like examples from the colonial period sites in the Barataria Unit in a companion volume (Giardino in Yakubik 1989). Maddox Engraved sherds from Sims and that from 16JE163 are not engraved. Rather, they are incised with a fine tool after the paste was dried to a "leather hard" condition. Incised lines are broader, U-shaped and enclose the common cross-hatched designs. Quimby (1942:266; 1957:121, Figure 37) identifies broader-lined, incised Maddox Engraved sherds as a minority type of the Natchezan ceramic industry. At Sims, Maddox Engraved occurs on *var. St. Catherine* paste and is most common in the upper levels of the site. At 16JE163, the single example of this type is made on *Satartia* paste. Phillips (1970) recognized the differences between the Maddox Engraved found in the Caddoan area and the dry paste, incised variant from

the southern regions of the Mississippi River Valley. The continued appearance of Maddox Engraved in Bayou Petre components, and its distinctive difference from the engraved varieties, necessitates future typological refinement.

The presence of plates and of interior engraved designs represents another similarity between 16JE163 and the Sims site. Plates are common at both sites. The bevelling of plate rims and the subrounded lips are traits shared by both ceramic assemblages. At Sims, the variety *Anna* was executed on very dry paste with a fine instrument resulting in very shallow incisions. The single sherd from 16JE163 identified as "possibly painted" is similar to the Sims site *Anna* in that the designs are alike and the decoration is very faint. If the 16JE163 design is incised, rather than painted, it is an extremely shallow and thin incision.

All of the above comparisons attest to the close cultural affiliation and general contemporaneity between the Sims Site Area 3 component and 16JE163. These Bayou Petre components may date to the eighteenth century, based on the absolute dates recovered from Sims.

Because the aboriginal ceramics from 16JE163 may be from the protohistoric period, tribal groups possibly associated with the site as well as with Sims may be discussed. The Ouacha and Chawasha tribes are recorded in the study area during the seventeenth and eighteenth centuries, although they were thought to be mostly extinct, or consisting only of small wandering bands, by the 1750s (Cruzat 1925:594; Swanton 1911:30,298). Both groups are related to the Eastern Chitimachan tribes who are known to have lived and hunted extensively in the marshes and bayous west of the Mississippi River (Giardino 1984b). Very little is known about the ceramic industry of the Ouacha and Chawasha. Swanton (1911:347) and Bushnell (1917) state that the Chitimachan potters did not include sand or shell in their ceramics. This becomes a problematic issue because most of the sherds from Sims and from 16JE163 do include either shell or sand. Very few other Native American groups are documented in the area during the historic period, although several tribes moved into the study area for brief periods of time (Giardino 1984b). The other Indian groups who potentially occupied the study area are primarily Muskogean groups, who apparently made ceramics closely related

typologically to Leland Incised and other curvilinear, shell tempered types. However, even this assumption should be tested. These types of ceramics are found at Area 3 of the Sims site but are mostly absent in the ceramic assemblage reported here for 16JE163.

Ceramic Sherds from 16JE164

As was discussed in the previous chapter, excavations were less extensive at 16JE164 than at 16JE163. This is largely due to evidence also presented above that the two loci probably represent a single site. Only nine sherds were recovered from 16JE164, and four of these were from the same vessel. The sherds do appear different from those at 16JE163 in that those from 16JE164 are very well made. This is particularly true of sherds classified as Baytown Plain *var. Jean Lafitte*. The eight plain sherds recovered from two shovel tests are grog and sand tempered, highly polished, exhibiting a fine paste. They are rather thick, like *var. Reed*, but are too well made to be classified as such.

The only decorated sherd from 16JE164, which was recovered from the surface, is similar to Coleman Incised, a late period clay tempered curvilinear incised type common in the southern reaches of the Mississippi Valley (Phillips 1979:69). The type was common at Area 3 of the Sims site (Giardino n.d.b:245-249). If the sherd from 16JE164 does represent an example of Coleman Incised, then this locus also represents a Bayou Petre phase occupation. However, the pitted surfaces of the sherd suggest that it may once have contained shell temper. If so, it would be classified as Leland Incised. Such a classification would be uncomfortable because of the broad, U-shaped, widely spaced incisions. This decorated sherd is the least well made of the nine sherds recovered from 16JE164.

Sherds from 16JE164 do appear to represent a Mississippi period occupation. The sample size is too small to allow a phase designation from the site. However, as was discussed in the previous chapter, 16JE163 and 16JE164 exhibit so little spatial separation that they probably should be considered two loci of a single site.

DISCUSSION

Linearity of Site Location along Bayou des Familles.

This and previous surveys have recorded a series of prehistoric sites located in a linear pattern on the natural levee on both sides of Bayou des Familles. All of these sites are associated with *Rangia* shell scatters, and many of them include a lens of dense shell midden. Recovered artifacts are almost exclusively pottery, and most of this is undecorated. The location of these sites and the ubiquitous presence of *Rangia* suggests that activity at these locales included faunal procurement and/or processing.

Only one of these sites, Coquilles (16JE37), has yielded evidence of architectural features, consisting of two series of postmolds. The only archaeological feature recorded during the present study was at 16JE204. It consisted of burned, partially crushed *Rangia* shells. This feature is similar to features recorded at the Coquilles site (16JE37). The same unit at 16JE204 yielded evidence of a possible pit and contained 50+ ceramic sherds. It is possible, therefore, that these smaller sites along the bayou were locales for a range of prehistoric activity, including temporary or seasonal habitation.

Size and Relative Locations of Shell Scatters Close to Bayou des Familles.

Ten discrete scatters of *Rangia cuneata* were recorded during the survey effort on the west side of Bayou des Familles reported here. Two of these were consolidated into a single site because of their close proximity to one another. Another three scatters were consolidated for the same reason. However, for this discussion, each scatter is considered individually in order to compare size and location with results of a previous survey (Beavers 1982a).

A simple index was developed in order to compare areal extent of the 47 previously reported *Rangia* scatters and the eleven recorded during the present effort. The index for each scatter consisted of the sum of the north/south surface extent and the east/west extent.

Next, a mean for this index was calculated for five groups of scatters shown on the map in Figure 26. (Note: The location of scatters in Figure 25

is schematic.) Group 1 consists of shell scatters on both banks of Bayou Coquilles. The large Coquilles site (16JE37) was excluded because it includes both mound and village areas. Group 2 consists of scatters on the west bank of Bayou des Familles north of its confluence with Bayou Coquilles. Group 3 consist of scatters on the west bank of Bayou des Familles south of that confluence. Group 4 includes all scatters on the east bank of Bayou des Familles north of the confluence. Finally, Group 5 includes all scatters located during the present survey of the area on the east bank of Bayou des Familles south of the Bayou Coquilles confluence. One additional scatter located just to the south of the present study area (Poplin 1987) is included in Group 5.

The results of the comparison demonstrate an interesting pattern of scatter size and location. Scatters in Group 1, i.e. along both banks of Bayou Coquilles, are the largest. The mean index here is 75 m. Sites in Group 4 have the next largest index, 41 m. Sites in Group 3, immediately across Bayou des Familles, exhibit a similar index of 36 m. The two groups of sites with the smallest indices are those south of the confluence on the west (mean index of 26 m) and east (mean index of 20 m) bank of Bayou des Familles.

This comparison indicates that *Rangia* scatters with the largest surface extent tend to be concentrated along Bayou Coquilles near its confluence with Bayou des Familles. This may have been a preferred locale because natural elevation is higher at such bayou confluences. Also, those scatters are near, and may be part of the village/habitation areas that yielded evidence of a Marksville period and a Baytown period structure (**Culture History**). Finally, these scatters are also near the Coquilles (16JE37) site mound complex, apparently associated with the village. Some of the scatters included in this group have yielded Coles Creek ceramic materials. This group of relatively large *Rangia* scatters, in association with the Coquilles site itself, may represent a locale for continuous occupation from the Marksville, Baytown and Coles Creek periods.

The group of sites on the east bank of Bayou des Familles north of Bayou Coquilles includes a site where previous excavations have yielded burials and Mississippi period pottery (Loumiet in Beavers 1982a). Recent excavations by the University of New Orleans at this site and other sites

within this group have also recovered Mississippi period ceramics (Susan Hammersten, personal communication). This group, then, may represent either a dispersed pattern of settlement or a dispersed pattern of activity locales from the late prehistoric period (ca. A.D. 1000 to 1700).

Group 5, sites on the east bank of Bayou des Familles and south of Bayou Coquilles, exhibit the smallest mean size index. All of the decorated ceramics recovered from excavation units at these sites were from the early to late Mississippi period. Thus, at least some of this group of sites probably are contemporaneous with the larger group to the north.

Group 3 sites, which exhibit a slightly larger mean index than Group 5, are directly across Bayou des Familles from the latter. Only very limited shovel testing has been conducted in this vicinity. Recovered pottery was described as "plain," and no sherd counts have been reported. Thus, cultural and temporal affiliations of these sites is unknown.

Group 2 sites, north of Coquilles and on the west bank of Bayou des Familles have a mean site index of 36, which is similar to that of the probable Mississippian sites directly across the bayou. Shovel tests and excavation units in Group 2 sites have yielded some sherds, the majority of which were described as "plain." Thus, the cultural and temporal affiliation of Group 2 sites is largely unknown.

Two of these Group 2 sites, 16JE163 and 16JE164, were re-examined in the course of the present study. A Marksville affiliation had been suggested for the former by Beavers (1982a:Appendix D). However, decorated sherds recovered from shovel tests and an excavation unit indicated that the site should be assigned to the Mississippi period. Similarities between the varieties of decorated sherds at this site and at the Sims site suggest that it may in fact represent a very late prehistoric or protohistoric occupation.

Sites and "Non-Sites" within the Core Area

In Beavers' (1982a) inventory of sites located along Bayou des Familles, some sites were interpreted as "possible special function site, possible natural deposit" (e.g. Beavers 1982a:Appendix D, UNO 28). In a subsequent archaeological assessment of the Barataria Unit, these sites were described as

"shell deposit - nonsite" (Speaker et al. 1986:73-76, Table 7). However, archaeological excavations on these sites to date consist of, at most, only a single, possibly unscreened, shovel test (Beavers 1982a). Further, the 1986 archaeological assessment was based primarily on a literature review. Only two visits to the Park were made, and none of the sites under discussion here were visited (Stuart Speaker, personal communication).

Five of these "non-sites" are within Group 3 on Figure 26. As was previously discussed, these are small *Rangia* scatters, similar in size and location to sites within the present study area. As discussed in previous chapters, sherd density on most sites of this nature is light, at least in some areas. It is likely therefore, that most, if not all *Rangia* scatters on the natural levee of Bayou des Familles represent locales of prehistoric activity.

Cultural Affiliation of Small Sites Close to Bayou des Familles.

The Coquilles site (16JE37) and adjacent activity locales have yielded evidence of Marksville and Baytown period residential structures. Also, an area of dense shell midden here yielded a number of Pontchartrain Check Stamped sherds, indicating a concentration of Coles Creek period activity.

The majority of decorated sherds recovered on the series of sites arranged linearly along both banks of Bayou des Familles and reported in this volume suggest a possible Mississippi period affiliation. Few, if any, sherds are of the type Pontchartrain Check Stamped. This absence is evidence that the sites are not related to a Coles Creek occupation. Most of these sites, then, may represent the Mississippi period occupation of this area. If so, then the settlement and activity pattern in this portion of Barataria Basin was more dispersed than was the case for preceding periods. A "Barataria Complex," consisting of several sites that include mounds and plazas, is located on Bayou Barataria a short distance to the south. Some evidence of small, linear shell scatters have been reported as associated with that complex, but the majority of these small sites probably have been destroyed (Beavers 1982a).

Although available data are sparse, they do provide the basis for a very tentative model of prehistoric settlement pattern and culture change on

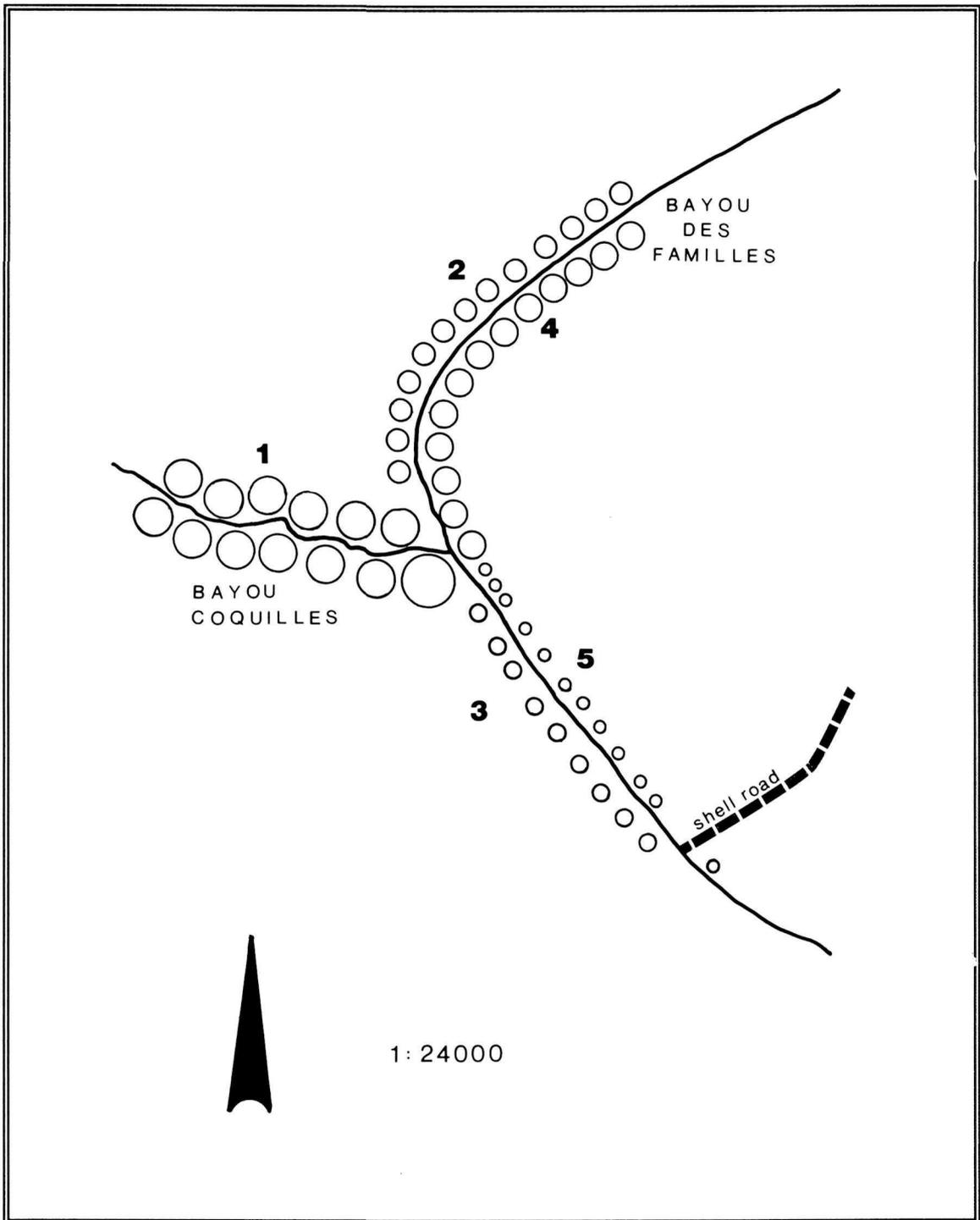


Figure 26. Schematic illustration of settlement pattern and site size in the study area vicinity.

natural levees in the upper and middle portions of Barataria Basin. Intense occupation began during the middle to late Marksville period. Residence, either seasonal or permanent, concentrated at relatively large village locales. One of these was at the Coquilles site (16JE37) at the confluence of Bayous Coquilles and des Familles. Baytown period villages may have been primarily at the same locations. Continuity of ceramic decorative techniques and motifs, as well as a series of carbon dates, indicate continuity of habitation and most aspects of material culture through the end of the Baytown period.

In the upper and middle portions of the Basin along Bayou des Familles within the Barataria Unit, there is little evidence for Coles Creek occupations. As in the preceding periods, activity appears to be concentrated at a few locales. Again, one of these appears to be near the Bayou des Familles/Coquilles confluence. Relative to other areas in coastal Louisiana, few Coles Creek sites are recorded for this area. This may be associated with changing environmental conditions that were associated with reoccupation of the lower portion of Bayou des Familles by Bayou Barataria, which had become a distributary of the modern Mississippi River channel (Frazier 1967; **Environmental Setting**, this report). This channel piratization occurred a short distance below the present study area.

Finally, during the Mississippi period, the natural levee along Bayou des Familles was reoccupied. Sites were located linearly along the bayou. Ceremonial centers, such as that at the "Barataria Complex" sites, may have been the primary locales for concentrated, non-residential activity. Although some of these may have first been used by Coles Creek peoples, evidence for this is unclear and largely unreported.

Very large, multi-component shell middens do exist along the shores of nearby Lake Salvador. Surface collections indicate occupations for all post-Tchefuncte periods. Unfortunately, little or no excavation has been conducted on these sites. One important research question for future investigations is the nature of activity at these sites compared to activity and function of the much smaller sites associated with the natural levee of Bayous des Familles and Barataria.

RECOMMENDATIONS

Context for Evaluations

In a 1970 overview of the culture history of the Delta portion of the Lower Mississippi Valley, Phillips (1970:866-867) described his subdivision of the area as "extremely tentative." He further noted that separate culture sequences had not been set up for regions within this larger area, and expressed doubt that sufficient data were available to do so at that time.

Fourteen years later, Brown (1984:97) noted that at the time of Phillips' 1970 volume, only one Coles Creek phase had been defined for the entire Louisiana coast. However, by the 1980s, work by Coastal Environments, Inc. and by Jon Gibson of the University of Southwestern Louisiana had laid the stratigraphic foundations for Coles Creek phases throughout the Delta (Brown 1984:97). Similar advances have been made in elucidating the nature of occupations and activity in other prehistoric periods.

Establishment of a viable framework for culture history is the necessary first step for recognition of regional variants. Then, within that framework of space and time, affiliations of various groups can be investigated (Haag, Griffin and Brose in Davis 1984b:330). Also, it enables investigations of cultural adaptations to various ecozones as well as the effects of changing ecosystems on culture.

Unfortunately, in this context of increased understanding and a heightened ability to focus on particular research issues, the necessary data base for doing so is being rapidly lost (Gagliano et al. 1979, Goodwin et al. 1985). The Barataria Basin is currently suffering the highest rate of archaeological site loss in Jefferson Parish, and possibly in the country. Subsidence, erosion, wave action and land development all contribute to this loss. A 1985 inventory and update of sites demonstrated that 26 of 34 selected sites (approximately 76%) associated with Bayous Barataria and Cutler had been destroyed. Six sites on Bayou Barataria or on connecting waterways had been considered eligible for the National Register of Historic Places as recently as 1977, but had been destroyed by 1985 (Goodwin et al. 1985:274-275).

This high rate of site loss within Barataria Basin has almost certainly continued through the present. The Barataria Unit of the Jean Lafitte National Historical Park and Preserve probably represents the only exception.

Sites within the Park must, therefore, be evaluated in a two part context. First, archaeological investigations within the Barataria Basin have contributed significantly to establishment of a culture sequence for the area and placement of that sequence within a larger, comparative framework. Research in the future will yield even more important information because of the data base provided by past efforts. Second, it is unlikely that a set of sites comparable to that within the Park remains in existence. Almost all sites outside the Barataria Unit are being impacted and destroyed. Few will remain if this continues at the present rate. Thus, archaeological sites within the Unit represent a treasure, the protection and preservation of which represents one of the most important goals of the Jean Lafitte National Historical Park and Preserve.

Research Value of Prehistoric Sites within the Present Study Area.

The sites investigated during this survey were relatively small, and with the exception of 16JE204 and 16JE163, yielded few artifacts. However, recovery of decorated ceramics at some of these sites indicates that diagnostic cultural material is almost certainly present. Recovery of such material would allow assignment of these and other similar sites to particular chronological periods and phases within the Basin and to particular cultural traditions in the Delta. Further, these artifacts are associated with *Rangia* shells. This association is highly significant because it enables carbon dating of the sites and the site assemblages.

In addition, as is shown schematically on the map in Figure 26, the sites recorded as a result of this survey are part of a linear settlement or activity pattern associated with the natural levee of Bayou des Familles. These small sites along the bayou represent special activity areas, the nature of which is undetermined. Obviously, clam collection and/or shucking was conducted at these locales. However, it is unlikely that this was the sites' only function.

Again, activity associated with the sites recorded during this survey and similar sites within the park is, to a large extent, unknown at present. However, recovery of over fifty sherds from a single 1 x 1 m excavation unit and presence of a feature consisting of burned *Rangia* shell, as well as presence of a possible pit, suggests the activities may have been diverse. Some of these sites may have been residential, at least for short periods of time.

The small size of the sites within this study area and their relatively shallow depth almost certainly indicates that only a single component is represented. Some of these sites may represent short-term activity locales. An understanding of such activity, in a context including diagnostic ceramics and carbon-datable shells, would considerably broaden our understanding of the lifeways of prehistoric occupants of the area. Further, the proximity of these smaller sites to the large and multi-component Coquilles (16JE37) site enhances their research potential because intact midden associated with at least two, and probably three, periods are represented there.

Recovery of a high percentage of undecorated pottery in relatively small assemblages does present problems for some of these research goals. However, as noted above, datable shell is also present, and some diagnostics have been recovered from several sites. Further, closer examination of the "plain" pottery itself is warranted. Temper, paste and other aspects of undecorated ceramic material for the various prehistoric periods represented in this relatively small area could be compared. Refinement of varieties within and near the park might indicate an association between particular varieties and either particular periods or activities. Technology and raw materials associated with pottery manufacture would be an integral part of such study. The Park itself represents an abundant source of material for replication experiments and for trace element analyses.

Specific Recommendations Concerning Prehistoric Sites within the Present Study Area

Holmes (1984) recommended that portions of the Barataria Unit located on the natural levee of Bayou des Familles should be nominated for inclusion on the National Register of Historic Places as an archaeological district.

Speaker (et al. 1986) concurred, noting that National Register evaluation on a site by site basis was a less desirable option, partly because site density is so high. This nomination is currently being finalized (James Bradford, personal communication).

A total of seven previously unreported archaeological sites were recorded during the present survey effort. Also, two previously recorded sites were re-examined. These sites lie within the proposed archaeological district. Seven of these nine sites yielded prehistoric artifacts, and these would represent an integral part of such a district. However, the majority of excavations reported here indicated that at least on portions of these smaller sites, density of cultural materials is low. Nevertheless, they exhibit significant research potential (see above).

Sites 16JE200, 16JE201, 16JE202, 16JE204 and 16JE206 lie within the formerly cultivated fields of Christmas Plantation. They are, therefore, not pristine. Plowing and ditching have resulted in some disturbance. However, the sites almost certainly represent locales associated with a single component, and probably a single, short-term occupation. Thus, although some horizontal and vertical scatter has occurred at these sites, the ceramic assemblages and other remains retain their research value. Further, portions of these sites are intact, as exhibited by the dense shell lens at 16JE201 and by cultural deposits lying below the plowzone at other sites.

16JE205, which lies outside the cultivated area, appears to be the most disturbed. Portions of the *Rangia* midden have almost certainly been removed. This site, then, is the site within the study area exhibiting the least integrity. Further excavations here are unlikely to yield information important to our understanding of prehistory. However, additional excavations at 16JE200, 16JE201, 16JE202, 16JE203, 16JE204, 16JE206, 16JE163 and 16JE164 could contribute significantly to that understanding. Therefore, they should be protected and preserved as part of the above-mentioned district. Should planned or future construction result in adverse impact, a program of data recovery should be instituted for the impacted areas.

Plans for Phase II construction included with the Scope of Services for this project indicate that adverse impact will not occur on sites within the

study area. The two possible exceptions are 16JE202 and 16JE203, both of which lie within the area in which trails may be constructed. It is recommended that the course of such trails be designed to avoid these sites. Finally, it is unlikely that indirect adverse impact to these or any other sites along Bayou des Familles will result from any increased visitor use of the area. This includes all reported sites located from the Shell Road to the V-levee on the east bank of Bayou des Familles. Sites closest to the proposed visitor use area exhibit low visibility. More visible sites lie at considerable distances from even the proposed trails. These sites are more easily reached by canoe or from the V-levee than from the Phase II area.

Recommendations Concerning Future Survey Efforts within the Core Area

The Scope of Services for this project, requiring 20 m transects with shovel tests at 20 m intervals was appropriate for the area. Future surveys should maintain, at minimum, this interval. Also, as was required for the present survey, 1 x 1 m excavation units are necessary for even an initial assessment of the nature of *Rangia* scatters. This Scope also required dry screening of excavated fill. This requirement was met during the present effort, and should be maintained in future surveys. *Rangia* scatters within the Core Unit must be considered at least potential sites until such a regimen has been executed.

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