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U.S. Army Corps of Engineers
New Orleans District

**CULTURAL RESOURCES SURVEY ALONG
PORTIONS OF JONES CREEK AND LIVELY BAYOU,
EAST BATON ROUGE PARISH, LOUISIANA**

December 1998

FINAL REPORT

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13. ABSTRACT (Maximum 200 words) This study presents the results of a cultural resources survey conducted by Coastal Environments, Inc., (CEI) of two segments of the proposed right-of-way (ROW) for drainage improvements along Jones Creek and its tributaries in East Baton Rouge Parish, Louisiana. The improvements are part of a larger project undertaken by the U.S. Army Corps of Engineers (USACE), New Orleans District, in cooperation with the Louisiana Department of Transportation and Development, Office of Public Works, the City of Baton Rouge, and East Baton Rouge Parish to construct drainage improvements in the Amite River and Tributaries, East Baton Rouge Parish Watershed Flood Control Project. The areas selected for study are located near two previously reported prehistoric archaeological sites: 16EBR13 and 16EBR26. The project area for 16EBR13 encompassed approximately 4.6 acres and that for 16EBR26 encompassed approximately 6.6 acres. Fieldwork for this project, consisting of an intensive pedestrian survey that included shovel tests and auger borings, was conducted by a three-person team. No significant standing structures were located in the project area. No archaeological remains were encountered, and no further work is necessary.			
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REPLY TO
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Planning, Programs
& Project Management Division
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& Compliance Branch

To the Reader:

This report of investigations was designed, funded, and guided by the U.S. Army Corps of Engineers, New Orleans District, as part of our cultural resources management program. The report was completed as part of the Jones Creek and Tributaries, East Baton Rouge Parish Watershed Flood Control Project, Louisiana. The flood control measures are part of the larger Amite River and Tributaries, Louisiana Project.

We concur with the recommendations and commend the efforts of the author. Louisiana's State Historic Preservation Officer has reviewed and concurred with the recommendations by letter dated November 13, 1998.

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**CULTURAL RESOURCES SURVEY ALONG PORTIONS OF
JONES CREEK AND LIVELY BAYOU,
EAST BATON ROUGE PARISH, LOUISIANA**

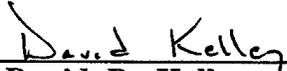
By

Katherine M. Roberts

**Final Report
December 1998**

**Prepared for:
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**David B. Kelley
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David Kelley of CEI served as the Principal Investigator for this project, contributing the basic research design, conducting preliminary research on the prehistoric sites near the project areas, and helping with interpretation of the soils encountered during fieldwork. Richard Weinstein, Stephanie Perrault, Joanne Ryan, Joretta LeBoeuf, and Don Hunter of CEI also provided useful logistical and interpretive advice throughout this project. James Wojtala and Michael Stout of the New Orleans District USACE helped with details about the project area. Shaun Doucet and Eric Banks comprised the field crew. Curtis Latiolais and Cherie Schwab, both of CEI, drafted maps of the project areas and laid out and finalized this report, respectively.

CHAPTER 1

INTRODUCTION

Project Location and Description

Coastal Environments, Inc. (CEI), was contracted by the New Orleans District of the U.S. Army Corps of Engineers (USACE) to conduct a cultural resources survey within areas of proposed drainage improvements along Jones Creek and Lively Bayou located near archaeological sites 16EBR13 and 16EBR26 (Figure 1). The improvements are part of a larger project undertaken by the Corps, in cooperation with the Louisiana Department of Transportation and Development, Office of Public Works, the City of Baton Rouge, and East Baton Rouge Parish Watershed Flood Control Project. The area surveyed near site 16EBR13 extends 374 m along Jones Creek and includes land located between the top banks of the stream channel, which varies from 45 to 50 m wide, as well as an area 45 m back from the south bank of the channel. Approximately 18,700 square meters (4.6 ac) is encompassed by this project area. The area near site 16EBR26 extends about 260 m along Lively Bayou and 200 m along Jones Creek. It includes the land located between the top banks of the stream channels (45-50 m wide), as well as an area 30m back from the east bank of the channels. This project area includes approximately of 26,800 square meters (6.6 ac).

Plan of the Report

This report begins with a review of the environmental setting of the project area, including discussions of the landscape, soils, vegetation, and fauna. Chapter 3 discusses previous research in the project area and adjacent regions considered pertinent to this study. Chapter 4 provides an overview of the cultural setting, beginning with a prehistoric chronology based on regionally synthesized data, and concluding with a synopsis of the historic and modern periods. Chapter 5 describes the research design and method of investigation as well as the results of field investigations. Chapter 6 provides a summary of the research and recommendations for future considerations.

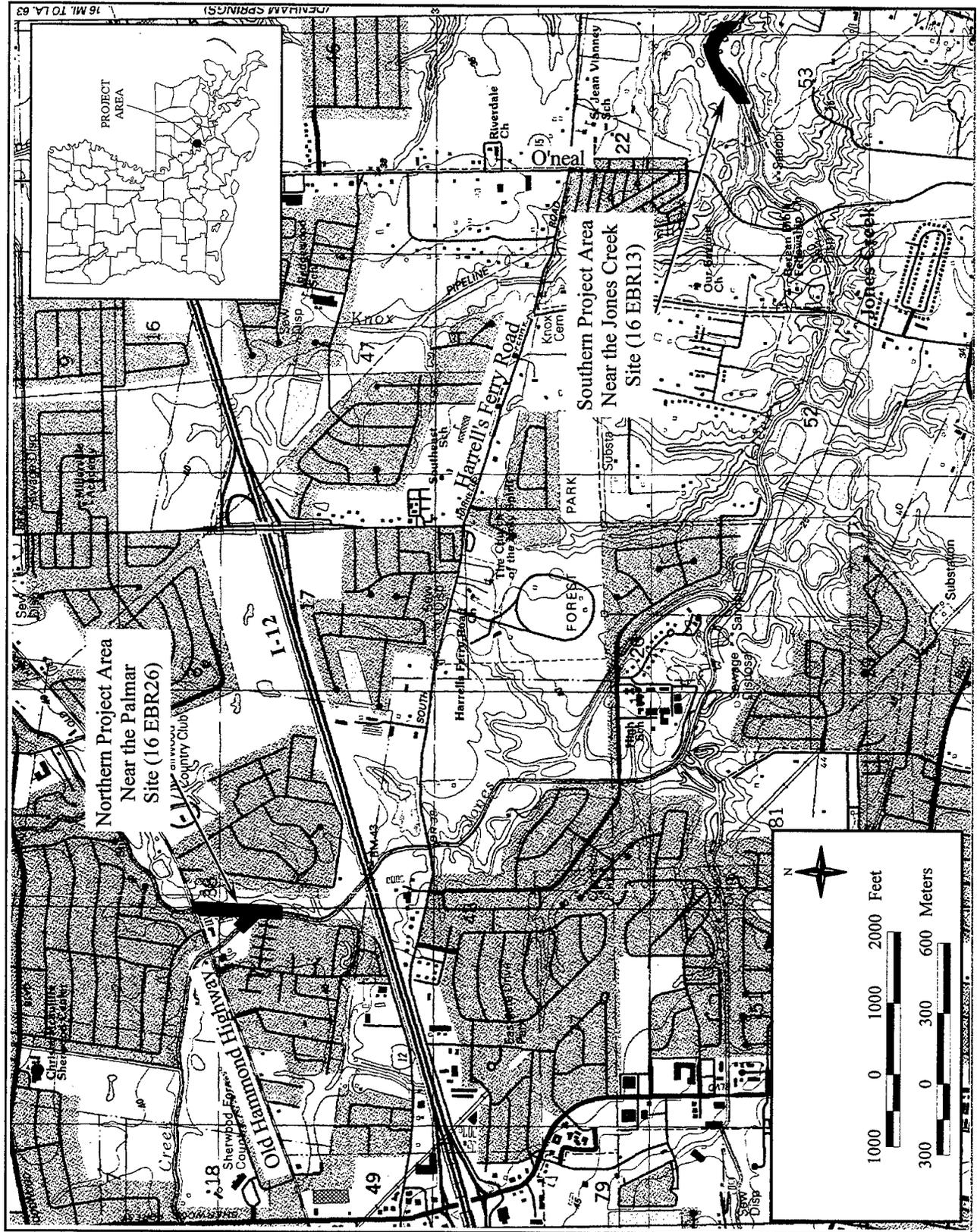


Figure 1. Locations of project areas.

CHAPTER 2

ENVIRONMENTAL SETTING

Geology and Geomorphology

Jones Creek is a minor tributary of the Amite River, a stream with a drainage basin that encompasses an area of nearly 5,000 km² in southeastern Louisiana. The headwaters of the Amite and the Comite (the Amite's major tributary) rivers are in dissected uplands with trunk streams that flow south until they meet in the Baton Rouge-Denham Springs area. Dredging is the main human alteration of the drainage patterns in the project areas.

Two types of landforms compose the project areas. The first is the late Pleistocene Prairie Complex, a low-relief, predominantly constructional landform with an east-west orientation across southeastern Louisiana (Autin et al. 1991). In the eastern part of the parish where the project areas are located the unit consists of deposits associated with ancestral Amite and Comite rivers. The surface is blanketed by silty loess deposits, and the sediments at the top of the unit range from sand to clay. The other landform consists of Holocene alluvium associated with Jones Creek and its tributaries. It is predominantly composed of silt loam, but sand and gravel channel and point-bar deposits are also present (Autin and McCulloh 1991).

Soils of the Olivier series typify the terrace of the northern project area near site 16EBR26. These soils, formed in loess-like material, are generally poorly drained and acidic. Silt loam on the 1- to 3- percent slopes of the area has a surface layer that is friable, grayish in color and about 9 inches thick. Subsoil, friable silty clay loam or heavy silt loam, occurs to a depth of 22 inches and is a yellowish-brown color mottled with gray. Below that is a slightly friable fragipan of yellowish-brown silty loam or silt clay loam that is mottled with grayish brown and has thick lenses of gray silt. Within these soils are areas of silty clay loam subsoil prominently mottled with red and yellowish-red.

The soils on the south side of Jones Creek in the project area near site 16EBR13 belong to the Loring series, a group of well-drained acidic soils also found in loess-like material. Loring silt loam on the 1- to 3- percent slopes of the area has a surface layer that is brown, friable, and about 8 inches thick. Subsoil, a brown friable silty clay, occurs to a depth of 21 inches. A firm, slightly brittle fragipan of brown silt loam or silty clay loam that is two feet or

more thick lies beneath this. Small areas of Memphis and Olivier soils occur within these soils. The soils north of Jones Creek in this area are of the Cascilla series: well-drained, acidic soils that form in silty alluvium. These soils have weakly developed horizons and are subject to annual floods. Surface soil is a dark-brown friable silt loam, while the underlying material is dark-brown or yellowish-brown friable silt loam (Dance et al. 1968).

The soil survey maps show "made land" or dredge spoil within the banks of Jones Creek and Lively Bayou. The spoil typically consists of 2 to 4 feet of gray silt loam or silty clay loam (Dance et al. 1968).

Biota

Natural vegetation in this region reflects the topography and drainage patterns. When first visited by Europeans, forests were found only along streams and ponds, while prairie grasses covered the remainder of the region (Gagliano 1963:106). Mixed hardwood and pine forests are typical of these upland areas. Species present include various oaks, elms, ashes, locusts, hickories, gums, and magnolias. Loblolly and shortleaf pine are the principal species exploited by commercial lumbering. Succession in this community leans strongly toward hardwood dominance, yet fire, storm damage, and human alteration maintain pine dominance (Louisiana Department of Wildlife and Fisheries 1988). Magnolia, oak, and sweetgum are found in the floodplain areas created by drainages.

The landscape has been altered more recently through industrial and residential development. Where forests remain along the drainages, the understory is very dense and includes numerous species of shrubs and vines. In recently cleared and now-abandoned areas, blackberry thicket and thorn bushes create a virtually impenetrable understory. Figures 2 and 3 show the conditions in the project areas at the time of the survey.

Fauna found in the vicinity of the project areas include typical upland species such as white-tailed deer, squirrel, raccoon, and rabbit. The mixed hardwoods offer an especially good habitat for deer and wild turkey, though recent urbanization and excessive hunting have greatly reduced the deer population. Nutria are now common in the water bodies, although they were not present in prehistoric times. Historic accounts indicate that bison grazed on the prairie during the period of French colonization (Lowery 1974:502). In 1704 André Pénicaut, a carpenter and former member of Iberville's expedition up the Mississippi River, returned to the vicinity of Baton Rouge, and noted that "Never in my life have I seen such great numbers of buffalo, harts, and roes as there were on that prairie" (Jennings 1989:4).



Figure 2. Terrain of project area along Jones Creek near the Jones Creek site (16EBR13).



Figure 3. Terrain of project area along Lively Bayou near the Palmar site (16EBR26).

CHAPTER 3

PREVIOUS RESEARCH

Relatively little archaeological research has been conducted in East Baton Rouge Parish, the seat of the state capital. This dearth is primarily due to rapid urban growth in the twentieth century, plus the introduction of the petrochemical industry. Large-scale, uncontrolled construction in the recent past destroyed some recorded archaeological sites, and certainly destroyed or obscured many undocumented sites. Yet those sites that have been preserved, physically or documentarily, can provide an overview of life in the parish in both the prehistoric and historic periods.

East Baton Rouge Parish is known to have been home to aboriginal peoples from possibly the Paleo-Indian through Historic periods (see Figure 4). The Biltmore site (16EBR66) produced an artifact scatter that suggests a Paleo-Indian or Early Archaic date. Blackwater Bayou (16EBR33) is also thought to span the Late Paleo-Indian through Middle Archaic periods (Bryant 1985). On the east bank of the Comite River, an Archaic artifact scatter in a plowed field was recorded as the Templet site (16EBR53) in 1981.

Mound sites are well documented in the parish, at least two of which may date to Archaic times. A charcoal sample from a human cremation taken from Mound A at Monte Sano Bayou (16EBR17) has produced a radiocarbon date of circa 6220 B.P. (CEI 1977). The two conical mounds at this site were destroyed in 1967 during the expansion of the Formosa Plastics Corporation plant. Recent efforts to detect surviving midden have proved fruitless (Perrault 1993). The Narcille Drouin Mound (16EBR54), located on the west bank of Bayou Baton Rouge has produced only a few lithic remains, and thus is also thought to date to the Archaic period (Robert Neuman, personal communication 1993). Three radiocarbon dates derived from organic samples taken from the Louisiana State University Campus Mounds (16EBR6) seem to place these features within Middle to Late Archaic times.

That the parish was occupied through most of the Formative stage is best illustrated by the complex of six platform mounds recorded by Kniffen in 1936 at the Kleinpeter site (16EBR5), located above Bayou Fountain in the southeastern part of the parish. Artifacts

housed at the Louisiana State University Museum of Natural Science suggest that a long occupational sequence extending from the Tchula through Mississippi periods is represented at the site (Jones and Shuman 1986). Recent work at the Sarah Peralta site (16EBR67) has provided strong evidence of Tchula period occupation, along with additional occupation that may extend back into the Poverty Point period and forward into the early Marksville period (Perrault 1994). The nearby Lee Site (16EBR51), tested by CEI in 1984-85 (Weinstein 1985), also dates primarily to the Tchula period, although later components related to early Marksville, Baytown, and late Coles Creek period occupations also are present. The Tucker mound (16EBR21) on the east bank of the Comite River, just south of the present project areas, was originally recorded by William G. Haag, who thought the site dated to Baytown or Coles Creek times, or later.

Although a number of historic sites have been investigated in East Baton Rouge Parish in the last several decades, most have been located in downtown Baton Rouge. Such studies include Haag's investigation in Catfish Town and neighboring Beauregard Town (Haag 1974, 1984); Castille, McCloskey, and Glander's survey of the main Baton Rouge Post Office parking lot on the corner of North Boulevard and Maximilian Street (Castille et al. 1979); Shafer, Berle, and Rhodes' intensive investigation of the proposed construction site of the Baton Rouge Front Levee near the Pentagon Building Complex (Shafer et al. 1984); and Shuman and Jones' survey for the new Public Transportation Facility on the corner of Florida Boulevard and North 22nd Street (Shuman and Jones 1986).

More recent projects involved testing and/or excavation at Magnolia Cemetery (Hahn 1992), the Old Louisiana State Penitentiary (16EBR19; Wurtzburg and Hahn 1992), the Pentagon Barracks (16EBR43; Holland 1993), the new State Capitol building (16EBR79; Hahn and Parker 1998; Hahn et al. 1994), Fuerte San Carlos (16EBR150), the site of the old Louisiana State University Baton Rouge Campus (16EBR155), the Ellis site (16EBR148), the Ward Creek site (16EBR77), the Cedar Tree site (16EBR78; Coastal Environments 1991), and a nineteenth century house site (16EBR151) located a short distance south of the Pentagon Barracks (Hays 1996). Survey and testing have also been conducted at five industrial historic sites (16EBR58, 95, 96, 98 and 99) located on the east bank of the Mississippi River in the immediate vicinity of the Interstate 10 bridge (Hinks et al. 1993).

In the greater Baton Rouge area, a small group of sites dating to the colonial and Civil War eras have been investigated. Work by CEI and Louisiana State University at the late-eighteenth-century plantation of Magnolia Mound produced remains of the colonial period

(Burden and Castille 1981; Burden and Gagliano 1977; Lane 1980). The Longwood (16EBR41), Gartness (16EBR39) and Kleinpeter-Knox (16EBR65) sites reflect the importance of cotton and sugar cane plantations in the parish in the nineteenth century. The remains of Civil War occupation are preserved in Baton Rouge proper at Magnolia Cemetery, plus at earthen breastwork (16EBR52) and gun emplacement (16EBR42, Locality A) sites near one of the most important Civil War-era sites in the state, the Port Hudson Battlefield (16EBR42). Just northwest of the intersection of Staring Lane and Highland Road is a small Civil war earthwork known as the Highland Stockade (16EBR89; Casey 1983:75).

Prehistoric sites near the study areas include the Walls Mound (16EBR2), Amite-Comite River (16EBR11) and Addison (16EBR27) sites. Although now completely gone, the Wall Mounds site, near the intersection of Frenchtown and Greenwell Springs roads, once consisted of two mounds and an associated aboriginal village of unknown date. Likewise undated is 16EBR11, a prehistoric campsite slightly to the north of the confluence of the Amite and Comite rivers. The Addison site (16EBR27) is located on the west bank of the Amite River southwest of Denham Springs. The site may be the Indian hunting camp depicted on a 1771 map of the Amite drawn by Elias Durnford, but this association has not been confirmed.

According to state site files, parts of the Jones Creek site (16EBR13) and the Palmer site (16EBR26) are potentially located within the project areas surveyed for this study. Dredging operations along Jones Creek slightly southeast of its confluence with Knox Branch exposed site 16EBR13: a thin, scattered midden containing flakes, points, sherds, and two small, well-made thumb-nail scrapers. Remains of extinct mastodon and horse, although found nearby, are not clearly associated with these materials. The Palmer site (16EBR26) consists of unspecified midden found in a spoil bank on the east side of Lively Bayou at its junction with Jones Creek. Kirk points, thick, spade-shaped points, and uniface scrapers, recovered in the 1920s through 1940s from Mr. Hugh Palmar's farm, represent the site's early Archaic component (Gagliano 1963). Recent testing by Hays (1995) at the supposed site locale recovered no artifacts. Hays (1995:26) concluded that "the site was either buried deeply under recent alluvium/spoil or it had been destroyed." Further, he reasoned that ". . . if a portion of the site remains, it is unlikely to be disturbed any time soon since it must be deeply buried in the bank."

CHAPTER 4

CULTURAL SETTING

The following discussion is intended to familiarize the reader with the general sequence of cultural history within the study area. Figure 4 provides a chronology based on our current understanding of the prehistoric sequence of cultural development in south Louisiana.

The Aboriginal Past

Paleo-Indian Period, Prior to 6000 B.C.

Initial human occupation of Louisiana occurred during the Paleo-Indian period, a time which lasted from about 10,000 to 6000 B.C. Archaeological evidence from other parts of North America suggests that the populations involved were probably small bands of hunter-gatherers adapted to terminal Pleistocene or very early Holocene environments. The early portion of the period is characterized by the widespread fluted point tradition generally dated prior to 8500 B.C. Gagliano (1963:112) notes that a few of these points, resembling the Clovis type, have been found in the Florida Parishes, and that they are generally made of exotic materials.

The late Paleo-Indian period is marked by the divergence of the fluted-point tradition into distinct subtraditions. The Scottsbluff subtradition appears to have a predominantly western distribution, while the Dalton subtradition is represented throughout the Southeast and Midwest. Goodyear (1982) has argued that the Dalton horizon dates from approximately 8500 to 7900 B.C., and represents an adaptation to environmental changes at the end of the Pleistocene. One indication of this adaptation is the addition of the Dalton adz, a heavy woodworking tool, to an otherwise Early Paleo-Indian tool kit. A related complex found primarily in northern Louisiana, eastern Texas, and southern Arkansas includes the San Patrice point, an associated side-notched point, and the distinctive "Albany Scraper" (Webb et al. 1971). Within southeast Louisiana, Weinstein et al. (1977:3) have proposed the Jones Creek phase based on finds of Plainview, Dalton, and San Patrice points at the Jones Creek (16EBR13) and Blackwater Bayou (16EBR33) sites in East Baton Rouge Parish.

STAGE	PERIOD	CULTURE	TIME INTERVAL	PHASES		
				EASTERN AREA	CENTRAL AREA	WESTERN AREA
FORMATIVE	HISTORIC	VARIOUS CULTURES	A.D. 1800	←----- VARIOUS TRIBES -----→		
	MISSISSIPPI	MISSISSIPPIAN PLAQUEMINE	A.D. 1700	←----- LITTLE PECAN -----→		
			A.D. 1600	DELTA NATCHEZAN	PETITE ANSE	BAYOU CHENE
			A.D. 1500	MEDORA	BURK HILL	
				BARATARIA		
	COLES CREEK	TRANSITIONAL COLES CREEK	A.D. 1200	ST. GABRIEL	THREE BAYOU	HOLLY BEACH
		COLES CREEK	A.D. 1000	BAYOU RAMOS	MORGAN	JEFF DAVIS
			A.D. 900	BAYOU CUTLER	WHITE LAKE	
			A.D. 850		WELSH	
	BAYTOWN	TROYVILLE-LIKE	A.D. 700	WHITEHALL	?	ROANOKE
	MARKSVILLE	MARKSVILLE	A.D. 400	GUNBOAT LANDING	VEAZEY	LAKE ARTHUR
			A.D. 200	MAGNOLIA & MANDALAY	JEFFERSON ISLAND	LACASSINE
			A.D. 1	SMITHFIELD		
TCHULA	TCHEFUNCTE	250 B.C.	LABRANCHE			
			BEAU MIRE	LAFAYETTE	GRAND LAKE	
		500 B.C.	PONTCHARTRAIN			
ARCHAIC	ARCHAIC	1000 B.C.	GARCIA	BEAU RIVAGE	?	
		1500 B.C.	BAYOU JASMINE	RABBIT ISLAND		
			PEARL RIVER	COPELL	BAYOU BLUE	
		3000 B.C.	MONTE SANO	BANANA BAYOU	?	
		5000 B.C.	AMITE RIVER			
LITHIC	PALEO-INDIAN	6000 B.C.	ST. HELENA	?	?	
		8000 B.C.	JONES CREEK	VATICAN	STROHE	
			?	AVERY ISLAND	?	
		10,000 B.C.	?	?	?	

Figure 4. Aboriginal culture sequence in southern Louisiana.

The remains of Pleistocene megafauna have been reported from a number of sites in and around East Baton Rouge Parish. The White Bayou, Ward's Creek, Hurricane Creek, Bayou Manchac, Jones Creek, and Woodlawn School Mastodons are a few of the known finds (CEI 1977:3). Although none of this faunal material was found in clear association with human remains or artifacts, megafauna certainly lived contemporaneously with humans in Louisiana during this period, and doubtlessly were hunted, as evidenced in other parts of North America.

Early Archaic Period, 6000-5000 B.C.

In much of eastern North America, the Early Archaic period represents a time of adaptation to the changing environments associated with early post-glacial climatic regimes. The Paleo-Indian pattern of settlement apparently continued into the Early and Middle Archaic periods, yet sites were occupied for longer periods of time, in a cycle dictated by the seasonal availability of resources. Thus, the light lithic scatters of Paleo-Indian kill or camp sites, give way in the Archaic to relatively substantial midden deposits (Griffin 1967). While there is a distinct technological break with the earlier fluted-point tradition during the Archaic, there are obvious continuities with transitional complexes such as San Patrice. For instance, the San Patrice-inspired, side-notched point style becomes characteristic of the Early Archaic. Corner-notched types such as the Palmer and Jude, and stemmed types like the Kirk are also characteristically Early Archaic. Weinstein et al. (1977:4) have established the St. Helena phase in the Florida Parishes based on scattered finds of Kirk and Palmer points.

Middle Archaic Period, 5000-3000 B.C.

The Middle Archaic period is characterized by widespread regional differentiation of cultures, and a number of developments in ground-stone technology. Ground atlatl weights, pendants, and grooved axes were the results of this technological change. Although they appeared first in the Early Archaic, grinding stones were more common in the Middle Archaic period. This period also roughly corresponds with the Hypsithermal Interval, which brought increased warmth and aridity to areas bordering the Great Plains (Wood and McMillan 1976). The impact of this climatic shift on other portions of the Southeast is not well known at present. The intensive shellfish collection evidenced at some riverine sites of this period may represent a response to this climatic change (Lewis and Lewis 1961:20). In addition, Stoltman (1978:714-715) has suggested that plant collecting increased in importance during this time.

Two Middle Archaic phases have been identified in southeast Louisiana. The Amite River phase, proposed by Gagliano (1963:114) on the basis of sites found along terraces overlooking the middle Amite River, is perhaps the earlier of the two. This phase is characterized by projectile point types such as Almagre, Morhiss, Shumla, Wells, and Kent. The later Monte Sano phase was initially defined based on findings from a small mound site (16EBR17) where Haag and Ford conducted salvage excavations in 1967. The two low mounds at the Monte Sano Bayou site were found to contain platforms which may have served as cremation areas. Artifacts associated with the larger mound include Archaic dart points, microlithic tools, and a red jasper locust effigy bead. A radiocarbon date of 6220 B.P. \pm 140 was obtained from one of the platforms. Since that time other mound sites in this region, including Hornsby (16SH21) and the LSU mounds (16EBR6), have yielded similar early dates.

Late Archaic Period, 3000-1500 B.C.

Research elsewhere in eastern North America suggests that the Late Archaic period was a time of marked population increases and the beginning of extensive trade networks. The evidence for the former is seen in the appearance of large habitation sites such as Indian Knoll, Kentucky (Webb 1946), while the latter is reflected in the exotic raw materials that occur at some sites. Plant cultivation involving squash, and several native North American species including sumpweed, chenopod and sunflower, also began during this period (Smith 1989).

The only Late Archaic phase identified in southeast Louisiana thus far is Gagliano's (1963:116) Pearl River phase which is based on a series of oyster shell middens associated with early coastal features. Diagnostic artifacts include Kent, Pontchartrain, Maçon, Hale, and Palmillas projectile points and various types of atlatl weights. The Templet site (16EBR53), a large lithic scatter on the west bank of the Comite River in East Baton Rouge Parish, is tentatively dated to the Late Archaic.

Poverty Point Period, 1500-500 B.C.

In much of eastern North America this time interval witnessed a transition from Archaic hunting and gathering cultures to Woodland cultures characterized by food production, pottery manufacture, and mound building (Stoltman 1978:715-717). Current interpretations suggest that these three features have different and possibly unrelated origins. There is evidence of native seed-plant cultivation in the Kentucky and Ohio area by 1000 B.C. (Struever and

Vickery 1973). Ceramics probably appeared somewhat earlier than this in the third millennium B.C. along the Atlantic Coast (Stoltman 1978:715), and, as noted above, mound building may have developed independently in several areas by 1000 B.C.

In the Lower Mississippi Valley this transition is marked by the development of the distinctive Poverty Point culture. Among the material characteristics of this culture are baked clay balls or Poverty Point objects, microlith and lapidary industries, and earthworks (Webb 1977). The stone assemblage suggests participation in a widespread and well-organized trading network. Copper from the Great Lakes, quartz crystals, novaculite and magnetite from Missouri and Arkansas, gray chert from Ohio, and steatite from Alabama are a few of the distinctive trade items that appear on Poverty Point sites. Pottery is not abundant, but fiber-tempered and sand-tempered wares have been found at several sites. Evidence of subsistence is rare, but suggests a continuation of the Archaic pattern of intensive utilization of wild plants and animals. However, there is mounting evidence for the cultivation of squash at Poverty Point period sites (Ford 1974; Jackson 1986; Shea 1978).

Two temporally distinct Poverty Point phases have been identified in southeast Louisiana. The earlier Bayou Jasmine phase is based largely on data from the Bayou Jasmine site (16SJB2) in St. John the Baptist Parish and the Linsley (16OR40) site in Orleans Parish (Gagliano 1963:116). The succeeding Garcia phase was defined on the basis of collections from the Garcia site (16OR34), also in Orleans Parish. Poverty Point components have not been identified in East Baton Rouge Parish, and it is possible that a Late Archaic culture persisted here during that period.

Tchula Period, 500 B.C.-A.D. 1

The Tchula period in the Lower Mississippi Valley is characterized by the integration of food production, pottery manufacture, and mound building into a single cultural system. In the southern portion of the valley these developments occur in an archaeological culture called Tchefuncte. Originally defined in southern Louisiana (Ford and Quimby 1945), Tchefuncte culture is now recognized to have extended as far north as the vicinity of Clarksdale, Mississippi, and as far west as northeast Texas. Diagnostic artifacts for this culture, and most of the succeeding prehistoric cultures of the Lower Mississippi Valley, are distinctive ceramics. Tchefuncte pottery is characterized by a laminated paste which appears to lack tempering. Replication studies suggest that the laminated texture is simply the result of minimal preparation of the raw material (Gertjeansen 1982), an expected feature of an incipient ceramic technology.

Other diagnostic attributes of Tchefuncte ceramics include the use of podal supports and decorative techniques such as rocker-stamping, fingernail punctating, and jab-and-drag incising.

Evidence for food production in Tchefuncte culture presently comes from only one site, the Morton Shell Mound (16IB3), where remains of two possible tropical cultigens, squash and bottle gourd, and one possible native cultigen, knotweed, were recovered (Byrd 1974; Byrd and Neuman 1978:11-13). Given the limited nature of these findings, the importance of cultivation in relation to the remainder of the subsistence base is still uncertain. Mound construction, well documented for the preceding Late Archaic and Poverty Point periods, is surprisingly not clearly associated with Tchefuncte culture. Alan Toth (1988:27) has reviewed the evidence for Tchefuncte burial mounds and suggests that they are the result of diffusion of certain aspects of Marksville burial practices among a few late Tchefuncte groups. Further research is required to verify this hypothesis.

Two Tchula period phases have been identified in southeast Louisiana. One, the Pontchartrain phase, is based on Ford and Quimby's (1945) early work at sites around Lake Pontchartrain. It includes occupations which probably span the entire period and eventually should be subdivided. Most of the known components are located southeast of the present project areas in the Pontchartrain Basin. The other Tchula period phase, Beau Mire, is believed to date to the latter portion of the period. Components of this phase have been reported at the Kleinpeter (16EBR5), Kuttruff (16AN9) and Sara Peralta (16EBR67) sites in the vicinity of the project areas.

Marksville Period, A.D. 1-400

In many parts of eastern North America, the first centuries A.D. are marked by evidence of extensive interregional contact through a phenomenon labeled the Hopewell Interaction Sphere (Struever 1964). The focal points of this interaction sphere were societies in the Ohio and Illinois River valleys which acquired large quantities of exotic raw materials, including obsidian, copper, mica, shark's teeth, and marine shells, in exchange for specialized finished goods such as copper panpipes and ear spools (Stoltman 1978:721). Various theories have been offered to explain the nature of this interaction, some emphasizing socioreligious systems and others pointing to economic networks, yet the problem remains unresolved.

Within the Lower Mississippi Valley, the culture which participated in the Hopewell Interaction Sphere is termed Marksville. Toth (1988:211-213) has argued that Marksville culture developed out of Tchefuncte as a result of intermittent contacts with cultures in the Illinois River Valley area, yet he only speculates on the nature of these contacts. According to Toth, the evidence for Hopewellian interaction is largely limited to the Marksville mortuary system and aspects of ceramic decoration. Other cultural subsystems, such as subsistence and settlement pattern, may have changed very little. Economic data from Marksville sites are extremely limited, but information from contemporary occupations in the Midwest suggests a pattern of intensive collecting of wild plant foods and high-density faunal resources, such as fish, supplemented by cultivation of native North American seed plants and a few tropical cultigens (Asch et al. 1979). Present evidence indicates that maize was of only minor importance at this time (Smith 1989).

Two Marksville period phases, Smithfield and Gunboat Landing, have been identified in the vicinity of the project area. Smithfield is an early Marksville phase established by Toth (1988) on the basis of excavations at the site of that name (16WBR2/3) in West Baton Rouge Parish. Other components are present at the Monks (16PC5) and Medora (16WBR1) sites (Toth 1988:206-209). The Gunboat Landing phase is a late Marksville phase proposed by Weinstein et al. (1977) on the basis of Weinstein's (1974) excavations at several sites on the lower Amite River. Components of the Gunboat Landing phase may be present at the Green Snake site (16EBR36) and at site 16WF41 (Phillips et al. 1984:30).

Baytown Period, A.D. 400-700

The period following the Hopewellian florescence was once characterized as a time of cultural decline throughout much of eastern North America (Griffin 1967:187). This is certainly implied in Phillips' (1970:901) statement that ceramic decoration was "at a remarkably low ebb" during this period in the Lower Mississippi Valley. Recently, however, a number of researchers have suggested that the apparent decline may not have been as pervasive as previously believed. In the Midwest, Braun (1977) and Styles (1981) have argued that this period, in contrast to earlier interpretations, was a time of population growth and increased regional social integration. Along the Florida Gulf coast an elaborate culture called Weeden Island developed during this period (Milanich and Fairbanks 1980:89-143). Even in the Lower Mississippi Valley new data indicate that the Baytown period was marked by the appearance of two painted pottery complexes (Belmont and Williams 1981). The earlier complex, termed the Quafalorma horizon, developed during the Troyville subperiod and exhibited striking

similarities to early Weeden Island ceramics. The later complex, called the Woodville horizon, characterized the Deasonville subperiod and was less elaborate.

Changes were also occurring in the stone tool tradition during this period. Small arrow points began to replace dart points, reflecting a transition from the atlatl to the bow and arrow. Subsistence data from the Lower Mississippi Valley are limited for this period, but in the Midwest, Styles (1981) has identified a pattern of intensive, localized collecting of wild plant and animal resources supplemented by increased cultivation of both North American and tropical cultigens. Mound building continued in the Baytown period, and there are indications that a shift from a mortuary function to a building substructure had clearly occurred by the end of this time (Rolingson 1982). A single Baytown period phase, Whitehall, has been identified in southeast Louisiana (Phillips 1970:911-912). Components are present at the Smithfield, Kleinpeter, and Lee sites in the East Baton Rouge area.

Coles Creek Period, A.D. 700-1200

Elsewhere in eastern North America this time interval corresponds to the latter portion of the Late Woodland period and the beginning of the Mississippi period. Within the Lower Mississippi Valley, a cultural florescence that shows a marked resemblance to Weeden Island culture of northwest Florida occurred during this period. The precise nature of the relationship of Coles Creek culture to Weeden Island is uncertain, but the similarities in ceramic decoration and community pattern are unmistakable. Ceramics from both cultures are characterized by incised, stamped, and punctated pottery types in which the decorative zone is largely restricted to a band around the rim of the vessel. Major settlements in both areas contain small platform mounds centered around open plazas. This kind of monumental construction is generally interpreted as a physical indication of a stratified social system.

These societies were once thought to have been established on economies which were based on the cultivation of maize; however, although maize is not uncommon among other groups during the eighth and ninth centuries A.D. in northwestern Mississippi and central Arkansas (Rolingson 1990; Scarry 1995; Smith 1993), recent studies reveal that there is no evidence of maize in the Tensas Basin until Late Coles Creek times when it is, at most, a secondary plant food (Fritz 1994:5). Acorns, probably the products of highly managed, perhaps owned, territories, are the most important plant food. Thin and thick-shelled hickory nuts were also consumed in considerable quantities (Fritz 1997). Native fruits, particularly persimmons and to a lesser degree palmetto, were consistently important as well (Fritz 1994).

Native North American seed crops were of considerable, but not paramount, importance throughout this period (Fritz and Kidder 1993:8-9; Kidder and Fritz 1993:291-294).

Three Coles Creek period phases are presently recognized in southeast Louisiana. The earliest of these phases is Bayou Cutler (Kniffen 1936; Phillips 1970:920-923). The majority of identified Bayou Cutler components are located in the Mississippi River deltaic plain and the Pontchartrain Basin. A late Coles Creek, Bayou Ramos phase has been established by Weinstein et al. (1978:22-23) on the basis of test excavations at the Bayou Ramos I site (16SMY133) in St. Mary Parish. Most of the known site components of this phase are located in the vicinity of the type site. The third Coles Creek period phase, St. Gabriel, dates to the very end of the period and is based on Woodiel's (1980, 1993) excavations at the site of that name in Iberville Parish. Weinstein (1987:90) has identified additional St. Gabriel phase components in the pre-mound levels at Medora and at the Bayou Goula site (16IV11) in Iberville Parish.

Mississippi Period, A.D. 1200-1700

The last prehistoric period in eastern North America witnessed the development of chiefdom-level societies almost without exception associated with maize cultivation. Perhaps the most dynamic of these societies appeared in the Middle Mississippi Valley between A.D. 900 and 1050. Referred to as Mississippian, this culture is characterized by a shell-tempered ceramic industry and a settlement pattern of large, often fortified, mound centers and nucleated habitation sites (Stoltman 1978:725). During the first centuries of the second millennium A.D., this culture spread rapidly along the major river valleys of eastern North America. The nature of this expansion, either through movement of people or diffusion of ideas, is still debated. However, by A.D. 1200 Mississippian cultures could be found as far south as northern Mississippi and as far east as Georgia.

In the Lower Mississippi Valley, Mississippian culture encountered an indigenous non-Mississippian culture, and a hybridization of the two occurred. Phillips (1970) considered the resident culture to have been Plaquemine, an outgrowth of Coles Creek culture that began about A.D. 1000. He claimed that the interaction between Mississippian and Plaquemine culture resulted in gradual changes in the Plaquemine ceramic tradition and pattern of settlement. Later in the period, after A.D. 1400, an actual intrusion of Mississippian groups displaced the resident Plaquemine groups. Brain (1978) offered a somewhat different interpretation of this sequence of events. The Lower Mississippi Valley culture which

experienced the initial Mississippian contact in about A.D. 1200, according to Brian, was Coles Creek, and the resulting hybridization produced Plaquemine culture. The remainder of the period saw a gradual increase in Mississippian influence, at least in the Yazoo Basin, until about A.D. 1400, when a full Mississippian cultural pattern was achieved in the Lake George phase (Brain 1978:362). Brain's reinterpretation of the cultural sequence has resulted in a shift in the established chronologies. Phases such as Crippen Point, Gordon, and Preston, which were formerly considered Plaquemine culture manifestations of the early Mississippi period, are now placed late in the Coles Creek culture. The Coles Creek period is now thought to persist until A.D. 1200, and includes a number of changes in ceramic technology which had previously been considered indicators of Plaquemine culture.

While unable to agree on the origin of Plaquemine culture, all authorities concur that it exhibits numerous continuities with the preceding Coles Creek culture. Several of the Plaquemine ceramic types appear to have been direct outgrowths of Coles Creek types. Major ceramic changes, however, include the addition of small amounts of finely ground shell and other organic matter to the clay, and the extension of the decorative field to include the body of the vessel. Mound construction continued on an even greater scale than in previous periods, resulting in larger mounds, larger mound complexes, and a larger number of mound sites. Intensive maize agriculture is presumed to have been the economic base on which this florescence rested; evidence that corn production alongside management of nut groves underlay these cultures in the Lower Mississippi Valley is mounting (Roberts 1998).

Two Mississippi period phases, Medora and Delta Natchezan, have been identified in the present region. Medora is an early Plaquemine phase based on Quimby's (1951) excavations at the type site. Medora components are also present at the Kleinpeter (16EBR5), Livonia (16PC1), and Rosedale (16IV1) sites (Weinstein 1987:96). The principal ceramic types associated with this phase include Plaquemine Brushed, *var. Plaquemine*, Mazique Incised, *var. Manchac*, L'Eau Noire Incised and Addis Plain, *var. Addis*. Delta Natchezan is a late Plaquemine phase which is based on Quimby's (1957) excavations at the Bayou Goula site. Weinstein (1987:Figure 11) identified a Delta Natchezan component at the Peter Hill site (16IV2). The ceramic markers of the phase include Fatherland Incised, *vars. Fatherland* and *Bayou Goula*, and Addis Plain, *vars. Greenville* and *St. Catherine*.

Brown (1985:Figure 2) also implies that components of the Bayou Petre phase occur in the Baton Rouge region, and date to the middle portion of the Mississippi period. Most authorities associate the Bayou Petre phase with the Pensacola variant of Mississippian culture,

not with Plaquemine culture, and do not extend its range this far west (Knight 1984; Weinstein 1987:Figure 11).

The European Past

Colonial Period, A.D. 1542-1800

European exploration of Louisiana began in 1542 when the survivors of the De Soto expedition passed down the Mississippi River on their way to the Gulf of Mexico. Yet extensive European contact did not occur until the late seventeenth and early eighteenth centuries. In 1682 an exploring party led by Rene Robert Cavelier, Sieur de la Salle, traveled from French Canada to the mouth of the Mississippi River and claimed the entire river valley for France. The party then returned upriver to Canada. Two years later La Salle attempted to relocate the mouth of the Mississippi from the Gulf of Mexico in order to establish a colony. However, he sailed past the river and landed in Texas. The small colony which he founded there on Matagorda Bay soon failed, and several years passed before the French crown was willing to finance another attempt at colonization. Finally in 1698 Pierre Le Moyne, Sieur d'Iberville, and his younger brother, Jean-Baptiste Le Moyne, Sieur de Bienville, were selected to head another colonizing expedition to the Gulf of Mexico. The following year they arrived along the Gulf coast and selected a site near Biloxi for their base. In that same year, Iberville led an exploring party up the Mississippi River to the vicinity of the mouth of Red River and then returned by way of Bayou Manchac and Lakes Maurepas and Pontchartrain.

The principal aboriginal groups encountered by the early European expeditions through the region were the Houma, the Tunica, and the Bayougoula. When initially contacted by Iberville in 1699, the Houma occupied a village in southern Wilkinson County, Mississippi, or the adjacent portion of West Feliciana Parish, Louisiana (Swanton 1911:285; Guevin 1983:49-64). Near the future site of Baton Rouge, Iberville encountered "many huts roofed with palmettos and a maypole with no limbs, painted red, several fish heads and bear bones being tied to it as a sacrifice," all belonging to the Houma (McWilliams 1953:65). André Pénicaut, a member of the French expedition, stated that the party encountered:

. . . very high banks called *écorts* in that region, and in savage called *Istrouma*, which means red stick, as at this place there is a post painted red that the savages have sunk there to mark the land line between the two nations, namely: land of the Bayagoulas, which we were leaving, and land of another

nation—thirty leagues upstream from the baton rouge—named the Oumas [McWilliams 1953:25].

After an attack by the Tunica in 1706 the Houma moved south, first to the vicinity of New Orleans and then by 1709 to Ascension Parish. There they established at least two, and possibly three, villages. One was known as the “Grand” or “Great” Houmas village, located near Burnside, Louisiana (Giardino 1984:249). Bryan Guevin (1983) has presented archaeological and documentary evidence that identifies this village with site 16AN35. A second village, referred to as the “Petit” or “Little” Houmas village, was possibly located near Geismar, Louisiana. This village may be associated with site 16AN3, although there is presently no archaeological data to support this hypothesis. The Houma continued to live in the Ascension Parish area until the late eighteenth century, when they sold their lands and began moving to Terrebonne Parish (Swanton 1911:290-291). As late as 1771, Elias Durnford reported Pascagoula, Houma, and Mobile groups in the lower Amite River basin. His maps of the Amite, Comite, and Bayou Manchac are the earliest known documents of these drainages (Weinstein 1974). Only six years later, Bartram (1973 [1792]) wrote a travelogue of his journey up the Amite River and made no mention of Indian occupation.

In 1706 the Tunica moved from the lower Yazoo Basin to a location near the Red River-Mississippi River confluence known as Portage de la Croix. This move was made because of pressure from the Chickasaw, who were allied with the British. The villages near the mouth of the Red River were closer to the French colonists with whom the Tunica were allied, and therefore more protected from an attack by the Chickasaw. The principal Tunica village was on the east bank of the Mississippi in present West Feliciana Parish, but there was also a small village on the west bank in what is now Pointe Coupee Parish (Brain 1988:30-34). In 1731 the Tunica moved from the Portage de la Croix location to Tunica Bayou, just downstream and on the east bank of the river. The Tunica remained there until 1764 when they ambushed a British expedition on the Mississippi River and then fled to Mobile to escape retaliation. Later that year, the Tunica moved back to the Mississippi River and settled on the east side across from the French settlements at Pointe Coupee, a few miles downstream from the Tunica Bayou location (Brain 1988:39). In 1790 or shortly before, the Tunica moved to the present-day location of Marksville on the Red River and have remained there since.

In 1699 the Bayougoula occupied a village on the west bank of the Mississippi River above Bayou Lafourche (Swanton 1911:274). Seven years later the Taensa, who had come to live with them, attacked the Bayougoula, killing many. The surviving Bayougoula moved for a

time to the vicinity of Fort de la Boulaye in Plaquemines Parish, but by 1720 they were living on the west bank of the Mississippi River near Vacherie, Louisiana (Giardino 1984:248). By the 1730s they appear to have merged with the Houma.

The first European settlement in the vicinity of the present project area was apparently established in 1712 by the French near the principal Tunica village on the east bank of the Mississippi in present West Feliciana Parish (Davis 1967). In 1717 or soon after, the Dartaguet family received a land grant in the Baton Rouge area, yet the resulting settlement was abandoned in about 1733 (Meyers 1976:10-17). The few concessions of land made in the early eighteenth century to French settlers, like one to a Monsieur le Jeune on Bayou Sara, or another to a de Meziere "above the red stick" (Arthur 1935), were taken over by the Company of the Indies in about 1717 when the French decided to leave the logistics of colonization to private enterprise. This approach was not successful, however, and settlement in the area languished until after the signing of the Treaty of Paris in 1763. Under the treaty, which ended the Seven Years War, France ceded Florida, including the Florida Parishes of Louisiana, to Britain and the remainder of Louisiana to Spain.

One result of this transfer of territory was an active effort at colonization by the two new proprietors. Both the British and Spanish built forts on the Mississippi at its junction with Bayou Manchac, the boundary of their territories, and began offering land grants to settlers. British Florida was split into East and West Florida, the latter including the Florida Parishes of Louisiana, and administered from Pensacola. The Governor of West Florida, George Johnston (1763-1766), encouraged settlement primarily by offering free land grants of 50 to 5,000 ac to British military veterans (Meyers 1976:27). The Spanish, however, followed a more open grant policy, offering land to a variety of ethnic groups including French, Germans, Acadians, and Canary Islanders. Both governments required that grant recipients develop their property within a certain period of time or forfeit it to the crown. These policies attracted increasing numbers of immigrants to Louisiana, and tobacco and indigo plantations began to spread along the Mississippi. The onset of the War of Independence in 1776 further increased the population in West Florida, as Loyalists fled the Atlantic seaboard to resettle in an apparently stable British territory.

This stability evaporated in 1779, when Spain allied itself with France and the American Colonies in the American Revolution and used the opportunity to expand its holdings in the Mississippi Valley. Forces under Spanish governor Don Bernardo de Galvez seized British posts at Manchac and Baton Rouge, effectively ending British control of West Florida.

Subsequently, Spain divided West Florida into four districts: La Feliciana, St. Helena, Chifoncte, and Baton Rouge. The Spanish government enticed immigrants to the newly acquired territory not only with offers of land, but also by promising each farmer an ax, a hoe, a scythe or sickle, a spade, two hens, a cock, a two-month-old pig, and a designated amount of maize for each family member (Arena 1974). The majority of these new settlers were English speakers from the Carolinas, Georgia, and Virginia, as well as England, Ireland and Scotland. Part of the attraction for those of Irish descent was the opportunity to live in an area where Catholicism was not simply tolerated, but mandated by French and later Spanish decree. To this end Governor Esteban Miro (1785-1791) assigned at least six Irish priests to West Florida, and built a church at the Acadian settlement on Thompson's Creek. The Spanish king specifically requested Irish priests in an effort to unify the polyglot of Catholics in the colony, and to attempt to convert English-speaking Protestants (Meyers 1976:51-2).

The plantation economy of the region continued to grow under Spanish rule. By the mid-1780s, successful plantations along the Amite and Comite rivers were producing indigo, cotton, rice, hemp, tobacco, corn, and livestock (Hutchins 1968:61). Export products included pitch, tar, masts, and lumber. By the 1790s persistent problems with the indigo crop and technological advances in the granulation of sugar and the ginning of cotton led to a shift toward sugar and cotton as the principal commercial crops. Sugar predominated along the Mississippi River south of Baton Rouge, but north of the city, cotton was the most common crop. Baton Rouge became the commercial and political center of the region during this time and had a population of over 1,500 by 1803 (Meyers 1976:62).

American Period, A.D. 1800-Present

On 1 October 1800 the Treaty of San Ildefonso was secretly negotiated between Spain and France. As a result of this treaty, the territory of Louisiana, which did not include the West Florida parishes, was ceded back to the French. For the Spanish, Louisiana had become a financial liability, which they were relieved to hand over to the wealthy and ambitious Napoleon. Yet Spain was not about to give up the ports of West Florida, which Casa Yrujo, Spanish Minister to the United States, claimed made it "easy . . . to annoy greatly the American commerce in case of war, and . . . to [carry] on an immense . . . trade . . . with our provinces in the Gulf of Mexico" (Meyers 1976:70). Three years later, the United States bought the Louisiana Territory from France as the Louisiana Purchase. Meanwhile, West Florida remained a Spanish possession until 1810. In 1803 the capital of West Florida was moved

from Pensacola to Baton Rouge. Within two years of becoming the capital, Baton Rouge and the surrounding area had grown to a community of 3,820 people (Meyers 1976:67).

The early nineteenth century was characterized by unrest as the inhabitants of West Florida attempted to free themselves from Spanish rule. Having come originally from Britain or former British colonies, many West Floridians felt entitled to a representative form of local government, a concept decidedly at odds with the Spanish method of administration. While feigning acquiescence to the demands of his constituency, Governor De Lassus secretly sent word to Pensacola for military reinforcements to quell unrest. Learning of this duplicity, revolutionaries among the citizenry seized Fort San Carlos in Baton Rouge on September 23, 1810 (Meyers 1976:97). On September 26, the Republic of West Florida, with its capital at St. Francisville, declared its independence. The flag of this independent republic flew for only 74 days, until the republic was occupied by United States forces under the command of Territorial Governor William C. C. Claiborne in December of 1810. On December 22, Claiborne organized the newly acquired territory into four parishes, one of which was East Baton Rouge. While the majority of the settlers in West Florida wanted to become part of the United States, a small group who did not tried to resurrect the republic in January 1811 (Favrot n.d.:11-12). The uprising was quickly quelled and order restored to the area. All of Louisiana, the Territory of Orleans plus West Florida, was officially recognized as the eighteenth state of the United States in 1812.

The early years of statehood were years of development for East Baton Rouge Parish. Waves of immigration demanded the establishment of roads along existing trails. The introduction of the steamboat in 1812 significantly increased river traffic at the ports of Baton Rouge and Port Hudson. Baton Rouge was incorporated as a city on January 16, 1817 (Carleton 1981:35). The parish claimed 4,808 residents by 1820 (Favrot n.d.:13). The Florida Parishes were not long a frontier, for by 1820 all prime acreage was claimed and settlement was shifting from isolated homesteads to small communities (Davies 1967; deFrance 1985:6). The first railroad was built in the area in 1830, connecting Clinton and Port Hudson. The aim of the line was to transport cotton to the Mississippi River. Settlement began along rail lines as it once had along water courses. In 1848, sugar joined cotton as a primary cash crop in the area. On January 1, 1849, Baton Rouge became the state capital, moving from New Orleans where it had resided since 1812.

The onset of the Civil War was to interrupt economic development in the entire state. In January 1861, a special legislative session held in Baton Rouge and led by Governor

Thomas Overton Moore, voted to secede from the Union. Moore took over all federal property within the state (Wall 1984:188), and rapidly allied Louisiana with the Confederate States of America. Louisiana felt the effects of the Civil War soon after fighting commenced. On 25 April 1862, Union forces led by Commodore David Farragut ousted Confederate forces under the command of General Mansfield Lovell at New Orleans. After this success, Farragut moved on to take Baton Rouge, which numbered approximately 7,000 inhabitants at that time. Although Union forces did not physically occupy Baton Rouge until the end of the month, Farragut took unopposed control of the city on 7 May 1862 (Spedale 1985:5).

The Confederates attempted to wrest the city back from Union control on August 5, 1862, when General John C. Breckinridge (former vice-president of the United States) led an unsuccessful attack in what has become known as the Second Battle of Baton Rouge. Control of Baton Rouge was necessary for the Confederacy to maintain much needed commerce on the Red River and for staging military forays into New Orleans. Breckinridge had hoped for assistance from the Confederate gunboat *Arkansas*, but the ship never made it to Baton Rouge, having been burned and set adrift by her captain only four miles above the town. Running low on ammunition, Confederate troops were forced to attack the Union center using bayonets and hand-to-hand combat ensued. At about 10:00 a.m., the Union center finally broke and Union troops fled to the relative safety of their gunboats' cannons (Spedale 1985:34-5; Winters 1963:117-18). When dusk fell, Breckinridge ordered his men to withdraw. Those Confederates who could still walk marched out of Baton Rouge that afternoon, unmolested by the weary Union troops. The next day the Confederates camped on the Comite River, on their way back to Camp Moore (Spedale 1985:40-41; Winters 1963:121). Although Union forces retained the city, the battle was basically one of attrition.

Vicksburg, Mississippi remained the main Confederate stronghold on the river throughout much of the war. Port Hudson was selected as a fortification point in order to secure Vicksburg from Union attacks from the south. The site's high bluffs and deep ravines provided natural barriers to attack. Located at a southward bend in the Mississippi, Port Hudson served to aid in the control of river traffic. As Union naval forces were unable to destroy the fort, land forces under General Nathaniel Banks laid siege to it beginning on May 22, 1863. With news of the fall of Vicksburg on July 4, the Confederate force at Port Hudson finally surrendered on the morning of July 9, 1863, after 48 days of siege. These defeats opened the Mississippi River to Union forces, foreshadowing the fall of the Confederacy.

The recovery of East Baton Rouge Parish following the Civil War was a long and painful process. By 1880, the city of Baton Rouge was well on its way to recovery but was not substantially larger than it had been 25 years earlier. In May 1882, the state government was moved back to Baton Rouge from New Orleans (where it had been transferred by Union forces in October 1864) and the following year the city was connected by rail to New Orleans for the first time (Carleton 1981:128). The Civil War severely disrupted the economy of the region, closing the principal cotton markets and eventually depriving the planters of their cheap labor source. After the war, cotton production resumed, often on an even greater scale than before, but now the labor was provided by tenants or sharecroppers. The new towns of Baker and Zachary were established as railroad stops along what later became the Illinois Central line. Cotton from surrounding farms was brought to gins in these towns and eventually carried to market by rail. People were gradually drawn from the countryside and concentrated in these new urban settings. In addition, the lumber industry which boomed between 1885 and 1915, resulted in deforestation and increased mill construction in the parish (Saltus 1986:22).

Twentieth-century Baton Rouge has continued on the course set by nineteenth-century events. This century has been characterized by periods of prosperity and depression, resulting from the state's dependence on mono-cultures, and the lack of a diversified economy. Today much of the city's economy is directly related to state government expenditures. The arrival of the boll weevil in 1907 obliterated the cotton industry in the surrounding region. The failure of the cotton crop and the birth of the petroleum and waste-disposal industries along the Mississippi River in the early twentieth century, resulted in a shift to dairy farming in East Baton Rouge Parish. Dairying did not require the manpower of farming, and allowed families to run farms while also working shifts in the industrial plants. In the 1930s, at least 49 dairies were operating in the parish. However, increased land values due to industrial and suburban growth, and the rise of large automated dairies, have seriously reduced the number of surviving family farms in East Baton Rouge Parish. Only six dairies, including two run by Louisiana State University and Southern University, operate in the parish today (George Simoneaux, personal communication 1994). Persisting agricultural pursuits are now dominated by the less-labor-intensive beef industry. Once the backbone of the regional economy, agriculture is now overshadowed by industry in the parish. Baker and Zachary now serve as commuter suburbs of Baton Rouge.

CHAPTER 5

SURVEY METHODS AND RESULTS

The survey was conducted by a three-person field crew. On the Pleistocene terrace, shovel tests were excavated at 30m intervals in an offset pattern along two transects 30 m apart. Below the terrace, auger borings were excavated every 50 m on alternating sides of the stream. Borings were excavated to a depth of 2 m. Additionally, a bankline profile was cleared in the southern project area. Soil from the excavations was screened through 1/4-inch wire mesh.

Northern Project Area

In the northern project area near the Palmer site (16EBR26), a total of 26 shovel tests and 10 auger borings was excavated (Figure 5). Shovel test stratigraphy on the Pleistocene terrace in this project area was more or less uniform. Typical stratigraphy consisted of an A horizon of brown (10YR 4/3) silty clay an average of 2 cm thick followed by silty clay that ranged between yellowish brown to light yellowish brown (10YR 5/4 - 6/4) 6 to 36 cm thick. Oxidation (10YR 5/6) and manganese nodules (10YR 3/2-2/2) first appeared in this horizon and the density of these items increased with depth. Below that was found a layer of light gray to white (10YR 7/2-8/2) clayey silt. This stratum was 20 to 33 cm thick. A yellowish brown (10YR 5/6-5/8) fine sandy clay underlay this.

Results of auger borings in this project area were similar to one another and reveal what appear to be episodes of flooding within the Holocene alluvium. A brown to pale brown silty clay (10YR 5/3 - 6/3) comprises the first 90 to 98 centimeters. This is followed by what seems to be a flood deposit of very pale brown (10YR 8/2) slightly clayey sand ranging in thickness from 9 cm to 29 cm. Underlying that are alternating lenses of brown (10YR 5/3) silty clay and very pale brown (10YR 8/2) clayey sand that vary from 8 to 19 cm thick. Between 144 to 160 cm below the surface lies the seventh and final stratum: a slightly silty clay that ranges in color from a gray (5Y 6/1) to a greenish gray (5GY 6/1). Manganese nodules occur sporadically throughout this deposit, as does oxidized material.

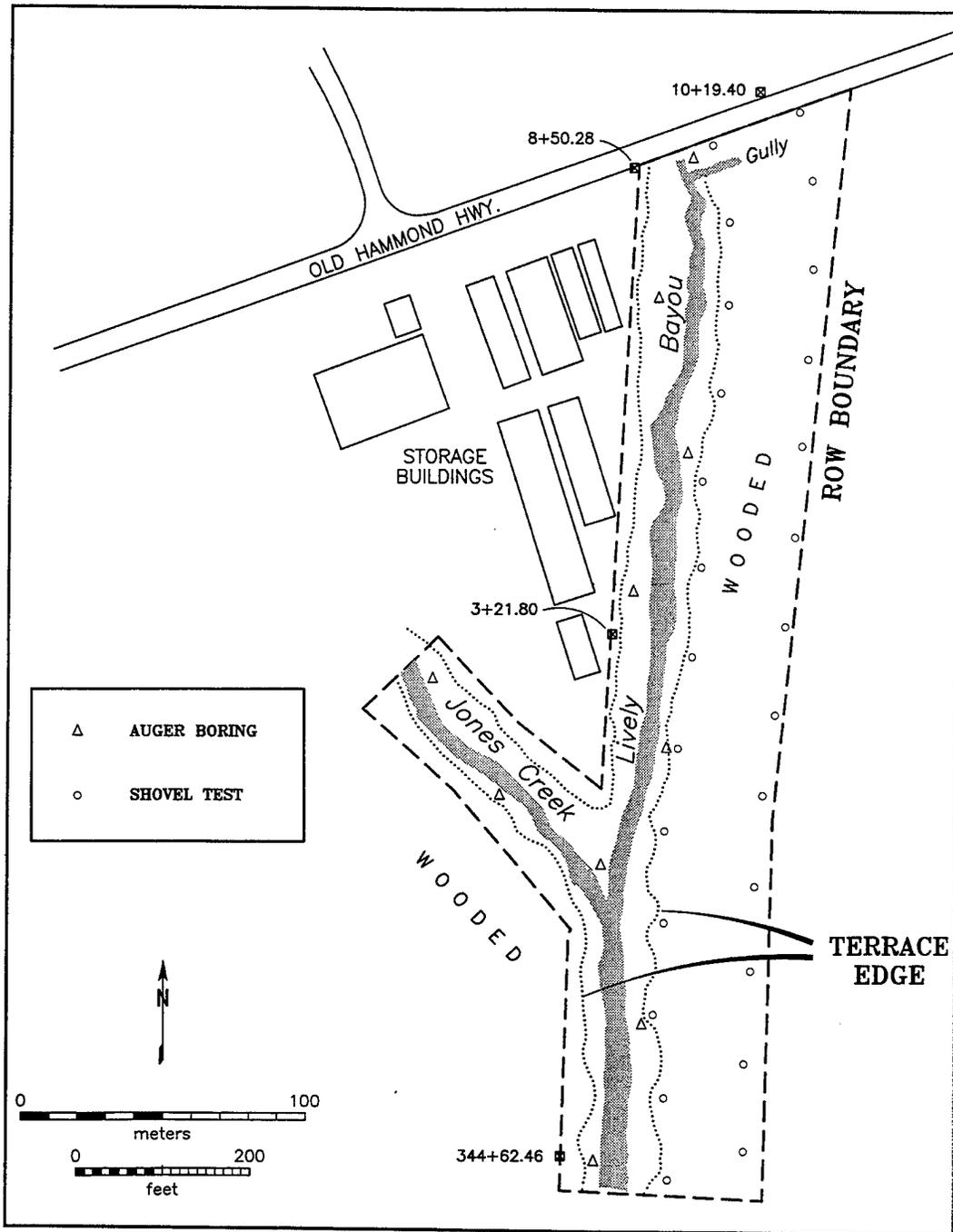


Figure 5. Locations of shovel tests and auger borings in project area near the Jones Creek site (16EBR13).

No cultural materials greater than 50 years old were encountered in any of the subsurface tests in the northern project area. The Palmer site, which was reported to have been located here, apparently lies outside of the project area or has been destroyed by recent development. Given the relatively undisturbed conditions in the project area east of Lively Bayou, the former seems more likely.

Southern Project Area

Twenty five shovel tests and 21 auger borings were excavated in the southern project area near the Jones Creek site (16EBR26). Shovel tests were conducted on the terrace on the south side of Jones Creek. Excepting those in the easternmost section of the ROW, stratigraphic sequences varied widely and many indicated obvious, relatively recent disturbance. The northern edge of the ponds that abut the terrace has been built up considerably with spoil. Spoil piles, from creek and perhaps pond dredging, occur all along the terrace. Additionally, as one moves westward, large areas of terrace have undergone slumping and erosion.

Stratigraphy of several shovel tests located to the east and outside of the disturbed areas is similar and probably best reflects the sequence of the terrace. The A horizon, when present, was 1 to 3 cm in depth and consisted of a dark, grayish brown (10YR 4/2) silty clay. A stratum of yellowish brown (10YR 5/4) silty clay with small amounts of oxidation and manganese measuring from 8 to 6 cm thick underlay this. Between 15 and 19 cm of light, brown (10YR 6/2) silty clay with substantial amounts of oxidation and manganese occurred next, followed by at least 34 cm of yellowish brown (10YR 5/8) silty clay.

The stratigraphy of other shovel tests seemed to be the product of the relatively recent, micro-depositional events related to slumping, erosion, and spoil deposition. Because of the inferred recentness of these stratigraphic sequences, the auger was used to extend every other shovel test to a depth of about 2 m in an attempt to reach undisturbed deposits. The deposits encountered appear to represent a combination of spoil and Recent alluvium. In no place were undisturbed Pleistocene terrace deposits identified.

Nine auger borings and a bankline profile were also excavated along the bank of Jones Creek. Beginning the stratigraphic sequence was a brown (10YR 5/3) fine sandy clay approximately 9 to 12 cm thick. Next were supposed flood deposits consisting of very pale brown (10YR 8/2) fine, slightly clayey sand. These deposits also were found in the bank

borings in the study area associated with the Palmer site and in several of the terrace borings in this study area. Interspersed with these strata were deposits of a brown (10YR 5/3) silty clay and a light yellowish brown (10YR 6/4) silty clay between 42 and 47 cm thick. Underneath lay a gray (between 10YR 6/1 and 5Y6/1) clay containing small amounts of coarse sand at least 63 cm thick.

No cultural materials were encountered in any of the subsurface tests in the southern project area. A sketch map of the Jones Creek site (16EBR13) on file at the Division of Archaeology suggests that it was located south of the pond shown in Figure 6, outside of the present project area.

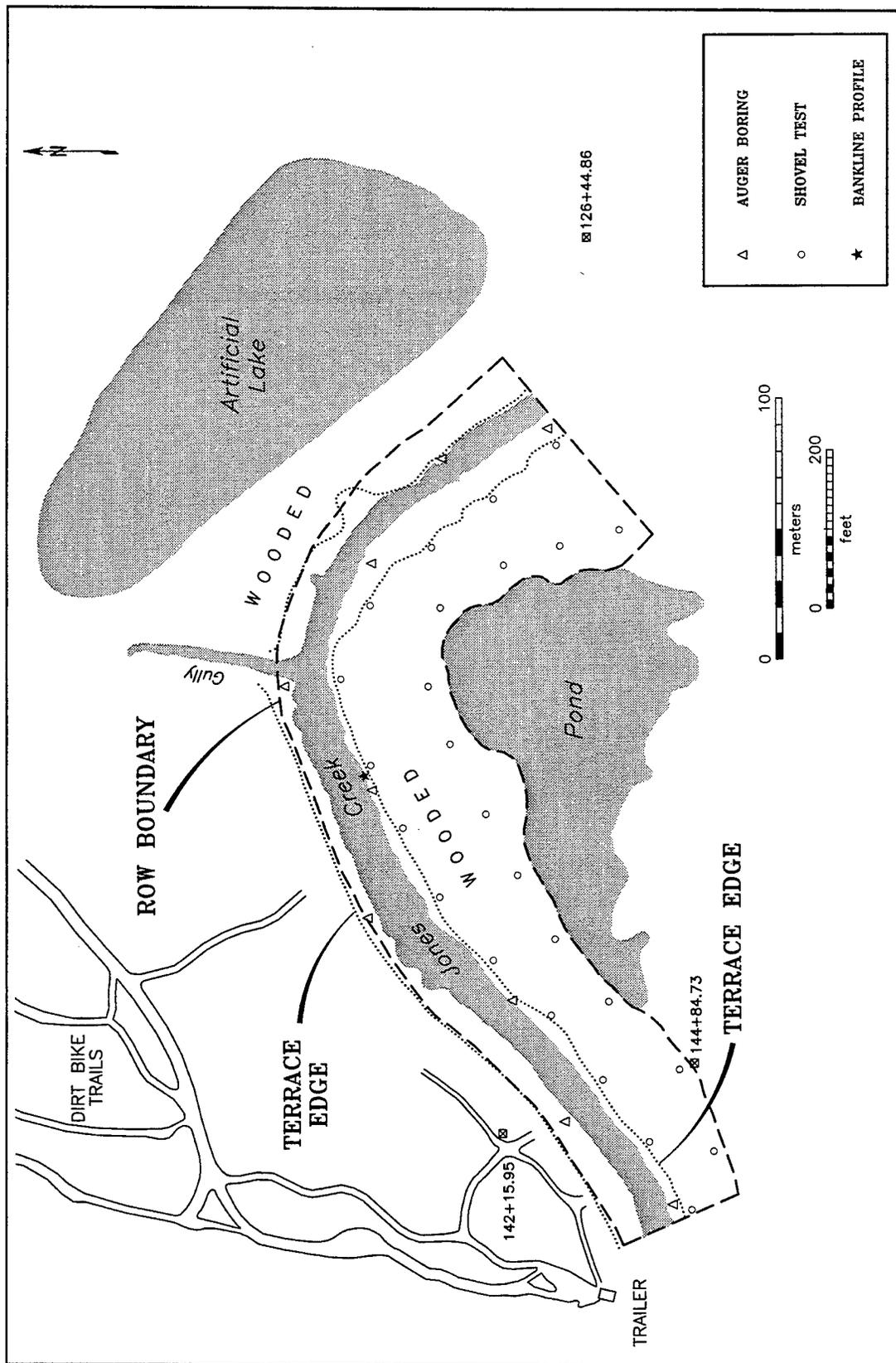


Figure 6. Locations of shovel tests and auger borings in project area along Jones Creek and Lively Bayou near the Palmar site (16EBR26).

CHAPTER 6

RECOMMENDATIONS

Although these project areas were conducive to human occupation as indicated by the two archaeological sites located in their vicinity, pedestrian survey and systematic shovel and auger testing revealed no evidence of cultural resources over fifty years of age within the project ROW. Thus, we can conclude that no significant part of either the Jones Creek site (16EBR13) or the Palmer site (16EBR26) is encompassed by the current ROW. It is, therefore, recommended that the proposed drainage improvements be allowed to proceed as planned.

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APPENDIX

SCOPE OF SERVICES

Revised* SCOPE OF SERVICES

ARCHEOLOGICAL SURVEY AND SITE DELINEATION AT THE
JONES CREEK (16EBR13) AND PALMER (16EBR26) SITES,
EAST BATON ROUGE PARISH WATERSHED FLOOD CONTROL PROJECT,
EAST BATON ROUGE PARISH, LOUISIANA

Revisions in bold italics*1. Introduction**

The U.S. Army Corps of Engineers, New Orleans District (COE), in cooperation with the Louisiana Department of Transportation and Development, Office of Public Works, the City of Baton Rouge, and East Baton Rouge Parish plans to construct drainage improvements along portions of Jones Creek and tributaries, East Baton Rouge Parish, Louisiana. These flood control measures were identified as part of the larger Amite River and Tributaries, Louisiana East Baton Rouge Parish Watershed Flood Control Project. A feasibility study and final environmental impact statement for the Amite River and Tributaries Project was completed during 1995. Cultural resources investigations are required to **identify and define** sites 16EBR13 and 16EBR26 prior to completing drainage improvements for the Jones Creek watershed in East Baton Rouge Parish. The task period for this effort is 26 weeks.

2. Study Area

The study area consists of two segments of the project corridor located along the banks of Jones Creek and Lively Bayou. Segment One includes area surrounding the reported location of 16EBR13 and extends from approximate Baseline Sta. 128+22 to 146+61 as shown on Plate 5 of the project maps (Attachment 1). Segment Two includes area surrounding the reported location(s) of 16EBR26 as shown on the Plate 11 of the project maps (Attachment 2). Fieldwork for the most part, will be conducted between the top of banks. Segments measure from 140 to 160 feet in width, (between top of banks). The area of coverage in the vicinity of 16EBR13 will include the area within 150 feet of the south top of bank (Attachment 1). The area of coverage in the vicinity of 16EBR26 will include the area within 100 feet of the east top of bank of Jones Creek and Lively Bayou (Attachment 2).

3. Background Information

Flood control projects for East Baton Rouge Parish were discussed in the main report and feasibility study (COE 1995). Drainage improvements along Jones Creek in the vicinity of 16EBR13 will consist of clearing and snagging within the existing channel. Drainage improvements planned along Jones Creek and Lively Bayou within Segment Two consists of concrete lining of the existing channels.

Cultural resources considerations during the reconnaissance phase of the project were addressed in the report entitled Literature Search and Research Design, Amite and Tributaries Project, Ascension, East Baton Rouge, and Livingston Parishes, Louisiana (Goodwin et al. 1990). Records indicated there are two potentially significant sites, 16EBR13 and 16EBR26 recorded inside the Jones Creek project area. Efforts to assess the condition of these sites were recommended and presented in the COE's 1995 feasibility report. Louisiana's site record forms for 16EBR13 and 16EBR26 are attached (Attachments 3 and 4).

In his report entitled 1995 Annual Report for Management Units IV and V, Chris Hays (1995) provides supplemental information on the location and condition of 16EBR26. The report is provided as Attachment 5. The investigations focused on the east bank of Jones Creek at its confluence with Lively Bayou.

4. Study Requirements

The study will be conducted utilizing current professional standards and guidelines including, but not limited to:

the National Park Service's draft standards entitled, "How to Apply the National Register Criteria for Evaluation," dated June 1, 1982;

the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation as published in the Federal Register on September 29, 1983;

Louisiana's Comprehensive Archaeological Plan dated October 1, 1983;

The Advisory Council on Historic Preservation's regulation 36 CFR Part 800 entitled, "Protection of Historic Properties".

The work will be divided into three phases. Phase 1 shall consist of literature review and background research. Phase 2 will consist of survey and site delineation, and Phase 3 will entail data analysis and report preparation.

a. Phase 1: Literature Search and Records Review. The Contractor shall commence, upon work item award, with a literature, map, and records review specific to the study area. This phase shall include the review and synthesis of literature obtained during previous research including but not limited to archeological, historical and geomorphologic reports covering the study area. The State Archeologist's site and standing structure files and the National Register of Historic Places will be consulted to establish a current and complete distribution of historic properties in the vicinity of the study area. A detailed chain of title is not required for the study area.

At a minimum, the background research and records review will be sufficient for developing the historic context(s) of the study area. The effort should be conducted to a level sufficient for assessing the significance of sites recorded in the study area.

b. Phase 2: Intensive Survey and Site *Delineation*. Field investigations shall commence upon completion of Phase 1. Phase 2 shall consist of shovel testing and auger testing to re-locate, delineate sites recorded within each segment described in Section 2, above.

Shovel test transects are to be established within each segment. Transects are to be spaced no greater than 10 m (meters) apart. Shovel tests will be excavated at a maximum of every 10 m; shovel tests on adjacent transects will be offset. Shovel tests will be approximately 30 cm in diameter and will be excavated 50 cm deep or to sterile subsoil. Additional more closely spaced shovel tests may be excavated to help define site boundaries.

Auger tests shall be excavated to help define the vertical limits of each site. Auger tests generally will be excavated to depths of 2 m. It is anticipated that approximately twelve auger tests would be excavated at each site.

Soils from shovel and auger tests will be screened through 1/4 in (.6 cm) hardware cloth. Soils with high clay content may be hand trowelled to detect the presence or absence of artifacts. The

stratigraphy, soil characteristics and a description of artifacts will be recorded for all excavations.

Sites encountered during the survey will be mapped, photographed, and plotted on the appropriate USGS 7.5' series topographic quadrangle.

c. Phase 3: Data Analysis and Report Preparation. All data will be analyzed using currently acceptable scientific methods. The Contractor shall catalog all artifacts, samples, specimen photographs, drawings, etc., utilizing the format currently employed by the Office of the Louisiana State Archaeologist. The catalog system will include site and provenience designations.

All background literature and records research, fieldwork and laboratory data will be integrated to produce a graphically illustrated, scientifically acceptable report discussing the project as a whole. The Contractor will synthesize the archeological, historical, and geomorphologic information obtained during Phase 1 with the results and observations of the field survey to assess the nature of the resource base in the study area. The Contractor will complete and file state site forms with the Office of the Louisiana State Archaeologist and cite the resulting state assigned site numbers in all draft and final reports of this investigation. The Contractor shall provide **recommendations for each site defined** using National Register criteria. Discussions on the potential project impacts for any given resource identified within the study area are to be included in the reports.

6. Reports

a. Monthly Progress Reports. One copy of a brief and concise statement of progress shall be submitted each month throughout the duration of the delivery order. These reports, which may be in letter form, should summarize all work performed, all information gained, or any problems encountered during the preceding month. A concise statement and graphic presentation of the Contractor's assessment of the monthly and cumulative percentage of total work completed by task shall be included. The monthly report should also note difficulties, if any, in meeting the contract schedule.

b. Draft and Final Reports. Four copies of the draft report integrating all phases of this investigation will be submitted to the COR for review and comment 14 weeks after the date of delivery

order. The Contractor shall submit one copy of the appropriate state site forms or updates for sites discovered or revisited as a result of these investigations.

The COR will provide all review comments to the Contractor within 6 weeks after receipt of the draft reports (20 weeks after date of order). Upon receipt of the review comments on the draft report, the Contractor shall incorporate or resolve all comments and submit one preliminary copy of the final report to the COR within 3 weeks (23 weeks after date of order).

Upon approval of the preliminary final report by the COR, the Contractor will submit one reproducible master copy, one copy on floppy diskette as required in the Contract and 25 copies of the final report to the COR within 26 weeks after date of order. A copy of the Scope of Services shall be bound as an appendix with the Final Report.

The written report shall follow the format set forth in MIL-STD-847A with the following exceptions: (1) separate, soft, durable, wrap-around covers will be used instead of self covers; (2) page size shall be 8-1/2 x 11 inches with 1-inch margins; (3) the reference format of American Antiquity will be used. Spelling shall be in accordance with the U.S. Government Printing Office Style Manual dated January 1973.

7. Discovery of Human Skeletal Remains

In the event that the field survey and site recordation procedures performed during this study encounter unmarked burial sites or human skeletal remains, the provisions of the Louisiana Unmarked Human Burial Sites Preservation Act [Louisiana R.S. 8:671 through 681 and R.S. 36:209(I) and 802.13] shall apply. Upon discovery of such remains, the Contractor shall immediately cease activities that could further disturb the unmarked burial, human skeletal remains or associated burial artifacts. The Contractor will notify the COR of the discovery as soon as possible to determine the appropriate plan of action regarding the discovery. The Contractor will also be responsible for notification of the law enforcement agency with jurisdiction over the remains within 24 hours of its discovery. The COR will notify the Louisiana Division of Archaeology of the discovery. In no event will human skeletal material be excavated and/or collected from the field with approval of the COR.

8. Attachments

- Attachment 1. Map showing Segment 1.
- Attachment 2. Map showing Segment 2.
- Attachment 3. Site form for 16EBR13.
- Attachment 4. Site form for 16EBR26.
- Attachment 5. Report of 1995 investigations at 16EBR26.

9. References

Goodwin, R. Christopher Stephen Hinks, William P. Athens, Lawrence L. Hewitt, and William A. Morgan et al.

1990 Literature Search and Research Design Amite River and Tributaries Project Ascension, East Baton Rouge, and Livingston Parishes, Louisiana Report submitted to the U.S. Army Corps of Engineers, New Orleans District.

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