

ARCHEOLOGICAL ASSESSMENT

BARATARIA UNIT JEAN LAFITTE NATIONAL HISTORICAL PARK

By

John Stuart Speaker, Joanna Chase, Carol Poplin,
Herschel Franks, and R. Christopher Goodwin



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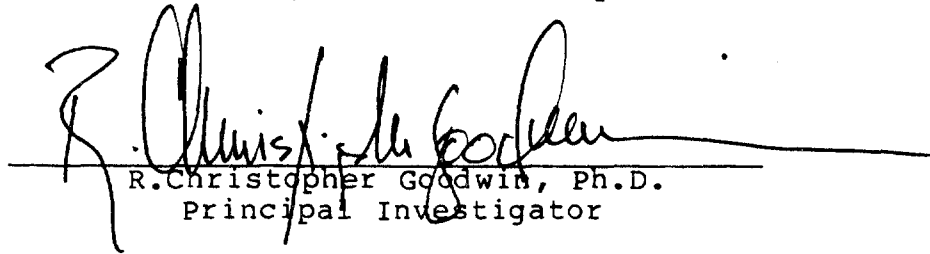
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JEAN LAFITTE NATIONAL HISTORICAL PARK**

By

John Stuart Speaker, Joanna Chase, Carol Poplin,
Herschel Franks, and R. Christopher Goodwin



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ABSTRACT

This archeological assessment provides an overview of the natural and cultural environment, past and present, within the Barataria Unit; it represents a synthesis of the results of previous investigations of the area. The archeological record of the study area is incomplete at present. Although there have been several cultural resource investigations conducted primarily within the core area, few have offered data necessary to fill the gaps existing in the prehistoric record. It is imperative that existing sites and data be protected from adverse effects; otherwise the research potential that exists in this rich cultural and environmental setting may never be realized.

MANAGEMENT SUMMARY

This report presents the results of a literature review and archeological assessment of the Barataria Unit of the Jean Lafitte National Historical Park (JLNHP). During this effort, numerous environmental, archeological, and historical sources were utilized. The report identifies and discusses relevant data pertaining to the geomorphology, hydrology, ecology, and resource potential for the area. The Barataria Unit's cultural history and cultural processes are summarized, and current knowledge is evaluated within a regional context. Data then are compared to predictive models of extant archeological site location. Further research areas and interpretive potentials are identified. Within this context, known sites are evaluated for their potential eligibility for nomination to the National Register of Historic Places. All relevant information then is coalesced, and management options are identified.

A unique aspect of this study is that it provides management with a single document containing the basic information necessary for making decisions concerning cultural resources in the Park. This information, along with the suggested research, interpretive, protective, and mitigative measures, will allow management to give adequate consideration to cultural resources during their decision making process.

Although the total area of JLNHP Barataria Unit is relatively small, it includes within its boundaries virtually the full range of environmental variability in the Barataria Basin. The only major ecozones not included are the coastal estuarine and saline marsh habitats.

The relatively undisturbed vegetation of much of the Unit represents the natural interaction of geomorphology and plant life in the Basin characteristic of most of the last 2000 years. Within the entire Barataria Basin, there are few areas which represent this environmental mosaic so well and in such a small area as the Barataria Unit Core.

Due to relatively modern land formation which has occurred within the past 5,000 years, human occupation in southeastern Louisiana is considered to be fairly recent. Archeological investigations in and near the Barataria Basin have revealed a history of human occupation in the study area from approximately 500 BC to the present. From the available data, certain research topics may be identified. These include:

The identification and description of the Archaic in south Louisiana;

The possible manufacture, trade, and use of ceramics during the Poverty Point period;

Definition of the Poverty Point subsistence mode;

Identification of Poverty Point trade networks;

Identification of Poverty Point cultural, social, and political networks;

Identification of the source area for Poverty Point ceramics, lithics, mound complexes, and political structure;

Identification of the origins of the Poverty Point culture;

Relationship between Poverty Point and Tchefuncte groups;

Identification of the source of Tchefuncte ceramics;

Relationship of the Tchefuncte to the earlier Archaic;

Analysis of the Tchefuncte settlement system

Identification of the nature of Tchefuncte subsistence activities;

Determination of whether Tchefuncte peoples constructed mounds;

Definition of Tchefuncte social structure;

Identification of the nature, if any, of horticultural practices during the Tchefuncte period;

Identification of the nature of Tchefuncte presence in the Barataria Unit;

Elucidation of the relationship between Marksville and Hopewell cultures;

Identification of Marksville trade networks;

Identification of the location of Marksville habitation sites, if these exist within the Park;

Analysis of the nature of Marksville social and settlement structures and their relationship to mortuary practices;

Correlation of ceramic and C-14 data for the Marksville period;

Confirmation of the introduction of maize and the bow and arrow during the Troyville - Coles Creek period;

Determination of whether Troyville represents a stage of Marksville, or whether it represents a different people;

Elucidation of the relationship between Troyville and Baytown;

Formulation of an adequate definition of Troyville;

Determination of the relationship between Coles Creek and the Mesoamerican techno-complex;

Definition of Coles Creek settlement and subsistence systems;

Determination of the nature of agriculture practiced by Coles Creek peoples;

Elucidation of the relationship between Plaquemine and Mississippian cultures;

Identification of trade and social networks between Plaquemine and true Mississippian peoples;

Definition of Plaquemine settlement patterns and subsistence modes;

Determination of the extent of Mississippian influence in the area;

Elucidation of the association between Plaquemine culture and Indian groups known in historic times;

Determination of whether maize agriculture was practiced by the Bayagoula;

Determination of the nature of Dubreuils activities in JLNHP;

Analysis of the 1778 Canary Islander settlement in the Park;

Identification of areas directly associated with Jean Lafitte;

Location of all known historic period sites, particularly Christmas Plantation.

These research topics can be summarized under several major categories of archeological endeavor including culture history, culture process, and environmental reconstruction. It appears that archeological research related to important questions concerning prehistory of the region is still in a relatively undeveloped state within southern Louisiana and the Barataria Unit in particular. The basic questions of who, what, where, when, and why remain unanswered for all cultures and periods within the Park.

At present, 82 sites are thought to be located within the Park, and more undoubtedly exist. Of the 82 predicted sites, only 67 have been located. There are two numbering systems for sites, and confusion exists concerning site numbers and site names. Apparently, "extensive" inventories conducted in the Park have failed to record all sites. The state of our present knowledge of sites within the Park is synthesized in this report.

In order to begin a program of more effective cultural resource management, the following specific actions are recommended in the order in which they should be undertaken:

1. Locate all known sites and backfill open excavations.
2. Resolve the conflicting site number system.
3. Write a Barataria Research Design that: a) identifies specific and general research interests; b) identifies categories of information to be pursued; and c) identifies specific research (management/mitigation) methodology.
4. Identify how each known site contributes to the resolution of problems identified in the research design.
5. Manage each site according to its information content.
6. Manage each cultural resource sensitivity zone according to its sensitivity rating.

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CHAPTER I

INTRODUCTION

This report presents an archeological assessment of the Barataria Unit, Jean Lafitte National Historical Park, Louisiana; it was prepared pursuant to Contract No. PX 7530-5-0100, for the National Park Service, Southwest Region, Santa Fe, New Mexico.

In the following chapters, results of an intensive search of relevant archeological and archival materials are presented, and the nature, distribution, and significance of archeological resources in the study area are discussed. Recommendations concerning future research are made, and the nature and degree of potential impacts on the resource base are considered. In addition, this document synthesizes pertinent information regarding the area, in order to facilitate development of management strategies for the study area. Since the primary target audience for this report is a non-archeological one, professional jargon has been kept at a minimum.

Location of the Project Area

The Barataria Unit project area (Figure 1) is located approximately ten miles south of the New Orleans metropolitan area, in south central Jefferson Parish, Louisiana. It includes both the Core Area (8,600 acres) and the Park Protection Zone (11,400 acres), which together comprise 20,000 acres. The Core Area is intended to serve multiple purposes, including development of visitor facilities and as a base for management and the protection of natural and cultural resources. The Park Protection Zone is intended to preserve and protect the environmental integrity of the Core Area (U.S. Department of the Interior, National Park Service 1983).

Data Collection Methods

Methods utilized for data acquisition, compilation, and analysis include the following:

1. Pertinent environmental, archeological, and related archival sources for the Core Area and the Park Protection Unit were examined. In the course of these investigations, the following sources were consulted:
 - a. Louisiana State University Library;
 - b. Tulane University Library;

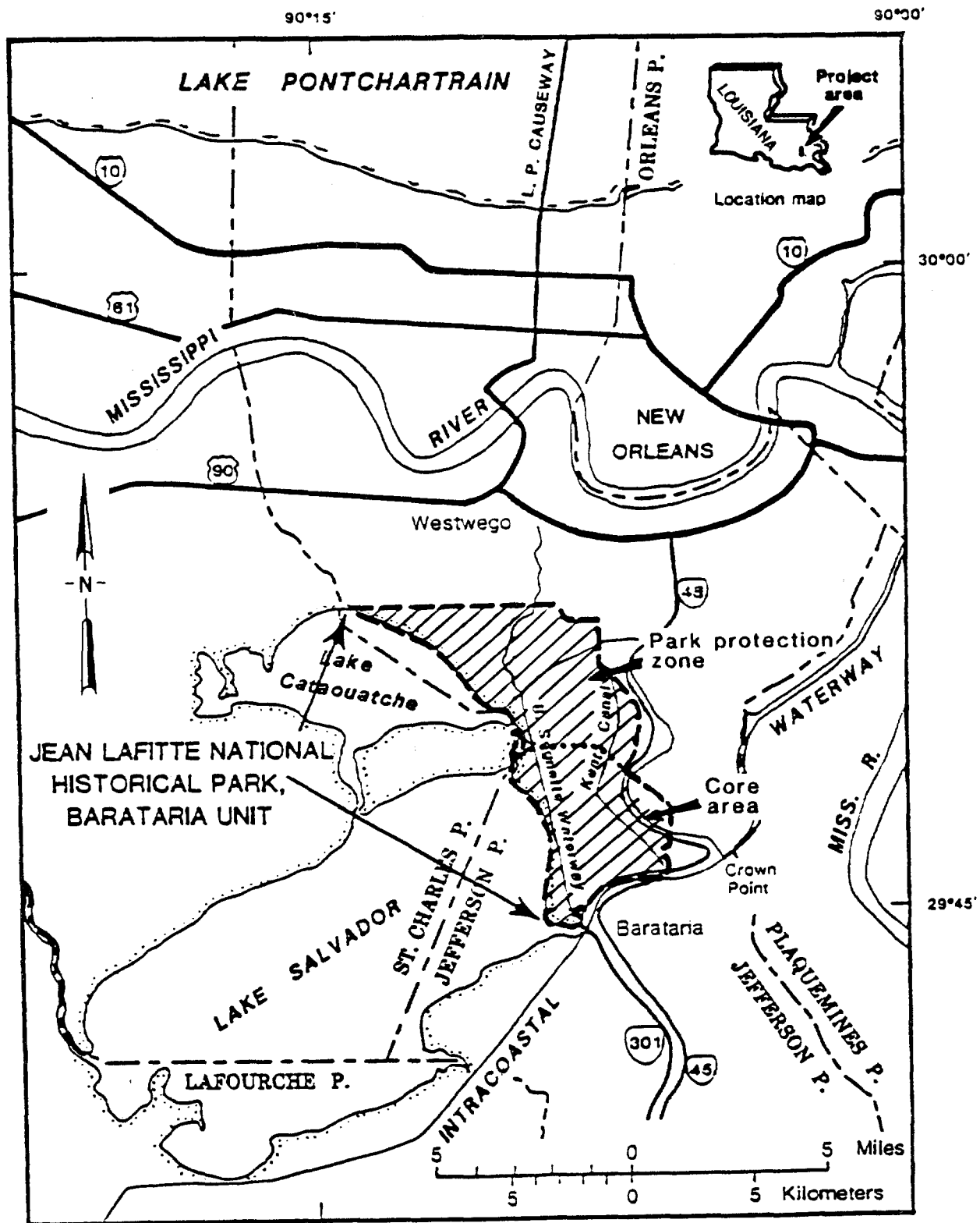


Figure 1. Barataria Unit Project area including the Core Area and the Park Protection Zone.

- c. University of New Orleans Library;
 - d. Files located at JLNHP Unit;
 - e. R. Christopher Goodwin & Associates, Inc. files;
 - f. Central state site files at Louisiana Division of Archaeology;
 - g. Corps of Engineers, New Orleans District;
 - h. Louisiana State Museum;
 - i. Consultation and correspondence with various NPS officials;
- 2. Available archeological reports and bibliographic sources were examined and relevant materials were synthesized.
 - 3. Site forms pertinent to the study area were examined and cross-checked, and site files of the Louisiana State Archeologist were examined.
 - 4. Data acquired from these sources were reviewed critically, and the following synthesis was prepared.

Project Personnel

Research for this study was conducted by John Stuart Speaker. The text and tables were prepared by J.S. Speaker and Joanna Chase. Editing and rewrites were undertaken by Carol Poplin and Dr. Herschel Franks. Dr. R. Christopher Goodwin served as Principal Investigator, and supervised the preparation of this report. Ana Chandler produced the report; David Poynter prepared the maps.

CHAPTER II

ENVIRONMENTAL SETTING

Definition of the Barataria Basin

Barataria Basin is a large, diverse geophysical and environmental region located in the center of the active Mississippi River delta of southeastern Louisiana. The Basin is defined geographically as the entire deltaic plain (6,286 km²) lying between the Mississippi River and Bayou Lafourche. It is seventy miles long and widens south from the former junction of Bayou Lafourche and the Mississippi River at Donaldsonville, Louisiana (Figure 2). The Basin's widest point is its 40-mile coastal margin at the Gulf of Mexico, between the mouth of Bayou Lafourche and the Balize Delta of the Mississippi River.

Flanked by the levees of the Mississippi River and Bayou Lafourche, the deltaic plain is a self-contained hydrologic unit. Drainage is in a southeasterly direction, and it runs from higher inland elevations to the Gulf. In the center of the Basin, a series of interconnected lakes are fed by bayous and streams, which ultimately drain into the Gulf of Mexico. Along the Gulf coast, marine processes may stop the flow of fresh water, resulting in saltwater intrusion into the Basin. As a result of tidal activity, the greater portion of the southern half of Barataria Basin is either wholly or partially estuarine.

A virtually complete sequence of geological and environmental characteristics of an active delta system is contained within the Basin, including evidence for delta growth and gradual deterioration as a result of changes in the courses of distributaries. Twentieth century flood control projects have halted active delta formation; as a result, the Basin is experiencing a cycle of premature degradation. Development and present environmental characteristics of Barataria Basin have been determined by the interaction of these geologic processes and cultural activities. Variable salinity, tides, and elevation have created, in Barataria Basin, a series of ecozones characterized by distinctive plant communities. These include a range of environments, from natural levees to saltwater bays.

Geomorphology of the Barataria Basin

The recent Mississippi River delta has been forming and reforming for the past seven to eight thousand years, since the retreat of the last glaciers and the subsequent rise in sea level (Figure 3). By 8000 B.P., the sea had reached its approximate

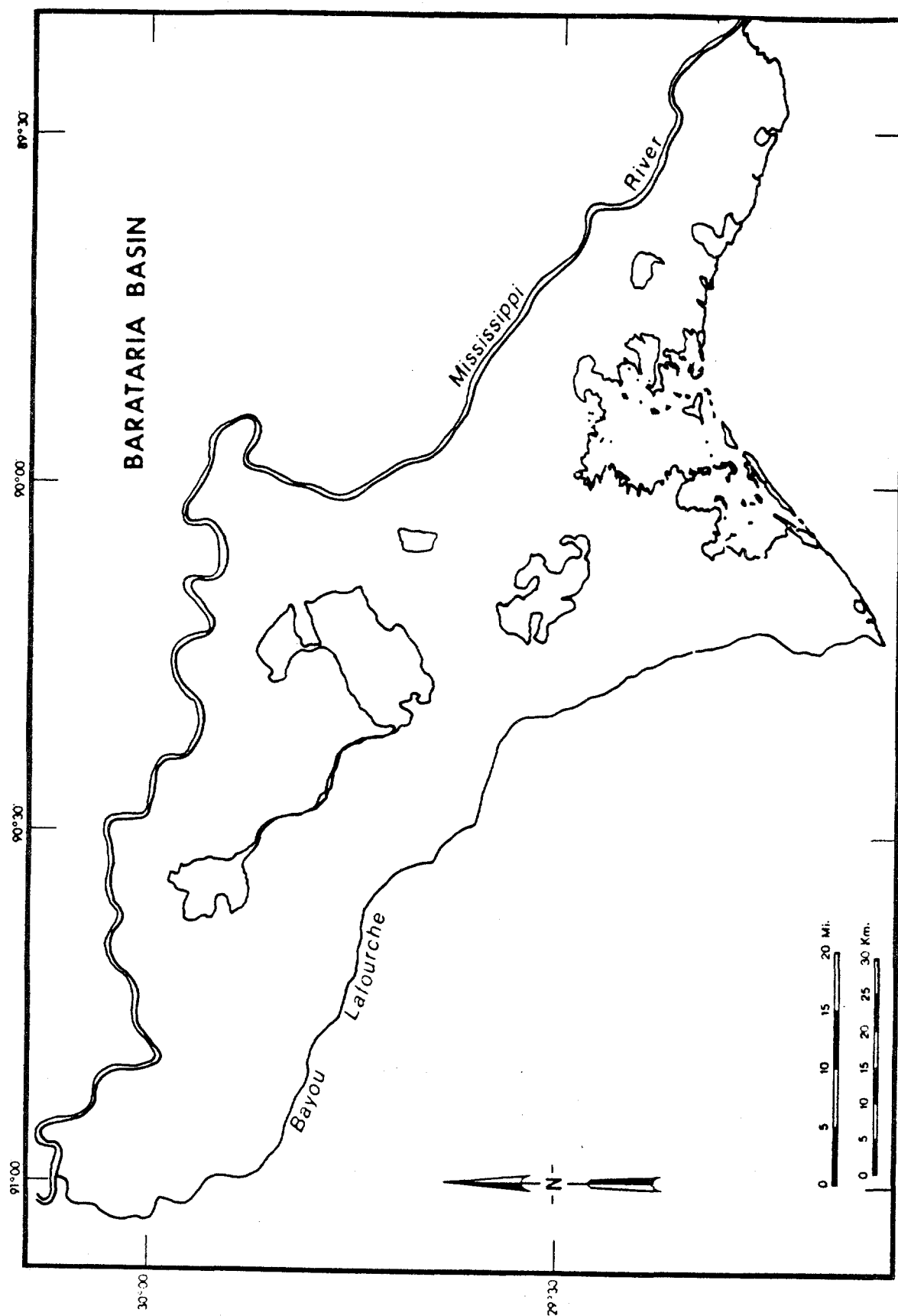


Figure 2. A map of the Barataria Basin.

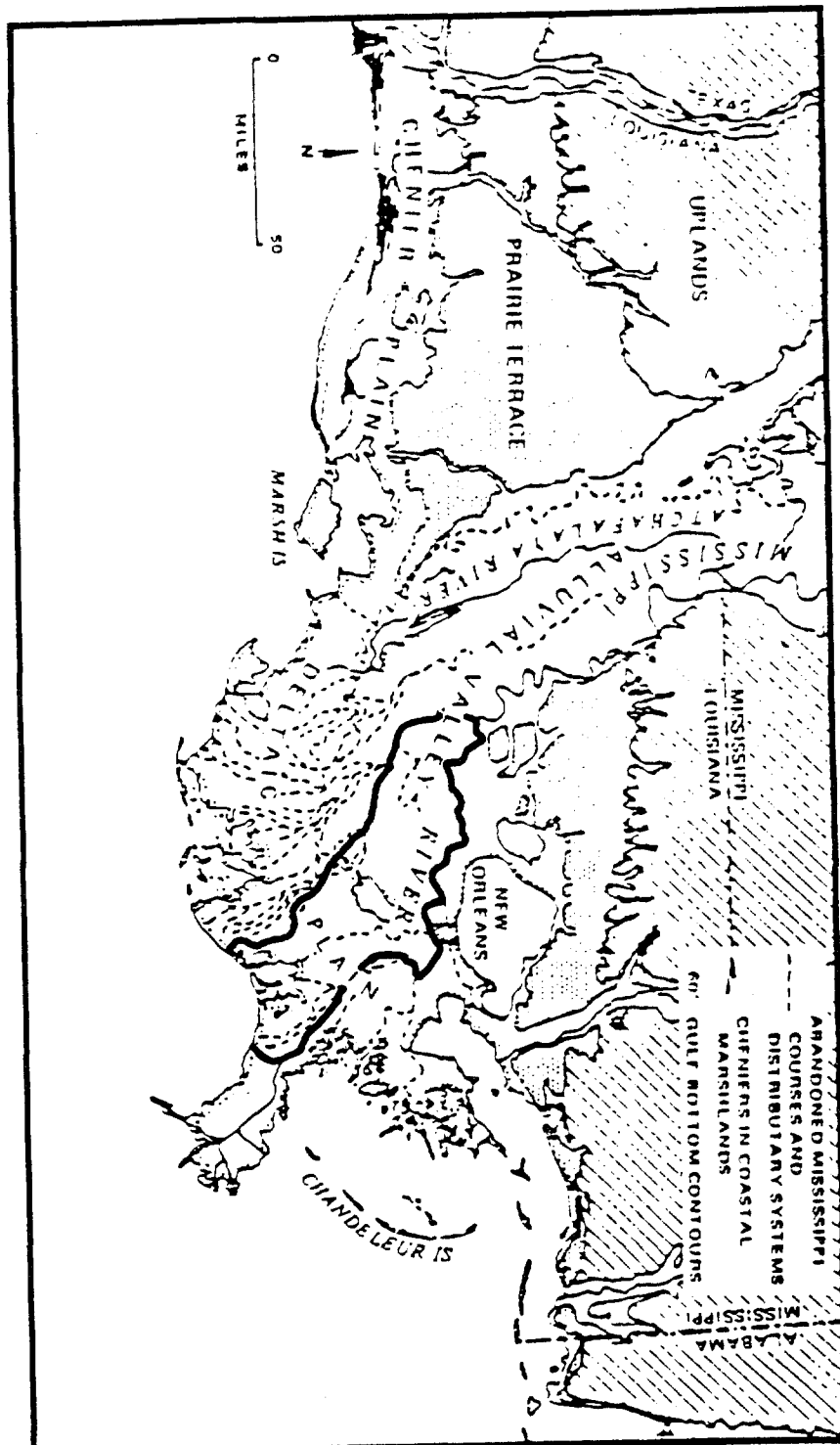


Figure 3. Major morphological features of the Barataria Basin
(taken from Gould 1970).

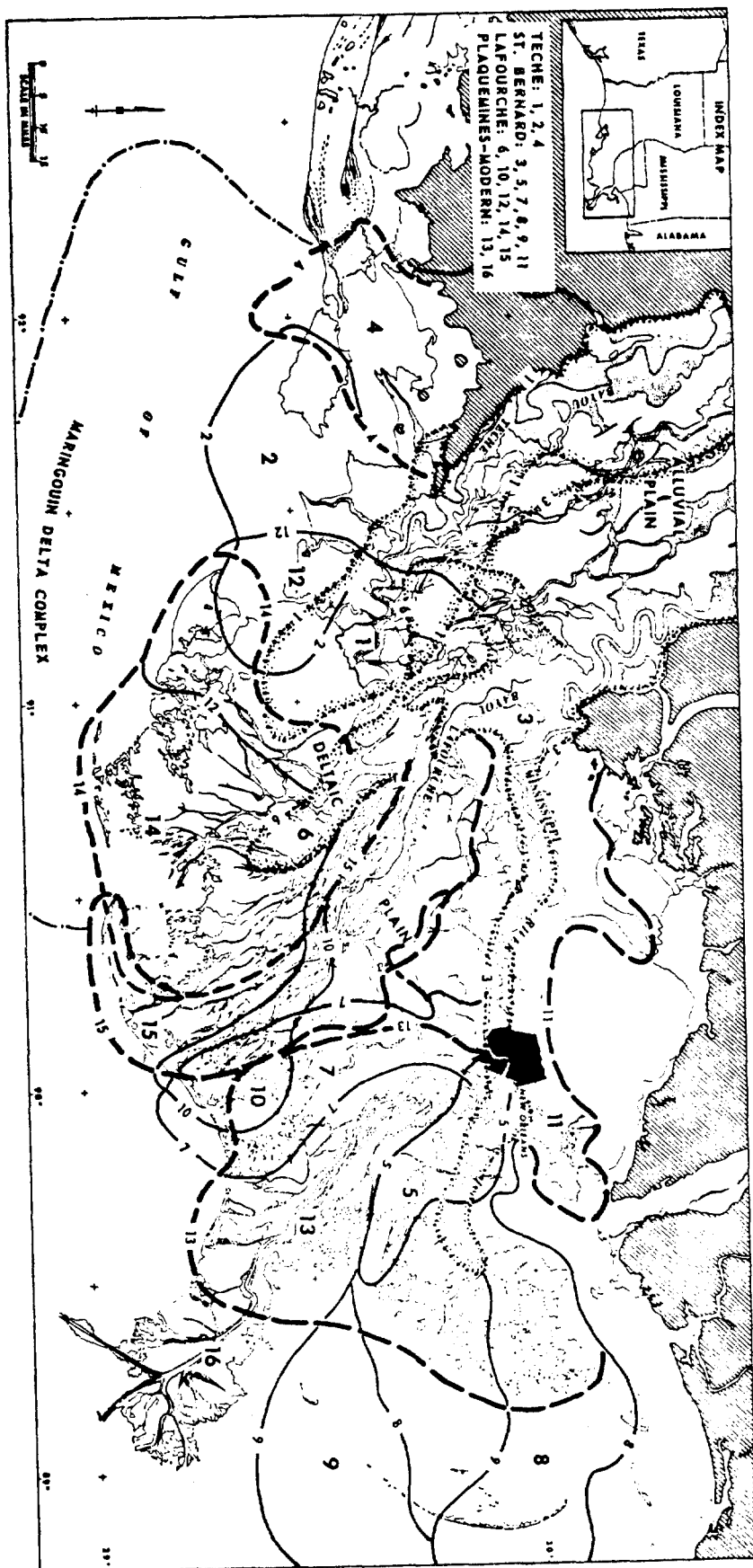
modern level and only small fluctuations have occurred since. A drier climate prevailed over North America between ca. 8000 and 6500 B.P., resulting in reduced river flow. Since ca. 6500 B.P., Mississippi River discharge has been stable. The regularities of Mississippi River flow and the uniform sea level created the conditions that resulted in the succession of a series of delta complexes. Over the last 7,500 years, enormous amounts of water and sediment carried from the heart of North America have created and partially destroyed five major delta complexes and a number of lesser delta lobes. Deltaic zones are formed at the interface between riverine and marine systems; the process of formation is depicted in Figure 4; the processes illustrated in Figure 5 represent the complete cycle of any particular lobe of a delta complex.

Five major delta complexes have been formed in recent times; they are referred to as the Maringouin, Teche, St. Bernard, Lafourche, and Plaquemines Deltas. In addition, more than sixteen individual delta lobes were active during the same period (Frazier 1967:Figures 4 and 5). Although one of these delta complexes usually is dominant at any given time, the process of channel diversion-capture is slow, and several lobes may be active at one time; further, elements of different delta complexes are simultaneously active (cf. Frazier 1967:Figure 5). The process of delta lobe growth and decay can last for 1,000 years, or it may be relatively rapid. A few lobes were active for periods greater than 1,000 years, creating stable delta plain environments.

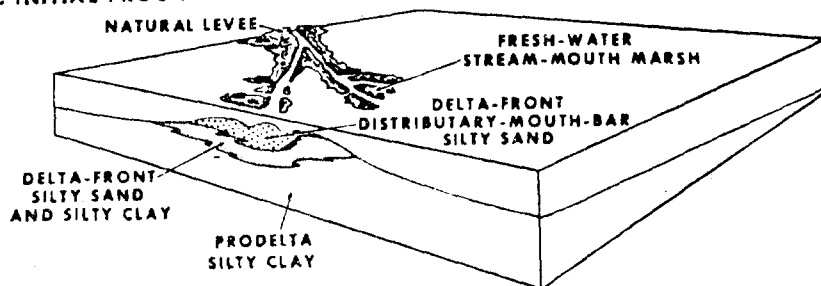
In the past forty years, progress has been made towards an understanding of the geomorphological episodes that have occurred at or near the mouth of the Mississippi River. Fisk's major work (1944) was one of the first syntheses of delta formation processes; some of that research, and particularly the chronology, has been superceded. Frazier (1967) is the primary authority on the sequences of delta formation, and his theoretical framework for the processes of channel diversion-capture is the definitive study to date (cf. Saucier 1981). Gagliano et al. (1979) have based their revision of Frazier's chronology on a more complete sample of radiocarbon dates; their chronology conforms to archeological data concerning the occupation of southeastern Louisiana, and it is used in this report.

Initial delta formation in the Barataria Basin began approximately 4700 B.P., and it involved the Mississippi River/Bayou Lafourche lobe. Its course followed the present day Mississippi River, with a distributary leading down Bayou Lafourche (Figure 4, lobe 3). Two more advancing lobes developed as part of this complex, and they helped define the Barataria Basin. The Bayou Terre aux Boeufs lobe (Figure 4, lobe 5) was active from 4100 to 3400 B.P., and the Bayou Terrebonne lobe

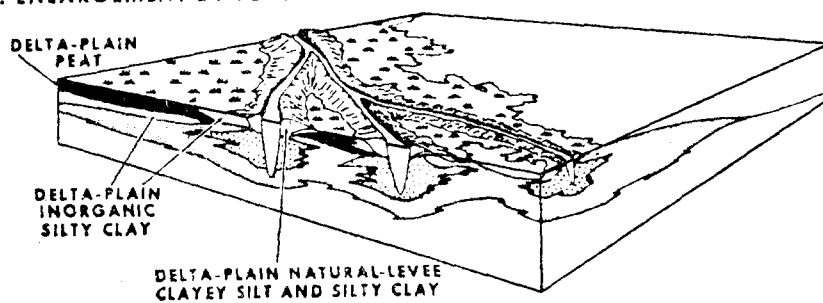
Figure 4. Map showing delta lobes formed by the Mississippi during the past 6,000 years, taken from Frazier 1967.



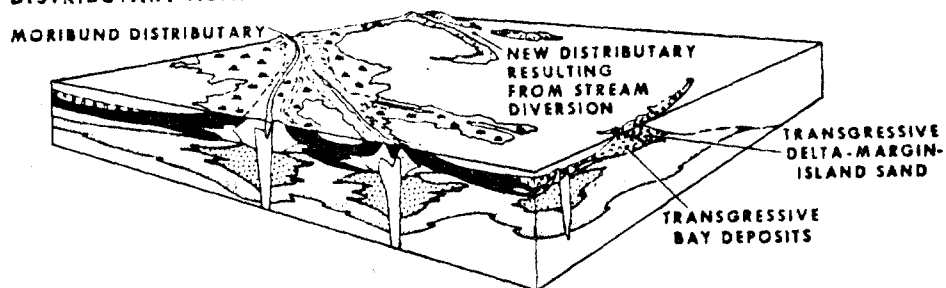
A. INITIAL PROGRADATION



B. ENLARGEMENT BY FURTHER PROGRADATION



C. DISTRIBUTARY ABANDONMENT AND TRANSGRESSION



D. REPETITION OF CYCLE

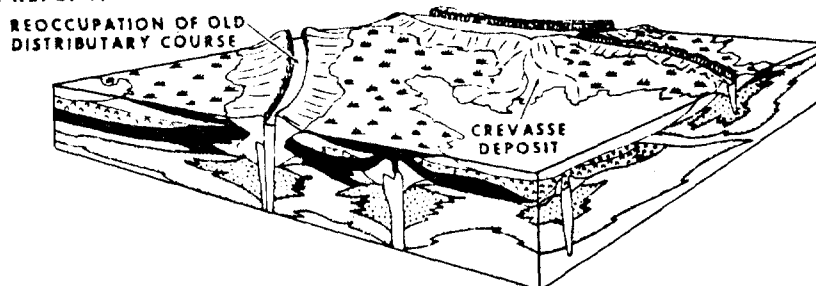


Figure 5. Illustrations showing the development of deltaic facies (taken from Frazier 1967).

(Figure 4, lobe 6) was building from 3400 to 2100 B.P. While these two lobes created parts of the margin of the Barataria Basin, the Bayou des Familles lobe (Figure 4, lobe 7) developed in the center of the Basin. This lobe-building episode lasted from 3300 to 1800 B.P. (Frazier 1967).

Gagliano et al. (1979) argue that the Bayou des Familles lobe remained active beyond 2000 B.P., the date Frazier proposed as representing the end of its active cycle. Their interpretations are based on archeological evidence concerning the duration of occupation in the lower Barataria Basin; these data suggest the presence of a continuously active channel until relatively late prehistoric times, possibly until A.D. 200 (1800 B.P.) (cf. Gagliano et al. 1979:Plate 4-1).

At its peak, the Bayou des Familles lobe may have been the main distributary channel of the Mississippi River (Adams et al. 1976:29), or it may have been one of several major distributaries (Gagliano et al. 1979:4-7). In either case, deposition by the active channel created most of the land in the central and lower portions of the Barataria Basin, including the natural levees of the modern Bayou des Familles. This lobe was active for more than 1,000 years; it grew, it buried earlier landforms in the eastern Basin. The river continued to discharge into Bayou des Familles, and later into Bayou Barataria. After approximately A.D. 200, marine transgression began to prevail with resultant erosion and subsidence of the lower margin of land.

After the Bayou des Familles lobe ceased to be active, the Bayou Blue lobe (Figure 4, lobe 10) developed rapidly between 2000 and 1900 B.P. The Bayou Blue lobe pushed out over the lower margin of the Bayou des Familles lobe before it too began to subside. During this period, the Barataria Basin represented a major portion of the Mississippi River deltaic plain. The main channels of the Mississippi and Bayou Lafourche were largely in place and the flow of fresh water and sediments into the upper areas of the basin continued while the Gulf of Mexico encroached on the lower areas. The Basin was no longer the site of major geomorphic activity; rather, it was and remains a developed interdistributary plain.

The final delta lobe to develop part of the Barataria Basin was the Mississippi River lobe (Figure 4, lobe 13) which began building about 1300 B.P. and continues to grow at present. During this period, Bayou Barataria reoccupied the lower Bayou des Familles course, and it was a minor distributary channel of the Mississippi River. Because it brought water and sediment into the eastern Barataria Basin, the Bayou des Familles-Barataria delta plain was maintained. Other crevasses, such as Bayou Grand Chenier, contributed sediment to the eastern Barataria Basin

(Frazier 1967; Adams et al. 1976). In recent times, the Bayou Lafourche channel became active again, thereby renewing active delta formation along the southwest seacoast margin of the Barataria Bay. This continued until the early twentieth century.

Thus, Barataria Basin was created as the Mississippi River and Bayou Lafourche deltas developed, mainly from about 4700 B.P. onward. As these two arms grew outward into the Gulf of Mexico, they formed the margins of the delta plain that developed between them. This plain was largely comprised of freshwater backswamp, swamp, and lakes. The only high ground was the natural levees of the Mississippi and Bayou Lafourche, and elevated areas related to other minor crevasses. The formation of the Bayou des Familles lobe created the high levees of the Bayou des Familles course which remain today as a narrow, winding strip of high ground leading to the lower portion of Barataria Basin.

Hydrologic Processes Affecting the Barataria Basin

During the past 2,000 years, environmental conditions in much of the upper part of Barataria Basin have been fairly stable. Active delta formation on the east and west margins prevented encroachment by the Gulf into the Basin. Crevasses and overbank flooding along Bayou Lafourche and the Mississippi River brought fresh water and deposited sediments; the various ecozones, including swamp, freshwater marsh, and brackish marsh were maintained. As a result of continuing riverine processes, the Barataria Basin was a large intertributary plain with a balanced ecosystem over a period of almost 2,000 years.

The environmental diversity characteristic of the Barataria Basin results largely from topographic relief and variable salinity. With the exception of the natural levees, the Basin is inundated for much of the year. The source of salt water in the Basin is the Gulf of Mexico, so that salinity decreases with increased distance from the Gulf. Prior to the twentieth century, the flowthrough of fresh water from the Mississippi River and Bayou Lafourche restricted the intrusion of salt water to those areas of Barataria Bay nearest the Gulf. In recent decades, however, salt water has penetrated much of the lower half of the Basin. In very dry years, when fresh water levels in the Basin are very low, saline intrusion reaches as far as the northern edges of Little Lake, while in very wet years fresh water pushes the saline zone to the upper edges of Barataria Bay (c.f. Gagliano et al. 1979:Figures 2-7). In the last two decades, oystering has begun to be profitable in Little Lake, indicating that saline content has increased significantly (Adams et al. 1976).

The high level of biological activity in Barataria Basin

results largely from the area's dynamic hydrology. The fresh water which pushes through the Basin's bayous and lakes carries with it nutrients and oxygen, and it removes wastes. Meanders along the bayous increase the total interactive boundary across which these nutrients are passed, allowing for greater spread; meanders also slow the flow of water which increases interactions (Bahr and Hebrard 1976:9). Another important interaction boundary is the fresh water/salt water interface where the level of biological activity is greatest; in effect, the lower Basin is one large estuarine interface. The fluctuation of fresh and salt waters in the brackish marsh helps make them "among the most productive of all natural ecosystems" (Bahr and Hebrard 1976:9).

In the past, the lower margin of the Basin has been protected from marine intrusion by the flow of fresh water and by the barrier islands. At present, fresh water flow is reduced, and the islands are subject to increased erosion. While some mixing of salt and fresh water stimulates biological productivity, an invasion of salt water is disruptive. Saline marshes support only a few types of plants and promote less biological diversity than brackish marshes. Furthermore, because saline marshes are exposed directly to marine forces such as tides, they are more likely to be destroyed or broken up (Gagliano et al. 1979).

In the late nineteenth and early twentieth centuries, major artificial levees prevented almost all inflow of water and sediments from the Mississippi River and its distributaries. Since the closing of the Bayou Lafourche distributary at Donaldsonville in 1906, the only major source of fresh water in the Barataria Basin is rain (Adams et al. 1976). This has led to a severe decrease in the amount of sediment deposited, threatening the integrity of the Basin. Land loss and saltwater intrusion are now serious threats to Barataria Basin. Much of the land loss is due to subsidence as well as to marine transgression. To date, major marsh deterioration has occurred in areas of saline and brackish marsh; freshwater marshes have suffered the least. Causes of marsh loss range from canals and fires to muskrat eat-outs (unusual stress to floral resources due to over-population).

The greatest threat to coastal saline and brackish marshes is marine activity such as tides and storm surges, while the greatest threat to freshwater marshes is subsidence and saline intrusion (Adams et al. 1976). Canals and spoil banks have been a major disruptive force in the Basin hydrology. Raised banks often hinder normal freshwater flow, and canals provide a channel that allows rapid intrusion of salt water (Adams et al. 1976; Gagliano et al. 1979). For several decades, land loss rates have been recorded; the data indicate that the greatest threat to marshes is in the area below Lake Salvador (Adams et al. 1976:Figure E1).

Because the hydrologic activity of Barataria Basin has been drastically altered in the twentieth century, the formerly stable environment is changing rapidly. This hydrologic disruption will greatly affect the environmental character of the Basin, and subsidence and saltwater intrusion will continue to be important factors.

Plant Communities

Due to favorable climatic conditions, plant life in the Barataria Basin is dense and highly productive. The average annual temperature in the Basin is 65°F, allowing for a growing season of over 260 days per year (White and Thien n.d.). Rainfall in the area is high, averaging up to and above 65 inches per year; there is no marked dry season (Calhoun 1984:120-129).

Five major environmental zones predominate in the Barataria Basin: natural levees, swamp, fresh water marsh, brackish-intermediate marsh, and saline marsh (Figure 6). In addition, several large bodies of water form a series of lakes and bays, which provide special ecozones for fish and other aquatic life. Table 1 delineates the sizes and relative portions comprised by each major ecozone.

The Basin is divided roughly by Lake Salvador. Below Lake Salvador, salinity is the dominant factor affecting ecosystems. Most of this area is brackish or saline marsh. Above Lake Salvador, the key factor is variability in topographic relief.

Along the natural levees of the Mississippi River and Bayou Lafourche, there are broad areas of high, well-drained land which support bottomland hardwood forest. In addition, other small waterways, such as Bayou des Familles, have associated natural levees elevated sufficiently to support hardwoods; these areas lie slightly above the water table, and they rarely flood. Trees are the dominant form of plant life; the understory generally is sparse, although vines, epiphytes, and ferns are common. Dominant tree species are swamp maple, tupelo gum, water oak, palmetto, and other hardwood varieties (Bahr and Hebrard 1976:16). These stands of hardwood forest occur naturally along bayous, and they serve as conduits for nutrients and removal of wastes. Natural levees and bottomland hardwood forest exist primarily in the upper areas of the Basin, and they are widest along the Mississippi River down to New Orleans. Bayou des Familles and Bayou Barataria have a narrow natural levee which supports hardwoods for more than 20 miles of their course, well into the brackish marshes of the lower Basin.

Areas adjacent to the natural levees are primarily forested

Table 1. Ecological Zones of Barataria Basin (after Gagliano et al. 1979:Table 2-2).

<u>Ecozone</u>	<u>km²</u>	<u>hectares</u>	<u>Per cent of Total Area</u>
Water	1,608.9	161,015	25.6
Saline Marsh	639.7	64,022	10.2
Brackish Marsh	930.1	93,079	14.8
Fresh Marsh	904.4	90,513	14.4
Swamp	979.5	98,029	15.6
Natural Levees	1,223.5	122,446	19.5
TOTAL	6,286.2	629,104	100.0

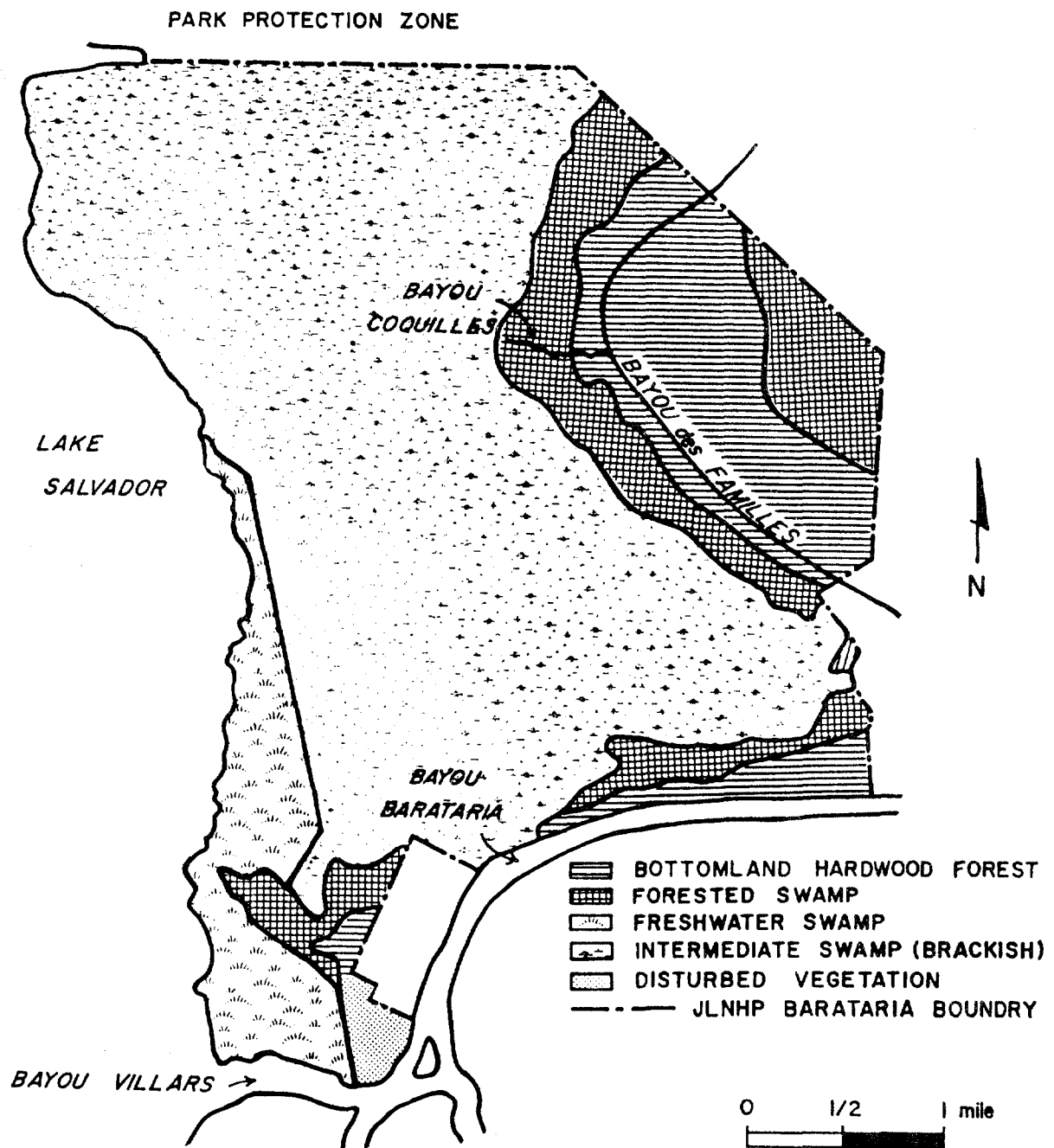


Figure 6. Map showing the environmental units of the Barataria Unit of JLNHP.

swamplands. These locations remain inundated for "one or more months of the growing season" (Bahr and Hebrard 1976:13). The dominant plants are bald cypress and tupelo gum, and many large stands of pure cypress also are present. Other plants are restricted to epiphytes and floating plants. Depending on the rate of change in elevation, the swamp forest generally merges with the hardwood forests. As the elevation continues to decrease, swamp forest grades into fresh water marsh, often in a gradual transition. In Barataria Basin, almost all swamp forest is located above Lac des Allemands. From this lake south, swamp forest is confined to small areas alongside the natural levees of Bayou Lafourche, the Mississippi, and a few smaller bayous, including Bayou des Familles.

Of the ecozones represented in the Basin, fresh water marshes support the greatest diversity of plant species. These marshes are dominated by non-woody vascular plants, chiefly grasses. Major species include maidencane, bulltongue, and spike rush (Bahr and Hebrard 1976:25). Within areas of fresh water marsh there are often isolated localities of pure bulltongue dominated by one of several grasses (cf. White and Thien n.d.). Much of the fresh water marsh exists in peat deposits composed of submerged dead marsh plants. There are also areas of "floating marsh" which are essentially interlocked mats of detritus held together by the roots of living plants but not securely anchored in soil. The fresh water marshes are the dominant ecozone in the low-lying central portion of Barataria Basin between Lac des Allemands and Lakes Salvador and Cataouatche.

Brackish marshes predominate in the zone where ecozones characterized by fresh and salt water abut below Lake Salvador and above Barataria Bay. As in freshwater marsh, grasses are dominant, but plant species diversity is relatively low. Wire grass, salt grass, and oyster grass account for 85 per cent of all plants (Bahr and Hebrard 1976:36). The presence of tides distinguishes brackish marshes from intermediate marshes. Tidal action can cause rapid changes in saline content of the water. Plants in this zone tolerate these fluctuations. Brackish and intermediate marshes are found in a large arc protruding up the center of the Basin to the south shore of Lake Salvador; they give way to fresh water marsh along the lower reaches of Bayou Lafourche and the Mississippi River.

Saline marshes are restricted to the Gulf Coast and the shores of Barataria Bay. This area, formerly brackish marsh, has been penetrated by salt water. Much of the area is open water, and tides greatly affect the water level. Only a few hardy plant species thrive in saline marsh. Oyster grass, black rush, salt grass, and wire grass make up 93 per cent of all plant species present (Bahr and Hebrard 1976:45).

Each ecozone in the Barataria Basin supports a characteristic plant community which thrives for most of the year because of favorable climatic conditions. The great diversity of plant life is related to two main factors: variable topographic relief, and differential salinity. These two parameters determine the conditions of each of the major ecozones. Since most of the plants grow in water or in very moist ground, the circulation of water through swamps, marshes, and bayous is a critical force in the continued productivity of the Basin.

Animal Resources

Animal life in the Barataria Basin is diverse, and many species present are economically valuable. The marshes of coastal Louisiana are best known as America's richest source of fur-bearing animals, and this was also true in centuries past. In addition to mammals, numerous taxa of fresh water and salt water fish are present in the lakes, bays, and bayous of the Basin. Shellfish and mollusks are common, especially in the brackish and saltwater portions of the Basin. Finally, the Basin is a part of the great Mississippi Flyway through which many species of waterfowl migrate during the Autumn.

The variety and abundance of fauna is a result of the ecozones of the Barataria Basin discussed above. Within the ecozones, a variety of plant foods is available to attract the animals. Some animals, the muskrat for example, feed on the three-cornered grass found mainly in brackish water marsh. Raccoons, on the other hand, are found primarily among the freshwater marshes (Davis 1978).

Due to the effects of elevation, a particular ecozone generally occupies a long, narrow piece of land. The elongated boundary areas between adjacent ecozones support the greatest diversity of animal life; they are inhabited by animal life common to both ecozones. In some locations, notably along Bayou des Familles, the boundaries between hardwood forest, swamp forest, and fresh water marsh all are located within three miles of each other.

Important game animals include deer, raccoon, muskrat, rabbit, and migratory waterfowl. All of these are, or were, common in Barataria Basin. Deer are common in the Basin, although they are not so abundant as in other parts of Louisiana. They favor the hardwood forest of the natural levees, and the cypress-tupelo forest along the margins of marshes. Deer range throughout the marsh and swamp except in areas of deep water and floating marsh (St. Amant 1959:140).

Most of the fur-bearing animals also are considered game. They prefer marsh habitats, and to a lesser extent swamps. Rabbits are found in all ecozones of the Basin. Gamebirds, such as the woodcock, snipe, and plover, favor marshes and wet forests. Table 2 summarizes the variety and relative abundance of wildlife reported in the region.

Special attention should be focused on the migratory waterfowl resources of the Barataria Basin. The Basin sits at the bottom of the Mississippi Flyway, which is the largest waterfowl migratory route in North America. During the Fall migrations, millions of birds pass through southern Louisiana. The fresh water, and to a slightly lesser extent, brackish, marshes of the Barataria Basin provide an ideal habitat for waterfowl. The peak migratory months are October and November (St. Amant 1959:270). In recent times, the bird population in the area has decreased, perhaps due to extensive hunting and the altering of the Basin's fresh and brackish marsh ecology.

The marshes, swamps, and open waters of Barataria Basin support many species of fish, reptiles, and amphibians, as well as mollusks and shellfish. Fish are found throughout the Basin in great variety, and many species are present in several ecozones. Fresh water marsh supports such fish as gar, catfish, bass, crappie, and perch. Brackish marshes support eels, gar, herring, catfish, perch, drum, and flounder. Saline marshes support gar, sea trout, drum, herring, and many marine fishes. Waters in the swamp forests contain gar, bowfin, catfish, bass, bluegills, and bullhead (Bahr and Hebrard 1976:70-73).

Diversity of reptiles and amphibians is greatest in the swamps; it decreases proportionally in fresh, brackish, and salt marshes. Reptiles and amphibians known to inhabit Barataria Basin include alligator, snapping turtles, mud turtles, diamondback terrapin, and various snakes (Bahr and Hebrard 1976:77).

Shellfish and mollusks are common to much of the Barataria Basin. Crawfish live in fresh water areas of swamp and marsh, while crabs inhabit brackish and saline marshes and bays. Oysters live in the saline marshes and bays along the coast. The well-known brackish water clam Rangia cuneata is common through much of the lower Basin (Bahr and Hebrard 1976).

The animal resources available in the Barataria Basin are abundant and varied. The forests, swamps, and marshes support many mammals on a year-round basis. The lakes, bayous, and bays support edible fish, mollusks, and shellfish. Furthermore, the annual waterfowl migration brings enormous numbers of birds into

**Table 2. Wildlife Reported in Southeastern Louisiana by
Early European Travelers (St. Amant 1959:32-35).**

<u>Animal</u>	<u>Relative frequency</u>
White-tailed deer	Very abundant
Buffalo	Moderate
Raccoon	Numerous
Opossum	Numerous
Rabbit	Plentiful
Woodcock	Common
Wilson Snipe	Common
Upland Plover	Common
Swans	Common
Cranes	Common
Geese	Abundant
Ducks	Very Abundant
Spoonbill	Common

the Basin each Fall.

Environmental Variation in the JLNHP Barataria Unit

The following discussion provides an overview of the specific environmental configuration of the Barataria Unit. Elements of four environmental zones exist within the boundaries of JLNHP Barataria Unit, including its Park Protection Zone. These zones include hardwood forest, swamp forest, fresh water marsh, and intermediate (brackish) marsh. Most of the unit is fresh water marsh, but along the bayous there are natural successions of hardwood and swamp forests extending approximately one mile on either side of Bayou des Familles, and one-half mile on either bank of Bayou Barataria. Intermediate marsh has pushed in along the eastern shore of Lake Salvador and into the lower tip of the park (White and Thien n.d.). The environmental zones of the Park Protection Zone have not been defined clearly, but most of the area is fresh water marsh; however, its extreme eastern boundary includes areas of swamp forest, most notably in the Estelle Canal vicinity (Table 3).

As previously noted, the nature of plant life present is directly related to geomorphology of the deltaic plain of southeastern Louisiana. The elevated natural levees adjacent to the bayous are formed of clay and clay loam alluvium; generally, drainage is poor. These soils support hardwood forest and some swamp forest. Most of the swamp forest, however, is on alluvial clay deposits which are covered with a thin surficial layer of peaty muck. These areas are poorly drained, and they are almost permanently inundated. The fresh water marshes rest atop wide deposits of poorly drained soils composed mainly of decomposed vegetation and some clay. These soils are typical intertributary basin peats formed in the low parts of the Basin (U.S. Department of Agriculture Soil Conservation Service 1983).

Although the total area of JLNHP Barataria Unit is fairly small, there are excellent examples of virtually the entire range of environments found in the Barataria Basin. The only major ecosystems not included are the coastal-estuarine and saline marsh habitats. The relatively undisturbed vegetation of much of the Unit represents the natural interaction of geomorphology and plant life that has characterized the Basin for most of the last 2,000 years. Within the entire Barataria Basin, there are few areas which represent this environmental mosaic so well and in such a small area as the Barataria Core Area.

**Table 3. Characteristic Plants of the Environmental Zones
of JLNHP Barataria Unit (from White and Thien n.d.).**

Hardwood Forest

Water Oak
Hackberry
Sweetgum
American Elm
Red Maple
Palmetto

Swamp Forest

Bald Cypress
Tupelo Gum

Fresh Marsh

Bull tongue
Dotted Smartweed
Alligator Weed

Resource Potential for Human Exploitation

The preceding discussions of faunal and floral resources of Barataria Basin have demonstrated the great faunal diversity and abundance. Most of the mammals found in the Basin are potential game, and they are available year-round. Exploitable plant life also is available for most of the year. Man has effectively utilized natural resources within the Basin since its formation about 2,000 years ago.

While the skins of mammals would have been useful to prehistoric hunters, protein content probably was more important. Large numbers of small and medium-sized mammals such as muskrat, mink, otter, raccoon, squirrel, rabbit, and beaver inhabit or previously inhabited the Basin's various ecozones. Although individual animals are relatively small, they are generally easy to trap or snare and therefore provide a plentiful source of food. Some of these animals, such as the muskrat, are prodigious propagators; this ensures year-round availability.

Most of the larger mammals in the Basin are not present in great numbers, although they may have been more common in pre-modern times. White-tailed deer are common today in most of the upper Basin. Deer provided a staple meat for many Native American cultures in the eastern United States including Louisiana. Black bear are found in the woods and swamps of the Basin, as are cougar, bobcat, and wolves. Although such animals may not have been common food items, they undoubtedly were hunted on occasion. The bear is especially valuable for its grease which is used during Winter.

Fish are plentiful in all parts of Barataria Basin and represented a major source of food for aboriginal peoples. Mollusks and shellfish also were collected, as evidenced by the shell midden sites throughout the Basin (Byrd 1976). The ubiquitous presence of mollusks indicates they were widely used throughout prehistoric times. In actual numbers, mollusks and fish are the first and second largest classes of food preserved in the archeological record of southern Louisiana sites.

As noted above, migratory waterfowl are annual residents of Barataria Basin during Fall and Winter. During those parts of the year, birds provided a major food resource. Estimates of the numbers of birds hunted each year prior to the nineteenth century are difficult to make. However, the vast flocks of birds known from historic times indicate that Indian hunters could have killed large numbers without seriously threatening the survival of any species.

The pre-European inhabitants of southeastern Louisiana utilized a broad range of animal foods. Historic accounts and archeological research have documented consumption of turtles,

snakes, frogs, and insects. By utilizing a variety of floral and faunal species from a variety of ecozones, the Indians were almost always assured the availability of some food resource.

The identity and quantity of plant foods utilized in prehistoric times in southeastern Louisiana are difficult to evaluate because they are poorly preserved in the wet, humid environment. Occasionally fragments of husks or nut shells, are represented in the archeological record. As a result, much of our knowledge concerning use of plants by Native Americans in the region is derived from European descriptions. There is, however, no doubt that wild plant foods played a crucial role in the lives of all Indians of the southeast throughout the prehistoric period. In Barataria Basin, the major environmental zones provided a variety of useful plants. The most common types of plant foods utilized were nuts and berries, which are found mainly on the higher natural levee and swampy forest locations. Among the nuts and berries available in Barataria Basin are pecan, hickory nuts, acorn, groundnuts, hackberry, elderberry, and mulberry. Fruit-bearing plants such as grape and persimmon also are found in the forests and meadows. The marshes offer a lesser variety of plants but are still very rich food sources. Wild rice, arrowheads, bullrush, and cattails all have edible parts such as seeds and roots. Other important plant foods available in the Barataria Basin are honey locust beans, cane seeds, mushrooms, and palmetto seeds and hearts.

Plants also were used for non-food purposes. They provided housing material, tool material, and medicine. The basketry of the modern Chitimacha is a clear reminder of the richness of Indian crafts which are rarely preserved in this area. The making of the baskets, mats, nets, and other items from cane was an important prehistoric skill. Cypress trees made excellent dugout canoes, roofs, and house walls (bark). Other woods were used for bows, spears, arrow shafts, and tools. Bark provided cordage; leaves were used as thatch; and various trees were used for firewood, house construction, and tinder.

CHAPTER III

CULTURAL HISTORY

Introduction

Since land formation in southeastern Louisiana has occurred within the past 5,000 years, human occupation of those surfaces also is relatively recent. Archeological investigations to date in and near the Barataria Basin have documented a history of human occupation extending from 500 B.C. to the present.

Paleoindian (10,000 B.C. - 6000 B.C.)

The earliest well defined and accepted archeological evidence of human habitation in North America is derived from the Paleoindian stage. An arbitrary date range of 10,000 B.C. - 6000 B.C. has been suggested for Paleoindian occupation of the Lower Mississippi River alluvial valley (cf. Figure 7). In general, the diagnostic tools for this period, the fluted point complex exemplified by the manufacture of large, thin, bifacially-worked lanceolate projectile points, appeared in the eastern United States sometime prior to 8000 B.C. (Taylor and Meighan 1978).

At this time, no known Paleoindian sites have been located in southeastern Louisiana or in the Mississippi River delta region (Neuman 1984). The likely explanation for this lack of sites is that during the Paleoindian period, rising sea level covered most of the present day shoreline of the Gulf of Mexico in southern Louisiana, either precluding human occupation or innundating sites that may have existed. If present, any Paleoindian occupation site in the coastal area is probably very deeply buried beneath layers of delta clay, or submerged in coastal waters (Gagliano 1984).

Archaic (6000 B.C. - 1500 B.C.)

It is difficult to make a chronological distinction between the Paleoindian stage (Fluted Point Complex) and the early Archaic period in the Gulf States (Florida, Alabama, and Louisiana; because of the lack of reliable stratigraphic data and dated remains (Taylor and Meighan 1978:58). In general, however, the Archaic stage is assigned to an arbitrary date range, from 6000 B.C. to 1500 B.C. (Taylor and Meighan 1978). Archeological remains from the Archaic stage reflect cultural adaptation and the development of regional traditions; these differences probably result from climatological and environmental changes that

necessitated cultural innovations.

Artifacts representative of the early Archaic include a variety of projectile forms including San Patrice, Meserve, and Dalton. Other diagnostic artifacts include knife forms, grinding stones, hammerstones, drills, gravers, adzes, chipped grubbing tools and hoes, and pebble pendants. Both animal and vegetable materials were utilized as food sources (Taylor and Meighan 1978:58). The middle Archaic stage is associated with projectile forms including Big Sandy, Keithville, Yarbrough, Evans, and Carrollton (Bell 1960; Cambron and Hulse 1964; Neuman 1984a; Perino 1968, 1971); other lithics include grooved axes, stone pendants, and early bannerstone types. A bone industry including awls, flakers and atlatl (spear) hooks is recognized from the Morrow Mountain Complex in northern Alabama and the Eva Complex of Western Tennessee. Archeological evidence for the Late Archaic stage indicates that a population increase occurred. This increase was associated with the production of new tools and adaptations to regional environments (Taylor and Meighan 1978:59). By 2000 B.C., baking ovens and clay "cooking balls" are represented in the Late Archaic Complexes (Taylor and Meighan 1978:60). During this stage, shell was utilized increasingly. The manufacture of decorative objects such as coils and pendants also increased; copper was used as a raw material for making some tools, coils, and pendants. In addition to the appearance of distinct regional complexes, both localized and long distance trade networks developed.

During the long span of the Archaic, a highly successful, broad-based subsistence pattern developed. This subsistence strategy, known as "primary forest efficiency," allowed maximum utilization of natural food resources because of carefully integrated schedules for hunting and gathering activities in each area of occupation. Archeological evidence for this phenomenon includes semi-permanent settlements. Cyclical migration allowed Native Americans of this period to exploit the most productive resources available during particular seasons. Sequential exploitation of several distinct ecozones is one aspect of this pattern (Bryant et al. 1982).

Technological changes reflected changing subsistence activities. Throughout the Archaic stage, ground stone tools were common. Many tools, including pestles, grinding stones, and nutting stones were used to process plant foods. The appearance of cutting tools such as adzes and choppers may signal increased utilization of wood. Localized tool traditions may indicate more sedentary occupations and the beginning of cultural differences between regions.

Archeological evidence concerning Archaic lifeways in the

Mississippi Delta region is sparse. Inferences are based on knowledge of sites from other areas of the eastern United States, and from later periods of time. The earliest evidence of occupation within present-day south Louisiana derives from the Late Archaic. However, it is possible that a number of Early Archaic sites are either under the Gulf of Mexico, or covered by alluvial deposits, rivers, Aeolian deposits, or lakes, as was the case during the earlier Paleoindian stage (Taylor and Meighan 1978:58).

Poverty Point and Tchefuncte (1500 B.C. - 100 B.C.)

Following the Mesoindian (Archaic) stage was the Neoindian stage. Diagnostic features used to define Neoindian occupations are the presence of ceramics and the development of agriculture. Lasting from 2000 B.C. to historic times (Figure 7), the Neoindian stage in south Louisiana subsumes the Poverty Point, Tchefuncte, Marksville, Troyville, Coles Creek, Plaquemines, and Mississippian Periods. As a stage, the Neoindian represents the gradual development of sedentary lifeways made possible by an efficient subsistence system based on plant cultivation. Larger communities and more elaborate social systems developed in conjunction with the development of food surpluses.

The appearance of earthwork and burial mound construction in the late Archaic marked the development of the Poverty Point culture in Louisiana, ca. 1500 B.C. Considered by some to be either an Archaic-Formative transition or an Archaic climax phenomenon, the Poverty Point site, located in West Carroll Parish, is unique in North America prehistory. Although small quantities of fiber-tempered pottery are present at the Poverty Point site, some scholars argue that the culture was aceramic. Nevertheless, crude pottery figurines and stone "cooking balls" occur in Poverty Point contexts. Poverty Point material culture also is represented by fine stone lapidary work, steatite or soapstone vessels, and a microlithic tool industry. Subsistence appears to have been based on intensive hunting and gathering; however, emphasis by many researchers on protein capture may reflect a bias in the archaeological study of the Poverty Point period. Projectile point types originating in the Late Archaic and continuing into the Poverty Point period include Gary, Ellis, Pontchartrain, Kent, Carrollton, Marshall, and larger forms such as Hale (Ford and Webb 1956).

The Poverty Point culture extended over much of Louisiana and adjacent eastern states. Numerous exotic goods found at these sites indicates that an extensive trade network had developed. Some researchers have suggested that contact with the early Mesoamerican cultures may have occurred; Mesoamerica is regarded

Chronological Date	Stage	Periods of Eastern United States		Periods of Southern Louisiana	Phases of Southeastern Louisiana	
				HISTORIC		
A.D. 1600	Neo-Indian	MISSISSIPPIAN	WOODLAND	MISSISSIPPIAN	Delta Natchezan	
A.D. 1400					Bayou Petre	
A.D. 1200					Plaquemine	Barataria
A.D. 1000						
A.D. 800					Coles Creek	(Bayou Ramos)
				Bayou Cutler		
A.D. 600		LATE		Troyville-Baytown		
A.D. 400						
A.D. 200		MIDDLE		MARKSVILLE	(Magnolia)	
0 A.D./B.C.					NO	
100 B.C.			DEFINED			
200 B.C.			Tchefuncte-Tchula	PHASES		
500 B.C.	EARLY					
1000 B.C.			Poverty Point			
2000 B.C.						
	Meso-Indian	LATE	LATE	ARCHAIC	UNOCCUPIED	
4000 B.C.			MIDDLE			
		MIDDLE				
6000 B.C.			EARLY			
	Paleo-Indian	EARLY				
7000 B.C.			Paleo-Indian			
8000 B.C.						

Figure 7. Archeological time line of southern Louisiana.

by some as the probable source for the idea of constructing large earthen mounds which are common at the larger Poverty Point sites. The Poverty Point type site includes at least two large mounds and a set of six concentric semi-circular mounds, which may have had aisles that served astronomical purposes.

The size of the Poverty Point type site and of the contemporaneous regional centers located throughout Louisiana, Arkansas, and Mississippi indicate a well-organized social system. Although direct archeological evidence is lacking to support the hypothesis, it has been suggested that the main site at Poverty Point may have been the center of a chiefdom-level political system with a central authority figure capable of organizing the efforts of many people; this notion is based on the assertion that the amount of labor needed to build the large earthworks necessitated a supervisory structure to coordinate activity. If true, then the concentration of this large labor force also might have required the control of surplus supplies of food, possibly by means of a redistribution network.

The Poverty Point culture area clearly was the center of a very active trade network, surpassing networks that existed during the Archaic. Most Poverty Point sites are located on tributaries of the Mississippi River, on the Mississippi itself, or near sources of raw materials. Trade items include steatite from Georgia, magnetite, red jasper, and other stone from the central and eastern United States, and copper, perhaps from the Lake Superior area. Such exotic raw materials, as well as chert and utilitarian items, were traded throughout much of the Lower Mississippi Valley. Ceramics also may have been traded, although only a few traces are known. The most probable source of the early fiber-tempered pottery is the Georgia coastal area.

The origins and development of the Poverty Point Culture are not clearly understood. Radiocarbon dates from several sites indicate that Poverty Point traits first appeared along the Gulf Coast by about 1500 B.C., and possibly earlier (Neuman 1984). This date coincides with the earliest period of delta formation in southeast Louisiana. A few Poverty Point sites are known from the Lower Mississippi delta. However, due to the lack of systematic excavation, a large gap exists in our understanding of this early and important prehistoric culture.

Following the Poverty Point florescence and decline was the Tchefuncte period (500 B.C. - A.D. 100) (Figure 7). During this period, much of the eastern portion of Barataria Basin was created by the growth of the Bayou Des Familles Lake. The first evidence of human occupation in the lower Barataria Basin derives from this time. Most Tchefuncte sites in Louisiana are located in the southeastern Lake Pontchartrain and delta area, and along the Gulf

Coast to Texas; only a few sites have been recorded in the Lower Mississippi Valley.

Tchefuncte culture was a melange of Archaic lifeways and new innovations. Stone and bone tool types remained largely unchanged; interestingly, there was less variety in tools than during the preceding Poverty Point period. Artifact assemblages include boat stones, grooved plummets, chipped celts, and sandstone saws. Bone tools include awls, fish hooks, socketed antler points, and ornaments. Shell was used for ornamental purposes as well as for manufacturing such tools as chisels, containers, and punches. The most common projectile point types include Gary, Ellis, Delhi, Motley, Pontchartrain, Macon, and Epps (Ford and Quimby 1945).

Ceramics were a common component of the material culture during Tchefuncte times. The widespread use of pottery and other ceramic objects was a major technological change, presumably related to storage, processing, and transport of food. Ceramic vessels are convenient and strong, and therefore useful for cooking. Pottery also is useful for both long and short-term food storage, as well as for transport.

Tchefuncte pottery has few if any antecedents in Louisiana. It may have reached southeastern Louisiana from the Stallings Island and Orange complexes of the Georgia-Florida coast. The pottery is generally not well-made and often has a soft, chalky paste, with either sand or clay temper. Some vessels apparently lacked temper. Vessel forms include bowls, cylindrical and shouldered jars, and globular pots. Decoration often was made by punctation, incision, simple stamping, drag and jab, and rocker stamping. Motifs included zoned banding, stippled triangles, chevrons, and nested diamonds. Red ochre occasionally was applied to vessel exteriors.

The use of ceramics is often considered an indicator of a more sedentary Tchefuncte lifeway than was characteristic of the Archaic period. However, the Tchefuncte settlement pattern is not well understood, despite a fairly large number of known sites. Tchefuncte sites tend to be located in areas of coastal marsh and bayous; few such sites have been recorded in upland areas. Shenkel's excavations at Little Oak Island and Big Oak Island on the south shore of Lake Pontchartrain suggest extensive exploitation of coastal food resources. This may be correlated with less intensive activity in alluvial valley and upland areas (Shenkel 1984). Given the present distribution of Tchefuncte sites, this model is a valid and testable hypothesis of Tchefuncte settlement and subsistence strategies.

Ford (1969:193) speculated that commonalities in ceramics

across the Gulf South states during this period reflected the breakdown of ethnic barriers, perhaps associated with the powerful influence of the arrival of maize agriculture. However, more recently Gibson (1978) argued against the presence of maize throughout the Lower Atchafalaya Basin prehistoric sequence. Negative archeological evidence tends to substantiate Gibson's argument (Byrd and Neuman 1978); no botanical (plant) or archeological data have been recovered that demonstrate incontrovertibly the existence of agricultural activities during this period.

Tchefuncte sites commonly are shell middens located on elevated portions of natural levees, cheniers, or lakeshores. None of these sites are large, and they may represent seasonal camps. Although some well-known Tchefuncte sites are thought to include earthen mounds containing burials, evidence linking the construction of these mounds to the Tchefuncte period is poor. Tchefuncte ceramics are found only in surface scatters, mound fill, and associated features; none are found on mound top living surfaces or associated with burials (Neuman 1984:134-135). Further, there is no solid association of Tchefuncte culture artifacts with mound construction. Therefore, rather than being mound builders, Tchefuncte people in Louisiana may only have occupied a piece of high, dry ground already in existence at the time of their arrival.

The social organization of Tchefuncte culture has been characterized as egalitarian. Inferences drawn from the Big Oak Island site suggest that a band of 25 to 50 people engaged in hunting, fishing, and collecting at the site. Neither burials nor aspects of material culture suggest status-based distinctions among members of the group. The uniform distribution of ceramic types may indicate patrilocal residence with exogamous band (out of the group) marriage, which would result in the spread of very similar pottery types and motifs among many bands (Shenkel 1984).

The Tchefuncte occupation of southeastern Louisiana is well documented for the Pontchartrain Basin (Shenkel 1984); however, the occupation of the Barataria Basin by Tchefuncte period peoples is not similarly substantiated. To date, only a few scattered Tchefuncte ceramic sherds and components have been found, and these occurred mainly at Marksville period sites (Gagliano et al. 1979). During the period under discussion, the Bayou Lafourche and Bayou Terre aux Boeufs lobes (Figure 4, lobes 3 and 5) were developed along the northern margin of Barataria Basin. The Bayou Terrebonne lobe (Figure 4, lobe 6) was creating the basin's western margin; this configuration of fluvial activity was creating a fresh water interdeltic plain in the upper area of the modern Basin. There probably were large fresh water backswamp forests, lakes, and tidal marshes in the area (Gagliano et al. 1979:4-5).

The growth of the Bayou des Familles lobe (Figure 4, lobe 7) also was underway and progressing rapidly during this period, so that a large tidal bay formed to the west (cf. Gagliano et al. 1979, plate 4-1). This area of the eastern Basin would have been biologically productive, providing an ideal habitat for aquatic fauna in particular, and for wetlands flora and fauna generally (Gagliano 1979:4-8).

Sites at Isle Bonne (16JE60), Coquilles (16JE37), and other locations in the lower Bayou Barataria course have initial components representing Tchefuncte period occupations. Although the early material from these sites is covered by denser and larger deposits from later times, the early (Tchefuncte) components probably are the remains of small seasonal camps. It is likely that severe seasonal flooding in Winter and Spring precluded camping in the eastern Basin except on more developed natural levees along the northern Bayou Terre aux Boeufs lobe.

In summary, the Tchefuncte period is a relatively well-known phase of Louisiana prehistory, for which recent work in coastal areas has yielded valuable data (Neuman 1984a). The subsistence pattern of Tchefuncte peoples appears to represent an early adaptation for the intensive exploitation of the abundant natural resources of the coastal region. Although there are cultural similarities along the Gulf coast to the east and west of Louisiana sites during this period, the Tchefuncte culture probably had no major antecedents in Louisiana. Rather, its appearance may represent the migration of new peoples into the area in order to exploit the resources of the deltaic plain.

Marksville (100 B.C. - A.D. 300)

The subsequent Marksville period (100 B.C.-A.D. 300) (Figure 7) to a large degree represents a localized hybrid manifestation of the Hopewellian culture climax that preceded it in the Midwest. The type site is located at Marksville, Louisiana. Elsewhere in the state, smaller sites occur which display both Marksville pottery types and a modified form of the Marksville mortuary complex. The economic base of the Marksville culture seems to have been a further modification of the Poverty Point-Tchefuncte continuum; emphasis placed by some researchers on the importance of hunting, fishing, and gathering relative to agriculture may have been overstated. A fairly high level of social organization is indicated by the construction of geometric earthworks, conical burial mounds for the elite, and the unique mortuary ritual system. Although large quantities of burial furniture have not been recovered from Marksville sites, some items, particularly elaborately decorated ceramics, were manufactured especially for inclusion in burials.

The Marksville culture area spread throughout most of the Lower Mississippi Valley and adjacent upland and coastal areas of Louisiana, Arkansas, and Mississippi. In this large region, the common and distinctive Hopewellian traits appear to have been selectively adopted and used. However, these traits were never integrated into the same overall complex of traits that characterized the Ohio and Illinois Hopewell manifestations. During the early development of the Marksville culture, trade networks extending northward along the Mississippi River probably brought elements of Hopewellian mortuary practice, ceramic style, and status goods into more southern areas (Toth 1979). In later Marksville times, trade may have been discontinued, as evidenced by the decline in ceremonial mortuary activity and the gradual reworking of Hopewellian ceramic decorative motifs into new forms found only in the Lower Mississippi Valley. Despite dissimilarities between some Marksville and Hopewellian practices, the Marksville culture was more receptive to Hopewellian ideas than were other southeastern peoples.

Virtually all that is known of life in Marksville times derives from excavations of burial mounds; little is known about villages. Marksville period burial mounds typically have a low basal platform containing a tomb. A large mound was constructed over this platform, and it contained many individual graves. Burials often, but not always, were accompanied by grave goods, especially the distinctive Hopewellian mortuary ceramics with raptorial bird motifs. Other notable Hopewellian items found associated with Marksville burials are copper earspools, platform pipes, and figurines. Hopewellian artifacts are almost exclusively found in graves, and they may represent status markers.

Social structure was based on a set of distinctions reflected in the differential treatment of the dead. The strength of these distinctions, however, is not known. A few elaborate tombs inside mounds may be isolated phenomena; such tombs do not include indications of great material wealth. Some mounds contain the remains of many people, ranging from a few dozen at some sites to as many as 1,159 at the Crooks site. The mortuary patterns may be related to descent groups and/or tribal organization. Toth (1979) hypothesized a loose tribal affiliation linking small, self-sufficient villages that also shared trade and marriage networks.

The precise social role of the burial mounds remains uncertain, partially because the relationship between villages and mounds is not well-understood. Even geographic relationships between villages and mounds are variable; in some cases they were close together, whereas in other cases mounds appear to have been

isolated. There is no indication that villages with mounds served as central foci for trade or social networks.

Marksville villages usually are found on the natural levees of streams and rivers. Villages tend to be small, but appear to have been intensively used, perhaps indicating year-round habitation. Marksville sites in coastal areas most frequently are shell middens located on natural levees or cheniers.

Marksville ceramics were well-made, with decorations that included u-stamped incised lines, zoned dentate stamping, zoned rocker stamping (both plain and dentate), the raptorial bird motif, and flower-like designs. The cross-hatched rim is particularly characteristic of Marksville pottery, and may relate this complex to other early cultural climaxes in the Circum-Caribbean area. Plain utilitarian wares also were produced. The Marksville mortuary ceramics are very similar to classic Hopewellian varieties. These may have been acquired by trade or produced locally.

Other types of artifacts common to Marksville sites include items of exotic and valuable materials probably used in trade and status networks. These goods are almost always found in burial contexts, but they are uncommon in comparison to frequencies observed in the more developed northern cultures. Exotic trade goods include pearl beads, carved stone effigy pipes, copper ear spools, copper tubes, galena beads, and carved coal objects. The utilitarian material culture of Marksville times changed little from previous periods; continuity is evident in the range of stone and bone tools. No change in subsistence patterns is documented during the Marksville period.

The houses of the Marksville period are not well-documented. Two semi-subterranean pit houses are known from the Marksville type site; they may represent the first appearance of this trait in Louisiana. Of course, such houses would be impractical in wet areas of south Louisiana. Although a few other sites have yielded remains of postholes, no general patterns of construction are confirmed.

During the Marksville period, the eastern Barataria Basin was occupied extensively. By this time, much of the Bayou des Familles distributary lobe was geologically mature, and the Bayou Lafourche channel was active. This created the deltaic plain conditions of Barataria Basin which remained stable for about 2,000 years. The several Marksville sites along the Barataria-des Familles course indicate that the natural levees were sufficiently elevated to accomodate at least seasonal occupation of the region. The two main Marksville sites in the vicinity of the study area are the Bayou Coquilles (16JE37) and the Boudreaux

sites (16JE53). Although the Boudreaux site is not located within the Park boundaries, it lies directly adjacent, on the right descending bank of Bayou Barataria. Other Marksville sites in the eastern Barataria Basin include Kenta Canal (16JE51), Bayou Cutler I (16JE3), and others. All were occupied initially during the Marksville period. At this time, most of the sites were located on the main channel of Bayou des Familles, at junctions with an offshoot channel distributary or bayou; such locations provided access to backswamps and marsh ecozones.

The Coquilles, Boudreaux, and Bayou Cutler I sites all include the remains of distinctly Marksville mounds. Burials have been found at the Boudreaux Mound (Lamb 1982). A burial was excavated at Bayou Cutler I, although not from the mound (Gagliano et al. 1979). The mounds at the Coquilles site were damaged severely during the 1930s, when a road was placed through the site. All of these sites are evidence of a large Marksville cultural presence in the Barataria region, unlike earlier periods when archeological data indicate that the area was sparsely populated. Although shell middens are present, other activities have not been well-defined. The large-scale excavations at the Coquilles site resulted in recovery of relatively few faunal remains; however, those remains indicate a hunting strategy that emphasized both large and small game (Beavers et al. 1982). A series of postmolds was found in the lower levels at Coquilles; and although their purpose is unknown, they may indicate the construction of square houses covered with daub (Beavers et al. 1982). Testing by the University of New Orleans at other sites in the region has revealed what may be Marksville residences at 16JE64, 16JE79, 16JE58, and UNO7, although features related to these structures could not be discerned (Beavers 1982).

Giardino (1984b), in his analysis of the Marksville ceramics from the Coquilles site, found that no clear definition of either early or late Marksville phases can be determined for the collection. However, there is significant variation in the assemblages of upper and lower strata of some units. Rather than concluding that there was an early Marksville occupation, Giardino (1984b) left the issue open pending both refinements in southeastern Louisiana ceramic typology and the acquisition of C-14 dates from the site. Clearly, there is a need for reexamination of extant ceramic collections so that ceramic phases can be clarified, permitting more sophisticated interpretations of site excavations. Although radiocarbon dates have helped define the Marksville occupation, they have not been correlated successfully with ceramic data from the Coquilles site.

Troyville-Coles Creek (A.D. 300 - A.D. 1000)

The next cultural period identified for south Louisiana is the Troyville or Baytown phase (A.D. 300 - A.D. 700) (Figure 7). This is a transitional period that followed the decline of the Hopewellian-Marksville culture. With the exception of the type site at Jonesville, knowledge of the Troyville culture is based on the recovery of Troyville ceramics from other sites. Among the pottery types clustering in the Troyville period are: Mulberry Creek Cord Marked, Marksville Incised (Yokena), Churupa Punctated, Troyville Stamped, Larto Red Filmed, Landon Red-on-Buff, and Woodville Red Filmed. However, these pottery types and most other "Troyville" traits are not confined to this period. Generally, Troyville is considered the period when maize agriculture and the bow and arrow were adopted. Evidence for agriculture includes shell hoes and grinding stones.

The Troyville period is part of an overall cultural continuum spanning 700 years. Few "pure" Troyville sites have been located, and none of these have been excavated. In general, the Troyville period is regarded as a hiatus or possibly a decline that followed the organized and elaborate Marksville ceremonial mound-building activities. In contrast to Marksville culture, there is no evidence for special treatment of the dead by Troyville peoples. The Troyville period was contemporary with the Baytown period of the central Mississippi Valley; in southeastern coastal Louisiana, the remains of both Troyville and Baytown ceramics are found in the same assemblages (Gibson 1982). Because ceramic marker types of both groups co-occur, relative dating of sites and correlations between sites is difficult using existing ceramic typologies.

During this period, the Bayou des Familles lobe ceased to grow, and deterioration began at its seaward margin. The growth of the Bayou Blue lobe (Figure 4, lobe 10) was occurring to the west along the Lafourche course; this helped to seal off the upper Barataria Basin and create a permanent fresh water deltaic plain. To the east, the River aux Chene sub-delta was advancing and pushing back the Gulf on the eastern edge of the Basin, thereby completing Basin formation (Gagliano et al. 1979:4-20).

Many sites in the eastern Barataria region have Troyville components, and some of these also have late Marksville components. The Fleming (16JE36) and Bayou Villars (16JE68) sites probably began during the Troyville period. The Coquilles site, which includes a Marksville component, also supported a sizeable Troyville-Coles Creek occupation. Sites with potential Troyville residences include: 16JE58, 16JE60, 16JE77, 16JE79, UN012, UN013, UN014, UN016, and 16JE56. The latter, 16JE56, was occupied initially during the Troyville period (Shenkel 1975); it is located on a distributary of the Bayou des Familles channel. Gagliano et al. (1979) suggest that construction of the mounds at

the Fleming and Bayou Villars sites began in early Troyville times, but there are no data to support this assertion.

In the lower Bayou Barataria course, there are several late Marksville - early Troyville occupations. The site Bayou Cutler I, in Barataria Bay, probably was located on the seaward edge of the contemporary landform as the area was invaded by the sea (Gagliano et al. 1979:4-23). The presence of the sites 16JE56 and 16JE48 on channels off the main des Familles-Barataria course indicates that flooding had, by this time, decreased because of reduced flow through Bayou des Familles; previous landbuilding episodes already had made some areas of backswamp suitable for human exploitation and habitation.

During the Coles Creek period (A.D. 700 - A.D. 1000) (Figures 7 and 8), the level of human activity increased throughout southern Louisiana. Although the geographic range of Coles Creek sites is limited largely to southern Louisiana, ceramic similarities are noted for parts of Missouri, the upper Red River Valley, and along the Gulf Coast to Florida. Pottery types include: Coles Creek Incised, Pontchartrain Check Stamped, Mazique Incised, and Red Filmed pottery. Common pottery shapes are flat-bottom jars, shallow trays, and globular jars.

The predominant characteristic of larger Coles Creek period sites is the presence of one or more mounds. These mounds are usually flat-topped and pyramidal; they were used to support a small structure made of perishable materials. The mounds are often larger and exhibit evidence of a greater number of construction episodes than is true for the earlier Marksville burial mounds. Burials are not usually recovered during excavation of Coles Creek mounds. When burials are present, they are not associated with special features. It is unlikely that these mounds were intended primarily as burial sites. At several Coles Creek sites, the mounds are connected by low, narrow causeways. Plazas also are found at multi-mound sites. Many of these mound-plaza traits are similar to contemporary Mesoamerican site patternings, an observation which has led to the hypothesis that this aspect of Coles Creek culture is derived from much farther south.

Many Coles Creek period sites are devoid of mounds; these smaller sites include hamlets and shell middens. The latter are especially common in coastal and marshy areas. Sites generally are located on higher portions of natural levees. Some earlier sites may have been occupied seasonally during periods of active delta building (cf. Springer 1974). The preponderance of Troyville-Coles Creek sites relative to sites associated with earlier cultural periods may be directly related to active geomorphological processes which have destroyed or buried those

Period	Culture	Time	Phases		
Hist.	Various Cultures	Present	Eastern	West-Central	Western
Miss'n.	NATCHEZAN MISSISSIPPIAN PLAQUEMINE	A.D. 1700		Various Tribes	Little pecan
		A.D. 1600	Delta Natchezan	Petite Anse	Bayou Chene
		A.D. 1300	Bayou Petre	Burk Hill	
		A.D. 1000	Medora	Three Bayou	Holly Beach
Coles Creek	Coles Creek	A.D. 850	Bayou Ramos	Morgan	Jeff Davis
		A.D. 700	Bayou Cutler	White Lake	Welsh

Figure 8. Late Prehistoric chronological sequence of the Louisiana delta.

earlier sites in the region.

The nature of subsistence during Coles Creek times has been widely debated. The large number of sites is cited as evidence of dramatic population growth throughout the region, possibly associated with the adoption of agriculture. Byrd and Neuman (1979) have reviewed the evidence for the presence and use of various forms of horticulture and agriculture in the Lower Mississippi Valley. Their research indicates that excavations of Coles Creek sites have failed to yield remains of corn or beans, although these cultigens were present at this time in the eastern United States (Byrd and Neuman 1979:Table 4). Although the three main agricultural crops (corn, beans, and squash) had been introduced into eastern North America several centuries earlier, there is no evidence that they were cultivated as food crops in the Mississippi Delta until late in prehistory. Furthermore, there is little evidence to indicate local use by Coles Creek peoples of elements of the so-called "Eastern Agricultural Complex," (Asch and Asch 1978) a set of possibly native domesticates of the eastern United States.

Many, if not most, Coles Creek sites are located in areas with excellent agricultural potential; this is especially true of some of the larger inland sites. If an incipient agricultural base was developing during the Coles Creek period, sites along the alluvial valley would have been ideally located. As yet, however, there is no proof substantiating that agriculture, including small-scale cultivation of local indigenous plants, was practiced by Coles Creek peoples in Louisiana.

Archeological studies focusing on subsistence patterns have been conducted at several southeastern Coles Creek sites. At the Bruly St. Martin site in Iberville parish, faunal analysis indicated that fish were a more important source of protein than other kinds of game, and that fish may have been consumed throughout the year (Springer 1980). Springer (1980) hypothesized that during late Coles Creek times the site may have been occupied permanently. At the Morton Shell Mound in Iberville Parish, dietary practices were somewhat different than at the Bruly St. Martin. Although fish represented the majority of faunal remains, mammals provided the greater quantity of protein (Futch 1980).

There is a near consensus among archeologists that the bow and arrow were introduced into Louisiana ca. A.D. 800. At this time, a variety of small projectile points began to be deposited or lost in Coles Creek sites. This technological innovation reduced the time necessary to make a kill; it also allowed greater hunting accuracy by propelling a projectile a longer distance at a greater speed. As a result, prey did not have to be stalked so closely.

Although the bow and arrow were better than the spear thrower for hunting, spear throwers were used up to historic times.

Many Troyville and Coles Creek sites were located in coastal areas and along the rivers and lakes south of the mouth of the Red River (cf. Neuman 1977). At this time, the Lafourche lobe of the Mississippi was actively prograding; many sites are found along its upper and middle portions in the modern Atchafalaya and Lafourche drainages. Few sites have been located in upland areas of western, northern, and northeastern Louisiana. In the Barataria Basin, geomorphic processes by this time had created a landscape similar to that of the present day. Because the Lafourche lobe channels were carrying large amounts of water and sediment, the relative amount of fresh water achieved peak levels (Gagliano et al. 1979:4-33). Although the Bayou des Familles lobe continued to recede, it still received water from the river. The modern Mississippi Delta was beginning to expand and to push below the Basin in the east.

The early Coles Creek ceramic phase in the Barataria Basin is well-defined as the Bayou Cutler phase, originally described by Kniffen (1936). Later Coles Creek ceramics occasionally have been considered part of the Bayou Ramos phase (Figure 8) (Gagliano et al. 1979:4-30). During the Coles Creek period, many sites were occupied in eastern Barataria, notably the cluster of sites at the junction of Bayous Villars and Bayou Barataria (16JE60, 16JE68, 16JE36). Although mound-building was a common feature at Coles Creek sites, it is not known whether mounds at the aforementioned sites were constructed during this period. Coles Creek residential sites in the Park include 16JE46, which has at least one burial, 16JE77, 16JE79, and UNO3. The Coquilles site continued to be occupied. The presence of 16JE46 (Chenier Grand Coquilles) on the shore of fully formed Lake Salvador indicates the Basin was intensively occupied and exploited. Several other important Coles Creek site clusters are present lower in the Basin, notably near the Bayou Dupont-Barataria confluence and at Bayou Cutler I (Gagliano et al. 1979).

Plaquemine/Mississippian Period (A.D. 1000 - A.D. 1500)

In the southern part of the lower Mississippi Valley, the Plaquemine culture developed from the Coles Creek background (Figures 7 and 8). Ceremonial sites of this period consisted of several mounds arranged about a plaza area. Associated small sites were dispersed about these mound clusters. Social organization and maize agriculture were highly developed. The most frequently occurring decorated ceramic type of the Plaquemine period was Plaquemine Brushed; other types include Harrison Bayou Incised, Hardy Incised, L'Eau Noir Incised, Manchac Incised,

Mazique Incised, Leland Incised, and Evansville Punctate. Both decorated types and plain ware, such as Anna Burnished Plain and Addis Plain, were well-made. Diagnostic Plaquemine projectile points are small and stemmed with incurved sides.

Late in the prehistoric period, the indigenous Plaquemine culture came under the influence of Mississippian cultures from the middle Mississippi River Valley. Mississippian culture was characterized by large mound groups, widely distributed sites, and shell tempered pottery. A distinctive mortuary cult or complex, called "Southern Cult," which made use of copper, stone, shell, and mica, was introduced. Elaborate ceremonialism reflected in animal motifs and deities pervaded Mississippian culture. Trade networks were well established during this period; raw materials and specialty objects were traded across large areas of the central and southern United States.

Plaquemine sites are found mainly in southern Louisiana and Mississippi; the larger sites occur in the northern portion of this range. Some sites have as many as 24 mounds. Several mounds have been discovered which have smaller mounds atop the summit, forming composite pyramidal mounds.

Village sites apparently were oriented around a plaza-mound group, though relatively few residential refuse middens and ordinary house remains have been discovered. This may be explained by a dispersed settlement system in which the community elite lived at the mound site center which served as a focus for ceremonial activity, while the majority of people lived in small, scattered hamlets. In southern Louisiana, however, a different settlement pattern may have been common because Plaquemine sites are generally smaller and less elaborate than those at other locales.

Subsistence for this period is not well understood, but agriculture generally is considered to have been the subsistence base. The three primary cultigens (corn, beans, and squash) were being grown in many parts of the North American continent including the Lower Mississippi Valley. Some corn cob fragments were found at Bayou Goula, in Iberville Parish, and some also were recovered from the Fleming site (16JE36) on Bayou Barataria (Holley, DeMarcay, and Lopinot 1977). Locational data also suggest that agriculture may have been important in Plaquemine period Louisiana, since most sites are found in well-drained bottomland areas, and on levee ridges, which are excellent locations for growing crops. Hunting and fishing patterns of previous periods continued more or less unchanged (Neuman 1984b:267).

McIntire (1958) noted that coastal delta sites appear to

include fewer shell middens than in the Pearl River area to the north and east. Whether this represents an archeological sampling problem or a real difference in subsistence patterns is unknown. If the difference is real, it may reflect the de-emphasis of a marginal resource (i.e. Rangia cuneata) in favor of agricultural resources. Additional work is necessary to clarify the nature of Plaquemine period subsistence.

There is some evidence of Mississippian cultural influences on Plaquemine peoples of southern Louisiana. The highest development of Mississippian culture and the related Southern Ceremonial Complex (the "Southern Cult") occurred in the middle Mississippi Valley at the Cahokia site; in northern Alabama at the Moundville sites; and at major regional sites such as Kincaid, Illinois; Etowah, Georgia; and Spiro, Oklahoma. This widespread cultural network left traces throughout most of the southeast and midwest; that influence was attenuated in Louisiana.

In Louisiana, Mississippian presence is largely defined by the presence of shell-tempered pottery and by the distinctive motifs of the Southern Ceremonial Complex. Surface collections have been made from several coastal and delta sites with Mississippian occupations (cf. McIntire 1958), but only a few excavations have been reported. Results of excavations indicate that Mississippian peoples settled in scattered places in Louisiana, and did not develop the highly organized social order characteristic of the climax areas. An alternative explanation for isolated finds of Mississippian artifacts is that ceremonial and exotic trade goods spread among non-Mississippian peoples (Neuman 1984a:281). Further research is necessary to clarify these issues, but the data presently available suggest that the Plaquemine culture persisted alongside and as a small part of the Mississippian sphere.

In the eastern Barataria Basin during the Plaquemine-Mississippian period, both the modern Mississippi delta and the Lafourche distributary continued to grow, thereby maintaining the Basin as a large deltaic freshwater plain. The sea continued to encroach on the lower Basin. Fresh and brackish water were in balanced equilibrium, as were the rates of subsidence and alluvial deposition.

The early Plaquemine ceramics have been defined as the Barataria phase by Holley, DeMarcay, and Lopinot (1977). This is similar to the Medora phase, centered in the Baton Rouge area (Figure 8). Late Plaquemine-Mississippian period sites exhibit a melange of ceramic markers from the Bayou Petre and Delta Natchezan phases, both centered to the north in Louisiana and Mississippi.

Many Plaquemine sites, both large and small, are known in the

upper and lower Barataria-des Familles course. The Barataria phase was centered at the sites located at the Bayou Villars-Barataria junction: 16JE60 (Isle Bonne), 16JE36 (Fleming), and 16JE68 (Bayou Villars). Size and population at these three sites were at their highest during this period. Mounds were built at these sites, but their function (ceremonial or residential) has not been determined. Smaller sites are distributed in areas up and down the Barataria-des Familles course, including residential sites at 16JE51, 16JE56, 16JE58, 16JE74 (which includes a burial), 16JE75, 16JE78, UN047, and UN055, all of which are within the Park boundaries. The bayou, no longer extant, that ran from Bayou des Familles to Lake Salvador must have been active during this period, because both 16JE46 and 16JE56 were occupied at this time.

In the lower Bayou Barataria course, the total number of occupied sites decreased. An increase in salt water intrusion may have reduced environmental variability by promoting salt marshes which support fewer animals and less diverse plant life. Subsidence also was reducing the available land for settlement. No new sites were established in the lower area, and only a few of those which first were occupied during an earlier period continued to be occupied.

Archeological data indicate that trade connections existed between Louisiana and the Florida Gulf Coast during the Plaquemine - Mississippian period. Florida ceramic types occur in early Plaquemine - Mississippian assemblages from much of the Mississippi coastal delta (Gagliano et al. 1979:4-51; Davis 1984). Late Plaquemine ceramics, however, are more similar to those of the lower alluvial valley than to eastern Gulf Coast types (Gagliano et al. 1979:4-55).

Plaquemine cultural connections have been postulated for some of the historically known Indian tribes of Louisiana, such as the Natchez and Taensa. General similarities in culture traits and village locations are documented in early European records and in the archeological record. Associations between ceramics and other artifacts have been noted. The Tunica and Chitimacha tribes may have been descendents of the Mississippian peoples who first entered Louisiana during the late prehistoric period. These two tribes are linked linguistically and culturally with groups in the northern areas of Alabama and Mississippi, where Mississippian culture flourished.

Indians Known in Historic Times (A.D. 1500 - A.D. 1900)

When the French began exploring Louisiana, there were a number of Indian groups living in the southeastern portion of the state. Records and maps dating from the early period of

exploration and settlement are the main sources documenting Indian lifeways during this period. In many cases, however, it is difficult to determine accurately which Indian group is being referenced by the chronicles. Some names of "tribes" found in early documents are actually geographic locations, generic names, names of chiefs, or references to social groups or clans. In such cases, it is particularly difficult to make connections between groups through time.

Giardino's (1984a) analysis of historic Indian settlements in southeastern Louisiana indicates that most villages were located along the natural levees of the Mississippi River and Bayou Lafourche, and along the shores of Lake Pontchartrain (Figure 9; Giardino 1984a:Fig. 10.1). This pattern is not surprising given the geomorphology of Barataria Basin and nearby areas. However, it may not be a complete record of settlement locations. It is likely that settlements on smaller bayous and backwoods areas of the Barataria Basin, such as Bayou des Familles, were seldom visited by French explorers and settlers; therefore, they were not well known, if at all. The prehistoric record clearly points to a long occupation of Bayou Barataria - des Familles. In all probability, this settlement pattern continued through the seventeenth and eighteenth centuries.

Although many "tribal" or group names are recorded in early documents, only a few major tribes have been identified as important. These include the Chawasha (Tchouache), the Washa (Ouacha), the Chitimacha, and the Bayougoula. Other tribes which lived in or near Barataria Basin were the Houma (Ouma), the Colapissa, the Mugulasha/Quinipissa, the Tilapani, and the Yagnesito (Giardino 1984a; Swanton 1946).

The Washa, originally a band of a few hundred people, reportedly moved about within the central portion of Barataria Basin, inhabiting at different times sites on Bayou Lafourche and the Mississippi River. Lake Salvador was known to the French as Lake Ouacha, and the Washa are reported to have inhabited the Bayou Barataria region when the French first arrived (Sibley 1832:721-725). In later years, this group was very small and lived in the Houma area (Giardino 1984a). The Chawasha probably were a very small group living in the vicinity of English Turn on the Mississippi River (Swanton 1946:108-109). The Chitimacha, a very large and powerful tribe, appear to have controlled much of the upper Barataria Basin along both Bayou Lafourche and the Mississippi River (Giardino 1984a; Swanton 1946:119-121). The Bayougoula, Mugulasha, and Quinipissa Indians were probably all one tribe. Records indicate that they inhabited a common village in 1699, and migrated along the Mississippi River between Baton Rouge and the Gulf of Mexico (Giardino 1984a).

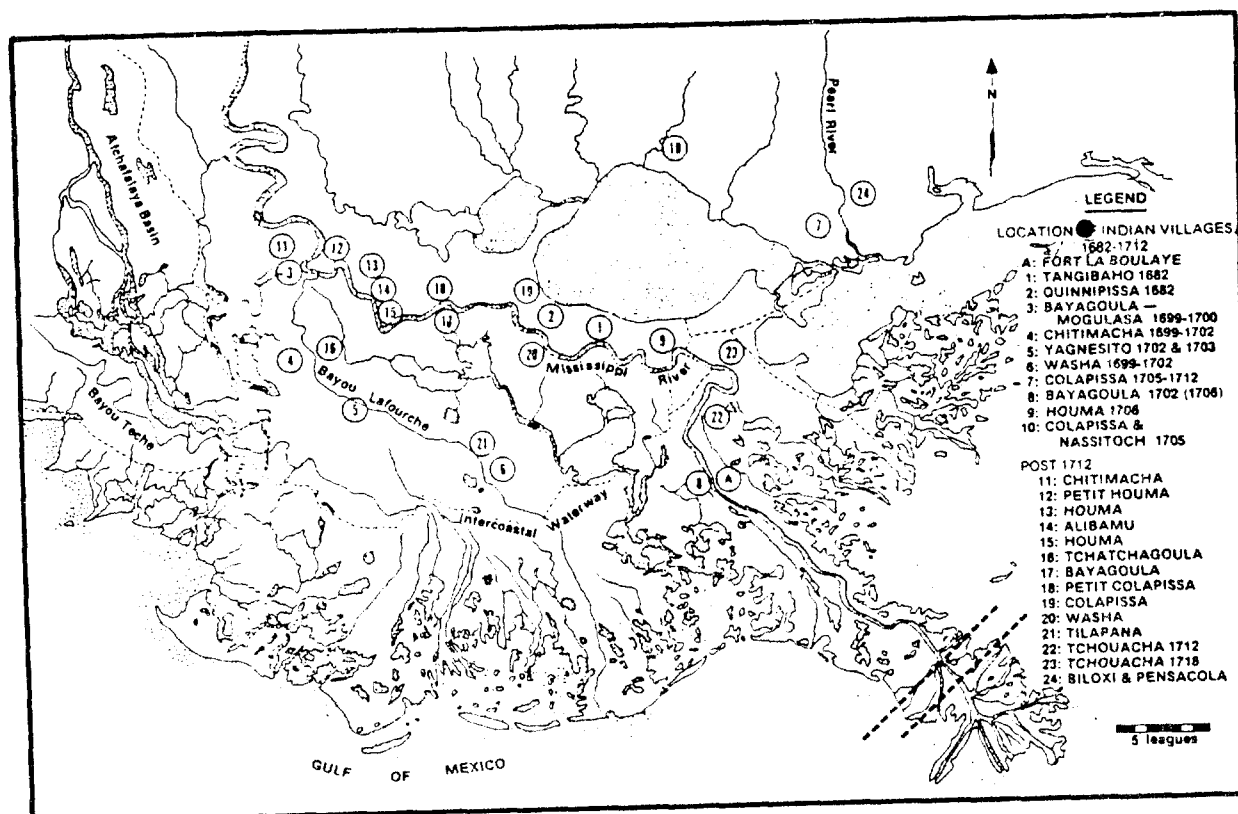


Figure 9. Map showing the location of protohistoric Indian villages (taken from Giardino 1984a).

The social instability and frequent migrations during the early Historic period were closely related to endemic warfare. Contemporary reports describe raids, ambushes, and massacres. Treachery and shifting allegiances were common, and continual competition for control of hunting grounds occurred. After the early European settlements were established, many Indians settled nearby in order to trade and for protection. Other Indian groups were pushed out of the area subsequent to wars instigated by the French. The pattern of warfare-related mobility probably existed before the Europeans arrived, and appears to have been a more important stimulus to migration than either trade or seasonal subsistence activities (Davis 1984).

The lifeways of the early historic Indians were much the same as in prehistoric times. Maize agriculture reportedly was practiced by the Bayougoula and other tribes of the Lower Mississippi Valley (Swanton 1946:310). Other crops probably included beans, squash, and pumpkins (Holmes 1984:24). Agricultural activities were supplemented by the gathering of wild plants, and by hunting and fishing.

Villages were patterned on the same lines as Plaquemine and Mississippian sites, though people may have lived in more nucleated settlements. The Bayou Goula site, visited by Iberville in 1699, was similar in appearance to earlier Plaquemine sites. It had a series of pyramidal hat-topped mounds arranged around a plaza. Atop the mounds were the chiefs' houses and temples, while the rest of the people lived in approximately one hundred houses scattered over the area. The whole site was surrounded by a cane pallisade (Holmes 1984:27; Swanton 1946:95).

Common traits among the historic Indian cultures of Louisiana include many of those seen in earlier archaeological contexts. Before European metal tools became widely used, wood, stone, and bone were used for knives, bows, arrows, grinding implements, and ornaments. Furs were used for clothing, and reeds were woven into baskets and mats. Canoes were made of dugout cypress logs and from bark; wood also served for spoons, clubs, mortars, and furniture. Houses may have been rectangular, and were built of poles set in the ground with wattle and daub walls and thatched roofs. Decoration consisted of shells, bone, feathers, tattoos, seeds, and copper. Both sexes wore tattoos on the face, arms, and trunk; the Natchez used marks on the trunk to record social status and battle honors (Swanton 1946:535).

Linguistically, the tribes of southeastern Louisiana were related to other groups in the southern United States. The Muskogean Family included the Houma, the Quinipissa, and Bayougoula tribes. The Choctaw and Chickasaw also were Muskogean speakers. The Chitimacha, Washa, and Chawasha all spoke dialects

of the Tunican language group, although Chitimacha is sometimes considered a separate language (Swanton 1946).

With the arrival of Europeans in Louisiana, many changes took place among the Indian inhabitants. Patterns of endemic warfare may have been exacerbated by French competition with other European powers and with Indian enemies. Slave raiding by the English, French, and Spanish contributed to the disruption and decimation of Indian groups. The primary cause of death and social disruption was the spread of European diseases among aboriginal populations (Drechsel and Makuakane-Drechsel 1982). Often diseases were spread intentionally by Europeans in an attempt to reduce the Indian population. Unable to treat the diseases or to renew their populations, many small groups simply vanished (Drechsel and Makuakane-Drechsel 1982).

Cultural changes also contributed to the loss of aboriginal lifeways in Louisiana. Trade with and settlement in proximity to Europeans and Americans led to the deterioration of traditional Indian culture and the adoption of European ways. Alcoholism was a serious problem among many nineteenth century Indians, and the use of alcohol was promoted actively by many white traders, both for profit from the sale of beverages and to cheat Indians out of furs (Drechsel and Makuakane-Drechsel 1982:79-80). The fur trade itself had many detrimental effects on Indian lifeways. The European colonial governments, and later the Americans, operated a major fur industry in Louisiana during the eighteenth and nineteenth centuries. By the 1800s, many of the game populations in southeastern Louisiana had been decimated. Thus, many Indians had to move to hunting grounds to the north where the fauna remained abundant. The fur trade had changed hunting from a subsistence activity into a profitable business; also, the use of firearms made hunting more expedient than it had been with a bow. Indian communities no longer organized themselves for the hunt, and tended to become dispersed. Some formerly settled tribes became nomadic or semi-sedentary. Many Indian groups followed the frontier toward the west in the early nineteenth century (Drechsel and Makuakane-Drechsel 1982:84-86).

Competition for land among Indians and between Indians and whites resulted in major disruptions in colonial and early American times. Many Indian tribes from the Gulf Coast region of Florida, Alabama, and Mississippi, and other areas, migrated into Louisiana as European settlers pushed them west. In addition, whites appropriated or bought land in Louisiana, breaking up previous Indian territories. Many Indians sought to avoid conflict by remaining deep in the swamps. Members of different tribes banded together to form multi-ethnic Indian communities; these Indian settlements often took in Black slaves who had fled plantations. In these ways, tribal customs were lost, and many

aboriginal languages ceased to be spoken. Reduced to small communities, and unwelcome by whites, the Indians often retained only the rudiments of their tribal culture (Drechsel and Makuakane-Drechsel 1982). Eventually, many Indians withdrew to isolated parts of the swamps and marshes and lived off the land as best they could.

French and Spanish Colonial Period (A.D. 1542 - A.D. 1803)

European exploration of southern Louisiana began when Hernando De Soto descended the Mississippi River to the Gulf of Mexico in 1542. During the next century, LaSalle descended the Mississippi from the Midwest in 1673, and Iberville journeyed up from the mouth of the Mississippi in 1699.

Early French colonial activities in Louisiana did not result in many permanent French communities or settlements. Most of the French plantations and industries were concentrated along the Mississippi River above New Orleans where there were wide natural levees which did not flood as frequently as lower-lying portions of the delta. The interior of Barataria Basin was not intensively used by French settlers.

One of the earliest land grants in the Bayou Barataria - des Familles area was to Claude Dubreuil, who came to Louisiana in 1719. Along with major plantation holdings along the Mississippi and a variety of industrial and commercial enterprises in New Orleans, Dubreuil owned a large area of the eastern Barataria Basin. This holding included the land east of Bayou Barataria, the land below Bayou Villars, Bayou Dauphine, and Lake Salvador, which now forms the lower portion of the Barataria Unit of Jean Lafitte National Historical Park. Dubreuil's activities on these lands are not known in detail, but his main undertakings were cattle ranching, lumbering oak and cypress, and possibly boat or ship building. The small number of slaves on his property indicates that Dubreuil did not engage in agriculture; the slaves probably acted as caretakers or cowboys (Holmes 1984:36-38).

Bernard Dauterive was another important landowner in Barataria. Before 1758, Dauterive had acquired a tract of land along Bayou Barataria that included most of the land along lower Bayou des Familles, including most of what is now the core area of the Barataria Unit (cf. Holmes 1984:Map 4). On this land, he raised cattle and kept an unknown number of slaves, but he probably did not engage in cash crop plantation agriculture (Holmes 1984:39). In general, the development of Barataria Basin during French times followed this nonagricultural pattern, because many other areas were better suited for use as plantations.

In 1778, approximately thirty families from the Canary Islands were settled in the Barataria Basin by the Spanish government. These people, known as Islenos, received a tract of land running perpendicular to Bayou Barataria from the mouth of Bayou des Familles. The group tried unsuccessfully for sixteen years to live on this land before they abandoned it. Although they raised various subsistence crops such as rice, and kept livestock, their efforts apparently were not productive (Holmes 1984:40-42). During the late colonial period, the Bayou Barataria and Lake Salvador area supported hunters, trappers, fishermen, and possibly a few permanent bayou dwellers. Such men would have made their living by utilizing the natural resources of the swamps and marshes much as the Indians had in earlier centuries; they could have supplemented their income by raising cash crops and trapping.

The notorious Jean Lafitte operated his black market empire from Bayou Barataria's lower end between 1803 and 1815. He developed a very successful smuggling and contraband business in cattle, slaves, weapons, and cash crops. Bayou Barataria was his back door to New Orleans, and he openly proclaimed his presence and activities. Despite efforts by the United States government, Lafitte's activities were never completely halted. In 1815, after helping to win the Battle of New Orleans, he and his men were given presidential pardons for their crimes. Lafitte and some of his followers left to begin new operations in Galveston Bay, while many of his band settled in lower Barataria and around New Orleans, pursuing more legal occupations.

The Plantation Period (A.D. 1800-A.D. 1900)

At the end of the eighteenth century, sugar production in Louisiana began to be developed as a profitable cash crop. Up to that time, indigo had been the main cash crop grown in the Barataria region. Sugar, however, was slow to replace indigo due to the expensive equipment needed to grow and process the crop. It was necessary to maintain drainage on this type of cropland by leveeing the bayous to prevent overbank flooding and by digging and maintaining an extensive network of drainage ditches. Water wheels occasionally were used to speed up drainage and to raise water over high levees.

Sugar plantations began to develop along Bayou des Familles in the 1820s and 1830s (Figure 10). Prior to that time, much of the area had been undeveloped or settled by small landowners or squatters who generally did little to affect the land. One of the earliest plantations was Mavis Grove, which was producing sugar in the 1820s. During or shortly before the 1840s, the Carter, Estelle, and pecan Grove plantations were growing sugar cane, and after the Civil War the estates at Christmas, Ida, Kenta, and Inez

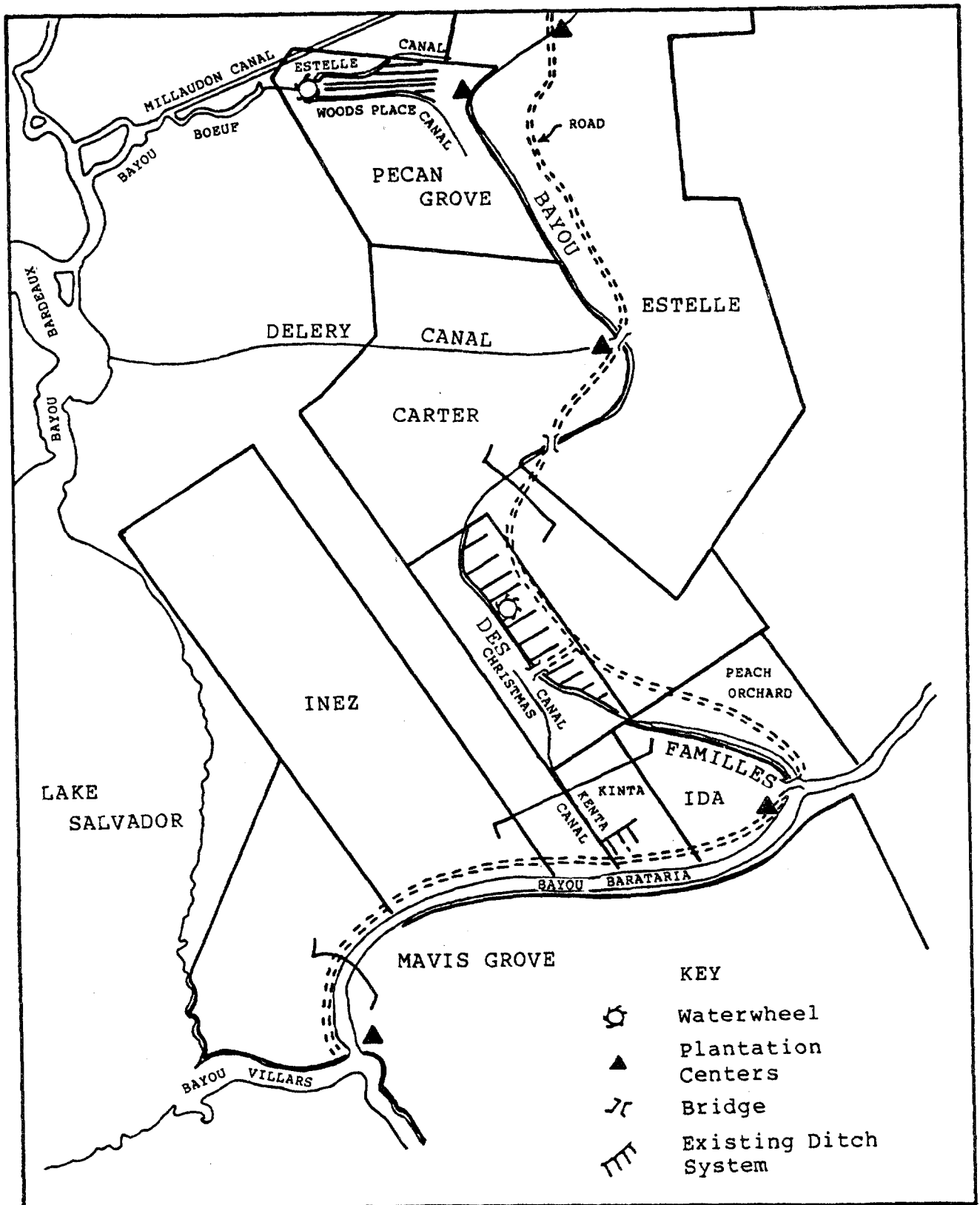


Figure 10. Map showing the location of plantations in the Park area (taken from Holmes 1984).

plantations were raising sugar (Holmes 1984:61-67). However, the 1850 census shows that about half of the adult free men worked off plantations as independent small farmers, hunters, and fishers (Holmes 1984:76-77).

Sugar plantations usually included a mill to process the cane after harvest. This was often a brick house; by the 1850s, most had steam-powered machinery. The Ida, Carter, and Pecan Grove plantations, however, appear to have had wood sugar houses (Holmes 1984:72).

The yearly routine of plantation life naturally revolved around the sugar harvest. Planting took place in winter or early spring, and crops were tended through early summer. Harvest came in October or November, and it was a time of continuous work, since the cane must be processed quickly after it is cut or it will spoil. It was critical also to harvest the cane before the first frost. Once the crop was cut and processed, there was a general lull in plantation activity until the subsequent planting. Throughout the year, other tasks included growing corn for food, and cutting wood to fuel the steam engines.

After the Civil War, sugar planting in Louisiana was much less successful. At this time, many plantations abandoned sugar cane for rice cultivation. By the 1880s, most of the Barataria plantations had switched to rice. Much of the area also was left unused; many residents subsisted by hunting, fishing, and small-scale farming. A substantial number of small landowners continued to reside in Barataria.

The Twentieth Century

In the late nineteenth century, lumbering became a major industry in southern Louisiana. Following the decline of plantations, many tracts of land passed to the ownership of large land companies which leased lumber rights in the swamps (Figure 11). Cypress trees were the most desired wood because of their extraordinary resistance to rot, even in water.

Cypress lumbering necessitated fairly extensive modification of the non-levee lands and waterways. Prior to the growth of this industry, a few canals and drainage ditches had been dug in the backswamp; lumbering opened up more. Logs were floated from the swamp to sawmills located on major bayous; from there, the cut lumber was shipped up to New Orleans. Special canals were dug back into the swamp to allow pull-boats to enter so that logs could be moved to collecting points. In such lumbering operations, a fan of radiating dead-end canals was dug at the end of a main canal; the pull-boat worked each area. This created a distinctive pattern of

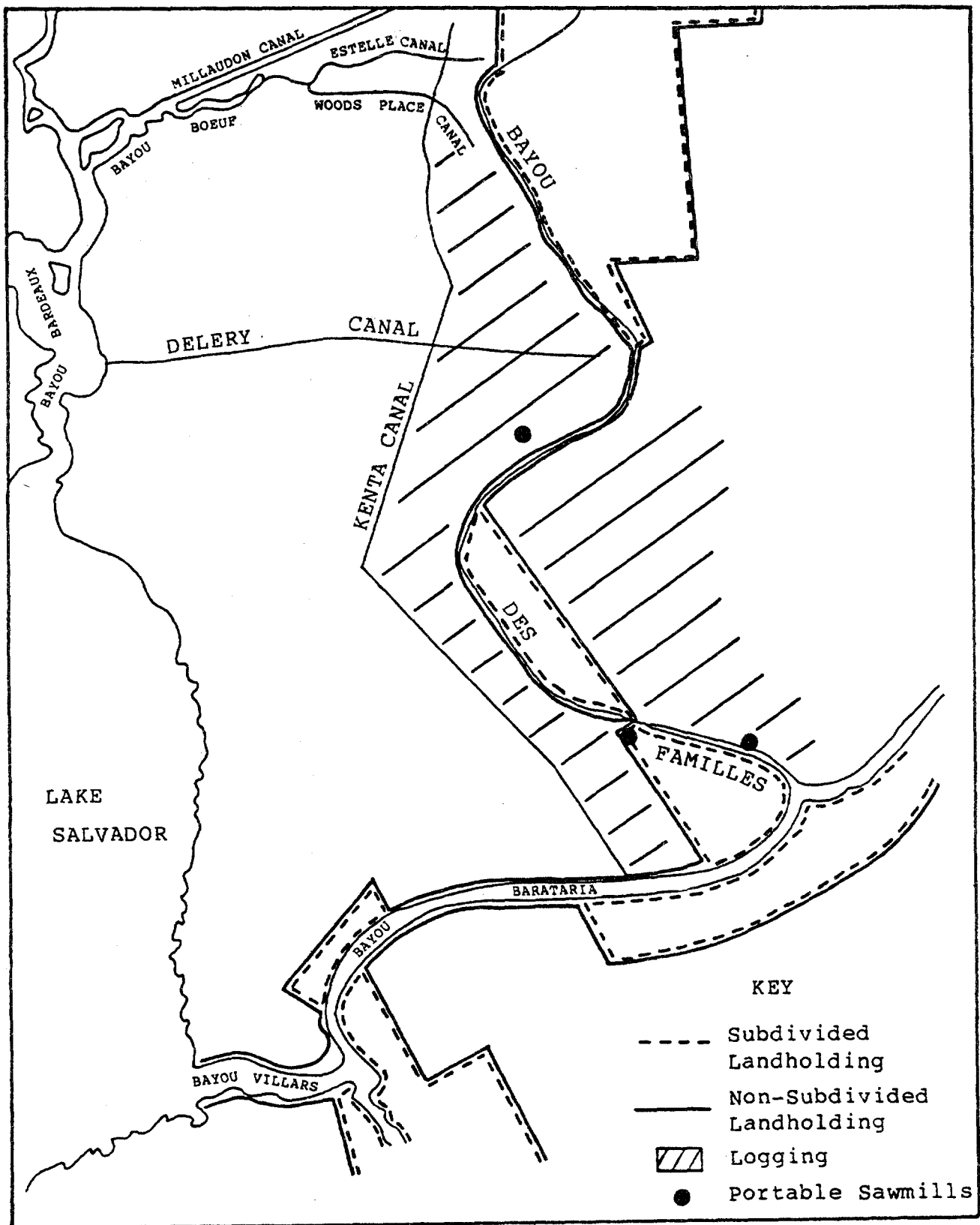


Figure 11. Map showing twentieth century large land holdings and logging areas (taken from Holmes 1984).

radiating canals, as can be seen in parts of the swamp in the Park west of Bayou des Familles.

Other leases were given out by land companies. Levee lands were used for farming and cattle raising by small operators and farmers. The marshes were divided into lease lots for trapping; they were paid for by a portion of the furs taken (Holmes 1984:90). Lumbering ceased to be profitable in the 1930s and 1940s, and most operations were abandoned.

Since the beginning of the twentieth century, the fur industry has been very important to the Barataria Basin and to southern Louisiana in general. The first major pelt to become marketable was the muskrat, which is abundant in the marshes. Nutria, which were indigenous to South America, later took hold in the marshes and became an important fur animal. Other valuable fur-bearing animals of the region are mink, raccoon, and beaver. Trapping as a commercial activity has long been practiced in the Barataria Basin; during the first thirty or forty years of this century the industry peaked (Holmes 1984:99), and since that time its economic importance has declined.

Hunting and fishing for subsistence and cash have been and continue to be common occupations in the Basin. Marketable fish are mainly catfish, although the coastal and bay areas have marine fisheries as well as shrimp, oyster, and crab operations. Hunters can sell alligator meat and hides, and duck hunting was once a large commercial industry. Until the middle of the twentieth century, collecting of Spanish moss was a minor industry. The moss was used for bedding and upholstery, but today there is little demand and all but one of the moss gins in Louisiana have closed. Moss grows in the limbs of oak and cypress trees in much of southern Louisiana, and it is collected easily using poles.

Until recent years, the lifeways of marsh and swamp dwellers was based on an annual cycle of recurring activities. This seasonal round is closely related to natural cycles of precipitation, temperature, and the growing season. The high waters, normally associated with Spring, renew the life of the swamps and marshes after the winter. Catfishing and crawfishing are the chief occupations; moss also was gathered in the Spring. During the Summer, when water is low, residents engage in fewer fishing and gathering activities; some work in commercial activities, such as lumbering or commercial fishing. During the Fall, catfishing is once again relatively easy and profitable. Winter is a period of trapping and hunting, along with fishing (Comeaux 1972:97-100) (Figure 12). In the past two or three decades, fewer people are able or willing to make their living by fishing, hunting, and trapping, and many have left the Barataria Basin for jobs in industry or oil extraction (Table 4). Former

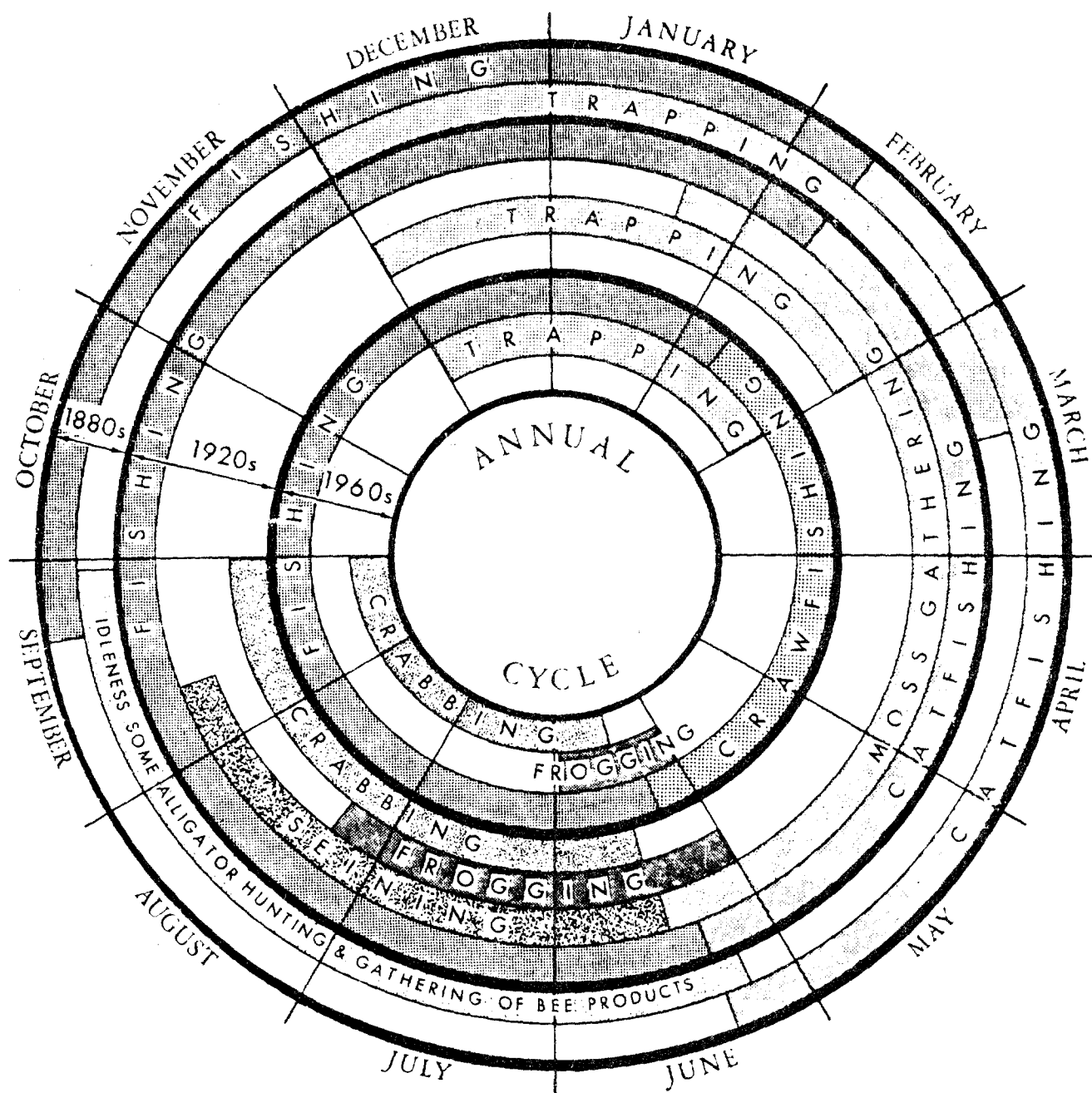


Figure 12. Illustration of the annual cycle of folk activities (taken from Comeaux 1972).

Table 4. Population of Barataria Region, 1810-1980
(from Holmes 1984:Table 3).

<u>Date</u>	<u>Barataria Population</u>
1810	94
1840	993
1850	1,176
1870	1,184
1880	1,596
1890	2,438
1900	1,750
1910	1,665
1920	1,464
1930	2,651
1940	3,545
1950	3,938
1960	6,298
1970*	
1980	6,462

(Population figures include Grand Terre and Chenier Caminda)
*complete data unavailable

subsistence practices are now recreational activities.

Today, the oil industry is the dominant commercial enterprise in Barataria Basin. The discovery of the Lafitte Oil Field in 1935, and the subsequent discoveries and development of the Barataria, Lake Salvador, and Delta Farms Fields by 1940, dramatically altered the use of the wetlands. There are scores of oil wells, pipelines, canals, and exploratory cuts throughout the lower Basin. The industrial development of the West Bank of New Orleans has pushed suburban and heavy industrial areas to the upper reaches of the marsh and swamp, attracting many of the residents of the Basin to work in the urban metropolis.

Although the Barataria region has been altered greatly by the activities of man in the twentieth century, the environment remains largely stable. Although it has never been a major center of settlement in southern Louisiana, the Barataria Basin Region represents an area of continuous activity where man has demonstrated his adaptive ingenuity.

CHAPTER IV

ARCHEOLOGICAL RESOURCES

Summary of Known Sites

Previous investigations have identified a total of eighty-two (82) archeological sites within the boundary of the JLNHP Barataria Unit Core and Park Protection Zone. Most of the sites are located within the Core Area boundaries. The Core Area has been surveyed extensively, and it is probable that most sites there have been located. In contrast, only a few sites have been located within the Park Protection Zone; it is possible that there are a number of undiscovered sites within this zone.

The geographic locations of sixty-seven (67) sites have been recorded. Another fifteen sites have been reported, but their locations remain undefined. Christmas Plantation (Figure 13) is one of the latter. Thirteen of the previously recorded sites are now considered to be either natural deposits or redeposited cultural materials; these are listed in Table 5.

Two numbering systems have been employed to designate sites located within the Park. Many sites are numbered according to designations given in the 1982 site inventory undertaken by the University of New Orleans (Beavers 1982); these site numbers are prefixed by "UNO," indicating their initial reportage by the University of New Orleans Archaeological and Cultural Research Program. Although a block of state site numbers was assigned to the University of New Orleans for the Barataria survey (Philip G. Rivet, personal communication 1984), those numbers were not used in the report on the Barataria survey (Beavers et al. 1982a), nor do they appear to have been assigned ex post facto. The remaining sites in the Barataria region are designated using Louisiana State Archaeological Survey Numbers; these site designations follow the standard Smithsonian format. Thus, they are prefixed by "16 JE" (i.e., 16 stands for Louisiana; JE stands for Jefferson Parish). Some of the sites designated by UNO numbers do not correlate with previously established site numbers. This is especially true in the Bayou des Familles corridor, where there are a large number of sites in very close proximity. In this report, criteria of size, location on maps, the nature of reported cultural remains, and spatial relationship to other sites, have been used to clarify site designations. In the case of sites which have numbers in both systems, the Louisiana state site number is used, to permit cross-reference to other reports.

Some confusion also exists over the actual numbers and names of sites within the study area. Previous reports, for example,

Table 5. List of Non-Sites in JLNHP Barataria Unit.

<u>Site No.</u>	<u>Explanation</u>	<u>References</u>
16 JE 57	Dredge spoil	Beavers et al. 1982a
16 JE 66	Shell dam	Gagliano et al. 1979
16 JE 67	Redeposited from 16 JE 37	Beavers et al. 1982a
UNO 5	Natural; no cultural material	Beavers et al. 1982a
UNO 10	Natural shell deposit	"
UNO 17	Natural; no cultural material	"
UNO 18	"	"
UNO 28	"	"
UNO 29	"	"
UNO 30	"	"
UNO 31	"	"
UNO 32	"	"
UNO 37	"	"

have incorrectly labeled Isle Bonne (16 JE 60) as 16 JE 50 (Neuman n.d.a., n.d.b), and have referred to 16 JE 37 as the "Crown Point" site instead of by its actual name "Bayou des Coquilles" (Gagliano et al. 1979).

All known, reported, and suspected sites in the Barataria region are listed in Tables 5 and 6, which summarize available and pertinent data. The more important sites are discussed in detail in the following subsection of this report. Table 6 gives the geographic location (Universal Transverse Mercator Coordinates) of sites as recorded in survey reports and in the state site files. These coordinates allow precise location of the sites on USGS quad sheets. The impact category presents the reported destructive forces acting on each site. Data presented in this table are generally three or more years old. Therefore, the continuing destruction of most sites is possibly aggravated by additional forces.

The data presented in Table 7 provide a summary of our present knowledge concerning the archeology of each site. Information on these sites is derived mainly from field inspection and artifact analysis. The various methods of testing also are listed, in order to provide a basis for determining the relative reliability of assessments of each site. Surface collections can provide a sample of artifacts present and aid in the determination of artifact densities. Shovel and auger tests are used to determine the extent and stratigraphic contexts of artifact-laden deposits. These methods, however, usually do not provide a large sample of artifacts. Mechanical or hand excavation of test units allows for controlled collection of artifacts, providing data on three-dimensional spatial relationships among the recovered remains; in this way, the contextual conditions of the artifact samples may be recorded and accounted for in the analysis. Therefore, excavation of test units provides the most reliable data on almost all aspects of a site.

The locations of historic sites have been obtained primarily from historic records and maps. These were analyzed and recorded by Holmes (1984), although no geographic locations were presented. Though the sites have not been located geographically, they are known to lie within the Park boundaries (Figure 14). It is quite possible that further research will identify more sites.

A few of the important sites near, but not in the Park, also are considered here. These sites form an integral part of the complex of sites in the Bayou des Familles-Barataria locale. These sites all form a single research base, and data from any one site has to be evaluated in terms of its role as part of the complex. Therefore, the preservation and investigation of sites outside the Park is important if we are to obtain maximum information on the

Table 6. Known, Reported, and Suspected Sites in the Barataria Basin.

NUMBER	UNO	Name	UTM Location	Impact
16JE				
36		Fleming	N3299800 E777080+	Erosion, looting
37*	57	Bayou Coquille	N3299168 E777840+	Erosion, road construction
46*	54	Chenier Grand	N3299600 E777360+	Subsidence, erosion
		Coquille		
50		Rosethorn School	N3295720 E781340+	Possibly destroyed
51*	50	Kenta Canal	N3295720 E779840+	Erosion, dump
52*	15	Coquille II	N3299380 E777700+	Subsidence, erosion
53		Highway 301	N3294380 E776880+	Erosion
54		Highway 301 South	N3294000 E776840+	Erosion, dredged
55*	56	Drill Hole I	N3200240 E775000+	Subsidence, dredge spoil
56*	52	Drill Hole II	N3299720 E774288+	Erosion
57*	44	Des Familles I	N3299216 E777984+	Erosion
58*	26	Des Familles II	N3299120 E778600+	Subsidence, dredge spoil
60*	53	Isle Bonne	N3293640 E776960+	Erosion, dredging
61*			N3293640 E776960+	Destroyed
62			N3300520 E779040+	Destroyed
63			N3300120 E779920+	Destroyed
64*	1	Milk Snake	N3295460 E781260+	Unknown, developed (?)
65*			N3299192 E777290+	Subsidence
66*		Lost Glasses	N3293760 E776780+	Erosion
67*		Wagner Bridge	N-----E-----+	Invalid Site
68		Bayou Villars	N3299320 E777000+	Erosion; rip-rap; residences
70*	33		N3298700 E778780+	Erosion; subsidence
71*	34		N3298520 E778880+	Erosion; subsidence
73			N3301660 E780400+	Destroyed
74*	49		N3300264 E778264+	Erosion
75*	48		N3300120 E778144+	Erosion
76*	42		N3299860 E778560+	Erosion; subsidence
77*	45		N3300000 E778048+	Erosion
78*	40		N3299432 E778888+	Erosion
79*	20		N3300120 E778520+	Erosion
80*		Jones Point	N3293440 E776320+	Erosion

NUMBER

<u>16JE</u>	<u>UNO</u>	<u>Name</u>	<u>UTM</u>	<u>Location</u>	<u>Impact</u>
81*		Isle de Puet	N3300 860	E774 020	Erosion
82*		East of Bayou	N3301 480	E774 780+	Erosion
83*		Stuck Boot	N3293 640	E775 340+	Erosion
133*		Bayou Gaudin	N3307 280	E767 580	Subsidence
135*		Greenies	N3293 780	E775 220	Erosion; subsidence
2*			N3299 288	E777 410+	Subsidence
3*			N3299 288	E777 240+	Water erosion, path across site
4*			N3299 504	E777 840+	Subsidence, bulldozed
5*			N3299 792	E777 810+	Subsidence
6*			N3299 744	E777 860+	Subsidence
7*			N3299 936	E777 910+	Subsidence, ditches
8*			N3299 936	E777 930+	Subsidence, water erosion
9*			N3299 240	E777 120+	Subsidence, water erosion
10*			N3299 456	E776 906+	Subsidence
11*			N3299 384	E776 889+	Subsidence
12*			N3299 192	E777 720+	Highly disturbed. Subsidence, water erosion
13*			N3299 312	E777 756+	Erosion; subsidence, dumping
14*			N3299 264	E777 408+	Looting, water erosion; subsidence
16*			N3299 480	E776 840+	Subsidence
17*			N3300 480	E777 960+	Subsidence; erosion, looted
18*			N3300 168	E778 072+	Erosion; subsidence
19*			N3300 192	E778 096+	Erosion; subsidence
21*			N3300 288	E778 168+	Subsidence
22*			N3300 312	E778 120+	Erosion; subsidence
23*			N3300 312	E778 216+	Subsidence
24*			N3300 360	E778 312+	Erosion; subsidence
25*			N3300 456	E778 408+	Erosion; subsidence
27*			N3299 024	E778 048+	Subsidence; badly eroded
29*			N3298 792	E778 216+	Subsidence; badly eroded
30*			N3298 744	E778 240+	Subsidence
31*			N3298 744	E778 264+	Subsidence

NUMBER	NAME	UTM Location	Impact
16JE UNO			
32*		N3298720 E778312+	Subsidence
35*		N3298216 E778672+	Erosion; subsidence; dumping
36*		N3298120 E778792+	Erosion; subsidence; dumping
37*		N3399264 E777960+	Subsidence
38*		N3299336 E777936+	Subsidence
39*		N3299384 E777912+	Subsidence
41*		N3299504 E777888+	Subsidence
43*		N3299120 E778000+	Subsidence
46*		N3300000 E778056+	Subsidence
47*		N3300048 E778048+	Subsidence
51*		N3295720 E778672+	Erosion; subsidence; dumping
55*		N3294768 E774528+	Erosion; subsidence; dumping
1 EXT*		N3299216 E777738	
	Ida	No Archeological	Evidence Available
	Carter	"	"
	Pecan Grove	"	"
	Estelle	"	"
	Mavis Grove	"	"
*	Christmas Water Wheel	"	"
*	Pecan Grove Water	"	"
	Wheel Sawmill	"	"
	Sawmill	"	"
	Sawmill	"	"
*	Kinta	"	"
*	Christmas	"	"
*	Kenta Canal Camps	"	"
*	Christmas Road Camps	"	"
*	Chenier Grand Coquille	"	"
*	Christmas Plantation	"	"
46	Fields		

<u>NUMBER</u>	<u>Name</u>	<u>UTM Location</u>	<u>Impact</u>
16JE	UNO		
*	Kinta Plantation Fields	No Archeological Information Available	
*	Kenta Canal	"	"
*	L'Hermitage	"	"
*	Colonial Settlement	"	"
*	Colonial Settlement	"	"
*	Colonial Settlement	"	"
*	Colonial Settlement	"	"
*	Crown Point Moss Gin	"	"
*	1900 House	"	"

* = in Park
 + = Geographic coordinates in site file or Beavers 1982a.

Table 7. Archeological Site Summary for the Barataria Unit, Jean Lafitte National Historical Park.

<u>State</u>	<u>Site</u>		<u>Period</u>	<u>Reference Documents</u>	<u>Tested</u>
	<u>UNO</u>	<u>Type</u>			
36		Shell midden, mound, sugar house, Historic cemetery	Marksville-Mississippian/Hist.	Holley, DeMarcy Lopinot '77 7, 3	E, SU
37*	57	Shell mound, midden	Marksville-Coles Creek	1, 2, 5	E, SU
46*	54	Shell midden	Coles Creek-Early Historic	1, 5	SU
50		Midden	Coles Creek	3	SU
51*	50	Shell midden	Baytown, Mississippian	1, 3	SU
52*	15	Earth and Shell midden	?	1, 9, 3	SU, SH
53		Shell midden	Coles Creek	3	SU
54		Shell lens	Baytown, Mississippian	3, 5	SU
55*	56	Shell midden	?	1, 4, 5, 3	
56*	52	Shell midden	Baytown, Mississippian	1, 5, 3	SU, SH
57*	44	Dredge spoil	Non-site	1, 5	E, SU
58*	26	Earth mound	Marksville-Mississippian	1, 5	E, SU
60*	53	Shell midden,	Tchefuncte-Mississippian	DeMarcay 1982	E, SU, A
61*		Shell midden	Coles Creek-Mississippian	State file, 5	SU
62		?	Troyville-Coles Creek	State file, 5	SU

63		Shell midden	?		
64*	1	Shell midden	Marksville	1, 6	E, SU
65*		Shell midden	?		(SU)
66*		Shell dam	Non-site		---
67*		Redeposited midden mat- erial	Non-site	1	---
68		Pyramidal mound, Shell midden	Marksville, Troyville- Coles Creek, Mississippian	7	
70*	33	Shell midden	?	State file, 1	SU, SH
71*	34	Shell midden	?	State file, 1	SU, SH
73		Shell midden	?		(SU)
74*	49	Shell midden, burial ground	Troyville- Coles Creek, Mississippian	1	SU, SH (E)
75*	48	Shell midden, mound	Troyville, Coles Creek, Mississippian	1	SU, SH (E)
76*	42	Shell midden, mound	?	1	SU, SH
77*	45	Shell midden	Troyville- Coles Creek	1	SU, SH
78*	40	Shell midden	Troyville- Coles Creek, Mississippian	1, Loumiet 1977	SU, SH, E
79*	20	Earth and Shell midden	Marksville- Coles Creek	1	E, SU
80*		Shell midden	Mississippian		(SU)
81*		Earth mound	Mississippian		(SU)

82*	Shell midden	?		(SU)
83*	Shell midden	Mississippian		(SU)
133*	Shell midden	?		
135*	Shell midden	?		(SU)
2*	Shell midden	?	1	SU, SH
3* ¹	Earth and Shell midden	Coles Creek	1, 6	E, SU
4*	Shell ridges	?	1	SU
5*	Earth and shell deposit	Non-site	1	SU
6*	Earth and Shell midden	?	1	SU
7*	Earth and Shell midden, Historic bldg.	Marksville, early Historic	1	E, SU
8*	Shell midden	?	1	SU
9*	2 Shell middens	Coles Creek?	1	SU, E
10*	Shell deposit	Non-site	1	SU
11*	Shell midden	?	1	SU
12*	Shell midden	Troyville	1	SH, SU
13*	Shell midden	Troyville	1	SU, E
14*	Shell midden	Troyville	1	SU, E
16*	Shell midden	Troyville	1	E, SU
17*	Shell deposit	Non-site	1	SU, SH
18*	Surface shell scatter	Non-site	1	SU, SH

19*	Shell midden	?	1	SH, SU
21*	Shell midden	?	1	SH, SU
22*	Shell midden	?	1	SH, SU
23* ²	Shell midden	?	1	SH, SU
24*	Shell midden	?	1	SH, SU
25*	Shell midden	?	1	SH, SU
27*	Shell midden	?	1	SU
28*	shell deposit	Non-site	1	SU, SH
29	shell deposit	Non-site	1	SU, SH
30*	shell deposit	Non-site	1	SU, SH
31*	shell deposit	Non-site	1	SU, SH
32*	shell deposit	Non-site	1	SU, SH
35*	Shell midden/ dump	Prehistoric- Historic	1	SU, SH
36*	Shell scatter/ dump	19th c. Historic	1	SU, SH
37*	Shell scatter	Non-site	1	SU, SH
38*	Shell midden	?	1	SU, SH
39*	Shell midden	?	1	SU, SH
41*	Shell midden	?	1	SU, SH
43*	Shell midden	?	1	SU, SH
46*	Shell midden	?	1	SU, SH
47*	Shell midden	Mississippian	1	SU, SH
51*	Shell beach	?	1	SU
55*	Shell midden	Mississippian	1	SU

1EXT*	Shell ridges	?	1, 6	SU, E
	IDA Plntn.	Historic	8	None
	Carter Plntn.	Historic	8	None
	Pecan Grove Plntn.	Historic	8	None
	Estelle Plntn.	Historic	8	None
	Mavis Grove Plntn.	Historic	8	None
*	Christmas Water Wheel	Historic	8	None
*	Pecan Grove Water Wheel Sawmill	Historic	8	None
	Sawmill	Historic	8	None
	Sawmill	Historic	8	None
*	Kinta Plntn.	Historic	8	None
*	Christmas Plntn.	Historic	8	None
*	Kenta Canal Camps	Historic	8	None
*	Christmas Road Camps	Historic	8	None
46	* Chenier Grand Coquille Camps	Historic	8	None
	* Christmas Plntn. Fields	Historic	8	None
	* Kenta Plntn. Fields	Historic	8	None
	* Kenta Canal	Historic	8	None
	* L'Hermitage	Historic	8, 4	None

*	Colonial Settlement	Historic	4	None
*	Colonial Settlement	Historic	4	None
*	Colonial Settlement	Historic	4	None
	Crown Point Moss Gin	Historic	4	None
	1900 House	Historic	Goodwin et al. 1985	None

1. Beavers 1982
2. Beavers et al. 1982
3. Gagliano et al. 1975
4. Gagliano et al. 1979
5. Shenkel 1975
6. UNO 1977
7. Neuman n.d.a
8. Holmes 1984

SH - Shovel Test

E - Excavation

A - Auger Test SU - surface collection

Notes:

¹UNO 9 may be part of UNO 3

²UNO 23 may be part of UNO 21

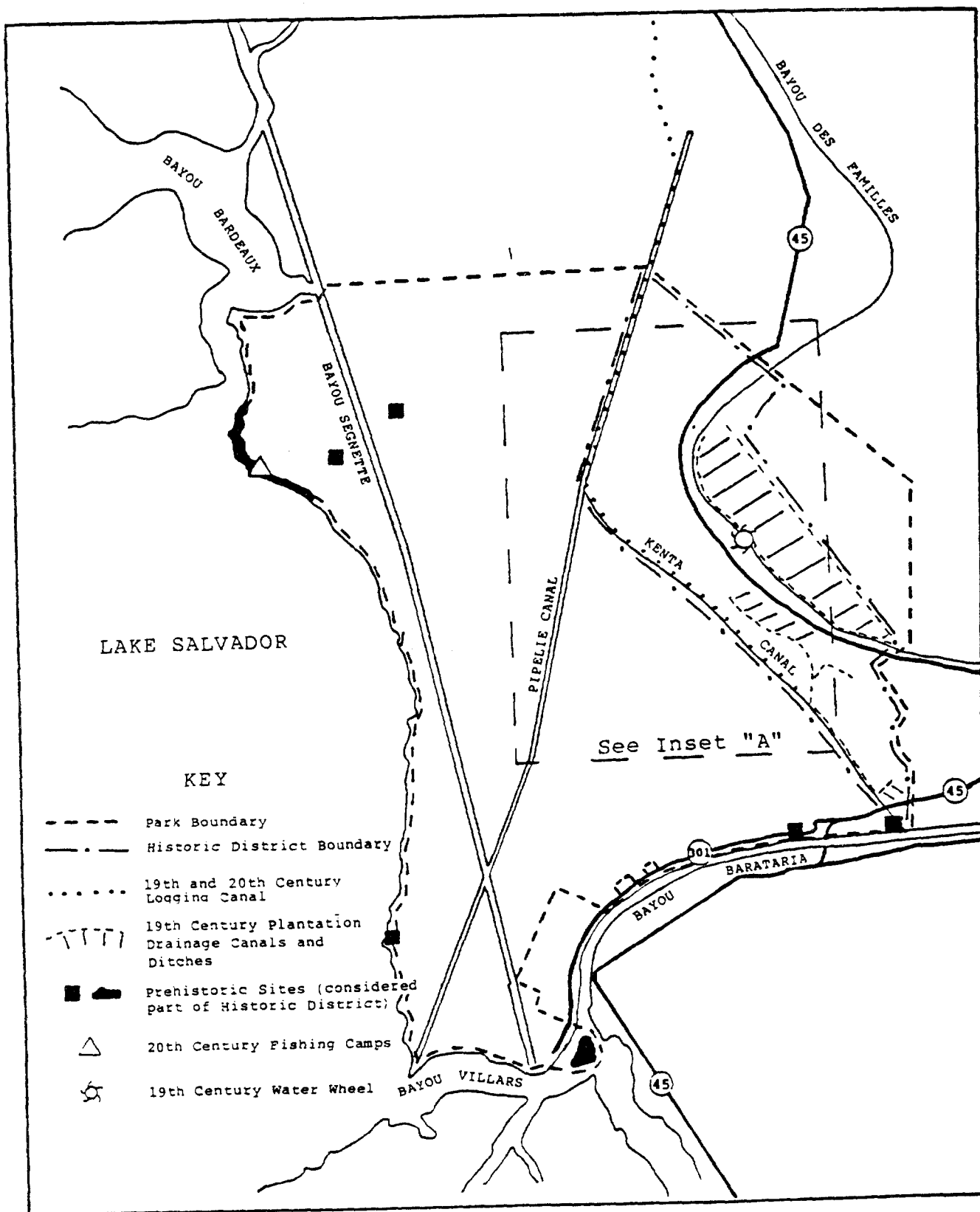


Figure 14. Map showing the location of sites in the Barataria Historic District (taken from Holmes 1984).

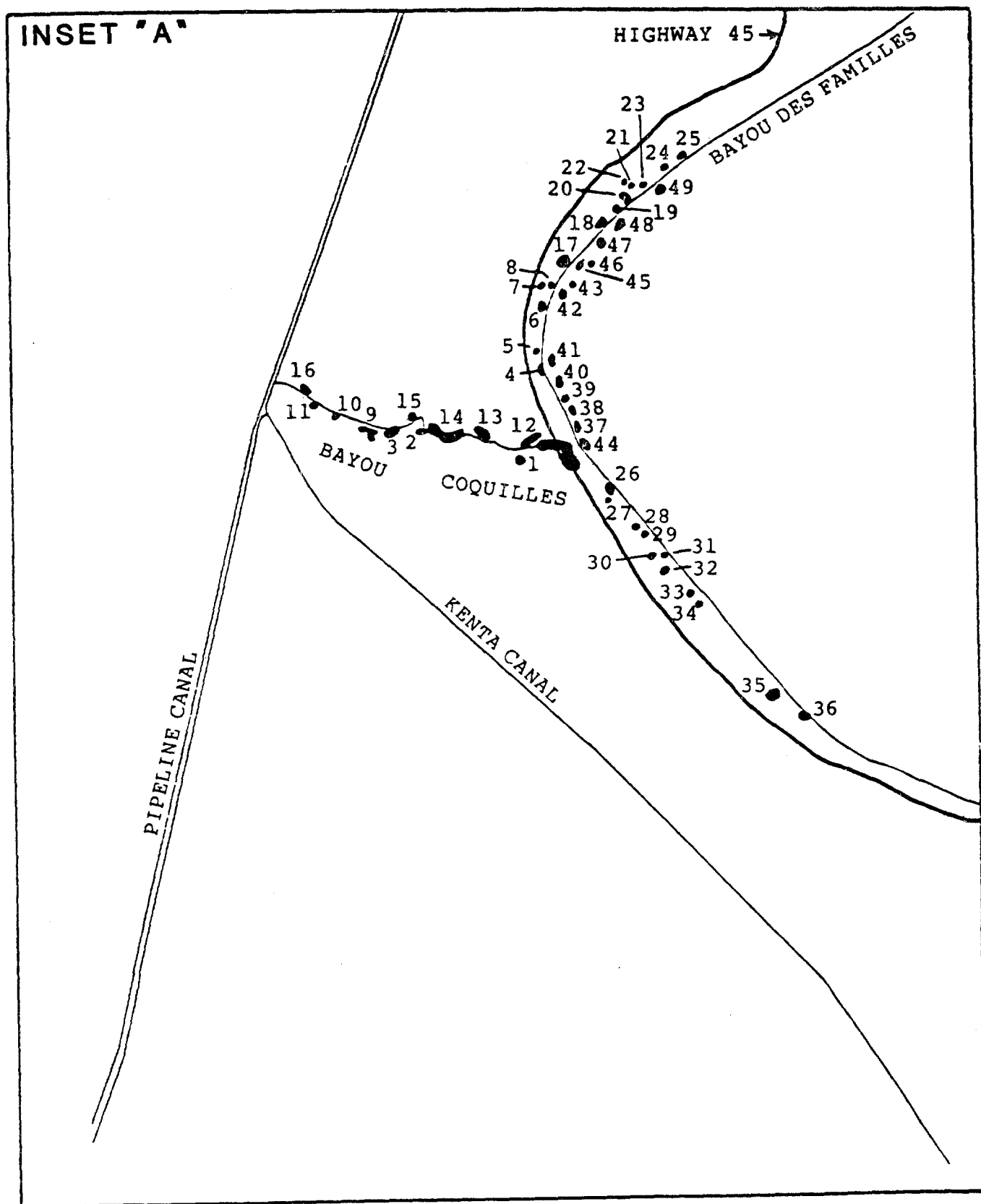


Figure 14 continued.

prehistory and history of the area. Loss of important sites outside the Park boundaries will result in a concomitant loss of information available from sites within the Park, thereby diminishing the total research potential.

Classification of Known Sites

Sites are classified in several ways according to different aspects of their known characteristics. The three main categories of archeological information applied here are temporal affiliation, form, and function. The temporal affiliation and form of each site is often difficult to determine without excavation. Table 8 gives the functional description and date of the prehistoric sites. In the case of sites with occupations in more than one period, the date refers to the period of the function listed. About half of the prehistoric sites are shellfish collection stations and middens with no evidence of occupation. The remaining prehistoric sites served as residences, burial locations, social and ceremonial centers, or some combination of these functions.

Residence refers to sites which are believed or proven to have served as living sites. Often this is determined by the quantity and nature of artifactual material found at the sites, rather than by evidence of structures. In many prehistoric stages, dispersed settlements were common. Therefore, it is expected that many small sites will contain residential components.

Burials refer to sites where human bone has been found. During Marksville times, Indians often built large burial mounds for their communities. In other periods, however, it was common to bury human remains at residences. Thus burials may be expected at sites which are not known to have a burial component.

Sites having social functions include large mound sites which served as the focal point of a community. Such sites are considered to have had ceremonial and special social functions, and perhaps to have served as the residences for the elite of a larger community. Such sites are not common in comparison to other types of sites.

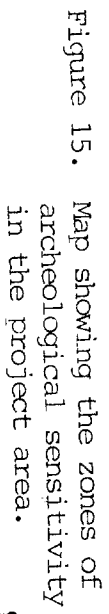
Site type gives the physical description of the site. Prehistoric sites are predominantly shell middens, composed of large quantities of Rangia cuneata shell and highly organic soil indicative of its function as a refuse deposit. Most sites in the Park are placed within this category. These sites include those that served as residences, as well as those which did not. In coastal Louisiana, Rangia shell middens are the most frequent type of site (Figure 15).

Table 8. Prehistoric Site Function and Date of Sites in the Park.

<u>No.</u>	<u>Period</u>	<u>Function</u>
16 JE 37	Marksville-Troyville	Multi-component residence; social center
16 JE 46	Coles Creek	Residence and burial
16 JE 61	Mississippian	Residence
16 JE 52	?	Residence
16 JE 56	Mississippian	Residence
16 JE 58	Marksville-Mississippian	Residence
16 JE 60	Tchefunte-Mississippian	Multi-component residence, burial, and social center
16 JE 64	Marksville	Residence
16 JE 74	Mississippian	Residence and burial
16 JE 75	Mississippian	Residence
16 JE 77	Troyville-Coles Creek	Residence
16 JE 78	Mississippian	Residence
16 JE 79	Marksville-Coles Creek	Residence
UNO 3	Coles Creek	Residence
UNO 7	Marksville	Residence
UNO 8	?	Residence
UNO 12	Troyville	Residence
UNO 13	Troyville	Residence and burial
UNO 14	Troyville	Residence
UNO 16	Troyville	Residence
UNO 25	?	Residence
UNO 47	Mississippian	Residence
UNO 55	Mississippian	Residence

All other prehistoric sites are shellfish collection station middens without residences.

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Earth mounds, which are not common in coastal Louisiana, served different purposes at various times. During Marksville times, earth mounds were burial mounds; however, during Coles Creek and Plaquemine-Mississippian times, earth mounds served as platforms for elite residences and religious structures.

Historic sites are described in Table 9. The occupation and use of the Park area was most intense during the nineteenth century. It is likely that the majority of historic sites date from that era. The variety of historic site functions includes residences, and agricultural and industrial sites. Residences include permanent and seasonal habitation sites such as houses for landowners, slaves and agricultural workers, and camps for hunters, trappers, and loggers.

Agricultural sites are related primarily to the mid-nineteenth century sugar industry. During this time, there was large-scale construction of buildings associated with sugar cane processing. At other times, agricultural production involved less specialized structures, none of which have been identified in the Park. The present knowledge of non-sugar agriculture in the Barataria region is poor; thus, it is not possible to know precisely the types of sites to expect.

Sugar and other large-scale agricultural land use involved the modification of the landscape. Sites, or features, that remain from these activities include canals and field ridges, both of which are visible in the Park. These remain as evidence of a significant period in the Park's history. Industrial activities have left their marks, primarily in the form of canals and radial-canals used in logging.

Site Prediction

Cultural ecology is defined by Bennett (1976:156) as "any inquiry into human relationships with the physical environment that seeks to understand the phenomena in terms of human purposes and activities." This inquiry is often concerned with subsistence activities. However, settlement data also reflect relationships with aspects of the physical environment, particularly in criteria used for selecting habitation locations. The physical environment, particularly resource availability and topography (land forms), influences where people live.

In reference to the Barataria Basin, Beavers (1982), on the basis of a small geographical sample, presented a settlement model based on "linearity of pattern." This predictive model, in its basic form, states that "distributary levee ridges equal high ground equal human occupation." Beavers expanded this model to

**Table 9. Historic Site Function and Date of Sites
in the Park.**

<u>No./Name</u>	<u>Period</u>	<u>Function</u>
16 JE 46	Colonial-20th Century	Residences, hunting camps
UNO 7	Colonial-19th Century	Residence (?)
UNO 35	19th Century (?)	Residence (?)
UNO 36	19th Century	Residence (?)
Christmas Water Wheel	19th Century	Agricultural
Pecan Grove Water Wheel	19th Century	Agricultural
Kinta Plantation	19th Century	Residence complex, sugar house
Christmas Planta- tion	19th Century	Residence complex, sugar house
Kenta Canal Camps	19th - 20th Century	Residences
Christmas Road camps	19th - 20th Century	Residences
Christmas planta- tion fields	19th Century	Agricultural
Kinta Plantation fields	19th Century	Agricultural
Kenta Canal	18th-20th Century	Agricultural, Logging, Transportation

include "elevated ground to live on, plus exploitative and communicative strategies and spatially related sites of a special function nature." According to Beavers (1982:101-104), village sites within the study area tend to be located at concentrations of elevated ground (levee ridge systems) at the intersection of two waterways. Smaller sites tend to be located near larger village sites. This locational patterning is exhibited from the Coquilles Site (16JE37) at Bayou Coquilles-des Familles moving southeast to Crown Point at Bayou des Familles-Barataria, southeast along Bayou Barataria to Isle Bonne and the Fleming site (Beavers 1982:104).

Holmes (1984:2) believes that historic resources in the Barataria Basin may be predicted on the same basis as prehistoric locations because of the similarities of the inhabitants' approach to the environment. She also notes that the distinction between architectural history and archeology is not applicable in this area.

Figure 13 provides the reader with the distribution and density of known sites in the study area. As can be seen, most sites are located in bottomland hardwood forests and forested swamps near linear waterways, except those that are near Lake Salvador. These latter sites include JE135, JE83, JE66, JE56, JE46, JE81, JE82, and UNO 55, which are located in the swamp (fresh water or intermediate).

In general, archeologically sensitive zones for the Barataria Basin (Figure 15) include those of high, medium, and low sensitivity. Zones of high sensitivity are within one-quarter mile of Lake Salvador's beach line. Zones of medium sensitivity are between one-quarter to one-half mile from a linear waterway and the beach line of Lake Salvador in the forested swamp areas. Low sensitivity zones are those in the intermediate swamp and brackish swamp.

CHAPTER V

RELIABILITY AND CONTRIBUTIONS OF PREVIOUS INVESTIGATIONS

This section focuses on pertinent archeological and historical investigations within the study area. The majority of previous investigations consisted almost exclusively of reconnaissance, survey, minor testing, and general surface collection. Although most of these investigations have not been problem oriented with specific research objectives, they have provided important data pertaining to specific locations of sites, to settlement pattern analysis, to clarifying the nature of the "Barataria Complex" of the Mississippian Period (16JE36, 16JE60, 16JE68), and to the formulation of future research objectives and of a regional archeological synthesis.

Only a few investigations have included test excavations. Excavations at the Fleming site have provided data aiding in the definition of Plaquemine-Mississippian ceramics of the Barataria phase. This site also has produced evidence of a unique occurrence of maize in the delta region. The extensive work conducted at the Coquilles site has resulted in valuable data concerning ceramics of the Marksville stage (Giardino 1984b). Other research conducted at this site has produced data regarding the existence of possible architectural remains of Marksville period residential structures. Dunn (1983) has provided important information on Coquilles ethnobotany.

Archeological surveys have resulted in the location of a large number of sites in the Core Area. Although geographic coverage of the area is good, it is possible that additional sites exist, specifically on the Bayou Barataria course. At present, little research has been conducted in the Park Protection Zone where there undoubtedly are undiscovered sites.

Despite increased archeological understanding of the Barataria in recent years, previous archeological research in general has manifested five basic deficiencies. These include: (1) Lack of published research results; (2) Poor distribution of research reports; (3) Lack of or incorrect classification of some temporal aspects; (4) Poor data control; and (5) Failure to coordinate research results such as site numbers and locations with the Louisiana Division of Archeology.

Research Summary

The following is a chronological research summary of pertinent investigations conducted within the study area.

Kniffen 36

- 1) Date of investigation: 1936
- 2) Location: Isle Bonne (16JE60), Fleming (16JE36)
- 3) Principal Investigator: Fred B. Kniffen
- 4) Purpose: To locate archeological sites and geomorphological features in Delta
- 5) Type: archeological and geological reconnaissance
- 6) Activity: surface collections and borings
- 7) Reference: A preliminary report on the Indian mounds and middens of Plaquemines and St. Bernard Parishes. Department of Conservation, Louisiana Geological Survey, Bulletin 8, pp.407-422. 1936.

Using ceramics collected from about fifty (50) sites in the lower Mississippi Delta, Kniffen defined two archeological phases, Bayou Cutler and Bayou Petre. Kniffen was attempting to achieve two goals: the temporal classification of archeological sites and determination of the geomorphological sequence of Mississippi delta lobes. Although his collections were largely surface scatters and were not taken from stratigraphic contexts, the collections were useful in the definition of the two ceramic phases.

McIntire 1958

- 1) Date of investigation: 1958
- 2) Location: Fleming (16JE36), Coquilles (16JE37), Chenier Grand Coquilles (16JE46)
- 3) Principal Investigator: William G. McIntire
- 4) Purpose: temporal-spatial framework of coastal Louisiana
- 5) Type: archeological survey of coastal Louisiana
- 6) Activity: survey, excavation (?)
- 7) Prehistoric Indian Settlements of the Changing Mississippi River Delta. Coastal Studies Series, No. 1. LSU, Baton Rouge, 1958.

McIntire's survey of coastal Louisiana was a major investigation of spatial and temporal patterns of the human occupation of coastal and delta sites. He did not report in detail methods used for testing sites, but excavations may have been conducted at some locales. In many cases, McIntire's temporal assessments have been redefined based on closer investigation of the sites and on

the refinement of ceramic typologies and chronologies.

Neuman 1974-1975

- 1) Date of investigation: 1974-1975
- 2) Location: Bayou Barataria-Bayou Perot
- 3) Principal Investigator: Robert W. Neuman
- 4) Purpose: locate archeological sites on Bayou Barataria and Bayou Perot
- 5) Type: archeological
- 6) Activity: helicopter and boat reconnaissance
- 7) Reference: Archeological survey of the Bayou Barataria-Bayou Perot Projects, Jefferson Parish, LA. Report for NOD, COE, USA. No date.

Neuman identified the locations of 16JE60, 16JE68, and 16JE36, but found no new sites in the vicinity of the Park. He reported that 16JE60 was being severely eroded by waterway boat traffic, and that 16JE68 was being "badly disturbed" by construction.

Holley 1977

- 1) Date of investigation: 1974-1976
- 2) Location: Fleming (16JE36)
- 3) Principal Investigator: George R. Holley
- 4) Purpose: data recovery
- 5) Type: archeological
- 6) Activity: excavation and analysis
- 7) Reference: Holley, G.R., G.B. DeMarcay, and N.H. Lopinot. Preliminary Report on the Prehistory of Barataria. Unpublished Manuscript, 1977.

This report documents the results of the excavations by the Louisiana Archaeological Society at the Fleming site. Excavations focused on a midden along Bayou Barataria (Area A), a large mound (Area B), a suspected midden (Area C), and on a non-midden area (Area D). Despite the inadequate recording of stratigraphic information from the excavations, the authors successfully identified Coles Creek, Plaquemine, and Mississippian occupations at the site; a radiocarbon date of 1095 ± 65 A.D. was obtained from a context that probably represents the terminal Coles Creek period. The authors defined the Barataria phase of the early Mississippian Period, and the localized Barataria Complex (16JE36, 16JE60, and 16JE68). A unique find was the presence of three burned corn cob fragments, the only maize yet found in the alluvial delta.

Gagliano 1975

- 1) Date of investigation: 1975
- 2) Location: Gulf Intracoastal Waterway
(Bayou Barataria)
- 3) Principal Investigator: **Sherwood M. Gagliano**
- 4) Purpose: Archeological resources survey and assessment
- 5) Type: archeological
- 6) Activity: surface collection, boat and pedestrian survey
- 7) Reference: Archeological Investigations along the Gulf Intracoastal Waterway: Coastal Louisiana area. Report for NOD, COE, USA. 1975.

This survey focused on relocation of previously recorded sites along Bayou Barataria, and on the evaluation of the impact of various destructive forces on these sites. Recommendations for mitigative action were made for two sites: 16JE60 and 16JE36, which were reported as being affected by boat-created wave erosion. Limited testing was recommended to determine the research value of threatened locations: 16JE53, 16JE54, and 16JE68. In addition, the Bayou Villars-Bayou Barataria junction was identified as a highly significant archeological location. Data specific to the above mentioned sites were not reported.

Shenkel 1975

- 1) Date of investigation: 1975
- 2) Location: Bayou des Familles Flood
Protection Levee Zone
- 3) Principal Investigator: **Richard Shenkel**
- 4) Purpose: reconnaissance
- 5) Type: Archeological
- 6) Activity: transect survey
- 7) Reference: Archeology section. Draft Environmental Impact Statement for Bayou des Familles Development Corporation Flood Protection Levee in South-Central Jefferson Parish, LA. Report for NOD, COE, USA. 1975.

Shenkel's survey was not within the Park itself, but it was adjacent to its north and east boundaries, above the V-levee. The reconnaissance was conducted in transects spaced 25 to 50 meters apart across the project area; two small sites (16JE61 and 16JE62) were identified. This report mentions several sites in or near the Park; data are reported for some of these. Notable information includes the presence of early French, English, and German artifacts at 16JE46, as well as the presence of post-

Marksville and pre-Plaquemine materials at 16JE56. Specific data or collections were not reported.

Neuman 1975

- 1) Date of investigation: 1975
- 2) Location: Bayou Segnette Waterway
- 3) Principal Investigator: Robert W. Neuman
- 4) Purpose: locate archeological sites on Bayou Segnette Waterway
- 5) Type: archeological
- 6) Activity: boat survey
- 7) Reference: An archeological survey of the Bayou Segnette Waterway, Jefferson Parish, LA. Report for NOD, COE, USA. No date.

Neuman conducted a survey of the waterway in the Park area, but failed to locate any previously reported or new sites.

Gagliano 1979

- 1) Date of investigation: 1979
- 2) Location: Bayou Segnette Waterway, Bayou Barataria
- 3) Principal Investigator: Sherwood Gagliano
- 4) Purpose: Archeological resources survey
- 5) Type: archeological
- 6) Activity: survey, surface collection, shovel testing, excavation
- 7) Reference: Cultural Resources Survey of the Barataria, Segnette, and Rigaud Waterways, Jefferson Parish, LA. Report for NOD, COE, USA, Contract No. DACW29-77-D-0272.

This report presents the results of an extensive archeological survey and analysis of the eastern Barataria region. The survey located all previously reported sites in the survey corridor; the report presents data on these sites, including detailed ceramic discussions for many collections. These data provide the basis for a well-documented settlement, temporal, and spatial distribution analysis of the area. An excellent data presentation and prehistoric settlement analysis also are supported by a summary of the geomorphology and ecology of the Barataria Basin. Although the study is primarily an assessment of the impact of dredging operations, it provides an overall data base for the region. Recommendations on mitigation and investigation of threatened sites were made.

More than seventy-five (75) sites were identified, and most were described. Data are presented on several sites in or near the

Park, including: 16JE55, 16JE56, 16JE82, 16JE46, 16JE60, 16JE68, 16JE36, 16JE53, 16JE54, 16JE80, and 16JE83. Information on many other sites is incorporated in this regional summary. This is a very important research tool.

Beavers 1982

- 1) Date of investigation: 1982
- 2) Location: Coquilles site (16JE37)
- 3) Principal Investigator: Richard Beavers
- 4) Purpose: assessment of impact of parking lot construction
- 5) Type: data recovery
- 6) Activity: excavation
- 7) Reference: Data recovery for area of adverse impact by proposed public access facilities, the Barataria Basin Marsh Unit-Core Area. Report for NPS, Order No. 7530-1-0174. 1982.

This report details data recovery excavations at the Coquilles site. Detailed data, including reports of artifacts and proveniences, are presented. The locations of significant archeological deposits were identified, and recommendations were made concerning modification of proposed work. The occupations of the site were determined to belong to the Marksville period. Data indicated that following a flood episode during the Marksville period, the village was re-established. Locations of postmolds, possibly from domestic structures, were delineated; also, a large sample of Marksville ceramics was collected and analyzed. The test units from the 1982 excavations at the Coquilles have not yet been backfilled.

DeMarcay 1982

- 1) Date of investigation: 1982
- 2) Location: Isle Bonne, 16JE60
- 3) Principal Investigator: Gary DeMarcay
- 4) Purpose: data recovery
- 5) Type: archeological
- 6) Activity: excavation
- 7) Reference: Isle Bonne, 16JE60, and the Troyville and Coles Creek Periods in the Barataria Basin. Paper presented at the 8th Annual Meeting, Louisiana Archaeological Society, Thibodaux.

Excavation at area B, a purported mound, revealed that this feature was part of a subsided levee ridge. Ceramics were collected and dated to the Troyville period, Bayou Cutler phase. Earlier excavations by the Louisiana Archaeological Society at this same

mound and at another mound have not been analyzed or reported.

Dunn 1982

- 1) Date of investigation: 1982
- 2) Location: Coquilles site (16JE37)
- 3) Principal Investigator: **Mary Dunn**
- 4) Purpose: assessment of plant resources at Coquilles site
- 5) Type: archeo-ethnobotany
- 6) Activity: field botanical survey
- 7) Reference: Coquilles Flora (Louisiana): An Ethnobotanical Reconstruction. Economic Botany 37:349-359.

Dunn describes the components of the plant community at the Coquilles site and identifies plants known to have been used by proto-historic Indians. These plants and their uses are detailed. An inventory of all plants identified at the site is presented. Dunn proposes that the plants used by man were present in prehistoric times when the site was inhabited.

Lamb 1982

- 1) Date of investigation: 1982
- 2) Principal Investigator: **Teresia Lamb**
- 3) Location: 16JE53, Boudreaux site
- 4) Purpose: data recovery
- 5) Type: archeological
- 6) Activity: excavations
- 7) Reference: Preliminary report on excavations at the Boudreaux site, 16JE53. Paper presented at the 8th Annual Meeting, Louisiana Archaeological Society, Thibodaux.

This paper was not located; data summarized from secondary sources.

Holmes and Birkedal 1983

- 1) Date of investigation: 1983
- 2) Location: Coquilles Site, 16JE37
- 3) Principal Investigators: **Barbara Holmes, Ted Birkedal**
- 4) Purpose: assessment of construction activities impact on Coquilles Site
- 5) Type: archeological
- 6) Activity: Auger tests, excavation
- 7) Reference: Reports, notes, and maps on file at JLNHP.

The investigators monitored the excavation of a utility trench at the site's eastern edge. Documentation of the midden deposits was undertaken, along with collection of a series of C-14 samples dating from A.D. 280 to A.D. 1170. No features were recorded, and no serious adverse impact was determined. The investigators also tested portions of the western side of the site. Excavations in this area located a series of postmolds in a midden 200 feet west of the road. Auger tests in the vicinity of a small crevasse on Bayou Coquilles located no significant subsurface remains. These brief investigations have helped refine the stratigraphy and dating of the site, but the information has yet to be integrated into other data sets.

Gendel 1984

- 1) Date of investigation: **1984**
- 2) Location: Kenta Canal
- 3) Principal Investigator: **Peter Gendel**
- 4) Purpose: assess impact of boardwalk construction
- 5) Type: archeological
- 6) Activity: survey (boat and pedestrian)
- 7) Reference: Archeological Survey of a Back Country Trail Right-of-Way Along the Kenta Canal, Barataria Unit, JLNHP. Report prepared for NPS, Order No. PX7430-4-0097.

This survey was conducted to locate high-profile archeological resources in a narrow six foot corridor along the bank of the Kenta Canal. The construction of a boardwalk path would result in minor subsurface disturbance, and it was determined that there would be no adverse archeological impact. The entire length of the canal was surveyed and no sites were located.

Giardino 1984

- 1) Date of investigation: **1984**
- 2) Location: Bayou Coquilles (16JE37)
- 3) Principal Investigator: **Marco Giardino**
- 4) Purpose: Ceramic classification of Marksville pottery
- 5) Type: ceramic
- 6) Activity: ceramic analysis (material excavated by R. Beavers 1982)
- 7) Reference: Report on the ceramic materials from the Coquilles site (16JE37) Barataria Unit, JLNHP. Report for NPS, Order No. PX7029-4-0411. 1984.

Utilizing the ceramic collection excavated by Beavers et al. (1982) at the Coquilles site, Giardino was able to date the site to Marksville and Troyville-Coles Creek times. Giardino also attempted to determine if the ceramics indicated the possibility of an early or late Marksville occupation. He concluded that the temporal markers used elsewhere in Louisiana were not present or were not identifiable at this site. This report presents the basic data and analysis for the definition of Marksville occupation in southeastern Louisiana.

Holmes 1984

- 1) Date of investigation: 1984
- 2) Location: Barataria Unit, JLNHP
- 3) Principal Investigator: Barbara Holmes
- 4) Purpose: historical and archeological overview of Park Unit
- 5) Type: documentary and Historical
- 6) Activity: none
- 7) Reference: Historic Resource Study of the Barataria Unit of JLNHP. Professional Papers, No. 5, Southwest Cultural Resources Center, Southwest Region, NPS.

Holmes presents a detailed summary of the archeology and history of the Barataria Unit and surrounding vicinity based largely on primary historical research. The archeology section does not cover each site in detail; rather, it discusses the major sites. The historical coverage is extensive and constitutes the only synthesis of documentary data on the Park. In addition, several historic sites and features are described, and some are identified. The report contains a complete National Register of Historic Places form nominating the Park Unit as an archeological district. The bibliography covers all the relevant historical sources on the area. This report is the singularly most important resource on the historic period within the Park.

Goodwin 1985

- 1) Date of investigation: 1985
- 2) Location: Pipeline Canal; Kenta Canal West; Kenta Canal Extension/Visitor Center Loop; Old Barataria Road; Big Woods Loop/ V-Levee Loop
- 3) Principal Investigator: R. Christopher Goodwin
- 4) Purpose: assess the impact of trail construction
- 5) Type: archeological/historical
- 6) Activity: pedestrian survey, shovel testing

- 7) Reference: A Cultural Resources Survey of the
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This survey was conducted to assess the impact of the proposed construction of a series of boardwalk trails in the Park. The impact corridor was approximately six feet wide, and subsurface disturbance would be six inches to two feet. No archeological remains were located within the corridors, and no impact would result from construction. Shovel testing at points of high archeological potential located no subsurface remains of archeological significance. Shovel testing also was conducted in areas of low surface visibility. Although the survey determined that there would be no impact from the construction, two sets of archeological data were located. On the Big Woods Loop there are the relict cane rows and field drainage ditches of the Christmas Plantation. At the junction of the Old Barataria Road trail and Highway 45, eighty meters to the east, is the site of an early twentieth century residence.

CHAPTER VI

ARCHEOLOGICAL RESOURCES ASSESSMENT

All archeological resources provide information regarding past human behavior. The information that may be derived from investigation of archeological resources is related directly to the formulation of specific research questions and goals. In a general sense, the prehistoric and historic resources of the Barataria Unit of Jean Lafitte National Historical Park provide an excellent opportunity for studying man's relationship to a coastal ecozone, specifically a deltaic plain of relatively recent geologic origin. Sites in the area span a time period of some 2,500 years and represent a relatively continuous cultural sequence of adaptation to a unique environment.

As presented in the management summary, studies concerning cultural history and culture processes in the Barataria Basin including JLNHP may include: (1) diachronic patterns of settlement, primarily during the Troyville-Coles Creek period; (2) identification of trade and resource networks that existed from the Poverty Point period through the Historic period; (3) identification of the source for ceramics during Tchefuncte period; and, (4) identification and study of social, cultural, and political networks that existed during the various stages. Another fruitful area of research is environmental reconstruction which would enable a discussion of the various subsistence strategies and technologies utilized by each group. A specific area for in-depth analysis is the exploitation of various floral and faunal communities that are and were contiguous in the area. Particular emphasis should be directed toward faunal and floral analyses, since the nature of prehistoric diets is not well understood. Dietary information is directly related to nutrition and demography. Also, geographically oriented investigations of the backswamp (16JE56) and lakeshore D(16JE46) areas, as well as other areas thought to be sensitive, could provide insight into settlement distribution and subsistence resource bases. Such studies will contribute not only to the understanding of prehistory in the Barataria Basin, but will further the understanding of prehistory in southeastern Louisiana in general.

Interpretive Potentials

The JLNHP was established in 1978 to preserve the natural and cultural resources of the southeastern Louisiana delta region, and to increase public awareness of these valuable resources. As such, JLNHP has developed a variety of visitor and education services and activities within the study area; these include

hiking trails, picnic areas, and a visitors' center. The area provides visitors with excellent opportunities to view a variety of wildlife in their natural habitat, including muskrat, otter, nutria, over 216 species of birds, and at least forty species of reptiles and amphibians. The area also provides the opportunity to view a variety of major vegetative types ranging from hardwood forests to marsh areas. Finally, the Park provides evidence and examples of past human occupation.

Due to the richness of the study area, interpretive potentials are many and diverse. Areas of interpretive focus can be divided into two general categories: an indoor museum and an open-air museum. The general theme for both should continue to focus on man's adaptation and relationship to the environment. Areas of presentation should supplement those already in existence. These might include:

1. Exhibits and displays, perhaps small scale models, showing the geological formations in the area, settlement patterns, and site distribution.
2. Diagrams showing possible trade route systems into the area.
3. Diagrams showing attribute classifications of ceramics and projectile types found.
4. Examples and explanations of artifactual material showing the various types--knife forms, decorative objects, etc., as well as materials utilized from shell, bone, stone, etc.
5. Diagrams of archeological investigations, i.e. excavation techniques, stratigraphic layers, chronological reconstructions, etc.
6. Exhibits containing plant and animal materials utilized by human occupants of the area.

Evaluation of Sites Potentially Eligible for the National Register of Historic Places

The following compilation provides a listing of those sites in the Barataria area considered to be potentially eligible for the National Register of Historic Places.

<u>Site</u>	<u>Reason for Evaluation</u>
16JE37	A major Marksville center which has midden deposits <u>in situ</u> and probably has remains of residential structures. Occupation may span from Marksville to Coles Creek periods, based on ceramic and C-14 evidence.
16JE46	Although this site is heavily damaged by erosion, it may contain intact midden deposits. Early colonial artifacts and prehistoric burials have been reported.
16JE52	This site has been reported to be well preserved, although subsided (Gagliano et al. 1979); it may have stratified deposits of Troyville through Mississippian periods.
16JE58	Although impacted by dredged material, this site may have Marksville through Mississippian period deposits.
16JE60	This is a major late prehistoric site which formed a part of the Plaquemine/Mississippian site focus at Bayou Villars. Excavations have revealed <u>in situ</u> middens, possible residence mounds, and a burial.
16JE77	This is a Troyville-Coles Creek residential site which may help shed light on this period.
16JE79	This is a a residential site which contains Marksville through Coles Creek materials.
UNO 7	This site includes an early historic component, which could help clarify the history of the region during this period.
UNO 13	This is a Troyville residence and burial site.

Kenta and Christmas Plantations

If these two sites could be defined, archeological remains could help explain the early failure of sugar industry in the Barataria Basin and generally elucidate mid-nineteenth century lifeways.

CHAPTER VII

RESEARCH PRIORITIES AND INTERPRETIVE NEEDS

Because of the number and diversity of archeological resources within the study area, important research and interpretive potentials exist. However, due to a variety of constraints (e.g., financial), it may not be feasible or pragmatic to expect every research or interpretive potential of the study area to be met immediately. Therefore, it is necessary to suggest research and interpretive areas most relevant to the Park's overall management objectives and priorities. The Park's overall management plan may be summarized as a generalized attempt to address and present the relationships and interactions of man with a deltaic environment. At present, a visitors' center in the study area contains a variety of interpretive materials. Audio-visual materials include programs on the geomorphology and environment of the Mississippi River, and the delta. Exhibits provide information on man's relationship to the delta region including settlement patterns and resource utilization. Wayside areas include Wagner Bridge, Jones Point, and Bayou Coquilles. Each of these areas contains pertinent information relating to the archeology, history, geomorphology, and biology of the region. Also present within the study area are a number of interpretive trails. In order to maximize the development of research and interpretive potential, it is suggested that management focus on those areas where inadequate data exist. These include, but are not limited to, the following:

1. Patterns of settlement for the Troyville-Coles Creek stages. These are important areas of consideration for the understanding of man's occupation of the area. Research conducted in these areas could fill some of the gaps that exist in our understanding of man in southeast Louisiana.
2. Subsistence strategies and site assemblages. The focus of these studies should be directed toward faunal analysis, floral analysis, and settlement pattern reconstruction.
3. Historic locations. Emphasis should be directed toward the Early Historic period as well as the rise and fall of the sugar industry, to conditions existing prior to the sugar industry, to analysis of the sugar industry itself, and to the change in population and settlement patterns after the decline of the sugar industry.

4. Geographically, particular attention should be paid to backswamp (16JE56) and lakeshore (16JE46) areas, as well as to areas of high sensitivity. Attention also should focus on the Park Protection Zone, since little work has been conducted in this particular area; the precise location of suspected historic period sites also should be determined.

Protection and Mitigation of Threatened Resources

Archeological sites constitute a limited, fragile, and non-renewable resource. Without appropriate data recovery, vital information may be lost forever. Due to the irreplaceable and unique nature of archeological sites, great care should be taken to protect these resources. In general, there are two types of impacts: direct and indirect. Direct (primary) impact refers to activity that results in physical damage and/or destruction to an archeological site or to components of that site. Indirect (secondary) impact refers to activities that do not impinge directly on archeological resources but that result in effect by altering their physical environment and/or setting.

Tables 6 and 7 indicate impacts on existing sites. The goals of any effective management program should include a variety of mitigative measures. In reference to sites affected by direct or indirect impacts, the JLNHP cultural resource management program should:

- a) have an overall research design;
- b) allow for the protection of a representative sample of prehistoric and historic properties for future investigations;
- c) reduce the rate of site attrition caused by manageable impacts, for example backfill open sites; and,
- d) provide an effective public information program regarding the resources.

Appropriate mitigative measures for the Barataria Unit include:

- 1) No action. This measure is self-explanatory; however, without some form of protection, cultural resources will continue to degrade. This measure is

totally unacceptable and would defeat the intent of establishing the JLNHP.

- 2) Selective avoidance of sites. If avoidance is not possible, then the site should be mitigated if regarded by professionals to be significant.
- 3) Reduce or alleviate impacts. In those instances where direct and indirect adverse impacts cannot be avoided, some form of mitigative measure should occur. Appropriate mitigative measures range from systematic surface collection to total excavation depending on the significance and research potential of the site. Any form of data recovery should be structured and oriented to retrieve the more important data contained within a site.

National Register of Historic Places Recommendations

Three options exist regarding NRHP recommendations for the study area. The first option, as suggested by Beavers et al. (1982) and Holmes (1984), is to nominate the entire Barataria Unit as an archeological district. The second option is to nominate individual sites within the JLNHP. The third option is to nominate a number of sites as a single or multithematic discontinuous National Register District.

The second option is undesirable, and should be rejected, because it has the potential both to remove individual sites from their regional context and to create a virtually unending nomination and review process. It will not adequately protect cultural resources, nor foster interpretation. Option 3 could have the effect of protecting important sites while freeing the intervening space from restrictive covenants. However, the definition of a discontinuous district that could afford protection to representative sites of all periods and cultures would require more thorough analyses and assessments of sites than are presently available or likely in the foreseeable future. Although the contiguous district option (Option 1) in effect places restrictive covenants on sites and intervening space, given the preservation mission of the Park this option is neither onerous nor impractical. Until such time as sufficient data are available to permit characterization of a viable discontinuous district, Option 1 remains the best management plan.

Regardless of which option is deemed appropriate, the following sites should be considered as potentially eligible for the National Register:

16JE46 represents good potential for intact prehistoric and early historic deposits as well as burials;

16JE56 is a very well preserved site and possibly spans several temporal periods from Troyville through Mississippian;

16JE60 provides monumental constructions, intact middens, burials, and good stratigraphy;

16JE77 and 16JE79 provide data on multi-period residences and middens;

UNO 7 may contain early historic period materials;

Kenta and Christmas Plantations have not yet been located, but they are believed to be within the Park boundaries;

L'Hermitage may be located within the Park boundaries; it is considered to be an early important site of unknown function.

CHAPTER VIII

KEY MANAGEMENT CONCERNS

A management plan for the Jean Lafitte National Historical Park has been developed to maximize the research and interpretive potential of the area, and, at the same time, protect and preserve significant cultural resources within the Park. As previously stated, all of these potential research and interpretive areas can not be addressed immediately, nor can every site be mitigated; therefore, it is necessary to identify the key management concerns for future development of Jean Lafitte National Historical Park. These concerns are:

1. Research/Interpretive Potential

Future research has the potential to contribute to our understanding of the cultural ecology of a deltaic environment during prehistoric and historic times. Further research in turn will allow the Park to update and to improve existing exhibits, as well as to develop new interpretive programs for visitors. In order to utilize resources available for future research, it has been suggested in this report that management focus on areas where inadequate data exist. As previously discussed, these include, but are not limited to, the following issues:

- a. **Settlement Patterns** during the **Troyville-Coles Creek** period.
- b. **Prehistoric Subsistence Strategies.**
- c. **Historic site locations.**
- d. Geographically significant areas including **backswamps, lakeshores, and the Park Protection Zone.**

2. Impacts

A prime concern of cultural resource managers must be impacts to archeological resources. Archeological sites constitute a fragile and non-renewable resource. Therefore, efforts must be made to avoid adverse impacts to sites whenever possible. As previously discussed, impacts may be both direct and indirect. Those pertinent to the Barataria Unit (JLNHP) are outlined below:

Direct:

- a. Development of **Park (JLNHP) facilities** including roads, trails, and buildings, etc.

- b. Construction of **environment altering structures**, i.e. dams, levees, canals, etc.

Indirect:

- a. Visitor use of facilities.
- b. Changes in hydrology as a result of construction.

Natural:

- a. Naturally occurring **geomorphological changes**, i.e. erosion, subsidence, siltation, etc.

3. Mitigation

As stated above, archeological sites represent a non-renewable resource; therefore, a management program must include measures for site mitigation (i.e. the alleviation of the effect of impacts). A number of options are available to managers in determining the type of mitigation necessary for a particular site. These include:

- a. **Avoidance.** Wherever possible, future development should be structured around significant archeological sites, thus eliminating site disturbance and alleviating the need for further mitigative measures.
- b. **Data Recovery.** When avoidance of a significant site is not possible, it is essential that all available information be recovered prior to the disturbance. Such investigations should be carried out within the confines of an explicit research design.
- c. **Protection.** Adverse impact to sites can be mitigated through active maintenance, i.e., stabilization, backfilling, etc., and through public education program.

4. Significance

An assessment of the significance of a site is essential to the processes of any cultural resources management program. The determination of significance allows the assessment of the site's research and interpretive potential, and the design of appropriate mitigative action. All site evaluations for significance are based on the criteria established for the National Register of Historic Places [36 CFR 60.4(a-d)]. These criteria are:

- a. an **association with events** that have made a significant contribution to history;
- b. an **association with a person** significant to history;
- c. the reflection of the **distinctive characteristics** of a type, period, method of construction, master, or high artistic values; and,
- d. the ability to **yield information important in prehistory or history** (i.e., human adaptations to deltaic environments).

Summary

To reiterate, there are four key areas of concern for cultural resource managers at the Barataria Unit (JLNHP). These are:

1. **Research/Interpretive Potential of Cultural Resources.**
2. **Potential Impacts to Cultural Resources.**
3. **Mitigation of Adverse Impacts.**
4. **Significance of Cultural Resources.**

Consideration of these key concerns will assure the future conservation and preservation of significant archeological information within the Park, thereby contributing to the interpretive potential of the Barataria Unit, Jean Lafitte National Historical Park.

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Swanton summarizes knowledge of Indian tribes in Louisiana
including their history after European contact, their
customs, technologies, and lifeways.

**APPENDIX I: KEY TO AVAILABLE ARCHEOLOGICAL COLLECTIONS
FROM THE BARATARIA BASIN**

Collections may be accessed as:

LSU: Department of Anthropology
Louisiana State University
Baton Rouge, Louisiana

UNO: Department of Anthropology
University of New Orleans
New Orleans, Louisiana

CEI: Coastal Environments Inc.
1260 Main Street
Baton Rouge, Louisiana

Key to Available Archeological Collections from the Barataria Basin.

<u>Site</u>	<u>Site Type</u>	<u>Occupations/ Components</u>	<u>Collections</u>	<u>Photos</u>	<u>Impact</u>
16JE36	Plantation House Cemetery Indian Mound Historic	Marksville (Yokena & Churupua Punctate). Early Coles Creek Early Mission	LSU Cat. #'s 52-242 9636, 16 JE36-H040	LSU R68-12/21/22 R68 L4:7-10, N 69-L13:7	vandalism, erosion, riprap on part of bank
16JE37 Crown Pt. [Same as UNO 57]		Marksville to Coles Creek	DAHP 76/551 52-243	16JE37- 1 to 10	
16JE46 [Same as UNO54]	Shell beach	Mississippian, pre- historic burials, historic	LSU 52-379 UNO, CEI Cat. 5436- 5451	UNO	heavily damaged by lake wave erosion
16JE52		Troyville- Mississippian	none	UNO	slight subsidence
JE53		Early Coles Creek	CEI		Boat docks
16JE54 [once part of JE 60]		Late mission, same sherds may indicate a unique link with area north of Vicksburg	CEI		
JE55 [Same as UNO 56]	Shell midden?	?	none	UNO 1981	

<u>Site</u>	<u>Site Type</u>	<u>Occupations/ Components</u>	<u>Collections</u>	<u>Photos</u>	<u>Impact</u>
JE56 [Same as UNO52]	Shell ridge	Post Marksville, pre- flag historic, mission assemblage unique ties to north, good in situ material	UNO 1972 CEI cat. #5315-5317	UNO 1981 UNO 1981	
JE60 [Same as UNO53]	Habitation	Initial Tchula Early to late Marksville, Early Coles Creek- Mississippian	CEI Cat # 5794-5851 UNO	UNO 1981	
JE64 [also known as UNO 1]	Shell midden	Possible Marksville	UNO	UNO, 1981	
JE74 UNO49	Shell "mound"	Troyville-Coles Creek	Loumier UNO	UNO 1981	excavated
JE75 [Same as UNO 48]		Troyville-Coles Creek	UNO	UNO 1981	
JE76					
JE77 [Same as UNO 45]	Shell ridge/ mound	Troyville-Coles Creek	UNO	UNO 1981	
JE78 [Same as UNO 40]		Mississippian?	UNO	UNO 1981	test pit?
JE82		Early mission	CEI #4366 CEI 4367- 4370, 4501- 4502		

APPENDIX II: Archeological Field Reports on the Barataria Basin

Archeological Field Reports on the Barataria Basin.

<u>Year</u>	<u>Principal Investigator</u>	<u>Survey Method</u>	<u>Area</u>	<u>References</u>	<u>Results</u>
1936	Kniffen	Surface collection and borings	Isle Bonne 16JE60 Fleming 16JE36	Kniffen 1936	Definition of Bayou Cutler and Bayou Pitre phase.
1958	McIntire	Survey, excavation(?)	Fleming 16JE36 Coquille 16JE37 Chenier Grand Coquille 16JE46	McIntire 1958	Major investigations of spatial and temporal patterns.
1974-75	Neuman	Helicopter and boat reconnaissance	Bayou Barataria Bayou Perot	Neuman n.d.	Identified the location of 16JE60, 16JE68, 16JE36. No new sites located.
1975	Neuman	Boat survey	Bayou Segnette Waterway	Neuman n.d.	No new sites located.
1975	Gagliano	Surface collection	Gulf Intracoastal Waterway, (Bayou Barataria)	Gagliano 1975	Located previous sites, evaluated impacts.
1975	Shenkel	Transect survey	Bayou des Familles Flood protection levee zone	Shenkel, 1975	No sites in survey area, 16JE61, 16JE61, 16JE62 identified.
1977?	Holley	Excavation analysis	Fleming 16JE36	Holley et al. 1977	Coles Creek, Plaquemine, Mississippian occupations, R.C. date 1095+65 A.D. from probable terminal Coles Creek context. Defined Barataria Phase of the early Mississippian period and the localized Barataria Complex. 3 burned corn cob fragments.
1979	Gagliano	Survey/testing	Bayou Segnette Waterway	Gagliano et al. 1979	Located all previously reported sites. Detailed ceramic discussion, prehistoric settlement analysis.

1980	DeMarcay	Excavation/survey	Isle Bonne 16JE60	DeMarcay 1982	Identified area B, part of a subsided levee ridge. Ceramics dated to Troyville period Bayou Cutler Phase.
1982	Beavers	Excavation	Coquille Site 16JE37	Beavers et al. 1982b	Marksville postmold and ceramics.
1982	Beavers	Survey/site testing	Bayou Coquille, Bayou des Familles Bayou Barataria Lake Salvador	Beavers et al. 1982	Identified 55 sites - 30 previously unrecorded.
1982	Dunn	Botanical survey	Coquille Site 16JE37	Dunn 1983	Identification of plants used by proto historic Indians. Inventory of all plants identified at the site.
1983	Holmes	Documentary/historical	Barataria Unit JLNHP	Holmes 1983	Detailed summary of archeology and history of Barataria Unit.
1984	Gendel	Survey	Kenta Canal	Gendel 1984	No sites.
1985	Goodwin	Survey/shovel testing	Pipeline Canal; Kenta Canal West, Kenta Canal Extension/ Visitor Center Loop	Goodwin 1985	No significant cultural resources. Big Woods loop - relict cane rows and field drainage ditches of the Christmas Plantation junction of Old Barataria Road Trail and Highway 45 - site of early 20th c. residence.
1984	Giardino	Ceramic analysis excavated by Beavers 1982	Bayou Coquille 16JE37	Giardino 1984	Marksville and Troyville -Coles Creek.
?	Lamb	Excavation	Boudreaux site 16JE53	Lamb 1983	Preliminary findings.
?	Holmes, Birkedal	Auger tests, excavation	Coquille site 16JE37	Holmes & Birkedal 1983	C-14 dates A.D. 280-A.D. 1170 - eastern edge; postmolds in midden - west end.

