TERRE HAUTE DE BARATARIA



An Historic Upland
on an Old River Distributary Overtaken by Forest
in the **BARATARIA UNIT** *of the*
JEAN LAFITTE NATIONAL HISTORICAL PARK AND PRESERVE

by

Betsy Swanson

JEFFERSON PARISH 1825

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An Historic Upland on an Old River Distributary Overtaken by Forest in the BARATARIA UNIT of the JEAN LAFITTE NATIONAL HISTORICAL PARK AND PRESERVE

by

Betsy Swanson

with natural history contributions by

David P. Muth

and

archaeological contributions by

Herschel A. Franks

Richard S. Fuller

Marco J. Giardino

Charles E. Pearson

Jill-Karen Yakubik

Avant-propos by

Msgr. Henry C. Bezou

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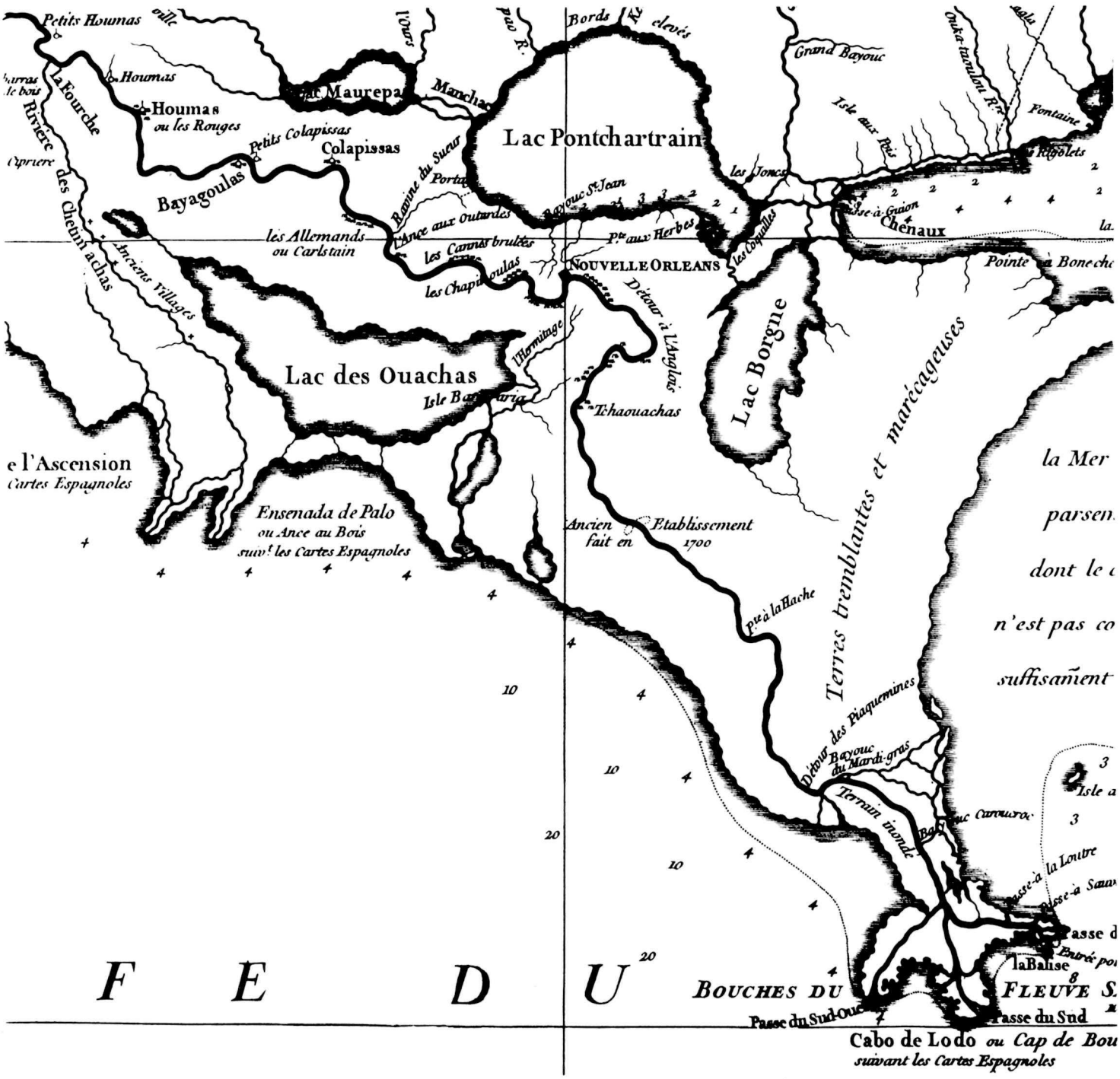
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Jean-Baptiste Bourguignon d'Anville, *Carte de la Louisiane*, drawn May 1732, published 1752, Paris. Detail showing the Mississippi River Delta. LC/TUL.

AVANT-PROPOS

At his most optimistic, the pioneer chronicler Antoine Simon Le Page Du Pratz (1690-1776) hardly could have envisioned, at the time of his exploration of Louisiana (1718-1734), that a portion of the relatively small area in the western part of the Mississippi River Delta known as Barataria would become an attractive unit of a national park. Since its opening in 1980, the unit, which will eventually comprise 12,000 acres, has become a mecca, drawing three quarters of a million nature lovers in the year 1988 alone.

Le Page Du Pratz described a wilderness that had barely been sketched on early French maps. He probably had access to the 1718 map of Guillaume de Lisle, with its primitive but fairly clear identification of the delta and the mouth as well as some distributaries of the Mississippi. The de Lisle chart shows the area west of the river filled with interconnected lakes. Le Page was probably familiar with other maps, such as d'Anville's of 1732 which locates the Isle Barataria.

Le Page's *Histoire de la Louisiane,* first published in 1758, describes a woodland known as the Isle Barataria which lay immediately south of the future park. This "island" has subsided and is today a grassy marshland. However, the passage from Le Page may serve as a suitable preamble to *Terre Haute de Barataria* which also describes an area named for its upland forest surrounded by swamps and marshes.

> . . . On leaving that coast [of the Gulf of Mexico] of white and crystal sand in order to go northward, we find five or six lakes which communicate with one another and which are, doubtless, remains of the sea. Between these lakes and the river [Mississippi], is an earth accumulated on the sand, and formed by silt of the river . . . between these lakes there is nothing but sand, on which there is so little soil that the sand-bottom appears to view; so that we find there but little pasture which some strayed buffaloes come to eat; and no trees, if we except a coast on the border of one of these lakes [Lake Salvador] which is all covered with evergreen oaks, fit for ship-building. This land extends a league in length by half a league in breadth; and was called Barataria, because it is enclosed by these lakes and their outlets, to form almost an island on dry land, as was that of which Sancho Panza was made governor [in Cervantes' *Don Quixote*].

Like the Isle de Barataria, the district formerly called Terre Haute de Barataria experienced many changes which together unfold a fascinating story. This story is the history of natural and human alterations to the environment throughout the Mississippi River Delta.

It was Title IX of Public Law 95-625 of the United States Congress that provided the enabling legislation for establishing the national park in 1978. The Act defined the concept of the new park:

> In order to provide for the education, inspiration, and benefit of present and future generations significant examples of natural and historical resources of the Mississippi Delta region and to provide for their interpretation in such manner as to portray the development of cultural diversity in the region, there is authorized to be established in the state of Louisiana the Jean Lafitte National Historical Park and Preserve.

As described in the Act, the park was to be composed of a number of separate units, including the Barataria Preserve, the New Orleans French Quarter and Garden District, the Chalmette Battleground, Big Oak Island prehistoric Indian archaeological site, forts, plantations, and Acadian villages.

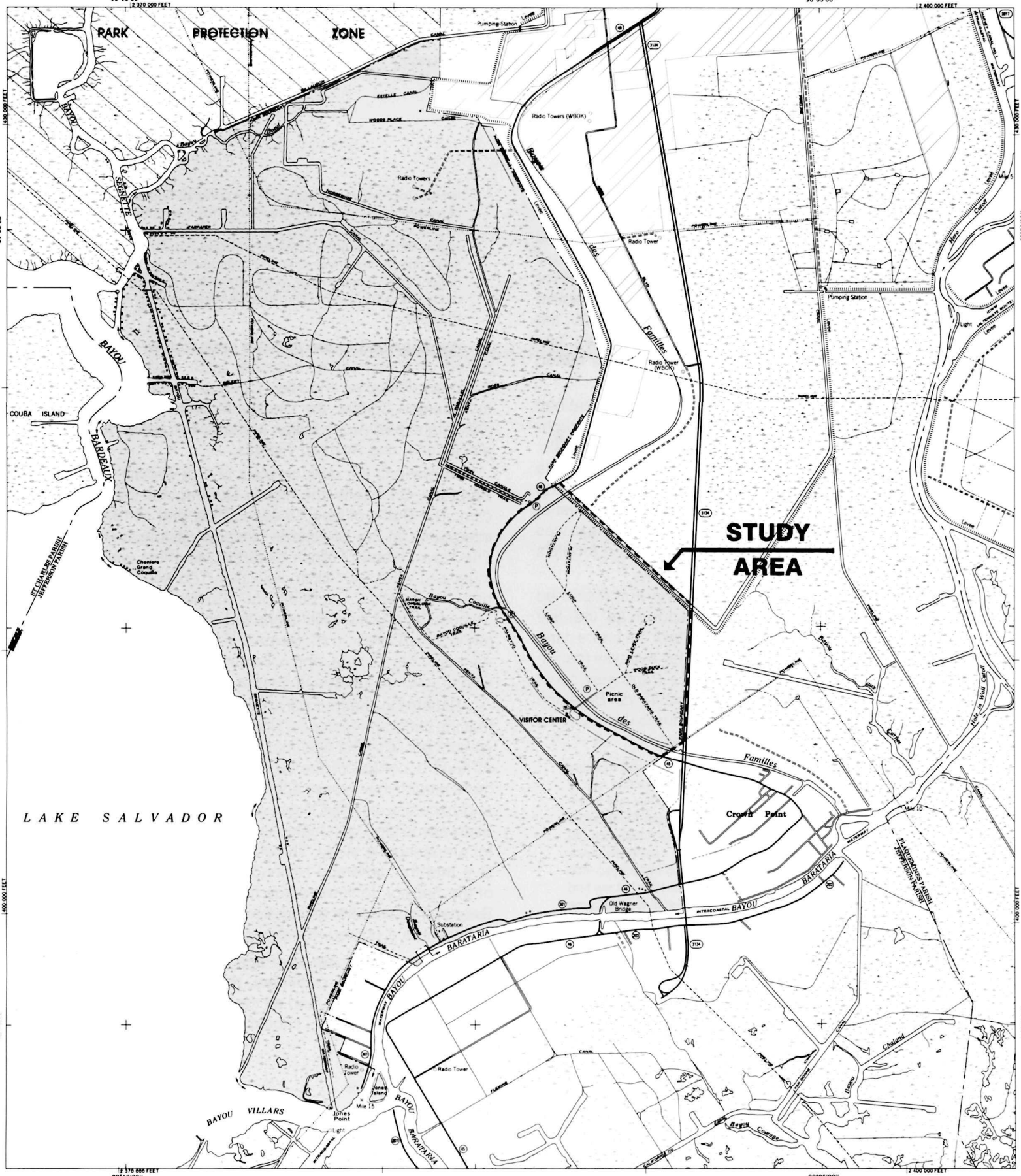
At present, the park consists of four distinct units: Barataria, Chalmette, the French Quarter, and the Acadian. The Battle of New Orleans of the War of 1812 is interpreted at the Chalmette National Historical Park. The New Orleans French Quarter Unit offers walking tours and weekend folklife activities. The Acadian Unit has interpretive facilities at Eunice, Lafayette, Thibodaux, and the Chitimacha Indian Site. In addition, the Isleños Center in St. Bernard Parish interprets Canary Islander Culture, and a German Heritage Cultural Center is to be located in Gretna.

Situated in Jefferson Civil Parish, it was only natural that the Jefferson Historical Society of Louisiana should co-sponsor with the National Park Service a study of at least a portion of the Barataria Unit. It was even more natural that the two agencies engage the services and expertise of Miss Betsy Swanson, who has long been associated with historical research in the parish, for preparing the study. The end result was so impressive that the Jefferson Historical Commission, parent of the Society, took the steps necessary to have Miss Swanson convert her typewritten text and copious illustrations into a printed monograph.

All those who, like Le Page Du Pratz, explored, exploited, inhabited, cultivated, recreated, and otherwise utilized the area, and all those who admire today its remarkable beauty, should be pleased with this interpretive volume.



Rev. Msgr. Henry C. Bezou
Editor-in-Chief
Jefferson Parish Historical Series



Base by USGS and USC&GS.

Polyconic projection. 1927 North American datum
10,000-foot grid based on Louisiana coordinate system, south zone.

All or part of this map lies within a subsidence area.

N

1 3/4 1/2 1/4 0 1 2 MILES
1 0.5 0 2 KILOMETERS
SCALE 1:24 000

LOUISIANA

ROAD CLASSIFICATION

Primary
Medium-duty
Light-duty
Unimproved dirt or shell
State Route

BARATARIA UNIT
JEAN LAFITTE NATIONAL HISTORICAL PARK AND PRESERVE

INTRODUCTION

This book is a revision and enlargement of an historic land use study conducted in 1985-8 of that portion of the Barataria Unit of the Jean Lafitte National Historical Park which lies east of State Highway 45. The study area measures approximately two miles by one and one-quarter miles at its greatest dimensions. It consists of a relatively undisturbed meander bend of an abandoned Mississippi River deltaic distributary, the Barataria-des Familles Distributary. It is composed of the natural levees and filled bed of the old river course which are covered with upland hardwood forest; inundated swamp forest beyond the natural levee backslope, consisting largely of bald cypress, tupelo gum, and pumpkin ash; and the river's old scour channel, Bayou des Familles. The entire geological feature is undergoing subsidence, and this process is reflected in the differing vegetation. The plant life also reflects a long history of human use of the land.

Historically named Terre Haute de Barataria (High Land of Barataria), the alluvial deposits of the old distributary form a tongue of arable land in the swamps and marshes. The study area was brought under cultivation hundreds of years ago, and a part continued to be used for farming and live-stock raising until recent years. The entire environment is, to some degree, man-altered, having been exploited by humans for 2000 years. The natural setting of the park has been impacted by a spectrum of prehistoric and historic activities typical of man's occupation of the Mississippi River Delta. The original habitats have been largely modified, and countless man-made features have reshaped the ground itself. The wilderness that is reinstating itself is not natural. It is rather a demonstration of the complex, aberrant interrelationships of natural and human history in the Mississippi River Delta.

This volume details the historic land ownerships and uses, and the resulting human alterations to the natural environment which can be seen in the park today. The discovery of this information was defined as the objective of the study. The contract called for the study to identify the location and significance of cultural features and to reveal the history of human activity in this area of the park which was scheduled for construction of visitor facilities.

In accomplishing the study, archival records were used to guide field surveys which were conducted with a compass and measuring devices. Aerial photographs, both old and recent, were also used in the field. With the help of these, the positions of cultural features and sites were plotted on maps. Legal survey markers and land grant lines, as well as the grid patterns of sugarcane fields, pecan orchards, and residential subdivision lots and streets, were used as precise points of reference in the dense woods.

Important discoveries were made, both in the archival research and in the field surveys, most notably building sites belonging to a Spanish colonial settlement and a Post-Civil War plantation. Many more sites and cultural features may yet remain to be located in the heavily vegetated study area.

ABBREVIATIONS

JPCH	-	Jefferson Parish Courthouse
HNOC	-	Historic New Orleans Collection
LC/TUL	-	Louisiana Collection, Tulane University Library
LSCC/UNO	-	Louisiana Supreme Court Collection of Legal Archives, Acct. 106, Archives and Manuscripts/Special Collections Department, University of New Orleans
NPS	-	National Park Service
NONA	-	New Orleans Notarial Archives
SCD/TUL	-	Special Collections Division, Tulane University Library
USA/CE	-	United States Army, Corps of Engineers

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Monograph XI of the Jefferson Parish Historical Series was made possible by resolutions for printing costs brought before the Jefferson Parish Council by Council Chairman Robert B. Evans, Jr., and seconded by Vice-Chairman and Councilman-At-Large Lloyd F. Giardina and Councilman Larry J. Hooper. Mr. Evans' personal interest in this historical work was the impetus for its publication. He generously contributed to the effort to prepare the book for the printer.

The governing officials of Jefferson Parish are to be commended for sponsoring and funding the publication of this history.

Michael J. Yenni, Parish President

Parish Council

Robert B. Evans, Jr., Chairman
Edmond J. Muniz
Lloyd F. Giardina
Thomas J. Ward
James E. Lawson, Jr.
Larry Hooper
Robert L. Deviney, Jr.

Chris Lochbaum, chairman of the Jefferson Parish Historical Commission, led the endeavors of the commission to secure parish publication funds. He also chaired the commission's publications committee, on which he was joined by the Reverend Monsignor Henry C. Bezou and Joseph M. Miller. Msgr. Bezou served as editor-in-chief for the committee. He led the way in the production of the book and devoted himself to its every requirement. His assistance and support was profoundly missed in the finalizing of the work. The other members of the commission, Vice-Chairperson Loretta P. Brehm, Annie Justice, Esther L. Eble, and Hilda Knoff, added their support to the publication.

Funds to make possible the revising and enlarging of the text and illustrations to include additional archaeological information regarding sites found in the study area were donated at the personal request of Msgr. Bezou by the Azby Fund, S. Stewart Farnet of New Orleans, Director; Mrs. Lillian Christ Strange of Metairie; the Crosby Development Corporation, John L. Crosby of Metairie, Director; Mr. and Mrs. Frank Ehret, Jr. of Marrero; Mrs. Betty Gauthier of Metairie; Jung Enterprises, Arthur Jung, Jr. of New Orleans, Director; Mrs. Vada Odom Reynolds of Metairie; and Charles W. Wall, Sr. of Gretna. These grants were made through the Delta Chapter of the Louisiana Archaeological Society whose members played a vital role in the discovery of many archaeological sites in the study area. The generous assistance of these donors and the cooperation of the archaeological society has resulted in a superior volume of greater value to the historical record. Special appreciation is due to Mrs. Dolores Martin, treasurer of the society for proficiency in expediting the funding.

Material assistance needed to prepare the book for publication was also gratefully received from Mrs. Joy Warner of Smyrna, Georgia; S. Mac Grossman of Mableton, Georgia; John Geiser, III of New Orleans; Mrs. Fay Swanson of Harahan; Mr. and Mrs. John Burns of Baton Rouge; Mrs. Connie Hauschild of Algiers; and Mr. and Mrs. Michael Comardelle of Boutte.

The transformation of the study into a publishable book was greatly facilitated by the contributing specialists. Archaeologists Richard S. Fuller, Charles E. Pearson, Marco J. Giardino, Jill-Karen Yakubik and Herschel A. Franks added the expert technical knowledge and ability which was needed to more fully present the content, extensiveness, and distribution of prehistoric and historic sites in the study area.

David P. Muth, Chief Ranger of the Barataria Unit, has provided a valuable contribution with his historic flora and fauna essay and chart. In addition, his knowledge of the park's natural history and ecology is reflected throughout the book as information advanced during the processes of producing both the study and the book. Approval for Mr. Muth's assistance and contributions by Park Superintendent Ann Belkov and Unit Manager Jim Carson is gratefully acknowledged. Park rangers David Lambert, Randy Follett, Eric Haugland, and David Barajas were also especially helpful.

James L. Isenogle, first superintendent of the Jean Lafitte National Historical Park, conceived the idea for the study in 1984 in response to the suggestion of Msgr. Henry C. Bezou, then president of the Jefferson Historical Society, and Chris Lochbaum, chairman of the Jefferson Parish Historical Commission, that a cooperative historical project be undertaken by the society and the park. The study was carried out between July, 1985 and January, 1988 as a cooperative agreement between the society and the park, under the superintendency of Mr. Isenogle and the presidencies of Albert J. Robichaux, Jr. and Hilda Knoff. Society Board Member Frank Ehret, Jr. served as Chairman of the Study Committee.

Others serving on the society board of directors were Loretta P. Brehm, Esther L. Eble, Annie Justice, Joseph M. Miller, Gertrude M. Beauford, Lou Douglass, Janet Foster, Everett F. Gauthreaux, Collin Hamer, Jr., E. J. Rovira, Jr., Charles W. Wall, Sr., Florence Schouest, Mary G. Curry, and Louis Senac. Jeanette Lynch, who acts as Jefferson Parish's office secretary

for the Jefferson Historical Society, facilitated the business aspects of the project.

The study could not have been accomplished without the volunteer assistance of many individuals. Bethlyn McCloskey provided working quarters for the duration of the study. Rose Marie Bauer assisted in editing the study for publication and in proof reading the typesetter's galleys for the book. The numerous hours that she spent at these tasks were in addition to those she amassed doing archival research for the study. Many hours were donated by Penelope Ballinger to help proof and collate the study and to help edit it for publication.

The field surveys conducted for the study and for subsequent archaeological investigations were largely made with the indispensable help and collaboration of Michael Comardelle. He and other members of the Delta Chapter of the Louisiana Archaeological Society helped to locate many archaeological sites and features. The other LAS members who composed survey crews were Barry Ferguson, John Polk, Paul Newfield, III, Marco Giardino, Emily Vincent, Helen S. Landry, Connie Hauschild, Larry Basta, Dan Shipman, Ned Shipman, and Bill Edwards.

Paul Newfield also helped collect archival information regarding the Canary Islander settlement in Barataria. He and Barbara Holmes of Albuquerque, New Mexico, helped to prepare the list of Canary Islanders who were established in Barataria.

Scholarly contributions were also made to the study by Sally K. Reeves, James J. McLain, Fontaine Martin, and Guillermo Náñez-Falcón, Manuscripts Librarian of the Special Collections Division of the Tulane University Library. Especially relevant oral history contributions were made by Frank Ehret, Jr., Louis V. Ehret, and Percy Prestenbach, Sr.

Paul Ramp, a Tulane University graduate student conducting a study on palmetto growth in the park, generously shared his findings. David A. White and Steven P. Darwin of the Biology Department of Tulane University, and Linda Glenboski, Ethnobotanist with the New Orleans District U. S. Corps of Engineers, provided botanical information while touring the study area.

Petroleum Engineer Gerald L. Schroeder contributed expert information on the subject of oil exploration. He volunteered to tour the study area and explain the original functions of remnants of oil operations.

Archaeologists Charles Pearson, George Castille, and David Kelley of Coastal Environments, Inc. in Baton Rouge volunteered to analyze some of the artifacts first found on the Spanish house sites during field surveys for the study. After the study was completed, Archaeologist Susan Hammersten was engaged by the park to conduct test excavations in Indian middens in the study area. She contributed some of her findings to the book.

Another generous grant from the Azby Fund, facilitated again by Stewart Farnet and again made through the LAS, Delta Chapter, made possible the locating of additonal Spanish and aboriginal sites. Archaeologists Charles Pearson and Richard Fuller of Coastal Environments volunteered to tour and evaluate the sites. Mr. Fuller was contracted by the Park to prepare a report on the artifacts collected from the sites, and his information was incorporated into this book.

Archivists who assisted the study and the book were Ed Haas and Rose Lambert of the Louisiana State Museum Historical Center, New Orleans; Alfred E. Lemmon of the Historic New Orleans Collection; Wilbur E. Meneray and the staff of the Special Collections Division of the Tulane University Library; Gay Craft and Joan Caldwell of the Louisiana Collection of the Tulane University Library; Collin B. Hamer, Jr. and the staff of the Louisiana Division of the New Orleans Public Library; Marie Windell, Manuscripts Librarian of the Special Collections of the University of New Orleans Library; and John Hughes of the Map and Photo Department of the New Orleans District U. S. Army Corps of Engineers. Melody Webb, Chief Historian of the Southwest Regional Office of the National Park Service, facilitated research in Park Service records in Santa Fe, New Mexico.

Jefferson Parish Council Chairman Robert Evans arranged a staff position with the parish for the laying out of the book, using parish office space and darkroom facilities. His administrative assistant Jeanne Comeaux Schiro helped guide the book to press through the channels of parish government.

The generosity of Robert J. Tonti of Metairie in providing additional working quarters is also gratefully acknowledged.

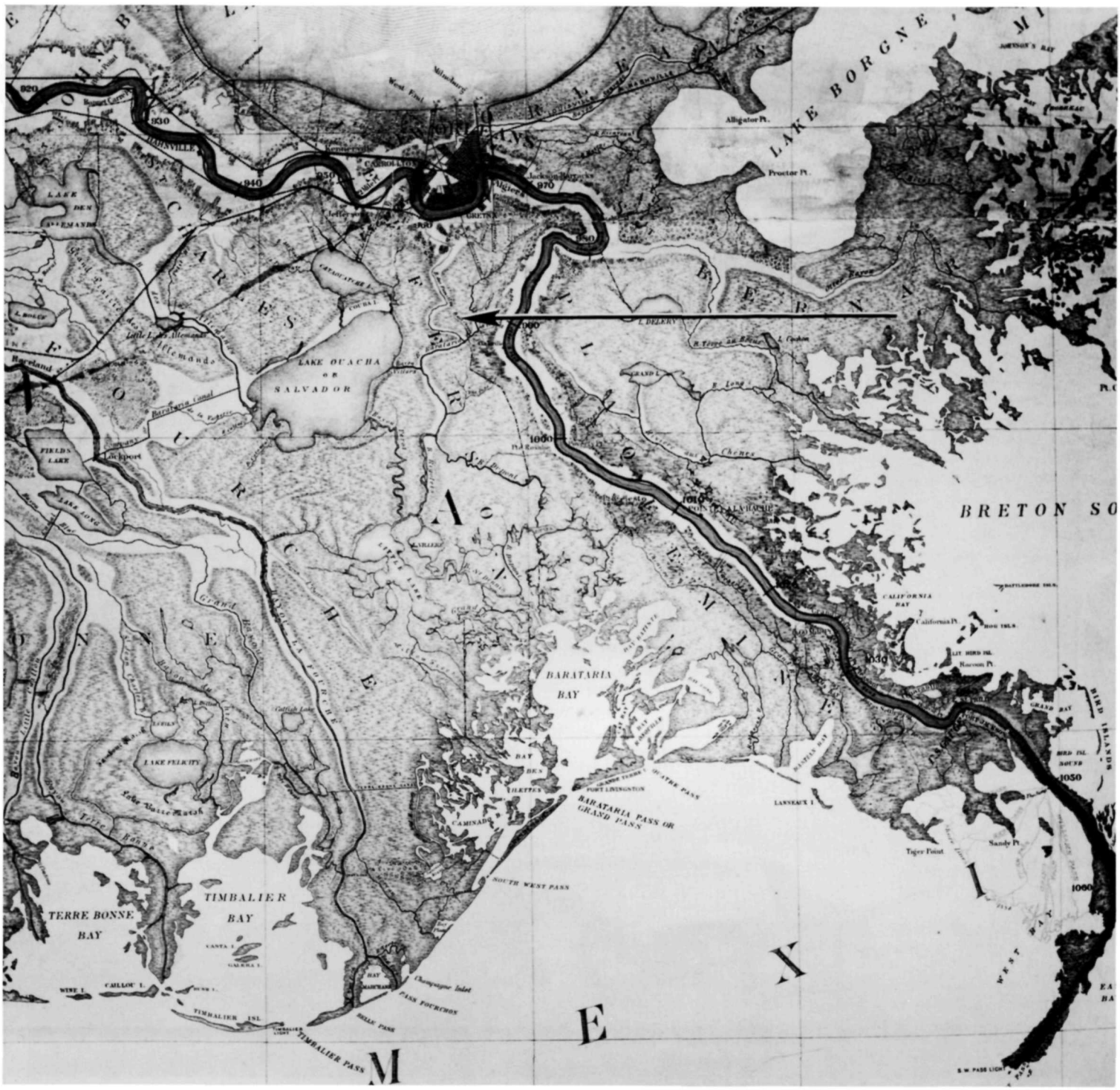
IN MEMORIAM

Reverend Monsignor Henry Charles Bezou

1913 - 1989



Friend and ally of the history
of his native state, his church,
and his people.



The Barataria Basin. Detail of a map of the Mississippi River Delta, unsigned, undated (about 1885). LC/TUL. Arrow points to study area.

CHAPTER I

THE WILDERNESS REAPPORTIONED BY MAN

If ever there existed in Louisiana a primeval landscape, it vanished when aboriginal man began to exploit the region. The environment was further transformed by Europeans who reshaped the land with agriculture, industry, and urbanization. Most remaining natural areas have been significantly modified. Human recreation of the Louisiana wilderness has been so extensive and so complex, that only a few examples may be mentioned. Such changes have contributed to a cumulatively man-altered landscape in Barataria that is embodied by the park today.

The pure longleaf pine forests which, before logging, covered much of Louisiana were fire sub-climaxes artificially created and maintained by aboriginals where mixed deciduous woods originally grew. Fire-resistant longleaf pine was the only species to survive the Indian practice of burning to clear the ground for agriculture, for the gathering of nuts, and to produce better forage for game. Natural plant succession on the prairies and in many bottomland hardwood forests was also altered by fires set by Indians for the same purposes.[1]

Historic agriculture, logging, hunting, and trapping activities, and reclamation and water control projects have had massive impacts on the ecology and appearance of Louisiana's remaining wilderness areas. Millions of forest acres have been denuded, and virgin forests do not survive in the State. Where reforestation has occurred on clear-cut forest tracts and abandoned agricultural land, the processes of plant succession have been so abnormal that scientists consider the resulting plant communities to be almost entirely man-made. Among these are the scrub oak and grassland communities in the pinelands, and the oak-elm-hackberry types in the alluvial bottomlands.[2]

The impact of human activities on cypress swamps has been even greater. Cypress seedlings have exacting water requirements for germination and growth, and they normally regenerate in the proximity of the parent tree. Clear-cut logging and man-made disturbances of wetland conditions have so interfered with cypress regeneration processes that most of Louisiana's great cypress forests have been replaced with sub-dominant tupelo-gum forests, or with marsh and open water.[3]

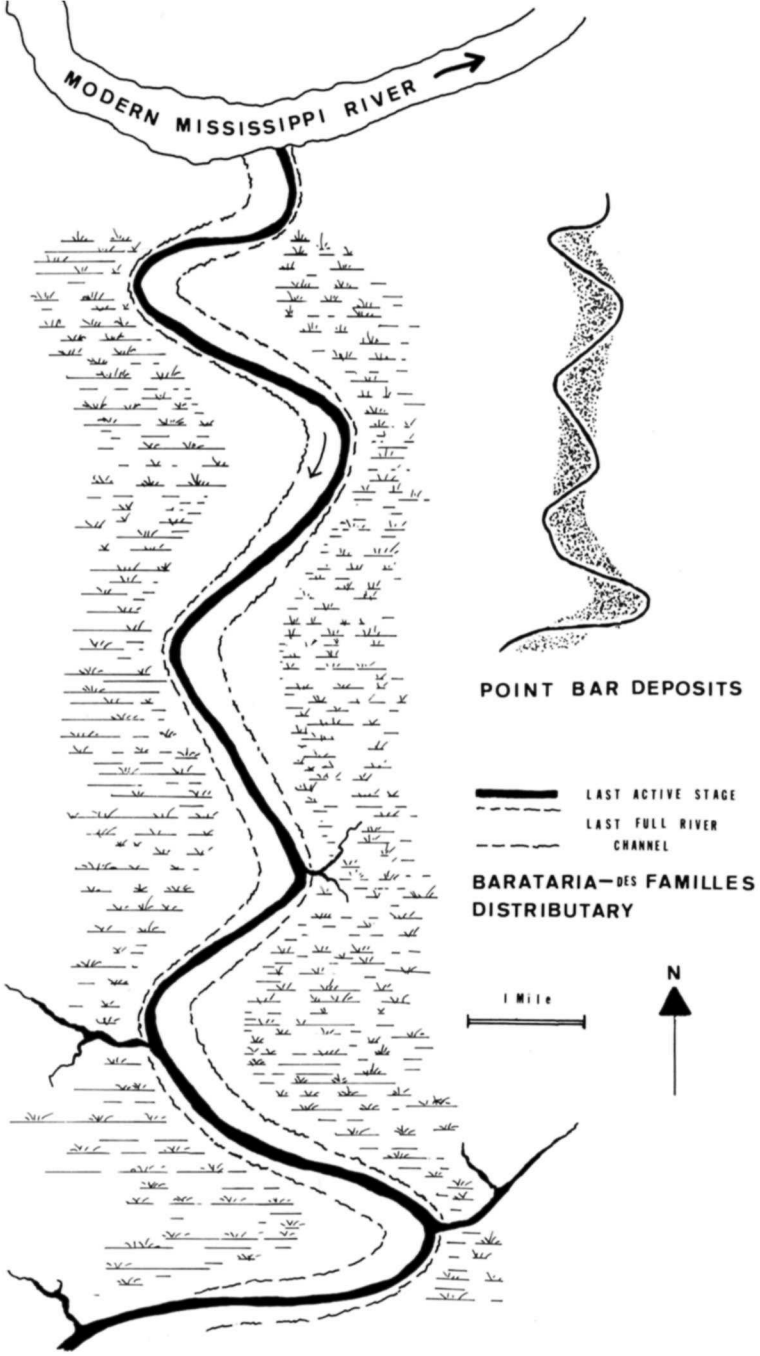
The fur trappers' traditional practice of burning the marshes to favor the growth of muskrat food plants has changed the composition of marsh plant communities. Deep burns, made to improve feeding conditions for migratory waterfowl, have created ponded areas in the marshlands. Abandoned and subsided agricultural reclamation projects have left geometrically diked lakes in the marshes in which unusual acquatic plant communities have developed. Impoundments have also been created in the swamps and marshes by dredged canal spoil, road construction, pipelines, and levees built to flood swamps for the floating out of timber. Canal-cutting, which allows salt water intrusion from the Gulf of Mexico, has greatly accelerated the natural processes of deltaic deterioration in the coastal marshes and swamps and has caused extensive land loss, with the rapid conversion of freshwater habitats to brackish and saltwater habitats.[4]

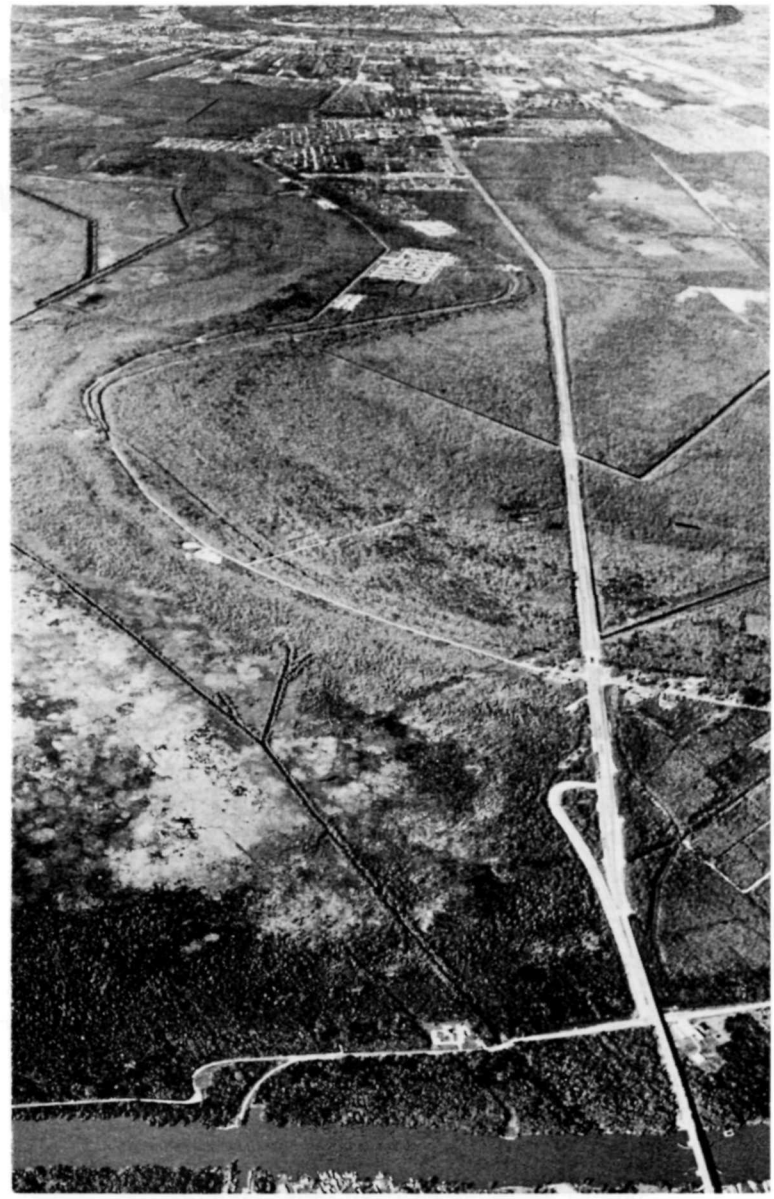
Bayous have been choked, and ponds and lakes have been exterminated by solid mats of the introduced exotic plants water hyacinth and alligator-weed. Artificial levees on the Mississippi River have been largely responsible for the creation of a type of plant community peculiar to the batture lands which have been built up beside the levees by alluvial siltation. The composition of grasses on the prairies of southwest Louisiana has been altered by the introduction of non-native grasses to improve cattle grazing. Approximately 30 percent of Louisiana's grass species have been introduced from the tropics and from the Old World, and some recently introduced grasses are just as abundantly found in the State as are the native species.[5]

Agricultural and industrial pollutants have altered the biological ecosystem of wilderness areas. The ecological balance of various habitats has also been changed by introduced animals. Many original native wildlife species are no longer found in the State. Some animals and birds that were once plentiful survive in small numbers.

No wild area in Louisiana remains totally unaffected by the activities of man. Surviving wilderness areas therefore reflect both the natural and human history of the State. This dual history is most noticeable in the displacement of the natural relationships between geological formations and their original vegetation. As stated by Geographer Fred B. Kniffen, "Human use of Louisiana, then, has clearly resulted in a reapportionment of the original vegetative species."[6]

Even more dramatic rearrangements of the Louisiana landscape have been caused by man-induced acceleration and retardation of normal geologic processes. Artificial confinement of the Mississippi River within man-made levees has eliminated alluvial



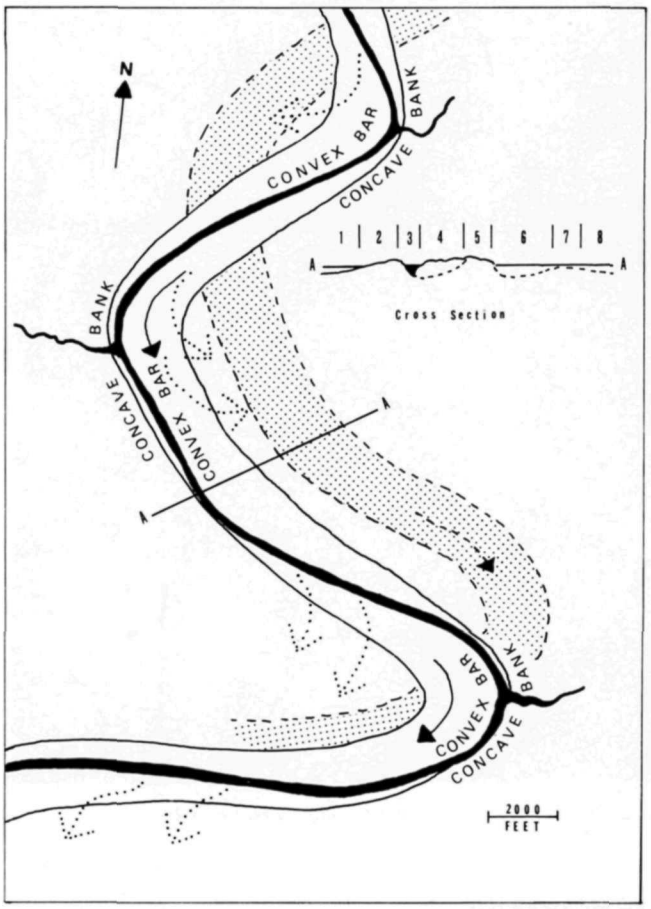


Oblique air view of the Barataria - des Familles Distributary, looking north toward New Orleans, Mississippi River at top, Bayou Barataria at bottom, Bayou des Familles and study area at center.

deposits of seasonal overflows and has restricted delta-building processes to the mouth of the river. Until the twentieth century, crevasses, or breaks in the levee, frequently built up the land with localized soil deposition. The modern levee and revetment system prevents crevasses and discourages the natural tendency of the river to abandon its present channel in favor of other distributaries. Whereas the normal delta-building process maintains a state of flux between alluvial accretion and marine deterioration and results in a net increase in the size of the deltaic plain, human control of the river has permitted the sea to rapidly encroach upon the land in south Louisiana.[7]

The Mississippi River Delta is composed of overlapping alluvial deposits of a series of major deltaic complexes which have formed during the last 7000 years: Lafayette, Maringouin, Salé-Cypremort, Metairie, Teche, La Loutre (or St. Bernard), Lafourche, Plaquemines, and the present Balize. The Barataria-des Familles river channel, upon which the park is located, was one of several distributaries of the La Loutre or St. Bernard Delta which was active between about 1500 B.C. and 200 A.D. The other distributaries of this delta were Bayou Metairie, Rivière aux Chênes, and Bayou La Loutre. At different times, various of these streams were active together and carried more or less of the river's flow. The Barataria-des Familles Distributary never carried the full flow of the river, nor did it ever reach the breadth and depth of the present river channel. In the park, the natural levee crests of the old distributary measure between 1200 and 1900 feet apart, while the present width of the Mississippi River between Baton Rouge and New Orleans ranges between about 2380 and 2900 feet.[8].

After about 200 A.D., the Barataria-des Familles Distributary ceased to serve as a major channel of the

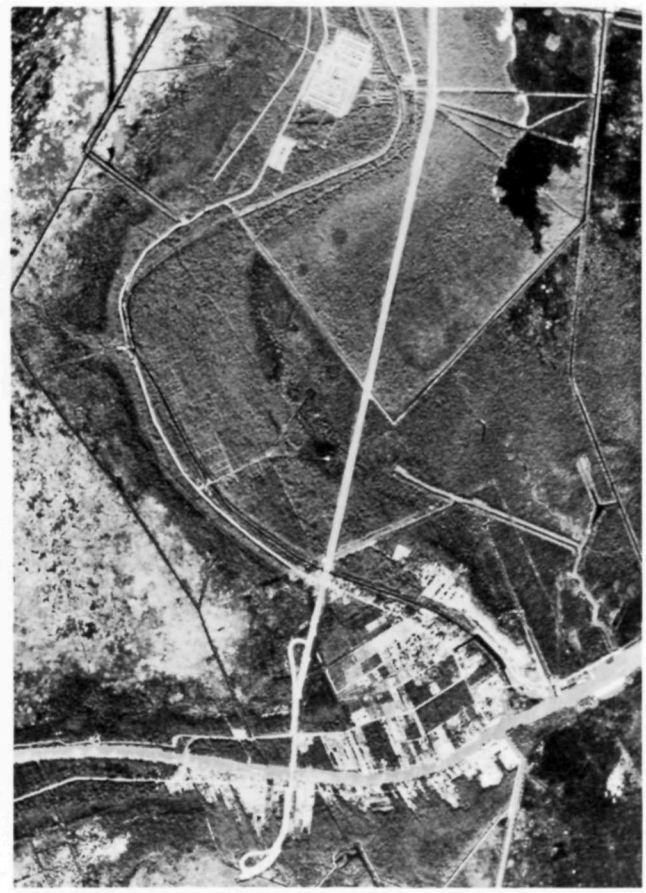


PROBABLE COURSE OF THE FINAL MEANDER SHIFT OF THE BARATARIA - DES FAMILLES RIVER CHANNEL IN THE PARK

- — old abandoned channel
- — river channel at full active stage
- — *scour channel and present-day bayou*
- — downstream
- — direction of alluvial deposition
- — crevasse distributaries

CROSS SECTION AT A-A

1. Level of swamp and marsh
2. Natural levee, concave (or cut) bank
3. Scour channel, Bayou des Familles
4. Convex (or point) bar channel fill
5. Natural levee
6. Old filled and submerged channel
7. Old submerged natural levee
8. Level of swamp and marsh



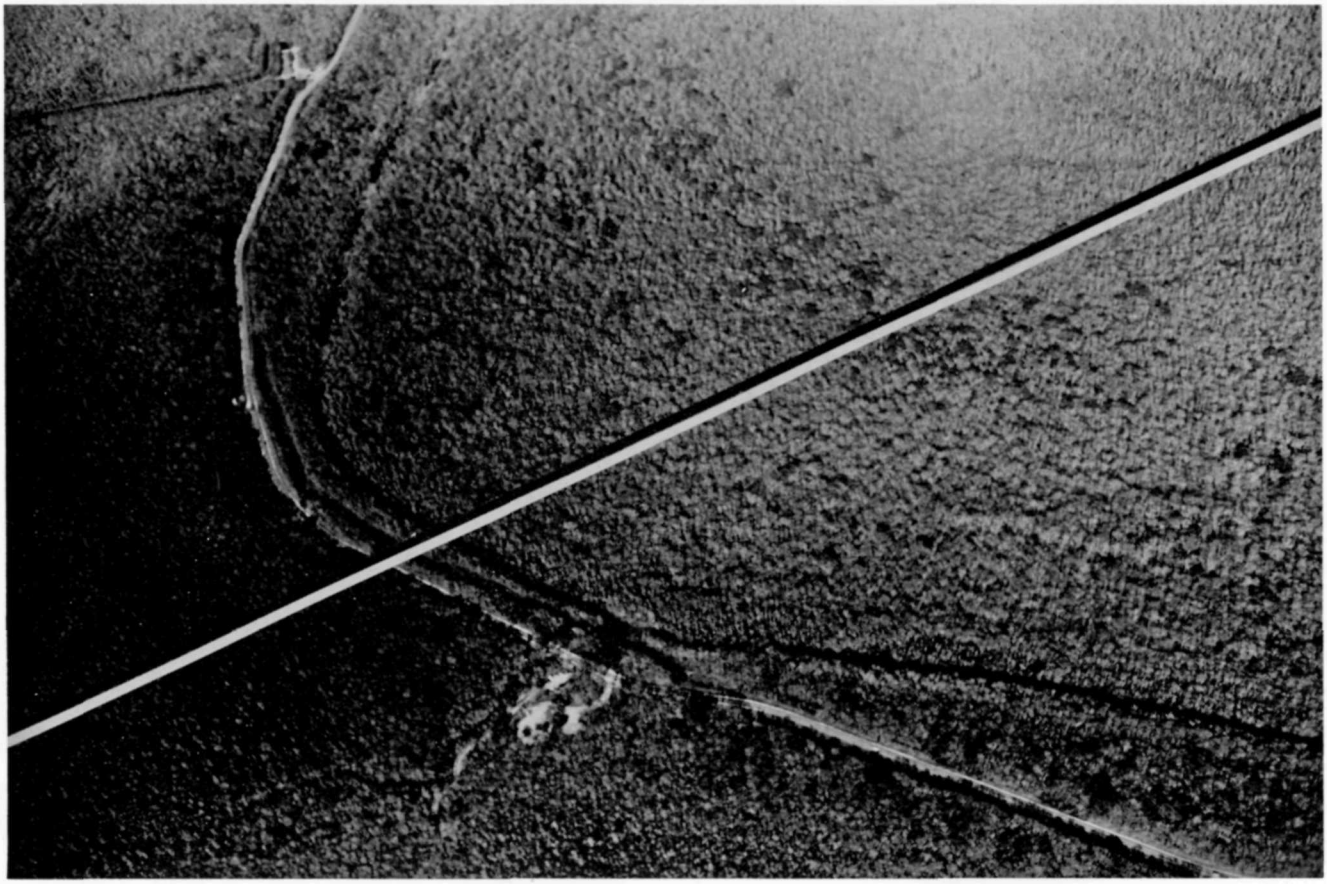
Study area and environs. Black and white copy of infra-red color photo, January 19, 1984, 84039, LN3-RN1, 406, Environmental Monitoring Systems Lab., Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, Nevada.

river, but the stream was still partially active in historic times. The channel slowly filled with silt, but the natural levees received little deposition, and they began to undergo subsidence. The lower reaches of the stream, which were later fed by a minor distributary that discharged from the present river (upper or Little Bayou Barataria), continue to carry more flow. Bayou Barataria remains today the principal drainage of the Barataria Basin.[9]

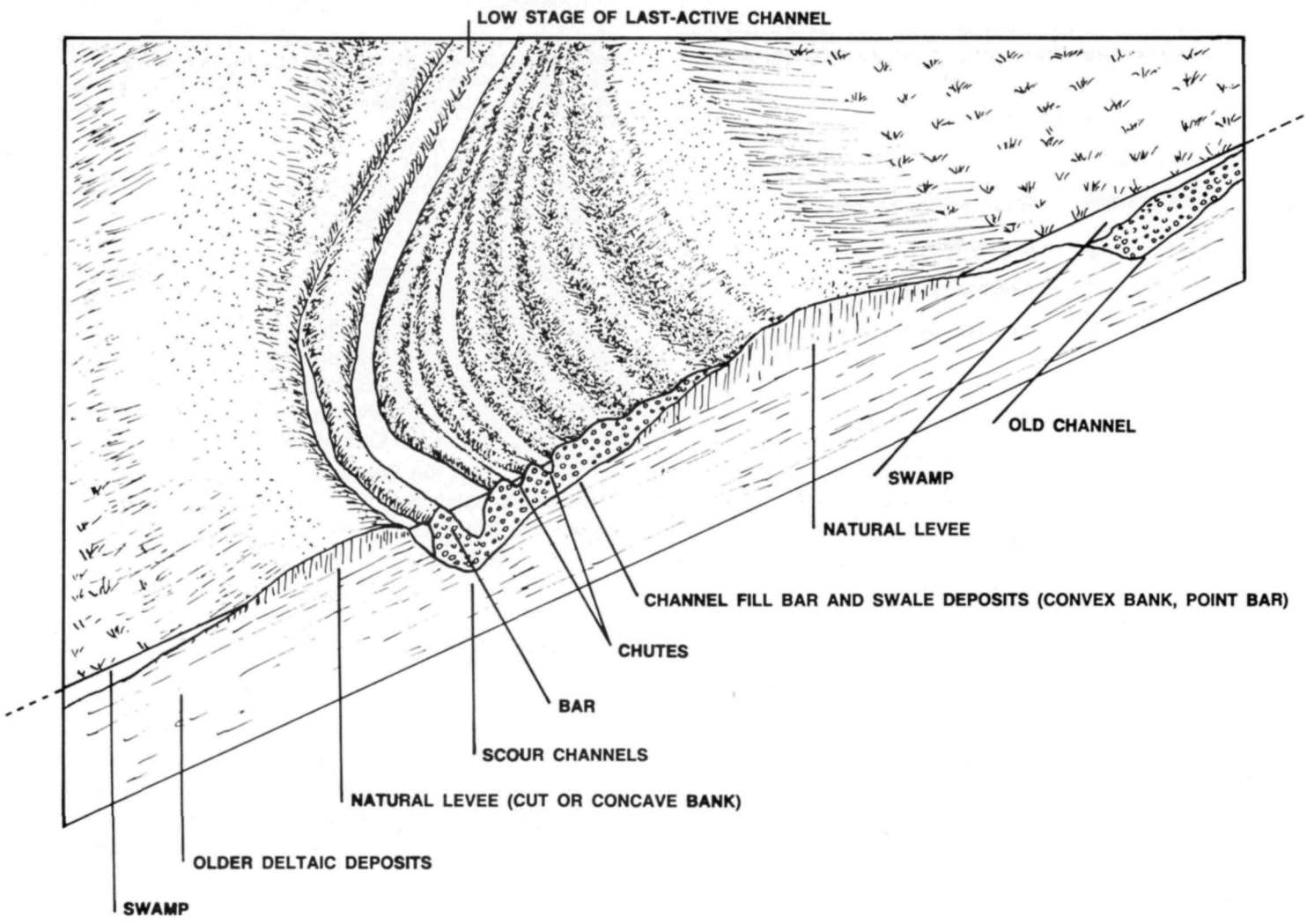
The saucer-like depression of the Barataria Basin is bordered by the natural levees of the more recent channels of Bayou Lafourche on the west and the Mississippi River on the north and east. Most of the area contained within the Barataria Basin consists of marsh, lakes, and bays. All the waters of the basin drain toward Barataria Bay and the Gulf of Mexico.

Even though the Barataria Basin is regarded as a single unit in relation to its hydrological and biological processes, the natural levees of the Barataria-des Familles Distributary actually divide the area into two large interdistributary basins, that bounded by Bayou Lafourche on the west and that bounded by the Mississippi River on the east. The interdistributary basins are characterized by cypress swamp at the edge of the back slope of the natural levees with grassy marsh, ponds, and lakes in the center of the basins.[10]

The Barataria-des Familles Distributary loses surface expression as it sinks below the marshes near Barataria Bay. When it was active, the deltaic lobe extended out into the Gulf of Mexico. Eventually, all of



Meander bend of Bayou des Familles at confluence of Bayou Coquilles (lower left), looking NNE.



the abandoned deltaic areas of coastal Louisiana will likewise disappear beneath the gulf unless they are built up once again by alluvial sediment from the river.[11]

The portion of the abandoned Barataria-des Familles Distributary that comprises the park lies seven air miles south of the crescent-shaped bend of the Mississippi River in which nestles most of the City of New Orleans. Whereas the upper reaches of the old channel are almost entirely clogged with alluvium, the river bed in the park is partially filled and exhibits what is called bar and swale topography. The bars are low ridges which were formed by deposits of coarse bed load sediment during the stream's flood stages. They are formed on the convex curve of the stream's meander bends because the intensity of water turbulence decreases on the inner bend of the water's flow. These areas of built-up sediment on the convex curve of the meander bend are called point bars. They have the appearance of a series of concentric terraces, and they often display varied tree succession.[12]

The study area comprises the central portion of such a point bar, as well as the opposite bank of the old river channel which is called the cut bank or the concave bank. The rapid flow of water at the outer bend of the meander curve causes the concave (or cut) bank to recede. The stream scours a deeper channel on the outer bend of the meander and undercuts the bank, causing the bank material to slump or slide off into the channel. Bayou des Familles is the remnant of the old river scour channel which may have been as deep as 100 feet when the distributary was active.[13]

As distributaries of the Mississippi become inactive, their channels begin to anastomose, or interconnect, and form a braided pattern. Periodic flooding of the channels causes crevasses in the subsiding natural levees. Smaller streams are formed at the points of these crevasses, with their own small natural levees. These crevasse splays typically occur near the most acute angles of the meander bends of the distributary. Bayou Coquilles, which discharges from Bayou des Familles in the park, is an example of a crevasse splay.[14]

Old channel beds of abandoned distributaries also develop braided patterns as the slackening stream bifurcates and rejoins amid the bars and swales of the old river bed. In the study area, this pattern is still noticeable along Bayou des Familles. At time of flood, some swales may deepen and become branch channels or chutes. Occasionally, the course of the stream is diverted by a chute. In the study area, some water-filled swales distant from the bayou probably served as chutes when the distributary was still partially active.[15]

The pattern of the meander bends of the Barataria-des Familles Distributary is well developed and more mature than that along the river downstream from New Orleans. The sinuous course of the old channel with closely spaced bends denotes a stream of less discharge than one with widely spaced, long meander loops.[16]



An Indian shell midden on the swampy bank of Bayou des Familles.

As long as the Barataria-des Familles Distributary carried fresh water from the river, Indians dwelled along its banks. Archaeological investigations and historical documentation indicate that they were present for nearly 2000 years, during the cultural periods:

Tchefuncte	500 B.C. - 1 A.D.
Marksville	1 A.D. - 400 A.D.
Troyville	400 A.D. - 700 A.D.
Coles Creek	700 A.D. - 1200 A.D.
Plaquemine (Mississippian)	1200 A.D. - 1700 A.D.
Historic	1700 A.D. - ca. 1850 A.D.

The Indians lived on the natural levees or on artificial mounds of earth and shell and subsisted by hunting, fishing, and gathering in the streams, forests, swamps, and marshes. They supplemented wild foods with limited agriculture, perhaps as early as the Marksville Period.[17]

The largest shell and earth mounds were constructed at ceremonial centers, usually at the juncture of waterways. One of these centers, containing huge shell mounds, was located at the confluence of Bayous des Familles and Coquilles (French, shells), but little remains of the site. The remnants of other mounds and middens, or refuse heaps, are located along the banks of both bayous. They are composed largely of shells of the brackish water clam, *Rangia cuneata*. As a result of deltaic processes, many mounds and middens have subsided beneath the surface or have been overlaid by alluvial deposits; many others have been mined for their shells and washed away by erosion.[18]

Numerous tribes were living in the vicinity of the Barataria Basin during the period of French exploration and settlement in the late seventeenth and early eighteenth centuries: the Bayougoulas, Mugulashas, Chitimachas, Yagnesito, Tchatchagoulas, Tilapani, Taensas, Ouachas, and Tchaouchas. Because of their close proximity to the new capital of New Orleans, these tribes were moved about by the French and were decimated by diseases. Some tribes were assimilated into others or eliminated by warfare. Those with enduring

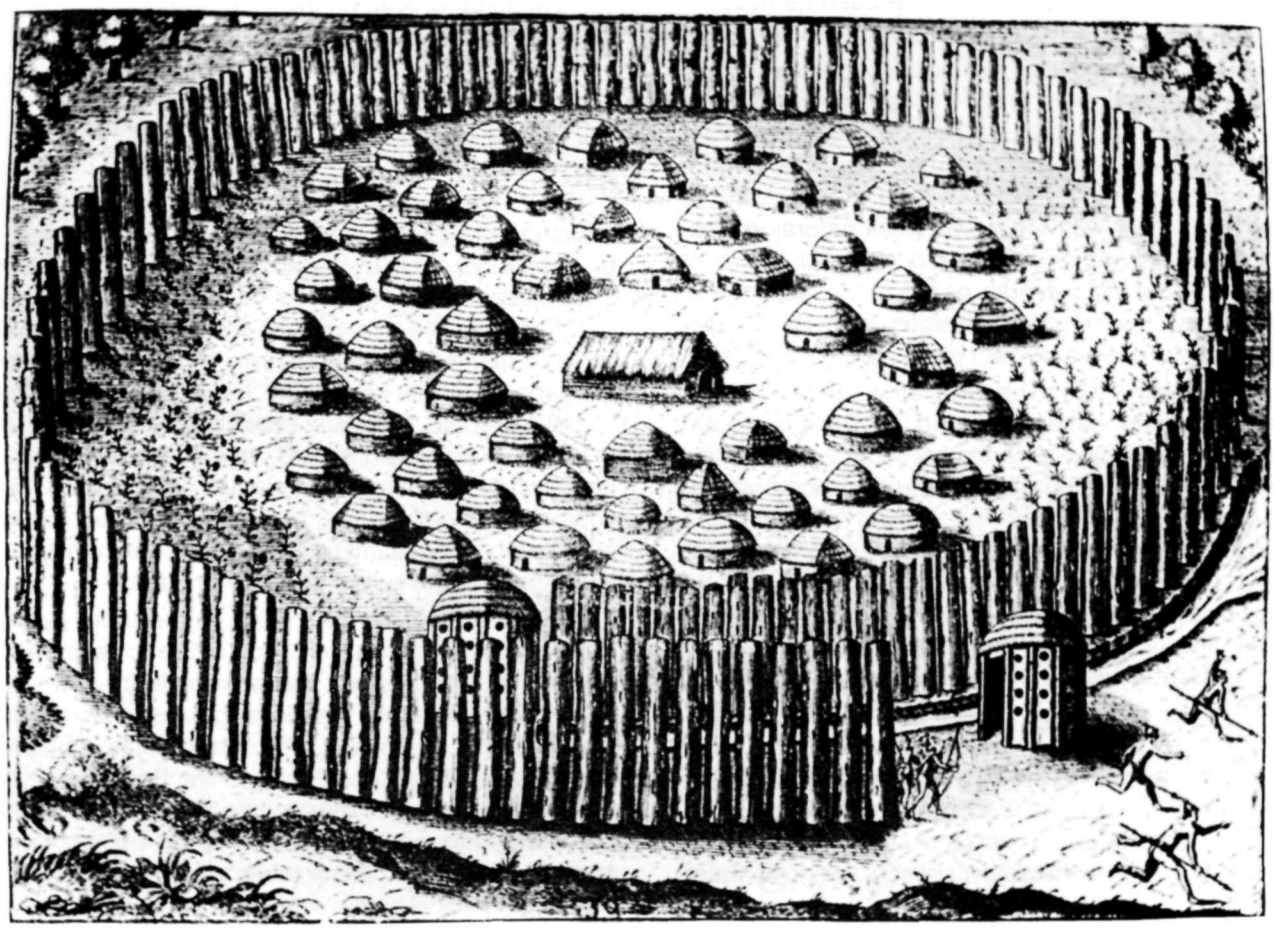
historical associations with the Barataria Basin were the Chitimachas, Ouachas, and Tchaouachas.[19]

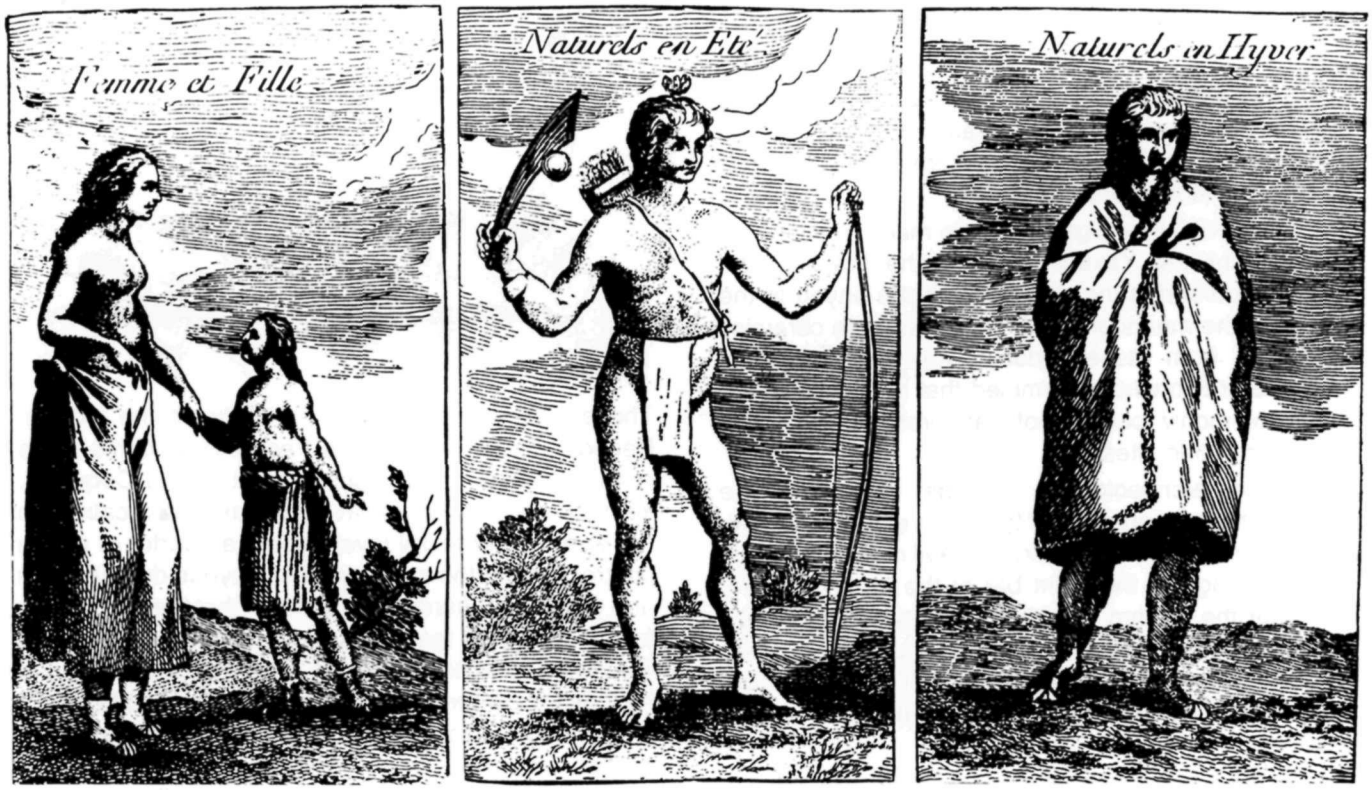
On the earliest French maps, the Barataria lakes are named Lacs des Chitimachas, and Bayou Lafourche is named Rivière des Chitimachas. The Ouachas and Tchaouachas soon begin to be more frequently represented in Barataria place names, and the Chitimachan names begin to occur in southwest Louisiana. The Ouachas and Tchaouachas may have been subgroups of the Chitimachas, but the changes in place names may reflect a shifting of territories. In the early 1700s, today's Lake Salvador acquired the name of Lac des Ouachas, and both Bayous Lafourche and Barataria were given the name of Rivière or Bayou des Ouachas. Lake Cataouatche is probably a corruption of the same tribal name. All the lakes were also known by the name of Barataria.[20]

Shortly before founding New Orleans, Jean-Baptiste le Moyne, Sieur de Bienville, settled the Ouachas Indians in the vicinity of the place where the Barataria-des Familles Distributary discharged from the Mississippi River. According to an undated memorandum enumerating the Indian tribes of Louisiana, Bienville wrote that he had relocated the Ouachas "two leagues above New Orleans on the left bank going up the river" in 1715. Bayou des Familles is situated at this distance from the upper limit of the Vieux Carré. Bienville said that the Indians lived scattered in the woods and along the borders of the interior lakes. The Tchaouachas, said by Bienville to have been allies of the Ouachas, were apparently living partly in the Barataria region. The Ouachas and Tchaouachas were described by Antoine Simon Le Page Du Pratz as actually being one tribe that inhabited "some little villages" in Barataria in the early French Period.[21]

A map of 1803 by Spanish Royal Surveyor Carlos Trudeau locates the principal villages of the Ouachas and Tchaouachas (also spelled Chaouachas) on the southern shore of Lake Salvador. The "village of the Ouachas nation where the bones of the nobility were piled up" was located on the west side of the mouth of Bayou Perot, on the southeastern shore of the lake. A number of mounds and trees are illustrated, and the description further explains that "a mountain *[montaña]* formed only with innumerable skulls has been found there (according to tradition)."[22]

The Tchaouachas village is drawn on the map as a cluster of mounds on the southwest shore of Lake Salvador, west of the mouth of Bayou Catahoula and in the vicinity of the former site of the famed Big Temple Indian Mound. The notation here reads "Village of the Chaouachas nation where there was a temple for the celebration of ceremonies for their idols; they kept the bones of their nobility in a separate house."[23]





The shell mounds at these locations have been removed, and the receding shoreline has largely inundated the sites. The Ouachas and Tchaouachas undoubtedly occupied mounds at these sites which were of prehistoric origin. The legends describing the veneration of the bones of their dead in temples built on the mounds suggest that these locations served primarily as ceremonial centers and as dwelling sites of their chiefs and nobles. As the tribes moved about, they carried the bones of their ancestors with them and deposited them near the new residences of their chiefs.[24]

The Ouachas and Tchaouachas are described in early accounts as "wandering tribes" with numerous village locations. They probably led a semi-nomadic life dictated by seasonal deltaic flooding and seasonal availability of edible resources. The earliest French records show that they were farmers growing corn as well as hunters, fishermen, and gatherers.[25]

During the eighteenth century the Ouachas and Tchaouchas appear to have been pressured ever deeper into the Barataria swamps and marshes by Europeans who settled the high alluvial lands along stream courses. In 1744, Claude Joseph Villars Dubreuil, the younger, purchased a large tract of land bordering Bayous Matherne and Vacherie and the western shore of Lake Salvador from the Ouachas and Tchaouachas Indians. The purchase price was eight cows, two calves, and two bulls. Villars Dubreuil established a *vacherie* (cattle ranch) on the land, just as his father had done earlier on the Isle of Barataria.[26]

Documentary evidence indicates that the Ouachas and Tchaouachas Indians continued to live in Barataria until at least the mid-nineteenth century. Maps of the mid-eighteenth century suggest that an Indian mission may have been located on the bayou that later became known as Bayou des Familles. Jean-Baptiste d'Anville's map of 1732 gives the name of L'Hermitage to the area between the west side of Bayou des Familles and Lake Salvador, including land now occupied by the park. Jacques Bellin's map of 1764 shows a building named L'Hermitage situated half-way up the west side of the bayou. The building has a square tower which is surmounted by a cross, and it is surrounded by an enclosure. Some later eighteenth century maps continue to identify the area with the same place name.[27]

Mention has yet to be found in church records of an eighteenth century missionary church in Barataria. However, remote and solitary country chapels were in French called *hermitages* and in Spanish *ermitas.* In France, a *hermitage* was more particularly "a building or house made of wood used on occasion for religious purposes."[28]

A specific documentary reference to the continuing residency of Tchaouachas Indians in the vicinity of Bayou des Familles is a plan of 1802 of a nearby riverfront property belonging to Barthélemy Lafon which was "occupied during her life by the daughter of Tonton, Indian of the Tchaouatcha Nation." As late as 1842, a military survey recorded a cluster of "Indian huts" on the bayou, two miles from the river on the Millaudon Plantation.[29]

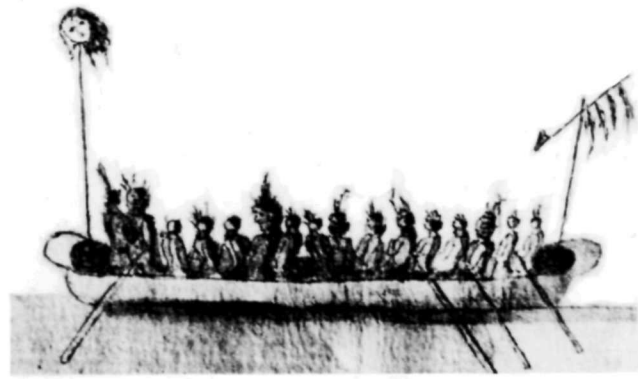
Recent archaeological discoveries support such documentary evidence for the survival of historic Indians in Barataria and their mutual habitation of Bayou des Familles with European settlers. In 1988, National Park Service archaeological work conducted by Susan Hammersten obtained several radiocarbon dates of 1660 A.D. plus or minus 80 years from *Rangia* shell excavated from the interior of middens bordering the east side of Bayou des Familles, along the upper part

of the meander bend that lies within the park. According to Miss Hammersten, all the ceramic wares recovered from her excavations dated from the late prehistoric and early historic periods.[30]

Other NPS investigations were made in the same year by Jill-Karen Yakubik and Herschel Franks in the middens bordering the east bank of the bayou in the center of the meander bend. Analysis of the ceramics recovered from these middens was carried out by Marco Giardino who determined that the sherds were types commonly found in both late prehistoric and protohistoric Indian sites.[31]

These archaeological findings help date the geomorphic configuration of the old river bed. The middens form a series of concentric curvilinear alignments near the edge of the point bar of the meander bend and near the swamp bordering the bayou. They mark shorelines of the late prehistoric and early historic periods, when the distributary was still partially active, and the point bar was still being built outward by alluvial sediment.

On the west side of the meander bend, the distributary cut into the natural levee where archaeological sites span nearly 2000 years of aboriginal occupation.



These sites date from the Marksville to the Historic Periods. Earlier occupations frequently underlie those of more recent dates, especially at Bayou Coquilles. Yakubik and Franks excavated a midden location on the west bank natural levee, about a quarter of a mile upstream from the confluence of Bayous des Familles and Coquilles. Giardino determined that the 150 sherds found in shovel tests and a test pit in two middens signified aboriginal habitation on the bayou in the late eighteenth century. The test pit yielded 106 aboriginal sherds and a wrought-iron mule shoe which was horizontally positioned on top of a shell stratum in the depth of the midden. Giardino considered that the ceramics recovered from all levels and test localities of the middens were contemporaneous.[32]





Wall of test pit in historic Indian midden on west bank of Bayou des Familles, showing mule shoe resting on a shell stratum.

In the earliest NPS archaeological site inventory of the park, conducted in 1982 by Richard Beavers, this midden was described as a multi-component site consisting of a prehistoric occupation overlaid by a colonial habitation. Beavers' dating of the aboriginal material as "probably of the Marksville Period" is apparently incorrect. He reported that colonial artifacts were recovered from the surface and from a test pit in the midden which he designated as Site No. UNO 7.

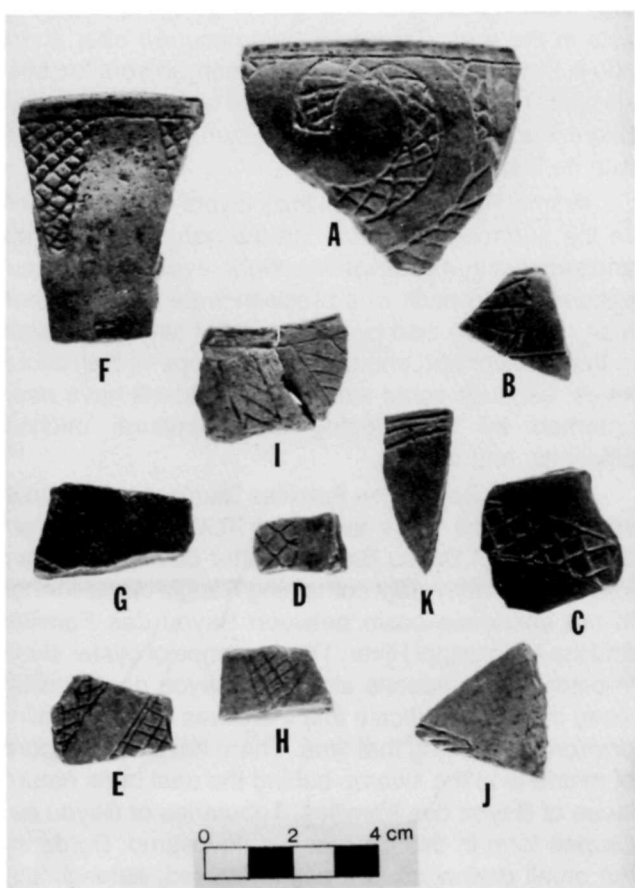
> Earth and shell midden cut by two ditches running northwest by southeast. Site is squarish, measuring about 20m N-S by 35m E-W. It is multi-component with a historic site (brick, square nail, Spanish olive jar) overlaying a prehistoric component that is probably of the Marksville Period.[33]

The only other historical artifact found in the vicinity of this midden area by Yakubik and Franks was the surface collection of a piece of colonial brick. The full nature of the site remains undetermined. The colonial

road called the Chemin de Coquilles probably passed over the midden which is situated on the highest ridge of the natural levee (see Chapter VIII). The two ditches mentioned by Beavers were dug as a mid-nineteenth century boundary line (see Chapter VI).

Yakubik and Franks also excavated a series of late eighteenth century Spanish house sites on the east bank natural levee which contained Indian potsherds in context with European wares and artifacts (see Chapter III). The 62 sherds recovered from four of the house sites were catagorized by Giardino as Addis Plain *var. St. Catherine,* Maddox Engraved *var. unspecified,* Moundville Incised *var. Buras,* Maddox Engraved *var. Emerald,* Baytown Plain *var. Jean Lafitte,* Maddox Engraved *var. Canary,* Medora Incised *var. Medora,* and Baytown Plain *var. Addis.* These types are commonly found in aboriginal sites of the Historic Period, but their presence in documented European sites gives conclusive evidence of their late production as well as their use by European settlers.[34]

Giardino observed that the Indian wares were obviously acquired by the settlers either for their contents and/or for the containers themselves. He speculated that the pots could have been traded to the settlers by the same group of Indians who were occupying the aboriginal sites excavated by Yakubik and Franks on the west bank of the bayou. He concluded that the finding of Indian ceramics associated with historic materials in the documented house sites provides a rare opportunity to assess socio-economic relationships between Indians and colonists during the late eighteenth century and raises important issues concerning the longevity and cultural continuity of Indian culture into the nineteenth century.[35]



Aboriginal sherds from Spanish House Site 6. A-E: Maddox Engraved *var. Emerald,* F-H: Maddox Engraved *var. Canary,* I-J: Medora Incised *var. Medora,* K: Unidentified incised.

Similar archaeological finds in Barataria suggest that many European sites having such common assemblages of European and Indian ceramics may exist in the region. According to archaeologist Charles E. Pearson, the Bayou Matherne site, on the west side of Lake Salvador, contains aboriginal potsherds in definate association with eighteenth century European ceramics, including creamwares. This implies that the aboriginal wares, which include the types Maddox Engraved and Fatherland Incised, were made in the last decades of the eighteenth century. Pearson notes that the evidence that has been produced by these recent excavations on both sides of Lake Salvador suggests that Indian pottery was being locally manufactured and was abundant in the area in the late eighteenth century.[36]

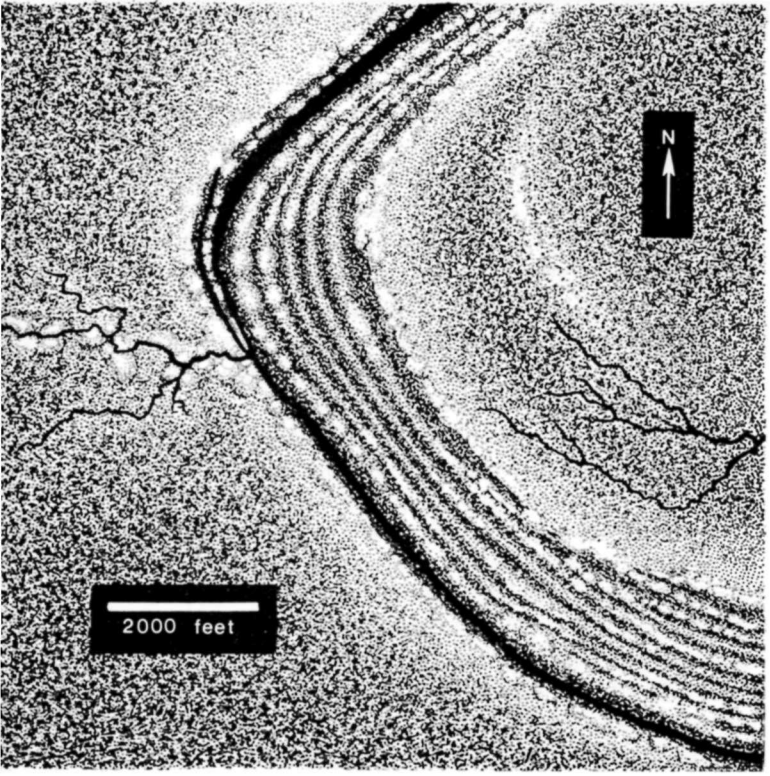
Trudeau's map of 1803 contains a text which describes Indians still living on the Barataria lakes, eating clams, and depositing the shells in enormous mounds.

> This shellfish is so abundant that the different tribes that inhabit these lakes make it their principal diet. And as these tribes pile them up in the environs of their villages, the shells produce pyramidal forms that still grow and although from the beginning of the province it was from these same mounds that lime was taken for the public buildings of all of Lower Louisiana. They were not formed in a single period. We ought then to infer that the tribes which piled them up were innumerable.[37]

The mining of shells for the making of lime was a principal industry of Barataria for two centuries. A late nineteenth century account noted that "vast accumulations" remained along Bayou Barataria even though the shells had been taken for years "for street grading and garden-walks in New Orleans," and "a constant trade in small sail-boats and barges" annually brought thousands of cubic yards to the city. The mining of Indian mounds in Barataria continued until recent years. Old residents of Barataria describe huge shell mounds that existed on Bayou Coquilles in the early twentieth century.[38]

Certainly, of all the alterations the Indians made while exploiting the environment of Barataria, the most striking additions that they made to the landscape were the enormous piles of gleaming white shells that they deposited in mounds and middens along the shores of the bayous and lakes. Mere vestiges remain of aboriginal occupation in Barataria. Nevertheless, numerous Indian sites survive in the park, many of which are unrecorded.

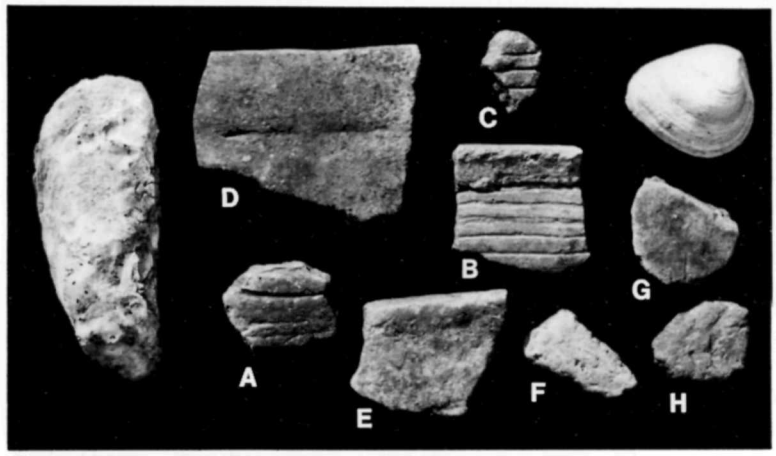
Field surveys for this study made important discoveries concerning the cultural geography of aboriginal occupation of the Barataria-des Familles Distribut-



Indian mounds and middens in the ridge and swale topography of the point bar of the meander bend.



A prehistoric midden with *Rangia* shells and potsherds on the old river shoreline at the edge of the east bank natural levee crest is examined by Archaeologists Charles Pearson and Rick Fuller and Park Archaeologist Allison Peña.



Prehistoric Indian midden material from the Bayou des Familles east bank natural levee crest: oyster (L.) and *Rangia cuneata* clam shells (R.), and potsherds dating from 200 A.D. to 1500 A.D., A-B: Coles Creek Incised *var. Hardy* rims, C: Mazique Incised *var. Manchac*, D: Baytown Plain *var. Satartia* rim; E-H: Baytown Plain *var. unspecified.*

ary. Unrecorded sites are spread over a much wider area than previous surveys limited to the borders of the bayou have recognized. Earth and shell middens occur throughout the filled river bed on the concentric point bar ridges that mark successive bank lines. The most distant are earth mounds with little surface shell which lie as far as 1800 feet from Bayou des Familles, on the crest of the natural levee of the old distributary. The sparsity of shells suggests that the middens were occupied when the distributary carried fresh water, and the brackish water clam *Rangia cuneata* was less available in the area. This may have occurred after about 600 A.D. when Bayou Barataria emerged from the Mississippi River and joined the course of the Des Familles Distributary a mile further south, carrying clay and silt with its floodwaters.

Animal holes show that thick layers of shells underlie the surface of the sites on the natural levee crest and suggest that excavations might reveal earlier occupations dating back to a brackish water environment. Many sites may also be buried under alluvial deposits in the old river bed and on the backslope of the natural levee, because some subsurface middens have been upturned by the digging of agricultural ditches, pipelines, and canals.

After the Bayou des Familles Distributary began to carry less of the river's flow about 1000 B.C., and before the forming of Bayou Barataria after 600 A.D., a brackish water embayment containing *Rangia* clams formed in the interlevee basin between Bayou des Familles and the Mississippi River. The presence of oyster shells in some shell middens along the Bayou des Familles levee crest may indicate that there was a nearby saline environment during that time. There have been reports of middens in the swamp behind the east bank natural levee of Bayou des Familles. Tributaries of Bayou aux Carpes form in this cypress-tupelo swamp. Bordering the small drainages is a slightly raised, semi-circular area measuring about 500 feet wide by about 2000 feet long. It supports a mixed hardwood and cypress forest and appears to be a relic natural levee of a submerged

meander, abandoned when the channel shifted to the course defined by the present levee system. In 1816, Surveyor Barthélemy Lafon labeled this *"terre haute boisée"* or high wooded land. In 1855, United States Deputy Surveyor Maurice Hauké also recorded it as "high land." The reported middens are said to be located on this nearly submerged ridge.[39]

Archaeologist Richard S. Fuller, in his NPS report "Identification and Analysis of Artifacts from Thirteen Sites in and adjacent to the Barataria Unit of the Jean Lafitte National Historical Park, Jefferson Parish, Louisiana," 1990, gave corresponding dates to surface potsherds collected for half a mile along the Bayou des Familles natural levee crest in the southern part of the park. These sherds, which were found on Indian middens and on Spanish house mounds, were prehistoric and dated from about 200 A.D. to 1500 A.D. They included Baytown Plain *vars. Satartia* and *Troyville* of the Late Marksville Culture (ca. 200-400 A.D.) and/or Troyville Culture (ca. 400-700 A.D.); and Coles Creek Incised *var. Hardy* and Mazique Incised *var. Manchac* of the Transitional Coles Creek Culture (ca. 1000-1200 A.D.) and/or Plaquemine Culture (ca. 1200-1500 A.D.).

According to Fuller, the prehistoric sherds indicate a dispersed subsistence/settlement pattern along the levee ridges of Bayou des Familles dating back to the Marksville Period. Historic Indian sherds were also collected from two Spanish house sites at the northern end of the collection area. These sherds are similar to those recovered from other Spanish house sites in the park. They are characterized by fine, sandy pastes and incised decoration which Fuller identified as stylistically derived from the types Maddox Engraved and Owens Punctated. The decorated sherds exhibit zoned hatching and cross-hatching, and zoned punctated dots similar to their prototypes, but they differ in technique of execution. To emphasize the significance of distinct local pottery traditions, Fuller recommended the designation of new types for historic Indian wares found in the park, such as "Barataria Incised" and "Christmas Punctated" (see Chapter III).

Ethnobotanical studies have suggested that prehistoric man introduced flora to areas of south Louisiana, especially to mounds and middens that have served as dwelling sites. It has been speculated that the upland plant communities on elevated prehistoric sites in the coastal swamps and marshes were established with plants and seeds transported to the sites by Indians. Mounds and middens have also been utilized as dwelling and camp sites through historic times to present-day. Undoubtedly, humans have always served as agents of plant distribution to separate locales in coastal Louisiana, but man-introduced flora has probably become geographically diffused in most areas, throughout all the plant communities.[40]

For example, an ethnobotanical study made in 1977-81 of the plant community at the prehistoric village site on Bayou Coquilles identified many plants known

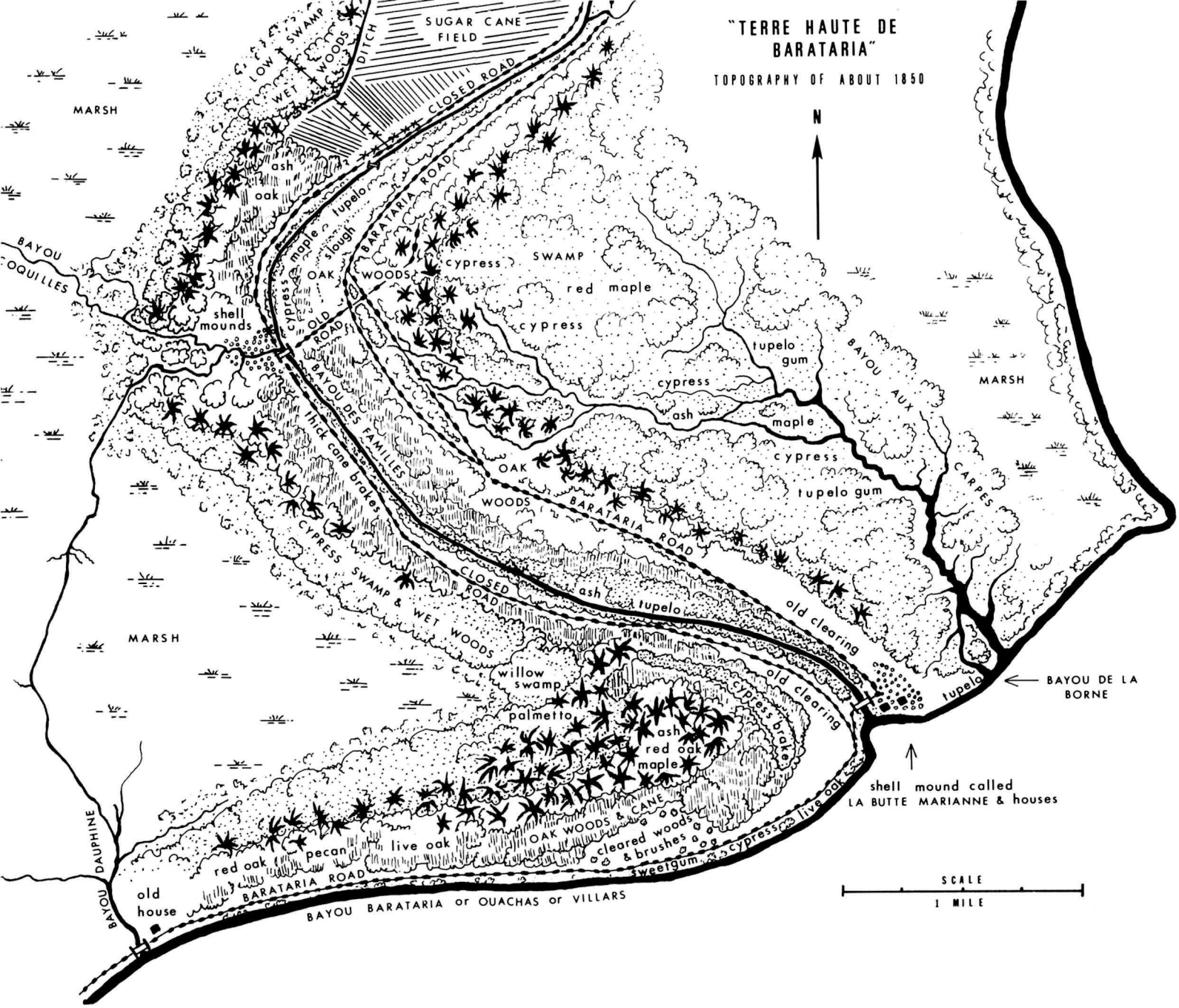


to have been used by Indians for food, medicine, building material, and other purposes. The study concluded that there was "a distinctive diversity in the vegetation at the site." However, a floristic inventory of the park completed two years later identified all but eight of the Coquilles flora as growing elsewhere in the park. The multiplicity of aboriginal sites in the park suggests that the influence of Indians upon vegetation may have been widespread over all similarly elevated areas.[41]

Louisiana Indians encouraged wild edible plants to grow in the vicinity of their villages by scattering wild seeds, but they also cultivated gardens. By the time that Europeans arrived, Indians were growing corn, beans, and squash. They were irrigating their fields, and they were cutting tree branches to burn along with weeds on the ground to improve the quality of the soil. They were also exploiting the environment as hunters and gatherers. The landscape in which they lived has been much altered.[42]

A description of the environment in which the Indians dwelled was given by the elder Dubreuil in a letter of 1740 to the French minister. In order to give access from the river to the "large lakes named for the Owachas [sic] Indians," Dubreuil dug a navigable canal deep into the swamp where, he said, the trees grew very big and touched each other. In so doing, he said that he found

> the headwaters of a small river, then unknown, and which I am presently calling the Rivière de Barataria . . . . Descending from the head of this little river there are six or seven leagues of magnificent cypress which are red cypress and better than the white cypress of the river . . . . At the end of these seven leagues of cypress, always descending the little river which becomes magnificent and at least 50 feet deep and always widening toward the sea coast, the high lands begin. And bordering the banks of the little river are forests of live oak suitable for construction, for their forms curve naturally. There is also a good kind of very stout ash tree which can be used for all kinds of work for which elm wood is used. There is also elm, sassafras, red laurel, and some white oak which has very good wood. At the end of this little river which separates into three branches which lead into three different, very big lakes, and roundabout which are endless prairies, is the place for animals for the butcher shops of New Orleans which lack supplies because the animals that are on the river lands lack winter pasturage and die of starvation, and those which survive are still thin three months after winter. Instead, in these prairies, grass is never lacking, however cold it may be; and I have found the place so suitable for



raising them that I have placed 120 cows on the Isle of Barataria which was conceded to me, and they have multiplied many times and are always very fat.

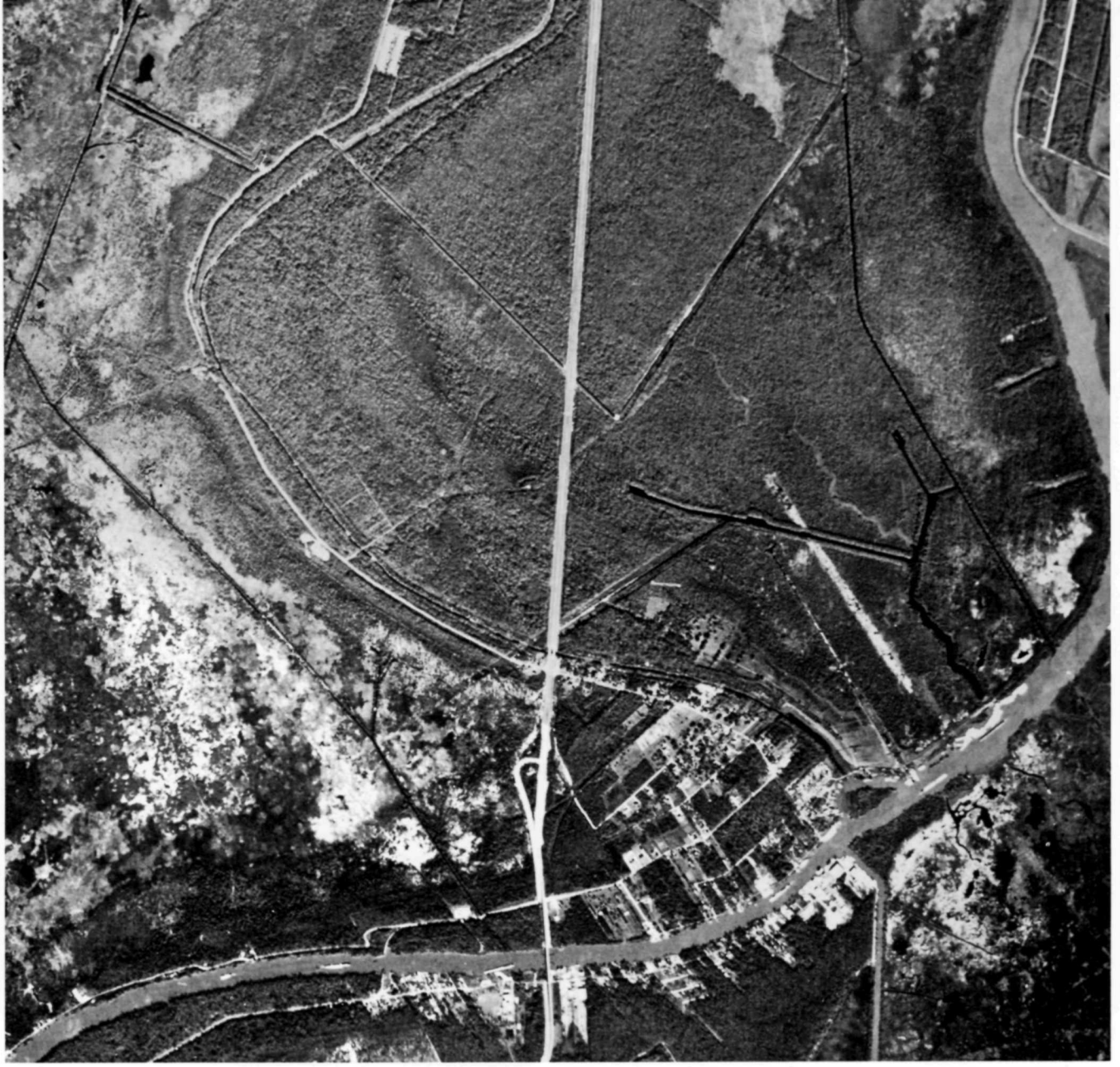
I have found on the shores of the lakes everywhere so many shells that New Orleans and its environs will never lack lime. One can extract from these places all sorts of game and fish, so as never to be lacking in the city, as well as some oysters. And in no time one can shoot buffalo in many of the high lands behind these lakes.

There are also considerable high lands around these lakes which are just as elevated as the lands of Natchitoches, very beautiful and better than those on the river, which never are flooded, and on which there will eventually be established beautiful plantations, which will become less remote by the use of the canal, since I went 20 leagues in one day without difficulty from this canal to the sea.[43]

Le Page Du Pratz, who lived in lower Louisiana between 1718 and 1734, also wrote of the large evergreen oaks of Barataria, "fit for ship building." The buffalo, he said, strayed into the marshes to pasture. He described the lakes of Barataria as

> stored with monstrous carp, as well for size as for length; which slip out of the Mississippi and its muddy stream, when overflowed, in search of clearer water. The quantity of fish in these lakes is very surprising, especially as they abound with vast numbers of alligators. In the neighborhood of these lakes there are some petty nations of Indians, who partly live on this amphibious animal.[44]

All historic accounts of Barataria emphasize the vast forests of huge, aged live oak and bald cypress. These trees are the climax species of the upland alluvial ridges and the swamps. Such old-growth forests have specialized ecosystems based on decadence and death, with uniquely evolved life forms. It is this landscape which was obliterated by historic use of the natural resources of Barataria. Massive exploitation has altered every ecosystem, and the landscape today reflects the cumulative changes of thousands of years of human use.

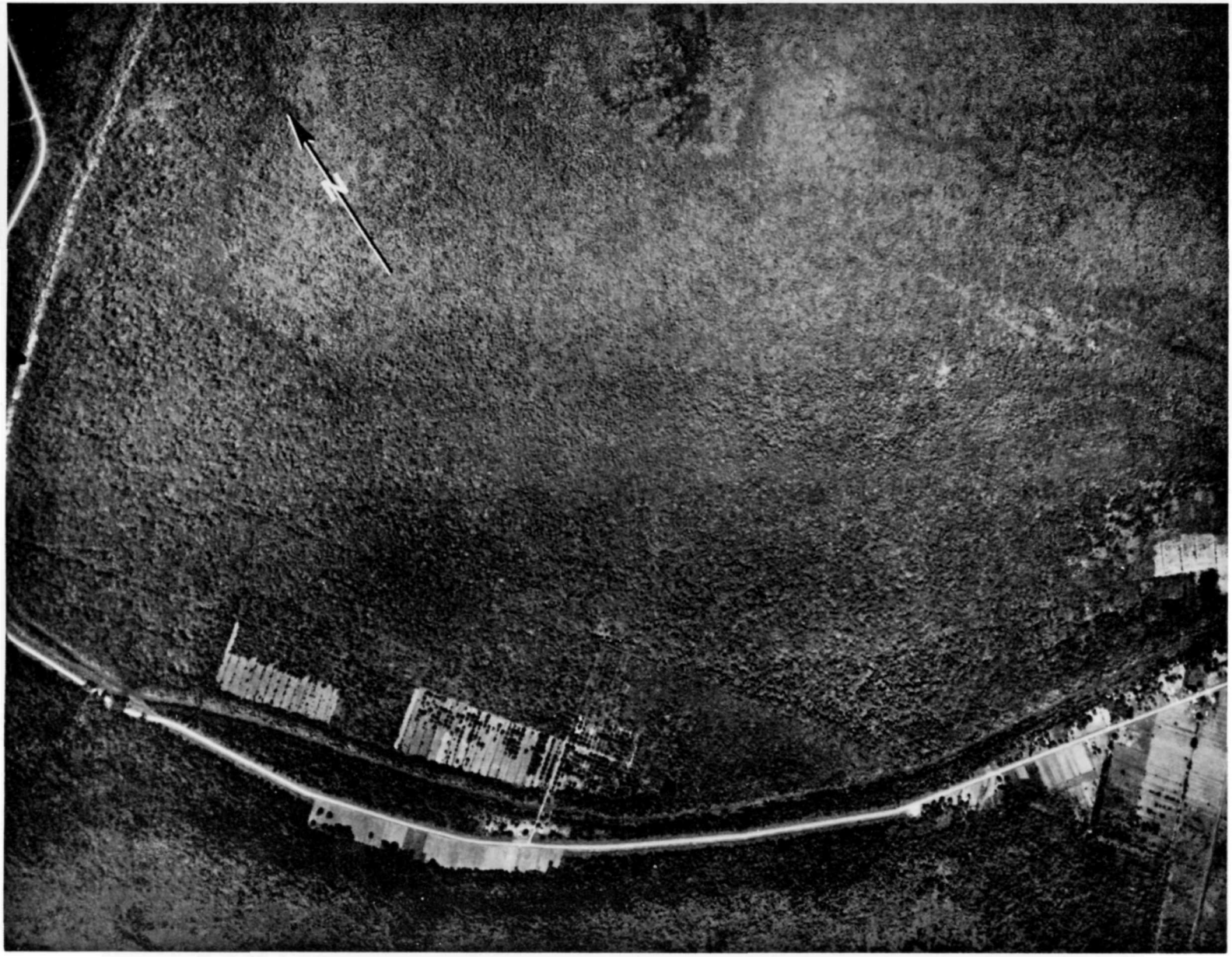


Study area and environs. Black and white photograph made from a color infrared aerial photograph flown December 14, 1985, Project 58500, frame 1644, detailed enlargement, National Cartographic Information Center, National Space Technology Laboratories, Mississippi.

Extensive agricultural systems stretched across much of the park in the French and Spanish Colonial Periods. Cultivated fields once spread over areas that have subsided and become swamp and marsh. American plantations also consumed much of the land in the nineteenth century. The forests have been repeatedly logged. No part of the study area has escaped human exploitation and development. The woodlands, swamps, and marshes are regenerating upon a man-altered land. Nonetheless, the principal characteristics of the various ecosystems remain distinctive. The park encompasses ecological zones common to abandoned river distributaries: brackish water marsh, freshwater marsh, swamp, and upland forest. Regardless of human alterations, the flora and fauna continue to reflect the dissimilar natural processes of deltaic deterioration in each zone.

A transect of the former course of the Barataria-des Familles Distributary would pass through nine life-zone changes in little more than a mile. Drawn from west to east, it would begin in marsh grasses growing in semi-fluid and mucky soil made up of decomposed organic matter, clay, buried stumps, and logs. Among the most conspicuous marsh plants are cat-tail, bulrush, pickerel-weed, arrowhead, bull-tongue, and swamp-potato.

The transect would then enter a swamp forest of bald cypress, pumpkin ash, and tupelo gum growing in submerged, semifluid and mucky mineral clay filled with stumps and logs. It would then ascend the backslope of the natural levee which is composed of firm mineral soil formed by fine clayey alluvium. This zone is intermittently flooded. It is sharply demarked from the swamp zone by a band of red maples. On the ascent of the backslope are other water-tolerant trees such as sweet gum, Nuttall oak, bald cypress, black willow, red bay, American elm, and Carolina ash.



Study area, May 17, 1945. National Ocean Survey for the National Oceanic and Atmospheric Administration, C&GS 20 LA. 1250 29 90 C 2790, National Archives, Washington, D.C.

The transect would then cross the crest of the natural levee where the firm mineral soil is a highly fertile silty clay loam deposited at the onset of alluvial overflow. The natural plant dominant of this zone is the evergreen live oak. Other trees such as water oak, hackberry, American elm, red mulberry, Southern magnolia, persimmon, honey-locust, American sycamore, green ash, boxelder, sweetgum, and slippery elm also favor the natural levee crests.

Leaving the natural levee, the transect would cross the bayou which is bordered by swampy shores thickly grown over with bald cypress, tupelo gum, pumpkin ash, red maple, black willow, and other water-tolerant species. The bayou contains floating and submerged acquatic plants such as water-hyacinth, duck-weed, white water-lily, fanwort, and coon-tail.

The transect would then ascend the ridges and swales of the filled river bed to the opposite natural levee. The fill consists of somewhat poorly drained but fertile silty clay loam characteristic of bottomlands. The trees of the natural levee crests predominate in this zone, but they are mixed with species also found in the swamp and backslope zones. Upon reaching the opposite side of the old distributary, the transect would, once again, cross through natural levee crest, backslope, and swamp zones.

These distinctive ecological zones are responsive to geological conditions, especially differences in elevation, soil composition, and moisture. Although the natural levees rise no higher than about six feet above the bayou, variations in height produce dramatic changes in dominant vegetation, from marsh grass to enormous live oaks. It has been said that "six inches of difference in elevation are more significant in changing the plant communities in Louisiana than 100 feet in the mountains."[45]

Chief Ranger David P. Muth has grouped lists of species that occupy these habitats, in order that the historical appearance of the ecological zones in the park can be largely visualized.

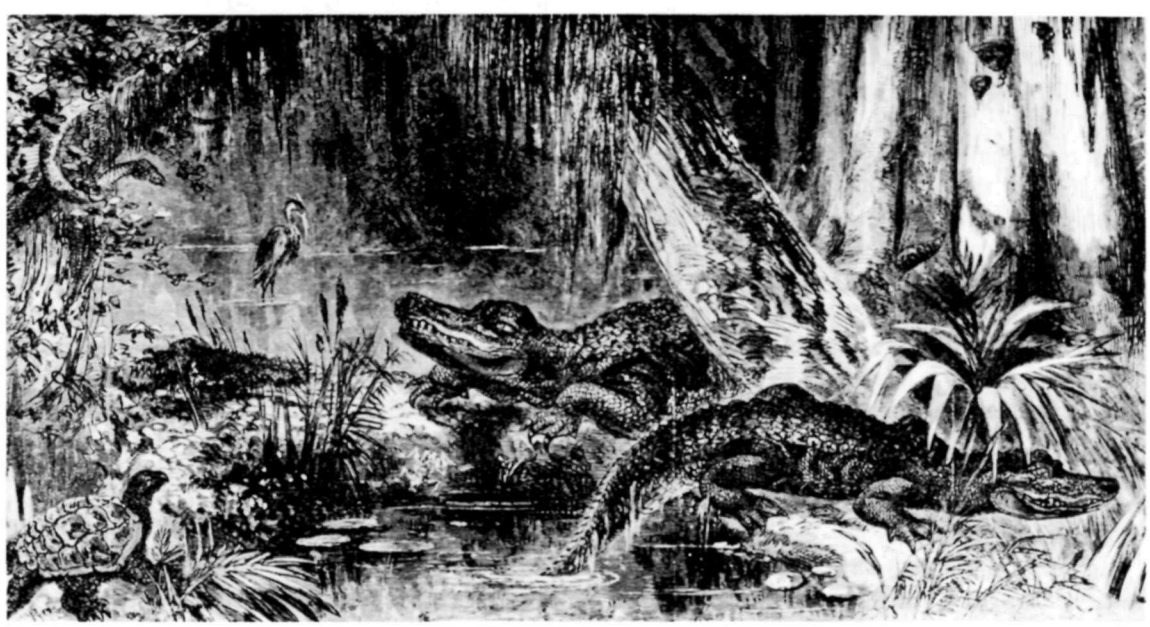
HISTORIC FLORA AND FAUNA OF THE OLD BARATARIA - DES FAMILLES DISTRIBUTARY

by
David P. Muth

An accurate reconstruction of the plant and animal life present in the park during historical times is ultimately impossible. No detailed historical records exist, and the accounts of early casual observers are incomplete, imprecise, and often suspect. Furthermore, the dynamic nature of this environment, with the steady changes brought about both by geological processes and by human intervention, permit different reconstructions to be fashioned for virtually any date during the last two thousand years. While this assertion may seem something of a truism, it is particularly applicable here. The fluidity of an active deltaic environment means that change can be measured on a geological time scale of decades, not eons. Moreover, the fecundity of this environment, its rich soils, abundant rainfall, and subtropical warmth, allows a rapid recovery toward "primeval" conditions, once the hand of man is removed. Such a recovery is in progress today in the park.

The biota of the various habitats of the modern delta, such as the Barataria - des Familles sub-delta lobe, is characteristic of that found in similar habitats throughout the southeastern United States. However, some important flora and fauna are missing in Barataria. A list of plants present in Barataria's swamps, swale bottoms, and levee ridges is noticably shorter than a list from similar habitats in the Pearl River basin just forty miles to the northeast. Part of this difference can be attributed to differences in soils, but it is also a function of the absolute ages of the two basins and the mechanisms available for seed dispersal and recruitment. The much younger Barataria natural levees, like those of other deltaic lobes, are essentially peninsulas of habitat that extend far from similar habitat on the mainland. The relative youth of these habitats has allowed time for only limited colonization from the mainland. Only those species capable of rapid and efficient seed dispersal, under the ever-changing hydrological and elevational conditions of deltaic geomorphology, are to be found. Moreover, the presence of certain species may be accidental. As one would expect, the separate delta lobes have some biological differences not only from the mainland, but from each other as well.

One of the most lively of current biological discussions involves the so-called "island effect." Like true islands surrounded by water, stranded areas of a particular habitat surrounded by dissimilar habitats are noticeably depauperate in species diversity. This occurs because of the vagaries of recruitment, and because many species, such as interior forest dwelling birds and mammals, require large areas of suitable habitat to maintain stable populations. The phenomenon has become apparent as fragmentation of tropical





Young barred owls nesting in a live oak.



Barred owl parent in a nearby sweet gum tree.

rainforests has accelerated and come under increasing scientific scrutiny. It is instructive to note that the early French settlers of the basin referred to the patches of forest in the open marsh as "isles," as, for instance, the "Isle de Barataria."

The Barataria Basin was never completely stripped of its forests, but over the last three centuries large sections of forest were cleared by agricultural and logging activities which left islands of forest habitat. It is probable that some species were lost during these episodes, and they may not have successfully recolonized in the interim. Today, the forests of Barataria, though progressing towards maturity in the absence of agriculture and logging, are shrinking in extent from the steady encroachment of residential and industrial development. What is left is an island, cut off from similar habitat to the north by New Orleans and its suburbs. Since more of the present contiguous forest of Barataria is outside the park boundary than within, the number of species within the park can be expected to decline as more and more of the surrounding forests are cleared and present plant and animal populations fall below sustainable numbers.

Examples of missing species abound. Some are likely absent due to the "island effect." Others are perhaps absent because of slow recruitment from mainland populations. A number of fish, amphibians, and reptiles of similar habitats, some with ranges extending south of Lake Pontchartrain, are not present in the park. Forest-dwelling breeding birds such as the wood thrush and Kentucky warbler, which are easily found in similar habitat north of Barataria, are absent from the park. A few others, such as yellow-throated vireo and summer tanager are only occasionally encountered in the breeding season, and may not successfully breed in Barataria. Several small mammals, especially forest dwellers, have yet to be found in the park. The striped skunk is inexplicably absent from the delta. It is not clear whether recent sightings, if accurate, represent ongoing colonization or individuals that have "hitchhiked," escaped, or been released.

Some of the distinctive features of the flora, and perhaps of the fauna as well, may be the result of subsidence. Two species mentioned as abundant in early accounts are Southern magnolia and river cane. Only vestigial populations remain today. Their demise may be the result of subsidence. Perhaps the land in Barataria is too low and wet today. The little river cane which remains in the park is concentrated on "promontories" of high ground, such as the Coquilles Indian mounds and middens.

Other species missing from Barataria were driven to extinction by man, or extirpated from this portion of their range. Two extinct species, which probably occurred at least seasonally in Barataria, were the passenger pigeon and Carolina parakeet. The ivory-billed woodpecker, which may or may not be extinct, doubtless formerly occurred. Too little is known of the habitat preferences and former range of Bachman's warbler to say, but it may also have occurred here in the past. In times of former abundance, whooping cranes and trumpeter swans may have seasonally inhabited the marshes, especially before subsidence, sediment deprivation, and canal dredging destroyed the firm marsh substrates. A species that was hunted out of the area is the wild turkey, and no corridor now exists for its unassisted recolonization from the mainland. Early historical accounts of the delta's wildlife all mentioned the presence of bison, unlikely as their presence here might now seem. Again, land use practices, including logging, as well as subsidence, may well have rendered Barataria unsuitable for so large an animal. In any case, the species was hunted out of Louisiana at an early date, and it may never have been abundant in the delta. All of the larger predators are now gone, including black bear, red wolf, and cougar. The status of smaller pre-



Gulf Coast box turtle.



Great egret in a bald cypress-tupelo gum swamp.

dators including the long-tailed weasel, gray and red foxes, and the bobcat, is unknown. There are a few recent unconfirmed reports of gray fox and bobcat, suggesting either recolonization or a tiny remnant population. Though the American beaver was extirpated from the delta long ago, unequivocal beaver sign was found along Bayou Barataria in the winter of 1988-89, suggesting the possibility of successful recolonization.

Some species have successfully extended their ranges into Barataria in historical times. Cattle egret first reached southeast Louisiana, via Florida, the Caribbean, South America, and, originally, Africa, in the 1950s. The nine-banded armadillo first appeared east of the Sabine River about 1920, and steadily spread eastward, eventually occupying the entire state. It probably reached Barataria sometime in the last thirty years. The coyote has reached the park within the last five years. Coyotes have been moving steadily eastward through Louisiana for the last fifty years or so. In the process, the population has swamped the remnant population of red wolf, and much cross-breeding has occurred, producing a "hybrid swarm." It is unlikely that the coyotes presently colonizing the delta are purebred, but at present the extent to which introgression of red wolf genes has occurred is unknown. In any case, the invader is doubtless better adapted to the forests, swamps, and marshes of the delta than its progenitor, the little coyote of the Great Plains.

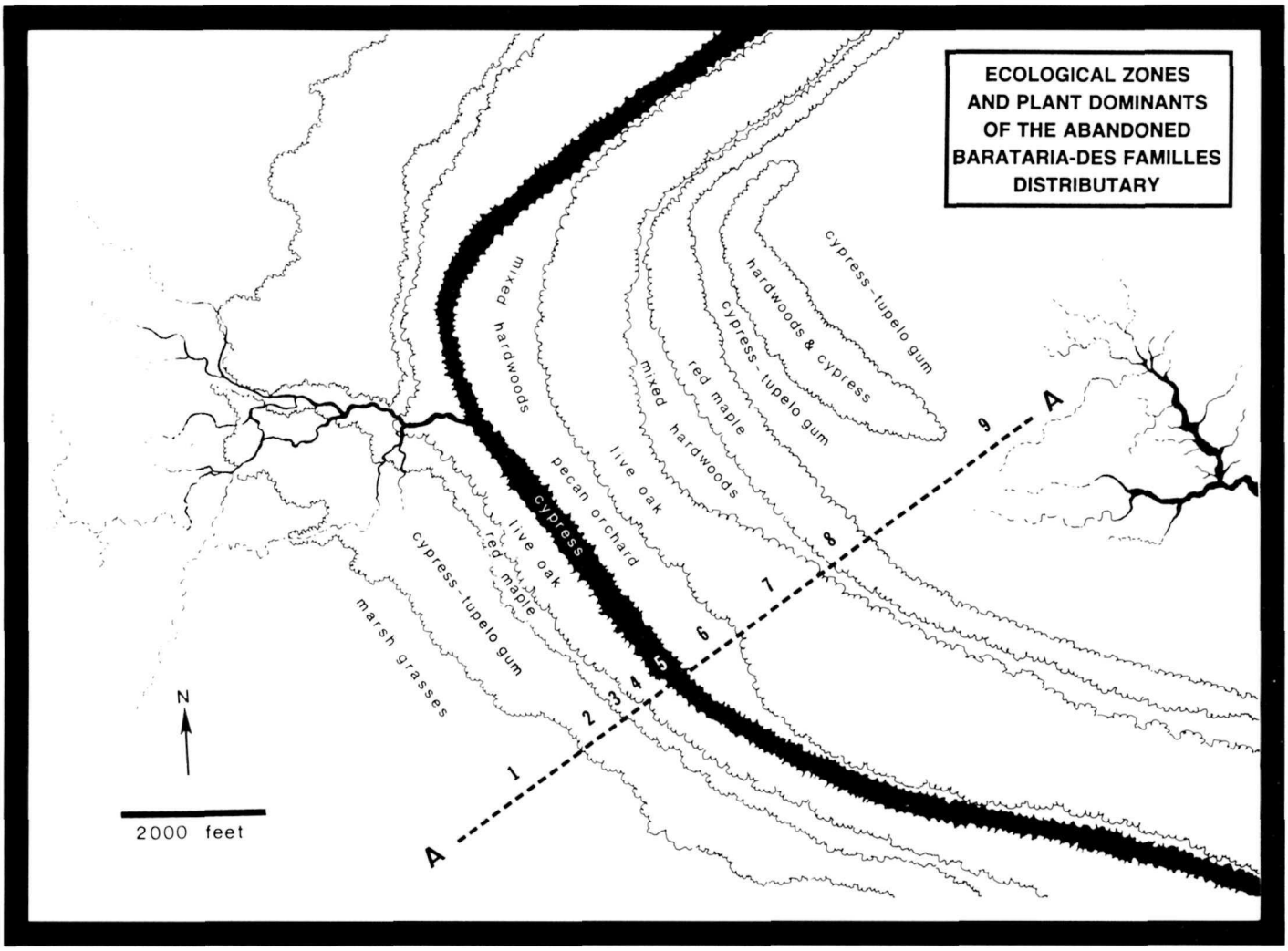
Throughout history, humans have introduced alien or exotic species into formerly inviolate ecosystems. Many of the plants and animals of Barataria are present because of direct or indirect human intervention. No attempt will be made here to list all of the exotic species found in the park. Most are confined to disturbed areas such as spoil-banks and mowed roadsides, but a few are so integrated into the system as to require mention. These include water hyacinth and alligator weed in wetland areas, and privet, Chinese tallow-trees and camphor trees in the forests. Among vertebrates, three introductions have been most "successful," the starling and house mouse from Eurasia and the nutria from South America. Human practices can lead to less dramatic alterations of the biota as well. It is quite certain that during agricultural periods Barataria was invaded by a number of open-country plants and animals native to other parts of Louisiana. Among these were probably such birds as the bobwhite, American kestrel, dickcissel, and eastern meadowlark, and such mammals as the eastern cottontail rabbit and possibly the fox squirrel.

Still other flora and fauna were deliberately brought into Barataria for economic or aesthetic purposes. The park is studded with persistent cultivated plants such as wysteria, calla lily, crape myrtle, loblolly pine, bamboo, and black locust which mark old house sites. In most cases, these are the original plantings which have outlived the buildings they were planted to enhance. They will disappear as these specimens die out.

Numerous domestic plants and animals were historically present in the park. Archival records specify the introduction of cattle, horses, tobacco, cotton, and indigo during the French Period. Horses and cattle were allowed to run wild. Domestic plants and animals recorded as being in the study area during the Spanish Period are cattle, sheep, pigs, pigeons, horses, chickens, goats, cotton, indigo, potatoes, peas, and, apparently, corn and other grains.

During the nineteenth century, the record specifies that cattle, chickens, goats, pigeons, horses, mules, and sheep were raised in the park, and that corn, rice, sugarcane, cotton, turnips, lettuce, radishes, cabbage, hay, and sweet potatoes were grown. Domestic plants and animals known to have been in the study area during the twentieth century are sugarcane, orchard pecans, potatoes, beans, cabbage, beets, peas, peppers, cattle, hogs, rabbits, geese, mules, horses, and dogs. Domestic ducks and cats were doubtless historically present. Feral dogs, cats, and pigs are a continuing problem for native wildlife.

The chart that follows is an attempt to list the characteristic native species of each habitat encountered as the observer moves through a cross-section of the old Barataria - des Familles distributary course. Introduced and exotic species are listed separately. Only those species known to be present are included. It is not complete. Some groups of species, for instance grasses and sedges, are only sampled. And, as in any inventory, new species are constantly being detected. A code of one, two, or three asterisks is used to denote abundance in ascending order. To some extent, these abundance codes are useful in comparing one species to another, but they are more applicable when comparing a given species' occurrence in differing habitats.





ECOLOGICAL TRANSECT OF THE ABANDONED BARATARIA-DES FAMILLES DISTRIBUTARY

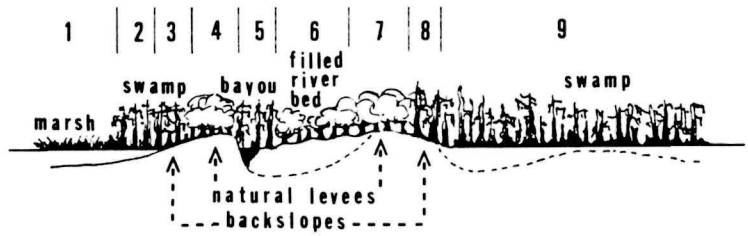
ECOLOGICAL ZONES:

1. FRESHWATER MARSH
2. SWAMP
3. NATURAL LEVEE BACKSLOPE
4. NATURAL LEVEE CREST
5. BAYOU
6. FILLED RIVER BED
7. NATURAL LEVEE CREST
8. NATURAL LEVEE BACKSLOPE
9. SWAMP

HISTORIC FLORA AND FAUNA OF THE OLD BARATARIA-DES FAMILLES DISTRIBUTARY

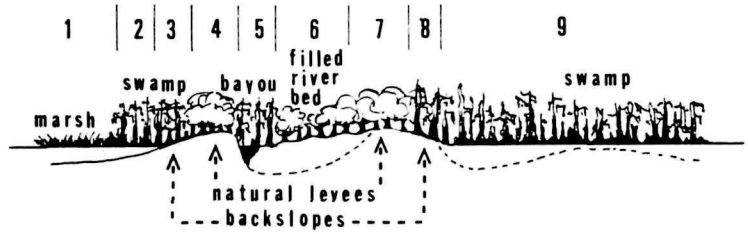
SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
PLANTS						
Ferns						
Mosquito Fern	*	***	*		*	
Ebony Spleenwort				**		**
Royal Fern		*	**		*	
Resurrection Fern		**	***	***	**	**
S. Shield Fern			**	***		***
Net-veined Chain F.		*	*		*	**
Floating Antler F.	*	**				
Flowering Plants						
Cat-tails	***	**	*		*	
Water-nymph	**				*	
Bulltongue	***	**			*	
Arrowhead	**	*				
Delta Duckpotato	*	*			*	
Frog's Bit	**	***			**	
(Grasses)						
Broomsedge	**	*	*	*		*
Walter's Millet	***	**	*			
Giant Plume G.	**	*	*	*		
Cut Grass	**	*				
White Grass				*		*
Maiden-cane	***	*				
Roseau-cane	***	*	*	*	*	*
Bagscale	*					
Quill-cane	*					
Cord Grass	**					
Wedge Grass			*	*		*
Giant Cut Grass	***	**	*		*	
(Sedges)						
Flat Sedge	***	**	*			
Nut Grass			*	**		**
Spike-rush	***	**			**	
Horned-rush	*	**	*			
Giant Bulrush	**	*				
Three-square	*					
(Forbs)						
Green Dragon			*	**		***
Water-lettuce	*	**			**	
Duck-weeds	**	***	*		***	
Spanish Moss		***	**	**	**	**
Day-flower				*		
Spiderwort		*	**	***		

SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Pickerel-weed	*	***	*		**	
Soft Rush	**	*				
Wild Onion			*	**		**
Green-briars			**	***		***
Spider-lily	*	**	**	*	*	*
Yellow Star-grass				*		*
Red Iris			*	*		*
Giant Blue Iris	*	***	**	*	***	*
Golden Canna	*					
Tree Orchid			*			*
Water Spider	*	*			*	
Ladies'-tresses	*	**	*		*	
Lizard's Tail	*	***	**		**	*
Nettle				*		*
Clearweed			**	**		**
Mistletoe		*	**	**	*	**
Eardrop Vine			*	**		**
Smart-weeds	***	**	*	*	**	*
Docks			*	**		**
Pokeweed				*		*
Purslane	***	**	*		**	
Chick-weed				**		**
Fanwort	**	*			***	
White Water-lily	**	*			*	
Coon-tail	**	*			***	
Leather-flower				**		*
Buttercups	*	**	***	*	**	**
Purple Meadow-rue				*		
Bitter-cress			**	*		***
White Avens				**		*
Dewberry		*	***	***	*	***
Butterfly Pea			*	**		**
Beggar's Ticks				**		**
Coffee-bean	***	**	*	*	*	*
Red Rattlebox	***	*				
Vetch		*	*	**		**
Deer Pea	***	**	*	*	**	*
Wild Geranium				**		**
Wood Sorrels			*	***		***
Poison Ivy			**	***		***
Supple-jack		*	**	***	*	***
Pepper-vine		*	*	***	*	***
Raccoon Grape			*	**		**
Virginia Creeper			**	***		***
Muscadine		*	**	***	*	***
Rose-mallows	**	*			*	
Salt-marsh Mallow	***	**	*		**	*



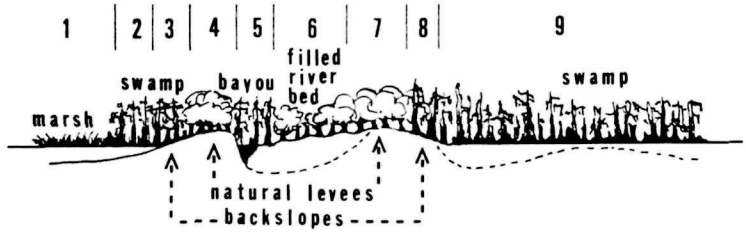
SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
St. John's-wort			*	* *		* *
Violets			*	***		***
Water-primroses	***	* *	*		* *	*
Evening-primroses				* *		*
Pennyworts	***	***	* *	*	***	*
Mock Bishop's-weed	*	* *	***	*	* *	*
Water Pimpernel		*	***	*	*	* *
Rose-gentian		*	* *	*		* *
Vache-a-lait			*	* *		* *
Pony-feet				* *		* *
Morning-glories	***	* *	*	*	* *	*
Baby Blue-eyes				* *		*
Forget-me-not			* *	***		***
French-mulberry				* *		* *
Hedge-nettle				*		*
Monkey-flower			*	*		*
Cross-vine			*	*		*
Trumpet-creeper		*	***	***		***
Bedstraw			*	* *		* *
Cardinal Flower	*	* *	* *	*	* *	*
Bur-marigold	*	***	*		* *	
Thistle			*	* *		* *
Daisy Fleabane			*	* *		* *
Mist-flower	*	*	* *	* *	*	* *
Bear's Foot				*		*
Yellowtop	*	* *	***	* *	*	* *
Goldenrods	* *	*	*	* *	*	* *
Virginia Crownbeard (Trees and Shrubs)				***		* *
Baldcypress	*	***	* *	*	***	*
Dwarf Palmetto		*	***	* *	*	***
River Cane				*		
Black Willow	*	* *	* *	*	*	* *
Eastern Cottonwood				*		*
Wax Myrtle	* *	*	* *	***	*	***
Water Hickory			*	* *		*
Pecan				*		*
Eastern Hophornbeam						*
Nuttall Oak		*	***	*		* *
Water Oak			* *	***		***
Live Oak			*	***		* *
Laurel Oak				*		
American Elm		*	***	* *		***
Slippery Elm				?		
Hackberry			* *	***		***
Red Mulberry				*		*
Southern Magnolia				*		

SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Redbay			*	* *		* *
Sweetgum		*	***	* *	*	***
American Sycamore				*		*
Green Hawthorne			* *	***		***
Honey Locust			* *	* *		* *
Dahoon	*	*				
Deciduous Holly			* *	***		***
Swamp Red Maple	*	*	***	* *	*	* *
Boxelder			*	***		***
Roughleaf Dogwood			* *	***		***
Water Tupelo	*	***			***	
Devil's Walkingstick				*		
Persimmon		*	* *	***		***
Pumpkin Ash		***	*		***	
Carolina Ash		*	***	*	*	*
Green Ash			*	***		***
Elderberry			*	***		***
Buttonbush		***	*		***	
Buckbrush	*	* *	*	*		*
ANIMALS						
Fish						
Spotted Gar	***	*			***	
Alligator Gar	* *				* *	
Choupique	* *	***			***	
American Eel	*				*	
Gizzard Shad	* *				* *	
Golden Shiner	* *				* *	
Channel Catfish	*				* *	
Blue Catfish	*				* *	
Yellow Bullhead	* *	*			* *	
Black Bullhead	* *	*			* *	
Golden Topminnow	***	***	*		***	
Sheepshead Minnow	***	*			***	
Marsh Killifish	* *				*	
Gulf Killifish	* *				*	
Bayou Killifish	*				*	
Rainwater Killifish	* *				*	
Mosquitofish	***	***	* *	*	***	*
Least Killifish	***	* *	*		***	
Sailfin Molly	***	* *	*		***	
Tidewater Silverside	* *				* *	
Largemouth Bass	***	*			***	
Flier	*				*	
Black Crappie	***				***	



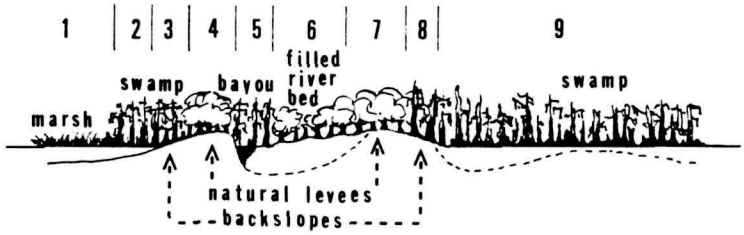
SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Bluegill	***	**			***	
Redear Sunfish	***				**	
Orange-spotted Sun.	**				**	
Spotted Sunfish	**				**	
Bantam Sunfish	*	**			*	
Banded Pygmy-Sunfish	*	***			*	
Ladyfish	*					
Bay Anchovy	*				*	
Striped Mullet	***	**			***	
Speckled Trout	*					
Spot	*					
Redfish	*					
Fat Sleeper	**					
Needlefish	*					
Amphibians						
(Salamanders)						
W. Lesser Siren	?	?			?	
Three-toed Amphiuma	***	***			***	
Central Newt	***	***	*		***	
Small-mouthed S.		*	**	*	*	**
S. Dusky Salamander		*	**	*	*	**
Dwarf Salamander		*	**	*	*	**
(Frogs and Toads)						
Narrow-mouthed Toad	**	***	***	**	***	**
Woodhouse's Toad				?		?
Gulf Coast Toad			***	***		***
N. Spring Peeper		***	**	*	***	**
Green Treefrog	***	***	***	***	***	***
Bird-voiced Treefrog		***	**	*	***	*
Squirrel Treefrog	***	***	***	***	***	***
Gray Treefrog	*	*	*		*	
Striped Chorus Frog	**	*	*		*	*
N. Cricket Frog	***	***	***		***	*
Bronze Frog	***	***	***	*	***	*
Pig Frog	***	***			**	
Bullfrog	***	***			**	
S. Leopard Frog	***	***	*		***	*
Reptiles						
Am. Alligator	***	**			**	
(Turtles)						
Snapping Turtle	***	**			***	
Alligator Snap. Tur.	**	*			**	
Stinkpot	**	**			**	

SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Razor-backed Musk	?	?			?	
Mississippi Mud	***	***	**	*	***	**
Mississippi Map	*				*	
False Map Turtle	?					
S. Painted Turtle		***			*	
Mobile Cooter	?				?	
Missouri Slider	?				?	
Red-eared Slider	***	***			***	
Gulf Coast Box Tur.			**	***		***
Miss. Diamondback Terrapin	?					
W. Chicken Turtle	?					
Spiny Softshell	*				*	
(Lizards)						
E. Glass Lizard				?		?
Green Anole	*	***	***	***	***	***
Five-lined Skink		**	**	*	*	*
Broad-headed Skink			*	*		*
Ground Skink		*	**	***	*	***
(Snakes)						
Green Water Snake	***	***			***	
Broad-banded Water S.	***	***	*		***	
Yellow-bellied "	**	***	*	*	***	*
Diamondback Water "	**	**			**	
Glossy Crawfish S.	*	*	*		*	
Graham's Crawfish S.	*	*	*		*	
E. Garter Snake				*		*
Gulf Coast Ribbon "	***	***	***	***	***	***
N. Red-bellied Snake		*				
Marsh Brown Snake				*		*
E. Hognose Snake				*		*
Miss. Ringneck Snake				*		*
Rough Green Snake	*	**	***	***	**	***
W. Mud Snake	*	***			***	
Black-masked Racer	***	*	**	***	*	***
Texas Rat Snake	**	**	***	***	**	***
La. Milk Snake	*		**	***		***
Speckled Kingsnake	*	*	**	**	*	**
W. Cottonmouth	***	***	**	*	***	*
S. Copperhead			*	***		***
W. Pygmy Rattlesnake			*	*		*
Canebrake "			*	*		*
Birds						
(Residents)						
Great Blue Heron	**	**			*	



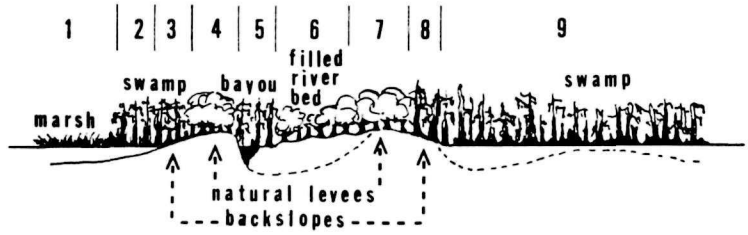
SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Great Egret	***	**			**	
Snowy Egret	***	**			*	
Cattle Egret	*			*		
Little Blue Heron	***	***			**	
Tricolored Heron	**	*			*	
Black-crowned Night-Heron	*					
White Ibis	***	***				
Glossy Ibis	***					
White-faced Ibis	***					
Wood Duck	**	***	*		**	
Mottled Duck	**					
Black Vulture	**	**	**	**		**
Turkey Vulture	**	**	**	**		**
Cooper's Hawk	*	*	*	*		*
Red-shouldered Hawk	*	***	***	**	**	**
King Rail	**					
Common Moorhen	***					
Laughing Gull	***					
Forster's Tern	**					
Royal Tern	*					
Mourning Dove	*			*		
E. Screech Owl		*	*	*		*
Great Horned Owl	*	**				
Barred Owl		***	***	**	*	**
Red-bellied Woodpecker		***	***	***	**	***
Downy Woodpecker		***	***	***	**	***
Hairy Woodpecker		**	**	**	*	**
Pileated Woodpecker		**	**	*	*	*
Blue Jay		*	**	**	*	**
Am. Crow	**	***	***	***	*	***
Carolina Chickadee		***	***	***	**	***
Tufted Titmouse		***	***	***	**	***
Carolina Wren	*	***	***	***	***	***
Bl.-gray Gnatcatcher		*	**	**	*	**
E. Bluebird		*				
Loggerhead Shrike	*					
White-eyed Vireo		**	**	**		***
Common Yellowthroat	***	*			*	
N. Cardinal		***	***	***	***	***
Rufous-sided Towhee	*			*		*
Red-winged Blackbird	***	**	*	*	**	*
Boat-tailed Grackle	***					
Common Grackle (Summer Visitors)		**	***	***	**	***
Anhinga		*				

SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Least Bittern	**					
Green-backed Heron	***	**			*	
Yellow-crowned Night Heron		***			***	
Mississippi Kite			*	**		**
Purple Gallinule	***					
Black-necked Stilt	***					
Caspian Tern	*					
Sandwich Tern	**					
Yellow-billed Cuckoo		**	***	***	**	***
Chimney Swift	*	**	*	*	*	*
Ruby-throated Hummingbird		**	**	**	**	**
Acadian Flycatcher		*	**	*		*
Great Crested "				**		**
E. Kingbird	*					
Purple Martin	*	*	*	*	*	*
Yel.-throated Vireo				*		*
Red-eyed Vireo		**	***	***	*	***
N. Parula Warbler		***	***	***	***	***
Yel.-throated "		***			**	
Prothonotary "		***			***	
Swainson's Warbler			*			
Hooded Warbler			***	**		**
Summer Tanager				*		*
Indigo Bunting		*	*	*		
Painted Bunting		**	*	*		*
Br.-headed Cowbird	*	*	*	*	*	*
Orchard Oriole (Winter Visitors)	*					
Common Loon	*					
Pied-billed Grebe	**					
Horned Grebe	*					
Am. White Pelican	*					
Brown Pelican	*					
Double-crested Cormorant	**					
Am. Bittern	*					
Snow Goose	*					
Green-winged Teal	**					
Mallard	***	*				
N. Pintail	*					
Blue-winged Teal	***	**			*	
N. Shoveler	*					
Gadwall	**					
Am. Wigeon	**					
Lesser Scaup	**					



SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Common Goldeneye	**					
Bufflehead	*					
Red-breast Merganser	*					
Osprey	*					
Bald Eagle	*	*				
N. Harrier	***					
Sharp-shinned Hawk	*	**	**	**	*	**
Red-tailed Hawk	**	*	*	*		*
Am. Kestrel	***					
Merlin	*					
Peregrine	*					
Virginia Rail	**					
Sora	***					
Am. Coot	**					
Killdeer	***					
Greater Yellowlegs	*					
Lesser Yellowlegs	*					
Western Sandpiper	**					
Least Sandpiper	**					
Dunlin	**					
Bonaparte's Gull	**					
Com. Snipe	***					
Ring-billed Gull	**					
Herring Gull	**					
Belted Kingfisher	***	*			***	
Yellow-bellied Sapsucker		**	**	**	**	**
N. Flicker	*	**	**	**	**	**
E. Phoebe	*	***	**	**	***	**
Tree Swallow	***	*	*	*	*	*
Brown Creeper		*	*	*		*
House Wren	*		*	**		**
Winter Wren		*	**			
Sedge Wren	*					
Marsh Wren	***					
Ruby-crowned Kinglet		**	***	***	**	***
Golden-crowned "		*	*	*	*	*
Hermit Thrush		*	**	**	*	**
Am. Robin	**	***	***	***	**	***
Gray Catbird			*	*		*
Brown Thrasher			**	**		**
N. Mockingbird	**			*		*
Water Pipit	***					
Cedar Waxwing			**	**		**
Solitary Vireo		**	**	**		**
Orange-crowned War.	*	*	**	**	*	**
Yellow-rumped "	**	***	***	***	***	***

SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Pine Warbler		**				
Palm Warbler	*					
Wilson's Warbler			*	*		*
LeConte's Sparrow	*					
Chipping Sparrow			*			
Song Sparrow	**		*	*		*
Swamp Sparrow	***	**	**	**	**	**
White-throated "			**	***		***
Dark-eyed Junco				**		**
Rusty Blackbird		*	**	*	*	*
Am. Goldfinch		**	***	***	*	***
(Migrants)						
Swallow-tailed Kite		*	*	**	*	*
Broad-winged Hawk		*	*	*	*	*
Semipalmated Plover	*					
Solitary Sandpiper	**	**			*	
Spotted Sandpiper	*	*				
Semipalmated "	**					
White-rumped "	*					
American Woodcock			*	*		
Common Tern	*					
Least Tern	*					
Black Tern	*					
Black-billed Cuckoo			*	*	*	*
Groove-billed Ani				*		*
Common Nighthawk		*	*	*		*
Red-head. Woodpecker		*				
Western Kingbird	*			*		
Scissor-tailed Flyc.	*			*		
E. Wood-Pewee		**	**	**	**	**
Alder Flycatcher				*		*
Least Flycatcher				*		*
Yellow-bellied "				*		*
Bank Swallow	**	*	*	*	*	*
Cliff Swallow	**	*	*	*	*	*
Barn Swallow	***	**	**	**	**	**
N. Rough-winged "	**	*	*	*	*	*
Red-breast. Nuthatch			*	*	*	*
Veery			*	**		**
Gray-cheeked Thrush			*	*		*
Swainson's Thrush			*	**		**
Wood Thrush			*	**		**
Warbling Vireo		*	*	*	*	*
Philadelphia Vireo		*	*	*	*	*
Blue-winged Warbler		*	*	**	*	**
Golden-winged "				*		*
Tennessee Warbler	*	***	***	***	***	***



SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
Nashville Warbler				*		*
Yellow Warbler	***	***	***	***	***	***
Chestnut-sided "		* *	* *	* *	* *	* *
Magnolia Warbler		***	***	***	***	***
Cape May Warbler		*	*	*	*	*
Blk.-throated Blue "		*	*	*	*	*
Blk.-throated Green		***	* *	* *	* *	* *
Blackburnian Warbler		*	*	*	*	*
Prairie Warbler				?		?
Bay-breasted Warbler		* *	* *	* *	* *	* *
Blackpoll Warbler			?	?	?	?
Cerulean Warbler			*	*	*	*
Black-and-White "		***	***	***	***	***
American Redstart		***	***	***	***	***
Worm-eating Warbler		* *	* *	* *	* *	* *
Ovenbird			* *	* *		* *
N. Waterthrush	* *	***	* *	*	***	*
Louisiana "		*	*		*	
Kentucky Warbler			*	* *		* *
Canada Warbler			* *	* *		* *
Yellow-breasted Chat				*		*
Scarlet Tanager		*	*	*	*	*
Blue Grosbeak				* *		* *
Rose-breasted Gros.		*	*	* *	*	* *
Field Sparrow				*		*
Lark Sparrow	*			*		*
Savannah Sparrow	*			*		*
White-crowned "	*			*		*
N. Oriole			*	*		*
Purple Finch		*	*	*	*	*
Pine Siskin				*		*
Mammals						
Virginia Opossum	*	* *	***	***	*	***
Red Bat		?	?	?	?	?
Seminole Bat		?	?	?	?	?
N. Yellow Bat			*	*		*
Evening Bat		?	?	?	?	?
Mex. Freetail Bat				?		?
S-e. Myotis Bat				?		?
E. Pipistrelle Bat				?		?
Big-eared Bat				?		?
Nine-banded Armadillo			*	***		***
Swamp Rabbit	* *	*	* *	* *	*	* *
Gray Squirrel		* *	***	***	* *	***

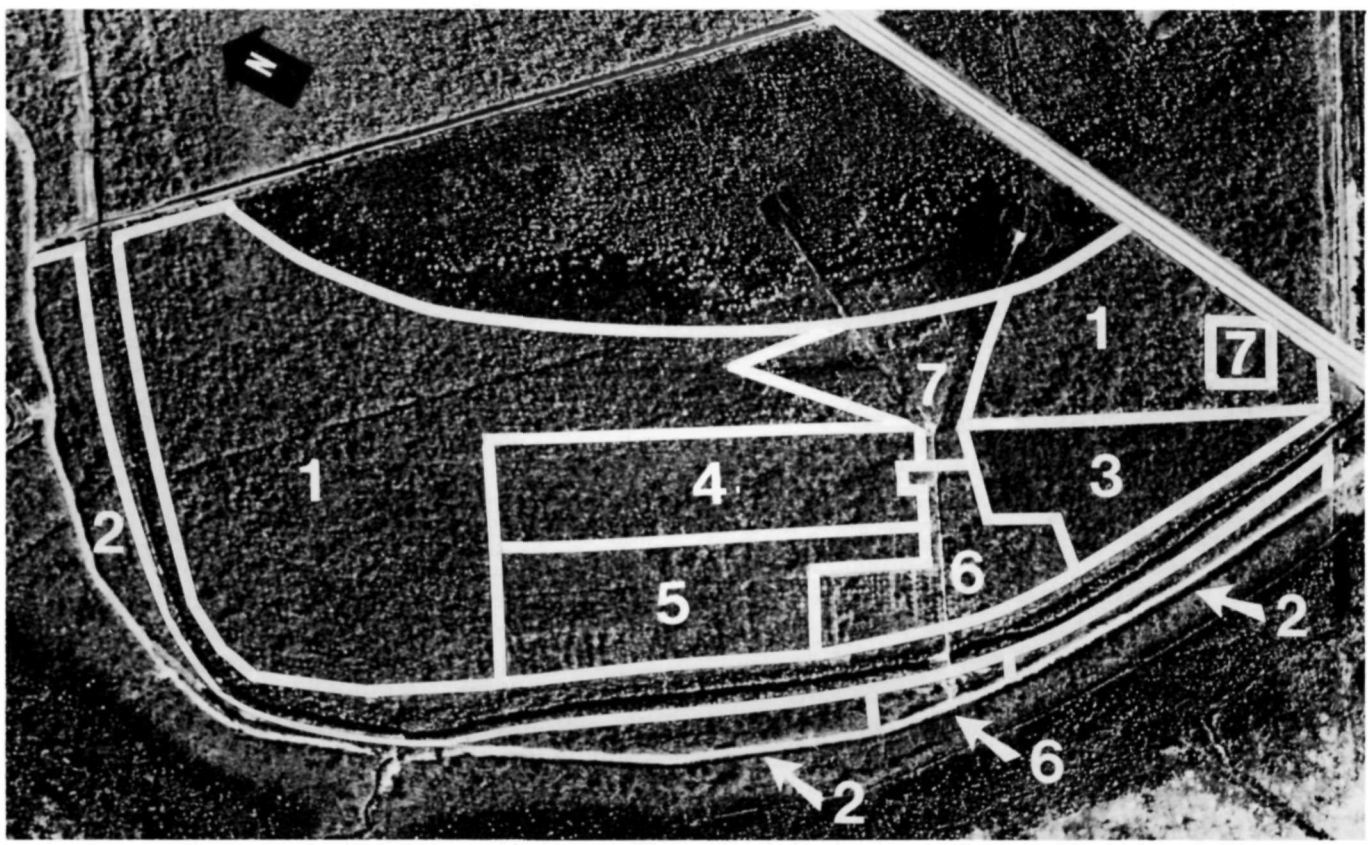
SELECTED SPECIES	ECOLOGICAL ZONES					
	1	2&9	3&8	4&7	5	6
S. Flying Squirrel		*	* *	* *	*	* *
Am. Beaver	*				*	
Marsh Rice Rat	***	* *				
Ful. Harvest Mouse				?		?
White-footed Mouse			* *	***		***
Cotton Mouse			?	?		?
Hispid Cotton Rat				?		?
E. Wood Rat				* *		* *
Common Muskrat	* *					
Coyote	*	*	*	*	*	*
N. Raccoon	***	***	***	***	***	***
N. Am. Mink	***	***	* *	*	***	*
River Otter	* *	* *	*		* *	
White-tailed Deer	***	*	***	***	*	***
INTRODUCED SPECIES						
(Plants)						
Water Spangle Fern	*	* *			***	
Jap. Climbing Fern			*	* *		* *
Crab Grasses				*		*
Basket Grass				*		*
Canary Grasses	*	*		*		*
Johnson Grass				*		*
Bermuda Grass				*		*
Water Hyacinth	***	***			***	
Blue-eyed Grass				*		*
Yellow Flag Iris				*	*	
White Mulberry				*		*
Alligator Weed	***	***	* *	*	* *	*
Camphor Tree			*	* *		* *
Clovers				*		*
Chinaberry Tree				*		*
Chinese Tallow Tree	* *	* *	* *	* *	* *	* *
Privets				*		*
Brazilian Vervain				*		*
Jap. Honeysuckle		*	*	* *		* *
(Animals)						
River Carp	*				*	
Mediterreanean Gecko				?		?
Rock Dove				*		
Eurasian Starling	*	*	*	*	*	*
House Sparrow				*		
Nutria	***	***	*		***	
House Mouse				* *		* *
Roof Rat				?		?
Norway Rat				?		?

ECOLOGICAL SURVEY OF THE STUDY AREA

The surviving wooded areas bordering the Barataria-des Familles Distributary represent one of the southern-most alluvial upland and bottomland forests in the United States. This forest is ecologically important for both its natural and human history, since it does not survive in its natural state. The park includes forested areas that are more or less man-altered. The more disturbed ecological habitats illustrate the most instances of historic land use. Human alterations are most noticeably reflected in the vegetation, although, in many places, the land itself has been reshaped by man's activities. The habitats surveyed for this study are described below under three general headings: the upland forest, the swamp forest, and the bayou swamp.

Evidence of historic land use is most apparent in the upland forest where there are many differences in plant succession. In these elevated alluvial areas, the distribution of vegetation is not natural but is rather the combined result of both geomorphic variants and human activities. Normal hardwood succession consists of a series of gradual changes, called stages, that take place in the process of the modification of an environment from grasses, herbs, and brush to woodland. In order to demonstrate the effects of historic land use in the upland forest, the term "succession area" is here applied to the patches of plant growth which are responding to various degrees and types of human modification of the environment.

THE UPLAND FOREST: A PATCHWORK OF PLANT SUCCESSION



The patchwork of upland forest succession. Infra-red photo, January 19, 1984, 84039, LN3-RN1, 406, Environmental Monitoring Systems Lab, Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, Nevada.

1. **Least disturbed forest.**
2. **Recently logged and disturbed forest.**
3. **Reforested sugarcane fields.**
4. **Selectively logged reforested sugarcane fields.**
5. **Reforested pecan orchard.**
6. **Reforested pecan orchard disturbed by recent human occupation.**
7. **Forest disturbed by oil drilling operations.**







Natural levee forest.

Succession Area 1

This area takes in the portions of the upland forest that exhibit the most normal stages of plant succession and the least amount of human disturbance. It includes part of the east bank natural levee and its backslope, and part of the filled river bed. Its several ecological zones are discussed together, because their growth processes have received the least human intervention. The plant communities best represent those of a typical Mississippi River Delta alluvial hardwood forest, and plant succession is proceeding in a relatively normal manner.

The major human disturbances to the area occurred in colonial times, when the whole meander bend was more than once put under cultivation with massive field systems. In the eighteenth century, a French system of fields, cross-ditches and roads was superceded and overlapped by a communal field system for a Spanish village (see Chapters II and III). Although agricultural features are visible on the ground in some areas, most have subsided and eroded and have been covered with alluvium and vegetable decay.

The faint checkerboard pattern of the crossing field systems appears in aerial photographs as linear tree lines in the crown cover. The tree lines are also identifiable on the ground. They follow the compass bearings of the colonial land holdings. Some consist of huge live oaks, hundreds of years old, which line up across the natural levee and proceed down the sinking backslope toward the swamp where dead oaks and their stumps continue the line. More recent plant growth still tends to reflect the geometric field patterns by responding to slight changes in elevation and the firmer mineral soil of subsurface spoil banks. Young trees, saplings, and palmettoes frequently line up on linear elevations that are inches high.

The colonial fields suffered frequent floods, and all were abandoned except those on the highest elevations of the natural levees. Many house sites belonging to the Spanish village have been found in this area.

When inhabited by prehistoric and historic people, the land was higher and wider in extent, and it supported more upland vegetation. Subsidence has caused the relative elevation of the water table and the encroachment of the swamp on the backslope of the natural levee. Dead and dying live oaks and their stumps fringe the backslope and the ridges in the bottomland. These trees are unable to tolerate excessively wet conditions, and "ghost forests" of live oak are an indicator of subsidence.

The large live oaks and some other large trees were rejected by loggers. The area was last selectively logged in the 1950s. Various stages of reforestation are taking place, with young trees and saplings amid older trees.[46]

Live oak is the dominant or codominant crown cover of the levee crest, and the closely grouped trees form a semi-circular band about 1000 feet wide following the shape of the old river meander. Some are 21 to 23 feet in circumference, as measured four feet from the ground. On parts of the natural levee last logged in the 1930s or earlier, the large live oaks are mixed with nearly-mature, first-succession trees, the fast-growing sweet gum, ash, elm, water oak, and hackberry. Because many old trees remain, these oak forests somewhat resemble a natural state of reforestation. They probably approximate normal sub-climax conditions in natural levee forest succession following fire, drought, or other natural disasters.

Historical accounts and scientific treatises alike suggest that the climax forests of the Mississippi River distributary levees, where unaltered by man or natural disasters, were composed almost entirely of live oak, with some stands of Southern magnolia. The shade cast by the dense canopies of these large, long-living

trees discourages the growth of non-shade-tolerant species. Because of this, live oak and Southern magnolia are preemptive species on moderately well-drained alluvial soils. In keeping with natural processes, however, the live oak forests would have been temporary climaxes.

Plant succession climaxes in the Mississippi River Delta are temporary edaphic climaxes, because the deltaic processes are constantly in a dynamic state of flux. Unlike climatic climaxes wherein ecological stability is directly influenced by prevailing weather conditions, edaphic climaxes are those which are influenced by soil conditions. As abandoned distributaries subside, their forests exhibit a series of edaphic climaxes which culminate with cypress swamp. This procession from a mesic, or moderately wet forest, to a hydric, or abundantly wet forest is an inversion of the sequence of plant succession on an active distributary where the land is building in elevation. As the Barataria-des Familles Distributary continues to subside and the relative water table continues to rise, plant succession will increasingly favor the water-tolerant species located in the bottomlands of the old river bed and in the backswamp.



Live oak distribution in study area in 1986, drawn from an oblique air photo, looking NE.



Live oak on the Chemin de Barataria at the north end of the park, measuring about 23 feet in circumference at about four feet from the ground.

Human land use has caused anomallies in the effects of subsidence in this area, the most noticeable of which relate to aboriginal occupation. Indian middens located on the ridges of the point bar deposits provide artificially elevated areas for upland growth on the lower slopes of the alluvial fill and disrupt the natural progression of vegetation from the swamp near the bayou to the crest of the natural levee.

From the approximate six-foot elevation of the natural levee crest, the filled river bed gently slopes toward the bayou over distances that range from about 700 feet to 1700 feet. The fill is made up of alluvial point bar deposits which form a series of concentric, semi-circular ridges and swales. The ridges vary from several inches to several feet in elevation and are spaced 25 or more feet apart. Some swales contain water during all or part of the year. Those which are intermittently wet lack vegetation. Ponded swales sometimes contain aquatic plants. They are typically bordered by such bottomland trees as Eastern hophornbean, Carolina ash, and red maple. The levee crest and ridges between the swales are dominated by live oak and other upland hardwood trees including sweetgum, American elm, red bay, green ash, water oak, hackberry, box-elder, green hawthorn, slippery elm, deciduous holly, roughleaf dogwood, American sycamore, honey locust, and persimmon. Thick palmetto growth, standing seven feet or more in height, dominates much of the ridge and crest understory, but brambles, vines, and herbs are also numerous. The resulting overall pattern of vegetation is a series of semi-circular bands alternating between dry upland and wet bottomland species. The wet bands are relatively small. Dryer soil conditions cover most of



A ponded swale in the bottomland.

the alluvial elevations, and an upland plant community prevails.

The alluvial soil of the natural levee crest and the point bar ridges consits of silty loam and coarse clay, while that of the levee backslope consists of finely textured clay which drains more slowly. As the backslope descends to the swamp, the higher water table and frequent inundations discourage the growth of upland hardwood species and encourage the growth of increasing numbers of water-tolerant species. Likewise, within several hundred feet of the bayou, swampy conditions and species replace those of the higher areas. The ponded sloughs between the ridges are miniature wetlands that partially mimic growth conditions of the swamp and levee backslope. The soil in the sloughs is composed of fine clay and decayed vegetable muck washed by rain water runoff into the depressions.

Succession Area 2

This succession area consists of the length of the west bank natural levee that lies between the bayou and Highway 45. It was logged about 1946, but the large live oaks were not cut. Therefore, this semi-circular strip of high land supports a forest of young trees and saplings interspersed with old oaks. The young trees include water oak, hackberry, sweet gum, boxelder, American elm, slippery elm, green hawthorn, roughleaf dogwood, and the exotic camphor-tree.

Furrows and ditches can be seen on the forest floor in the northern, middle, and southern parts of this linear succession area. Documentation shows that the most northern furrowed area was in cultivation before 1855. The agricultural features follow the compass bearings of the French and Spanish land holdings. The two more southern cultivated strips are located within the former Christmas Plantation tract (1865-circa 1900).[47]

The land forms of the east and west bank natural levees differ. While the east bank was the point bar of the meander, the west bank was the cut bank. Therefore, changes in elevation on the west bank are abrupt.



Young saplings and old oaks: reforestation of the west bank natural levee.

The natural levee rises from the level of the bayou to a height of five or six feet at the levee crest within a distance of 200 or 300 feet. The sudden rise in elevation is reflected in the vegetation as narrow linear terraces of species adapted to successively dryer soil. This progression of plant growth is interrupted by ponded sloughs containing water-tolerant species. When the bayou was still a partially active stream, these sloughs were chutes that carried some of the flow during times of high water. The ground cover consists of a mixture of brambles, ferns, grasses, vines, shrubs, and palmetto, with aquatic plants such as pickerel-weed in some of the ponded sloughs.

The natural configuration of the ridge-and-swale land forms has been largely leveled in the formerly cultivated areas. Leveling was also probably done in road construction. A road has followed the course of the present highway since colonial times. The natural sequence of ridges and swales rising to the levee crest is also disrupted by prehistoric Indian middens which are higher than natural ground levels. These are especially noticeable in the vicinity of Bayou Coquilles. They support upland vegetation, even when located near the bayous.

The natural composition and growth patterns of plants in this succession area have been disturbed by the proximity of the highway, powerlines, and human habitation sites, as well as by recreational use and trash dumping. Numerous exotic species can be seen along the highway, especially the opportunists white clover, Burmuda grass, and Japanese honeysuckle.

Succession Area 3

This succession area consists of reforested sugarcane fields of the Christmas Plantation (1865-circa 1900) (see Chapter VI). It is located in the filled river bed, at the southern end of the former plantation field. Even though it is in the bottomland near the bayou, the vegetation is that of an upland forest, because the land has been altered. When the fields were laid out, the original ridge-and-swale topography was largely leveled, and the area was drained by ditches and ringed with levees. The ditches drain from the natural levee toward the bayou, and are spaced about 100 feet apart. The furrows also drain down the slope of the old river bed in the same direction and are spaced about five feet apart. A deep perpendicular ditch and a levee were built along the eastern plantation property line to control runoff from the crest of the natural levee. A large ditch and levee system that borders the swamp at the edge of the bayou was constructed to carry runoff downstream and to help prevent overflow from the bayou during floods.



Reforested beds and furrows of the plantation sugarcane fields in the river bottomland at the south end of the park.

In essence, the flood plain of the old river bed has been reshaped into a washboard of closely-spaced, narrow, linear reliefs running in a direction roughly perpendicular to the bayou. These rows of well-drained ridges are composed of artificially created upland soil, and they support upland plant growth. The interspersed ditches and furrows, which are intermittently wet, support little or no vegetation.

The plant community in this area is an example of one that scientists consider to be man-made, because its growth is responding to the man-altered ground. The forest consists of mature hardwoods which are mostly even-aged trees dating from the abandonment of the sugarcane field. In the race to establish crown cover, the trees have grown tall and straight. Most grow in alignment with the linear agricultural features, because they took root on the raised beds between the furrows and on the spoil banks of the ditches. In some parts of the old field, the trees are so equally spaced that they appear to have been planted in measured rows as in an orchard, or for an ornamental garden, and they resemble alley ways in a geometric *parterre.* Some closely-spaced trees appear to form small squares, but, of course, these are chance arrangements.

These reforested sugarcane fields appear to be in an advanced stage of plant succession. Aerial photographs show that the dominant crown cover is live oak. The subdominants seem to be water oak, hackberry, and elm. The understory is relatively clear, with a ground cover of grasses, ferns, and vines, and a scattering of palmetto. There are some fallen trees, and in occasional small clearings, there are numerous seedlings and saplings. The sparse understory may indicate that the area was extensively used as a woodland pasture until recent years.

This area apparently escaped logging and therefore represents relatively undisturbed tree succession in an abandoned field over a period of about 100 years. A study made in 1937-38 of a 50-year-old forest on a former sugarcane field on the Bayou Sauvage natural levee found that water oak was the dominant in the tree stratum, and that live oak was a close subdominant. Hackberry was the only other important subdominant. The study showed that palmetto was the only common shrub, and that oak forest grass *(Oplismenus setarius)* was the most frequent herb.[48]

On the Christmas Plantation field, the upland oak forest stops abruptly at the ditch bordering the bayou swamp. Twelve feet away, on the bayou side of the ditch, is another ecosystem and biological community in the swamp forest wetland. This sudden change is unnatural and is man-made. In its natural state, the river bed flood plain became gradually wetter as it descended to the bayou, and the number of water-tolerant plants gradually increased as the number of upland plants gradually decreased. This type of natural plant distribution is seen in Succession Area #1.

The front levee/ditch system was constructed along the bankline last occupied by prehistoric Indians. Middens were reshaped into parts of the plantation levee. The clam shells characteristic of middens are frequently noticeable in the levee. Live oaks grow on the levee at some of the locations composed of midden material, suggesting a preference by these trees for the soil of middens even if it is reshaped as a levee.

A large, water-filled slough drains across the levee/ditch system bordering the eastern side of the Christmas property. This drainage is several hundred feet wide and follows the course of the old river meander in a northwest-southeast direction for about 2000 feet. The drainage inundates the forested fields that it crosses. It must have been dammed by the plantation levee during the years of cultivation. A map of about 1800 shows two *"coulées,"* or small streams, located here.[49]



Christmas Plantation front ditch and levee bordering Bayou des Familles, showing man-made abrupt change from cypress swamp near bayou (right) to upland hardwood community with live oaks (left of ditch), looking SE.

The area was farmed in colonial times and the plantation system may incorporate colonial agricultural features (see Chapters II, III, and IV).

Succession Area 4

This area and Succession Area #3 contain the only remaining furrows and beds of sugarcane cultivation. As in Area #3, the ditches and furrows drain the soil in a washboard fashion and help to maintain relatively dry soil for an upland plant community. However, these fields are on the natural levee and its backslope, therefore, the ground conditions and vegetation differ from those of the old cane fields in the river bottom.

The area, which measures about 700 by 3500 feet, originally composed the northeast corner of the Christmas Plantation field. It is bounded by the Barataria Road, the Old Derrick Road, Second Road, and a former pecan orchard bordering the Shell Road (see Chapter VIII).

The soil of the backslope of the natural levee is composed of fine clay and is poorly drained. Water stands on the surface after a heavy rain. Several branches of Bayou aux Carpes begin in the old cane fields on the backslope and drain across the Barataria Road. These tributaries of Bayou aux Carpes appear in this position on a nineteenth century map. During the years of sugar production, a ditch and a levee along the eastern Christmas Plantation property line controlled overflow from the backslope at times of high water. Because of subsidence, the old fields on the backslope are now wet much of the time. Another drainage that flows from Bayou des Familles opposite Bayou Coquilles and inundates the bottomland in that vicinity, flows in an eastward direction toward the Bayou aux Carpes tributaries. It may also contribute to the wet soil conditions in the northeast portion of the old cane fields. These drainages represent the braiding and bifurcating of the deteriorating distributary.[50]

The forest of the backslope consists of a mixture of hardwoods with an understory of palmetto. Some of the thickest palmetto growth in the study area is located here. The palmetto stratum is six or seven feet high and is so dense that it is almost impassable. Water stands in the field furrows and ditches much of the year. The palmetto growth tends to favor the field beds and spoil banks. Deer and other animals use the ditches as trails in order to pass through the thick growth, as can be seen by their numerous tracks. By treading in the ditches, animals help to keep them clear of vegetation.

The crest of the natural levee curves through the field area. Its firm, silty soil supports mixed hardwoods and a varied understory of herbs, vines, grasses, and shrubs. Palmettoes are not as numerous as on the backslope where they essentially compose the entire understory. The main ditch of the Christmas Plantation follows the crest of the natural levee. Perpendicular field ditches drain from the main ditch toward the bayou at about every 100 feet. Only a few of the perpendicular ditches on the backslope connect with the main ditch. A road bed follows the eastern (backslope) side of the main ditch.



Main field ditch that follows the crest of the natural levee.

Because of the modifying influences of sugarcane cultivation and logging activities, the plant communities in this area are among those that scientists consider to be man-made. Tree growth is uneven because of selective logging. There are numerous patches of seedlings, saplings, and young trees. The largest trees are on the natural levee crest where live oak is dominant in patches. Water oak is probably the overall dominant in this old cane field area. Among the subdominants are hackberry, sweet gum, box-elder, American elm, honey locust, camphor, and Nuttall oak. Louis Ehret, who first visited the area in 1912, states that it was wooded at that time.[51]

The 50-foot-wide right-of-ways of First and Second Roads of the 1910 housing subdivision are difficult to detect on the ground, but they are evident in aerial photographs as linear demarcations in the crown cover. This seems to suggest that the subdivision streets were

cut after reforestation had begun (see Chapter IX).

A pipeline clearing about 25 feet wide borders the west side of the Barataria Road. The pipeline right-of-way dates from 1935. It is overgrown with young trees and saplings. Many larger trees have forked trunks, because they regenerated from saplings slashed during clearing or maintenance of the right-of-way.[52]

The area was cultivated in colonial times. Spanish house sites have been located in the old cane fields (see Chapters II, III and IV). Until recent years, cattle were pastured in these woods, and they kept the understory clear. Louis Ehret, who frequented the woods until 1930, recalls that the forest had little undergrowth or small trees, but that it had a grassy ground cover.[53]

Succession Area 5

This plant succession area comprises the remains of the pecan orchard which was established on parts of the abandoned sugarcane fields of the Christmas Plantation. It was planted when the residential subdivision was laid out in 1910 as an income-producing incentive to buy lots (see Chapter IX).[54]

The orchard seems to have originally filled an area bounded on three sides by Bayou des Familles, the Old Derrick Road, and Second Road. Pecans also bordered both sides of the Shell Road (the subdivision "Old Road") for several hundred feet. Some were also planted on the west bank natural levee of the bayou, near the Shell Road. The orchard is shown in these locations on 1945 aerial photographs, but, by that time, some trees had died, and empty patches were present in the orchard.

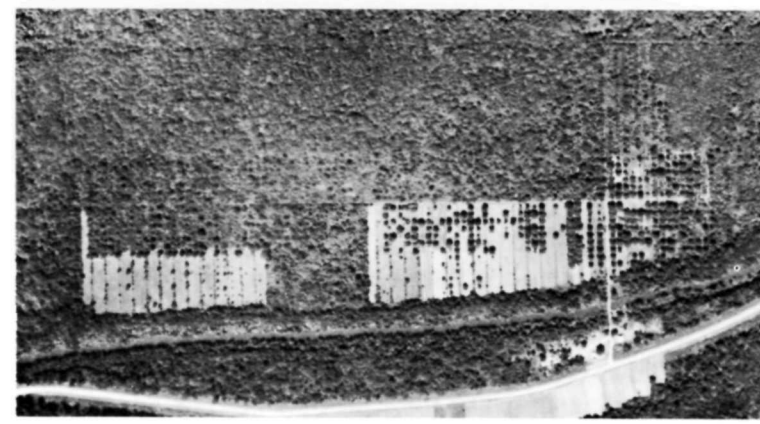
The pecan *(Carya illinoinensis)* is native to the Mississippi River Delta. Many varieties of orchard pecans were developed through graftings. Orchards are begun with transplanted trees ranging between three to five years in age and two to six feet in height.[55]

The surviving pecans are now enveloped in woods and brush that have grown up around them. The pecans are suffering from the encroachment and from lack of fertilization. They may also be adversely affected by subsidence and the relative rise in the water table.

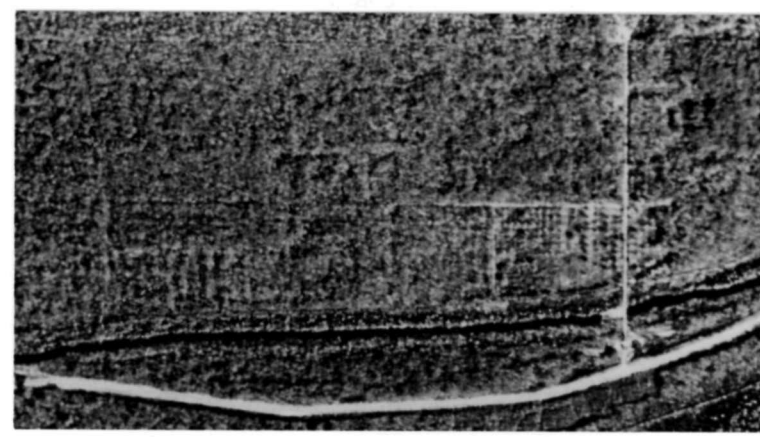
The orchard was laid out in rows 50 feet apart, with a space of 50 feet between each tree. The pecans stand upon 20-feet-wide beds banked about one foot in height. The former sugarcane field ditches were reused in the orchard and are 100 feet apart.

The pecans always produced good fruit. Some of the trees are smaller and younger than the majority. These were planted later to replace trees that died. The largest standing in the orchard today are about 38 inches in diameter. Pecans grow to great age and size. One that formerly grew near White Castle, Louisiana was said to be the largest pecan tree in the world. It measured seven feet in diameter three feet above the ground.[56]

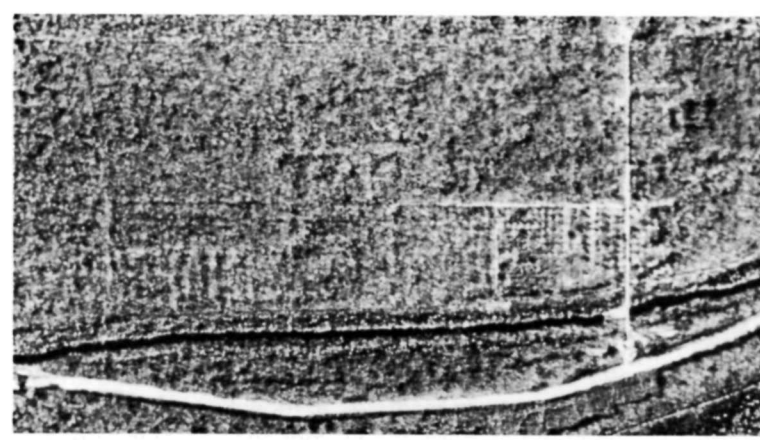
For many years, cattle and hogs were pastured in the pecan orchard to keep the understory clear. Vegetables were also raised between the rows of trees for the same purpose. Various stages of plant succession can be seen in portions of the orchard dating from differing times of abandonment.[57]



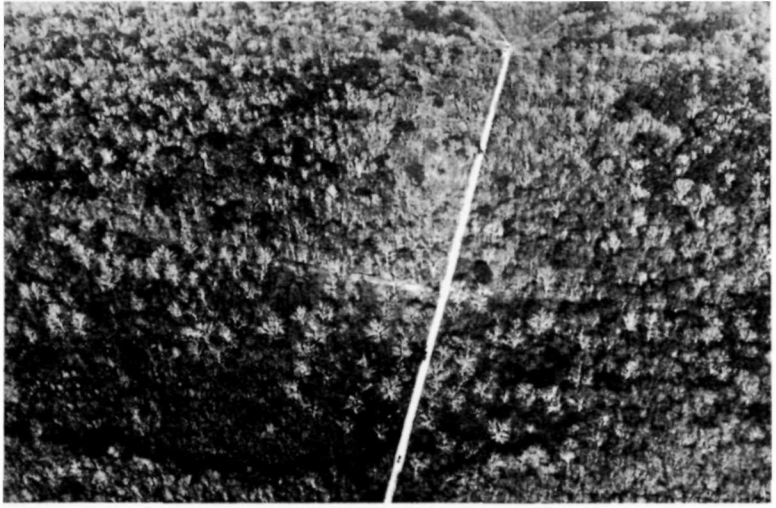
Pecan orchard area, May 17, 1945. National Ocean Survey, C&GS 20 LA. 1250 29 90 C 2790, National Archives, Washington D.C.



Pecan orchard area, November, 1978. Infra-red photo, 074, Environmental Monitoring Systems Lab., Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, Nevada.



Pecan orchard area, January 19, 1984. Infra-red photo, 84039, LN3-RN1, 406, Environmental Monitoring Systems Lab., Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, Nevada.



Pecan orchard area, February 23, 1986.

In terms of forest succession, the growth that is enveloping the pecan orchard has continued to produce an artificial plant community. The large beds and furrows create relatively dry soil conditions in the bottomland, and upland trees such as live oak grow on the beds near the bayou. The shade cast by the pecan overstory allows shade-tolerant trees such as live oak to compete successfully in the early-successional undergrowth of the orchard.

The normal ecological sere of a fallow field in the Lower Mississippi River Delta progresses from weeds to shrubs to tree seedlings in less than 25 years. The first trees to invade a field are fast-growing and multilayered in leaf distribution. Depending on local variations in seed recruitment, these include sweet gum, hackberry, cottonwood, box-elder, and elm. Such seedlings require a sunny canopy. The wax-myrtle, a large shrub or small tree, is frequently first to invade the fields. Within a few years, this fast-growing plant forms a closed canopy about 25 feet high over the old field. The dense canopy shades out existing early succession weeds and creates a suitable condition for the germination of shade-tolerant trees.[58]

Late-succession seedlings, such as oak, magnolia, and dogwood, are intolerant of open sunlight but flourish in the canopy shade of early-succession trees. The leaves of late-succession trees are arranged in a monolayer, and their branches are flat and spreading as saplings. This shape permits maximum interception of light in the shaded understory in order that photosynthesis for adequate growth can occur.[59]



Plant succession in the pecan orchard shares some aspects of that of a fallow field and some aspects of that of a sparsely thinned forest. In the long-abandoned parts of the orchard, other trees are now competing in size with the surviving pecans. The principal invaders of these parts of the orchard are hackberry, live oak, water oak, and sweet gum. Many of these trees are 30 inches or more in diameter. In recently abandoned portions of the orchard, the 50-foot spacing of the pecans provides a partially open canopy beneath which succession is advancing in accordance with available skylight, as well as ground conditions and other factors. The understory of these areas is a dense thicket of weeds, shrubs, vines, seedlings, saplings, and many young live oaks. Wax-myrtle are numerous and reach a height of about 15 feet. The young trees and shrubs tend to line up upon the orchard beds.

A rectangular portion of the orchard, stretching northward of the Shell Road for about 1000 feet between the bayou and Third Road, was the last large cultivated part of the orchard to remain. The plot was farmed as a truck garden, and its surviving pecans were harvested. Animals were also penned in the area. Reforestation of this last plot did not begin until acquisition of the land by the National Park Service. An aerial photograph of 1978 shows that the 1000-foot rectangle, plus a 300-foot-wide strip bordering the south side of the Shell Road, and a small garden plot southeast of the junction of the Shell Road and Highway 45 were the only cleared portions of the forested study area.[60]



Hog skull in the pecan orchard. Livestock helped to keep the orchard clear.

These were the areas that had lost most of their pecan trees and had been most recently cultivated. The farm plots subsequently began to undergo the early stages of plant succession that are commonly found in fallow fields. Grasses, goldenrod, and dewberry or blackberry were among the earliest species to occupy the open areas. These plants were quickly followed by such shrub and seedling tree invaders as palmetto, wax-myrtle, sweet gum, hackberry, ash, elm, honey locust, camphor-tree, and Chinese tallow-tree.

A study of plant succession on recently abandoned sugarcane fields along the lower Mississippi River, made in 1940-42, found that a perennial weed stage persisted until the seventh to tenth year. The only important dominant of the weed community was found to be goldenrod *(Solidago hirsutissima).* Some shrubs became established during the second year after abandonment. Between the seventh and tenth years, the goldenrod community was gradually replaced by a

shrub community. Wax-myrtle was found to be the dominant species in the shrub community of most of the fields studied. On some fields, dogwood *(Svida asperifolia)*, or buckbrush *(Baccharis halimifolia)*, or elderberry *(Sambucus canadensis)* predominated.[61]

The field that had been abandoned for 25 years was found to resemble a young forest, with a closed crown of wax-myrtle and persimmon that allowed little penetration of light. The perennial weeds had been replaced by a scant ground cover of herbs typical of an evergreen oak forest floor. Numerous live oak seedlings grew in the canopy shade. They averaged two feet in height and numbered about 160 to the acre. The investigator noted that this evidence suggested that the shrub community would be replaced by an evergreen oak forest in which live oak predominated, and that the evergreen oak forests that then existed along Gentilly and Metairie ridges, the Lafitte Highway, and "along practically every uncultivated cheniere in southeastern Louisiana suggested the possibility that live oak may be dominant or co-dominant in the climax forest of this area."[62]

While plant succession on old fields in the park appears to be similar, variations may be expected in the moist bottomland near the bayou. The ease of seed dispersal from the encompassing forest may also accelerate the stages of succession. Many young live oaks grow in the abandoned fields near the bayou, especially where the fields contain disturbed midden material. Parts of intact middens may underlie the plow zone.

The plantation levee at the edge of the bayou swamp also contains disturbed midden material. It abruptly separates the upland plant communities of the pecan orchard from the swamp forest community near the bayou. Live oaks grow on the levee.

Additional disturbances to these areas by the National Park Service in 1987-89 during the construction of visitor facilities has reinitiated plant succession processes. Because this new growth is responding to different types of human alteration of the ground, the plant communities that develop may be unlike those of the fallow fields.

The subdivision roads were used to maintain and harvest the pecan orchard. Several additional roads were made in the orchard. Most of the road beds are still relatively clear of vegetation. They are covered with low grasses, weeds, and occasional saplings. Third Road is used as a park trail. Retarded succession on the disused roads may be caused by the hard traffic pan that easily develops in alluvial clay. Elsewhere in the forest, surviving sections of other old roads, disused for 100 years or more, are similarly clear.

The pecan orchard is actually a patchwork exhibiting stages of succession that range from grasses to woods. The orchard has apparently not been logged. The area was farmed in the Colonial Period.



Recently disturbed natural levee forest in process of renewing ground cover.

Succession Area 6

This succession area actually consists of several discontinuous disturbed areas bordering both sides of the Shell Road. As recently as the early 1980s, houses and other structures and animal pens bordered the road at the junction of Highway 45. The orchard bordering the road on the other side of the bayou was being put to similar use. A tract on the north side of the Shell Road between First and Second Roads was also in use as a hunting club camp. The ground in these places has been leveled and filled. Traces of building foundations and some trash remain.[63]

In 1987-89, the NPS filled the lower part of the river bed on the north side of the Shell Road for the construction of parking lots and other visitor facilities. A picnic ground was installed in the pecan orchard on the south side of the road.

In these disturbed areas, the ground cover generally consists of perennial weeds commonly found in early plant successions. Notable recent-succession species are the tall roseau-cane, goldenrod, aster, blackberry, giant rag weed, butter-weed, thistle, vetch, wild geranium, verbena, and broom sedge. Vines include poison ivy and Virginia creeper. Also notable are numerous seedlings and saplings of the exotic camphor and Chinese tallow-trees.

The hunting club plot remains forested, but the understory was cleared for use by the club. The low ground cover consists of forest grasses and briars, with some young palmettos. Scattered saplings are beginning to establish a new understory. According to Louis Ehret who frequented these woods between 1912 and 1930, the hunting club plot best resembles the former appearance of most of the woods, with a largely clear understory and grassy ground cover. This appearance was maintained by the cattle pastured in the forest.[64]

The hunting club plot illustrates reforestation of a largely shaded understory in which some of the early plant succession phases and communities are bypassed in favor of tree seedlings and saplings. The plot is located in a portion of the pecan orchard that



was abandoned many years ago. Mature oaks and other hardwoods have replaced the pecans. The undergrowth is responding to a canopy less deciduous than that of the surviving orchard. Succession on this plot may be modified by ground hard-packed in places by human use.

The disturbed areas contain artificial plant communities that are continuously disturbed and thus prevented from following a normal course of succession, such as roadsides, the borders of parking lots, trail heads, and the protection levee at the northern boundry of the park. These are places which are regularly mown. The resulting plant community is similar to that of continuously grazed pastures where plant succession is restricted to the earliest stage of annual grasses and perennial weeds. Many of the grasses composing these artificial communities are non-native grasses that are now widespread, such as St. Augustine grass, crab grass, barnyard grass, goose grass, knot grass, blue grass, and smut grass. Also frequently present in these artificial communities are the flowering false dandelion, wild strawberry, buttercup, morning-glory, and spiderwort.

A number of ornamental plants mark the former dwelling sites on both sides of the bayou. Before park development removed some, these included pine, golden rain-tree, mimosa-tree, yucca, and crape myrtle. The Shell Road served as part of the route of State Highway 30 until the late 1930s. Traffic may have also been responsible for spreading exotic plant seeds in areas adjacent to the road.

Succession Area 7

This succession area is actually composed of two discontinuous areas disturbed by oil exploration in the 1960s. They are located on the east bank natural levee and its backslope. They consist of embanked oil drill pads; ring levees; drill holes; cuttings pits containing shale and rock brought up from drill holes; drilling mud pits; brine pits; piles of trash; river sand and shell road beds; and bulldozed and cleared areas with standing water, mounds of earth, and felled trees (see Chapter X).

The oil exploration sites are square areas measuring from 300 to 500 feet square. Plant succession on the sites is in the sapling stage. Among the most notable saplings are sweet gum and hackberry. The ground cover usually consists of thickets of briars, weeds, and vines. In places, bulldozed ground is covered with standing water and has little vegetation. Mature trees remain in some oil exploration areas. Brine spills or toxins appear to have killed vegetation in other areas. Some of the ponded pits are sparsely vegetated, while others are overgrown.

A large ring levee at the southern end of the study area contains beds and furrows of a plowed field grown over with saplings. The interior of the ring levee was apparently farmed soon after abandonment by the oil company. The nearby woods were partially logged to gain access to the drill site. The understory is a tangle of briars, shrubs, and palmettos. The ground in the woods is flooded by a large drainage that is part of the wet sloughs or *"coulées"* that are described as passing through the old sugarcane fields in Succession Area #3. The drainage follows the semi-circular shape of the old river meander. The ring levee is located on the edge of the crest of the natural levee. It is built over one or more raised road beds that, at one time or another, served as the route of the Barataria Road. Other courses of the road appear to be located nearby (see Chapter VIII).







Ponded ring levee of oil drill site 4, looking W.





THE SWAMP FOREST



The backswamp forest. Infra-red photo, January 19, 1984, 84039, LN3-RN1, 406, Environmental Monitoring Systems Lab, Office of Research and Development, U. S. Environmental Protection Agency, Las Vegas, Nevada.

1. **Mixed hardwoods and cypress on natural levee backslope.**
2. **Cypress-tupelo gum swamp in levee-flank depression.**
3. **Cypress-tupelo gum swamp.**
4. ***Mixed hardwoods and cypress on relic natural levee of abandoned river meander.***
5. **Cypress-tupelo gum swamp.**

Swamp forest is located beyond the backslope of the natural levee and along the borders of Bayou des Familles. The plant communities of these two swamps are similar in composition but dissimilar in distribution.

The swamp forest that begins at the toe of the natural levee backslope is called the backswamp. Its vegetation reflects the active geological processes behind the natural levee. As the natural levee slopes downward toward the swamp and the relative level of the water table rises, water-tolerant species increase in number. With some intermingling of species throughout, semi-circular bands of increasingly water-tolerant plant communities descend the backslope. Below the crest of the natural levee, live oaks become fewer and water oak, hackberry, sweet gum, ash, elm, and red maple increase. Near the swamp is a band of dead live oaks and their stumps, killed by excessive wetness as the levee subsided.

The toe of the natural levee backslope is demarked by a band of red maple, with their highly visible foliage, mixed with Carolina ash and bald cypress. This is a transitional zone of changing vegetation that borders the swamp. As subsidence continues, plant succession in this zone will proceed toward an edaphic climax forest of bald cypress, and the transitional zone distinguished by the flaming red maples will slowly advance toward the crest of the sinking natural levee.

The understory of the backslope forest consists of thick palmetto growth. Palmetto also grows in the backswamp, although less densely. The plant cannot survive under conditions of continuous submersion of its roots and lower trunk, but it thrives in areas where wet and dry conditions fluctuate. Palmetto seeds are carried by water, therefore, abundant growth of the shrub denotes areas subject to occasional flooding.[65]

The largest and oldest palmettos are in the backswamp, about 1000 feet distant from the crest of the natural levee. These palmettos have large trunks and are estimated to be more than 250 years old. The palmettos that grow on the crest of the natural levee are shrubs estimated to be less than 100 years old. The leaves of the youngest of these grow from underground rootstocks. Palmetto trunks may grow to a height of six or eight feet. The trunked palmettos deep in the backswamp germinated before the land subsided and became inundated, but they have developed elevated roots and trunks. Some large palmettos in the backswamp are dying because of the increase in the water level. Early settlers in Louisiana observed that the palmetto grew above land subject to sustained annual



Cypress swamp from "Ring Levee Trail."

overflow and used the plant as an indicator of land suitable for farming and habitation.[66]

About 1200 feet from the crest of the natural levee and bordering the base of the backslope is the levee-flank depression, a semi-circular band of deep-water swamp with some dying trees and some ponded areas. These depressed areas are created by the subsiding load of the adjacent natural levee which compacts underlying sediments and causes their lateral displacement. Levee-flank depressions parallel the meander courses of all deltaic distributaries, both active and inactive.[67]

In the park, the levee-flank depression is about 800 feet wide on the east side of Bayou des Familles. Tree growth is sparse in places. Beyond the depression, the ground rises. In 1855, the rise was described by United States Deputy Surveyor Maurice Hauké as being "high land." The land is now periodically submerged, but it is heavily forested with a mixture of hardwoods and cypress. The elevated ground appears to be a subsided levee of an abandoned river meander about 500 feet wide by 2000 feet long.[68]

The soil of the backswamp is scientifically termed "muck." It is composed of semifluid clay, decayed vegetable matter, logs, stumps, and wood fragments. The dominant tree is the bald cypress. Subdominant trees and shrubs are pumpkin ash, red maple, tupelo gum, wax-myrtle, button-bush, and palmetto. Spanish moss is the outstanding occupant of the overstory. It was once a more manifest part of the landscape.

Louisiana's swamps and oak forests were formerly shrouded with Spanish moss, but most of it has disappeared. An epiphyte, or air plant, moss has suffered from air pollution which has weakened the plant and left it susceptible to deadly fungal diseases. In some areas, the moss seems to be making a slow recovery. Until recent years, moss-pickers lived in cabins in the study area and harvested moss from the swamps and hardwood forests.[69]

Under the trees and shrubs of the swamp are ground-rooting herbs such as alligator-weed, swamp-potato, pickerel-weed, and the beautiful giant blue iris, red iris, and spider lily. Floating and submerged aquatics include water-hyacinth, green spider orchid, mosquito fern, frog's-bit, water-lettuce, duck-weed, water-primrose, and pennywort.

The water level in the swamp is normally higher than the mean tide level. Drainage is toward Bayou aux Carpes. The natural flow is maintained by culverts under the Lafitte-Larose Highway. Several tributaries of Bayou aux Carpes begin in this swamp area. During droughts, the floor of the swamp forest dries out.

The swamp forest of the study area has been logged for centuries but apparently was never clear-cut. The many old, large trees, measuring 15 or 20 feet in circumference, that remain indicate that the area was selectively logged. Some sections of the swamp were more heavily logged than others. Even-aged stands of cypress, and areas containing tupelo gum as a dominant, sub-, or co-dominant, exhibit the effects of logging. Tupelo gum, which has less exacting germination requirements than cypress, often supplants clear-cut cypress forests as second growth.[70]

Female cypress cones mature in autumn and disintegrate on the tree or fall to the ground. The large seeds must soak in water for several months in order that the water may permeate the thick seed coat. Meanwhile, the seeds are moved about by the water and may remain viable up to one year while submerged. They cannot germinate in water and must lodge on dry ground, or else the swamp forest floor must experience drought. Seedlings must have moisture but will die if submerged for a long period of time. These exacting conditions do not frequently occur. Meanwhile, other species may begin succession in logged areas. The swamp communities that result from clear-cut logging are considered by scientists to be man-made plant communities.[71]

In the park, some of the largest surviving cypress were left by loggers because they had "defects," were hit by lightning, or were too large to be accommodated by portable mill saws. These cypress served as parent trees for regeneration of the forest. The variety of plant growth and distribution in the swamp east of Bayou des Familles probably resembles reforestation following natural disturbances or disasters. Unaltered succession would produce a nearly pure edaphic climax forest of bald cypress.



Moonrise and Spanish moss on live oak at Bayou Coquilles.

Logging took place in the swamp until the 1960s. Aerial photographs show that logs were pulled from the swamp to the Barataria Road. The scars of this activity appear as fan-shaped scratches in the vegetation which radiate from the road into the swamp. During the twentieth century, portable sawmills were established in and near the present park to lumber the logs. Negro squatters, who lived in cabins near the swamp, also logged the swamp and the hardwood forest in order to make and sell railroad cross-ties. One of these used a yoke of oxen to haul logs in the manner of the earliest French settlers.[72]

Removing cypress logs from boggy areas required great effort on the part of the settlers. Green cypress usually sank in water, but the French discovered that dry cypress usually floated. By girdling standing trees, the French were able to kill them. When the trees were felled, they were buoyant enough to float. Logs were then either poled or towed out of the swamp to roads where yokes of oxen waited to cart or drag the logs to the river. Float "roads," "trails," or "creeks," were cleared through the swamp in order to float the logs to dry land. Crevasses were frequently created on the river or other waterways to flood the swamps so that the timber could be floated out.[73]

The pullboat and the steam skidder were invented in the 1880s, making possible widespread and rapid industrial exploitation of the timber in the cypress swamps. The steam-powered skidder was frequently mounted on a boat. By means of an overhead cable, the skidder lifted logs by one end and pulled or dragged them for 700 or 800 feet through the swamp. By 1925, most of Louisiana's large cypress swamps had been cut-over, and the Louisiana landscape had been severely changed.[74]

The cleared paths, or fan-shaped "runs," made to skid logs through the swamp, as well as what appear to be float "roads," "trails," or "creeks," can be seen in aerial photographs. The dragging of logs through the swamp created deep "ditches" and destroyed much young growth. The practice is said to have changed the hard clay pan of Louisiana's swamp forest floors to soft bottoms, thereby altering both vegetation and wildlife in the swamps.[75]

Traces of colonial agricultural systems remain in the backswamp. They are visible as tree lines in the crown cover in aerial photographs, as well as on the ground. Large live oaks, and other more water-tolerant hardwoods finger into the swamp from the natural levee backslope following subsided spoil banks of the old fields. Deep in the swamp, some cypress tree lines follow the compass bearings of the colonial land holdings (see Chapters II, III, and IV).

Oil exploration has also altered the landscape, the plant communities, and the habitats of the swamp in the study area. Several oil drill sites, with their embanked road and levees, partially block drainage. A brine and oil spill at one drill site has killed vegetation in the vicinity. The artifically elevated levees and drill platforms support vegetation adapted to dryer soil conditions than the surrounding swamp, such as black willow, sweet gum, red maple, and green ash. Black willow, a pioneer on new-formed land, dominates the drill site elevations.

The levees, drill pads, and roads are sinking under their own weight. As they subside, the vegetation on the sites will undergo edaphic changes that will mimic in miniature the deltaic process that creates cypress climaxes on alluvial soil. If allowed to progress in a normal manner, plant succession on the oil sites will proceed to pumpkin ash and tupelo gum, and finally to pure stands of bald cypress.



THE BAYOU SWAMP





Bayou des Familles, looking downstream from the Hurricane Protection Levee, showing cypress growing in the bayou.

As it passes through the park, Bayou des Familles, with its swampy margins, forms a narrow, semi-circular swamp forest measuring about two and a half miles long and about five hundred feet wide. The bayou is the remains of the river's scour channel which, when active, was perhaps 100 feet deep. The channel has filled with sediment and organic decay, and the water is now about four feet deep. The bayou averages about 100 feet wide. The swamp forests that border both sides of the bayou are from 200 to 300 feet wide. Along most of the length of the bayou, the swamps are artificially contained by man-made levees and by Indian middens.

During the Colonial and early American Periods, the bayou was somewhat larger and was still partially open at the Mississippi River. Floods that carried alluvial deposits were frequent. However, the swampy banks, which are formed within the scour channel, constantly subside as the fill compacts. In most places, the muck in which the swamp forest grows will not support human weight.

The species of plants found in the bayou swamp are the same as those found in the backswamp, but the distribution of the species differs. The shores drop quickly in their descent to the bayou. Within several hundred feet, the slope of the bank drops about three feet, and rapid changes occur in vegetation. Green ash and red maple, which cannot endure long inundation, fringe the bayou wetland. Here also may grow hackberry and the exotic Chinese tallow-tree which was introduced into the United States in the 1940s. Nearer the water are pumpkin ash and tupelo gum. Bald cypress is dominant in the bayou and along its edges. Elevated banks along the bayou, some created by dredge spoil, support growths of black willow that overhang the water, and some live oaks. Wax-myrtle and palmetto are frequently present in the understory.

The ground cover along the bayou varies with wetness and distance from the bayou. It is sparse on some banks, while in other places there are lush growths that include giant blue iris, red iris, spider-lily, butter-weed, cat-tail, elephant's-ear, arrowhead, alligator-weed, pickerel-weed, bur-marigold, and buttercup. In the mid-nineteenth century, the bayou banks were described by Surveyor Hauké as being covered with river cane *(Arundinaria gigantea)*. This large, bamboo-like cane was once common in the State and grew especially in alluvial areas. Accounts of early explorers described the banks of the Mississippi River and the natural levee hardwood forests as impenetrably thick with river cane. A few stands of the cane remain in the park today.[76]

The bayou contains a floating and submerged aquatic plant community composed of such plants as water-hyacinth, duck-weed, pennywort, water-lettuce, water-primrose, and common water-nymph. The open sunlight on the bayou and the flowing water in the stream are two factors that make the aquatic habitat of the bayou more productive than that of the swamp. The flow of water in the bayou is controlled by lunar cycles, and it changes direction about every 12 hours.

Historical records indicate that the bayou banks supported cypress swamp in colonial times, and that the bayou was only navigable for a short distance north of its confluence with Bayou Barataria. However, ac-

cording to Tommy Wildey, who was waterboy and cook's helper on a dragline that dredged Bayou des Familles in 1938, a 35-foot-long boat was dredged out of the bayou near the bridge crossing on the Shell Road. The boat came up in pieces and lay on the bank for some years before it was burned.[77]

In 1938, McWilliams Dredge Company dredged Bayou des Familles from Bayou Barataria to a point several hundred feet upstream from the confluence of Bayou Coquilles. According to Louis Ehret, the whole length of Bayou des Familles formerly resembled the undredged portion north of Bayou Coquilles where cypress grows out into the water.[78]

The positions of many bridge crossings have been located on Bayou des Familles. Other crossings may have existed, because many Spanish land grants were made to include both sides of the bayou. Some of the cypress that grows in the bayou may grow on submerged bridge supports.

The bayou swamp has been logged many times through the centuries. It is known to have been logged at least twice in the twentieth century. In 1902, Charles J. Brown sold the cypress timber on the west bank of the bayou in the Christmas Plantation to the Louisiana Cypress Lumber Company. The agreement stipulated that "the cypress timber only measuring ten inches or more at the stump" be cut within 13 years, that the bayou could be used to float off the logs, provided there was no obstruction to the cleared and cultivated plantation lands, and that a railroad might be built on the west bank of the bayou for hauling the logs.[79]

The bayou swamp was logged again about 1946 by the Pontchartrain Lumber Company under contract with the land owner, the Canal Banking Company. A sawmill with a five-foot circular blade, run by a diesel engine, was erected on the west side of Highway 45 just north of the present park boundary line. A skidder crew hauled trees from the swamp with a 1000-foot steel cable and a rehaul cable attached to a "spur tree." All cypresses and hardwoods, excepting live oak, over 16 inches in diameter were cut along both sides of the highway to Crown Point.[80]

According to Percy Prestenbach, Sr., who worked with the skidder crew, 30 or 40 axe-cut cypress logs were found lying cross-wise in Bayou des Familles in the bend upstream from Bayou Coquilles. The logs were so placed as if to block or dam the bayou. Prestenbach recalls that one axe-felled log, measuring about 60 feet long and about 4 feet in diameter, remains submerged about 200 feet downstream from the protection levee at the northern park boundary line.[81]

These logs may have been part of collapsed bridges, or they may have, in fact, been laid to block the bayou. Linear features that cut across the natural ridges and swales of the old filled river bed are visible on aerial photographs and suggest that irrigation ditches may have once drawn from Bayou des Familles at the top of the meander bend in order to water lands downstream. If such an irrigation system existed, it may have dated back to colonial times (see Chapter III).



Bayou des Familles near the confluence of Bayou Coquilles, looking upstream.



Jacques N. Bellin, "Cours du Fleuve Saint Louis depuis ses Embouchures jusqu'à la Rivière d'Iberville et Costes Voisines," 1764, Paris. Detail. LC/TUL.

CHAPTER II

FRENCH EXPLORATION AND SETTLEMENT

One of the earliest maps of the Mississippi River Delta, Franquelin's *"Extrait de la Carte des Voyages de M. de la Salle"* of 1684, shows a circular *"marais,"* a marsh or swamp, in what later became known as the Barataria Basin. Although this map is crudely drawn, it clearly shows the three passes at the mouth of the river, the acute bend of English Turn, the crescent bend upon which New Orleans was established, and the distributary later named Bayou Lafourche. The *"marais"* and several Indian villages that are depicted in its vicinity suggest an early familiarity with the Barataria Region.[1]

Guillaume De l'Isle's *"Carte de la Rivière de Mississippi"* of 1702 identifies the Barataria Basin as the Isle de la Fourche or "Isle of the Fork." In the Mississippi River Delta's labyrinth of waterways, the French equated water-encompassed land areas with islands. Isle de la Fourche was bounded by the Mississippi River, the Gulf of Mexico, and Bayou Lafourche. On the stream named la Fourche, were the Toutimacha, Ouacha, and Yagnetsito villages.[2]



Within a few years, the region bounded by the river, the gulf, and Bayou Lafourche had acquired the name of Barataria. The French word *barraterie,* and the Provençal equivalent *barataria,* mean any type of fraudulence, illegality, or dishonesty at sea. Because of the good harbor in Barataria Bay and the labyrinth of bayous behind it, the region was probably long used by pirates and smugglers. However, the name may have had another meaning, or perhaps a double meaning.[3]

Claude Joseph Villars Dubreuil, the elder, claimed to have discovered and named Bayou Barataria and the Isle de Barataria. This "island" is a land area encircled by Bayous Villars, Barataria, Rigolettes, Perot, and Lake Salvador. A colonial chronicler of Louisiana, Antoine Simon Le Page Du Pratz, associated the "island's" name with the fictional Barataria in Cervantes' *Don Quixote* "because it was enclosed by those lakes and their outlets, to form almost an island on dry land, as was that island of which Sancho Panza was made governor." It is interesting to note that among the books listed as being in Dubreuil's library at the time of his wife's death in 1754 was a copy of *Don Quixote.*[4]

A French map of about 1723 dates the discovery of Bayou Barataria to four years after the founding of New Orleans. A notation on the map describes the unnamed waterway as a "little river of 20 or 30 toises [a toise equals 6.394 feet] in width which runs to the sea discovered in the month of August 1722." Some early maps also name the *rivière* or bayou for the Ouachas Indians who inhabited the region, and some give it the name of Villars.[5]

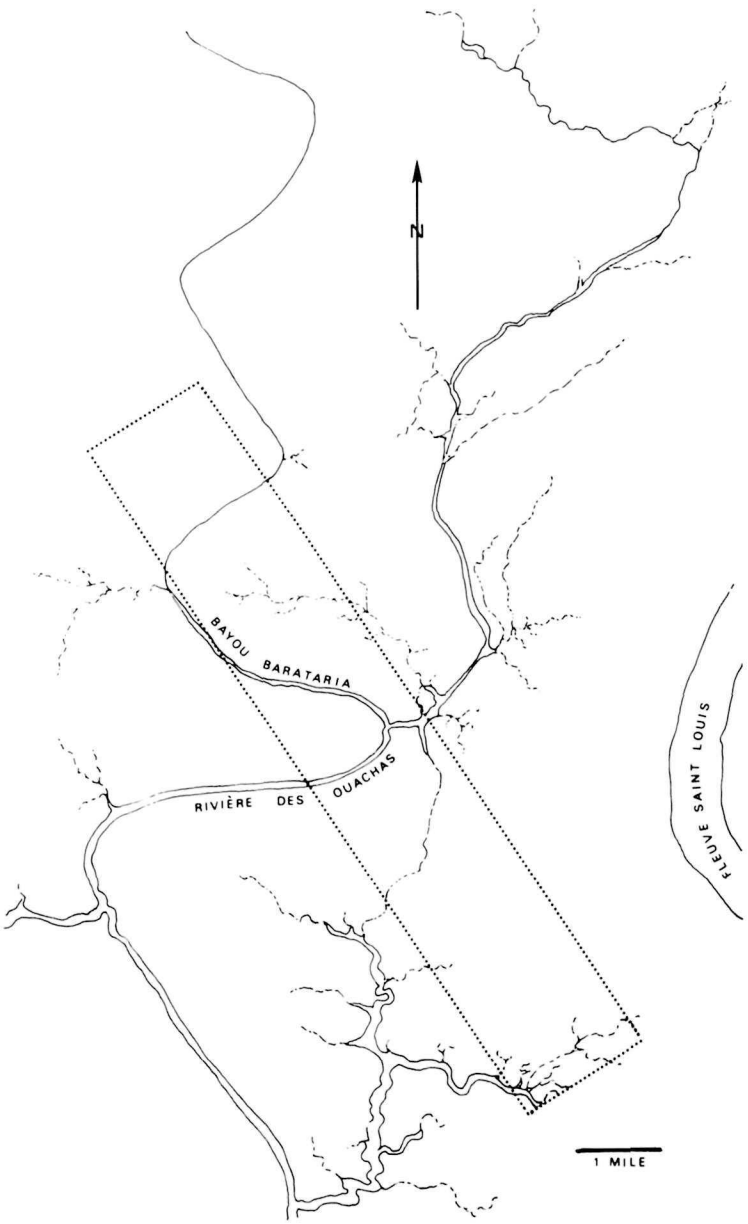
Bayou des Familles, which was still partially active in colonial times, was earlier called Bayou Barataria, while today's Bayou Barataria carried the name of Ouachas or Villars. Even in the nineteenth century, when the name of Ouachas began to be dropped in favor of the name Barataria, Bayou des Familles was still sometimes called Little Bayou Barataria.[6]

The French were attracted to the natural resources in the area: timber, shells, game, fish, and furs. However, *habitations* (plantations) and *vacheries* (ranches) were also established on the high lands along the bayou now called Bayou des Familles and along the bayou now called Bayou Barataria south of its confluence with Bayou des Familles.

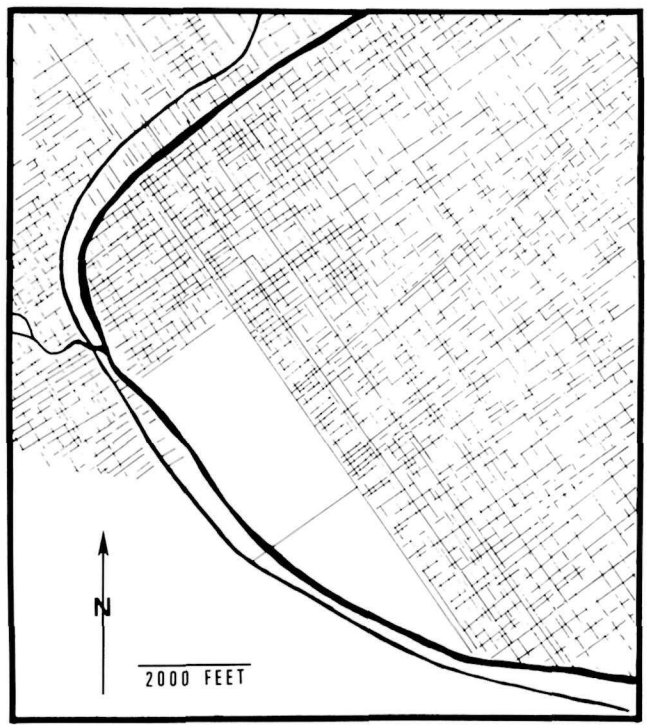


THE JEAN-BAPTISTE MASSY GRANT

The earliest French land grants in Barataria were conceded on June 14, 1726 to Jean-Baptiste Massy and his partners Jean-Baptiste Bourbeau and Charles Frederig de Merveilleux, who was a Captain of the Swiss regiment in the colony. The adjoining grants of 40 arpents each (an arpent equals 191.835 feet) fronting both sides of Bayou Ouachas with a depth to the marshes were made by the Company of the Indies. Massy's grant was situated at the confluence of the bayous presently named Bayous des Familles and Barataria. The upper line of his west bank tract appears to have been at Bayou de la Borne. The upper boundary of his east bank tract was apparently at Bayou Chaland. The west bank tract was that which was cultivated, with



Projected position of the French land grant of Jean-Baptiste Massy.

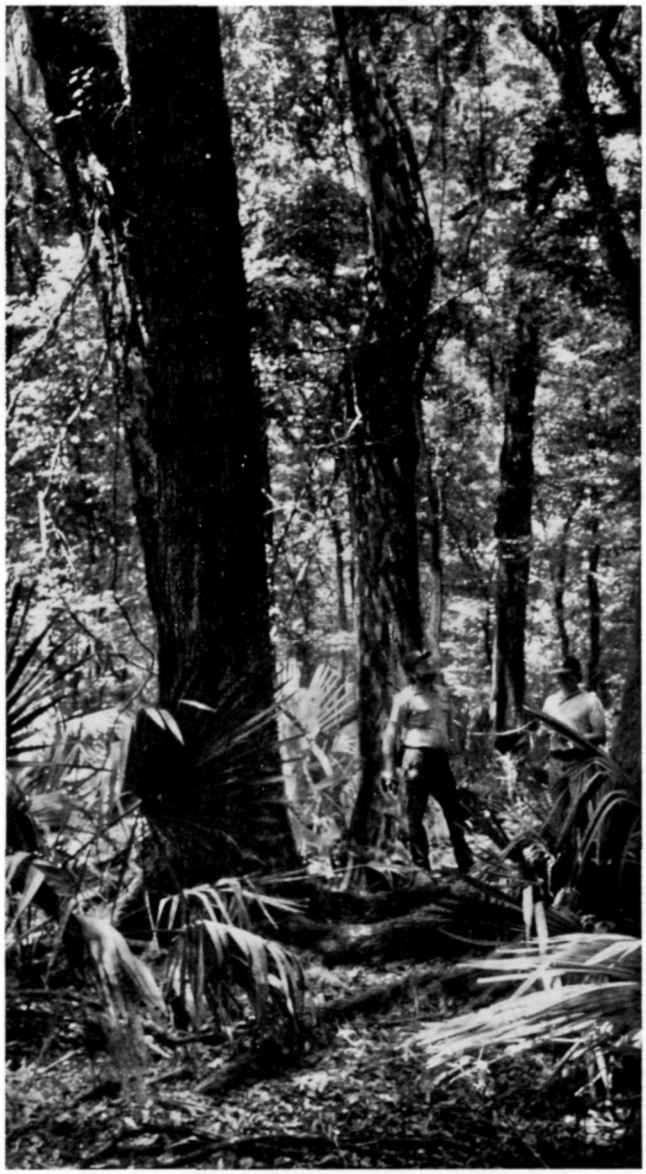


Pattern of the French field system in the environs of the study area, delineated by tree lines in old aerial photographs. R-76-37-125 and 126, November 4, 1945, and 5-58-171, December 15, 1958, USA/CE, New Orleans; C&GS 20 LA. 1250 29 90 C 2789 and C 2790, May 17, 1945, National Ocean Survey, National Archives, Washington, D. C.

fields that extended northward along Bayou des Familles for about five miles. The inventory of Massy's estate, made in 1735, described his plantation as "a land of 40 arpents frontage as far as the trembling prairies (marshes) in depth of which there is in number about 150 cleared."[7]

Aerial photographs indicate that the upper limits of Massy's great field system crossed Bayou des Familles three quarters of a mile northward of the park, and it extended down the backslope of the natural levee into what is now swamp and marsh. Faint, criss-crossing lines in the tree crown cover show that the fields were laid out in a gridiron pattern of crossing ditches and roads. These agricultural features are visible on the ground in places as shallow ditches and low embankments. Even where no changes in elevation can be discerned on the forest floor, lines of trees are responding to the geometric patterns of sunken spoilbanks. Some of these tree lines consist of huge live oaks about 20 feet in circumference, spaced about 200 feet apart.

The field ditches were laid out one-half arpent apart, but every fourth ditch at every two arpents was dug deeper and wider, and these are more noticeable on the ground and from the air. The perpendicular cross ditches and roads divided the massive system into a checkerboard of squares. The compass directions of the agricultural features, which correspond with old sur-



Tree-line crossing the east bank natural levee crest at the 48° French grant compass bearing, examined by Chief Ranger David Muth and Archaeologist Charles Pearson.



Michael Comardelle measures one of a series of levees and/or roads with bordering ditch crossing the river bottom of the upper meander bend at two arpents (384 feet) apart, following the 48° compass bearing of the French agricultural system. Looking SW.



Canal following the 137° French grant compass bearing, incorporated into a Spanish field system on the west bank of Bayou des Familles at the north end of the park (see Chapter IV), looking SE.

vey records, vary between 137° and 146°, and 48° and 56°. Later agricultural developments appear to have incorporated and preserved features of the Massy system.

Records show that for some years the partners had been under contract with the Company of the Indies to cut oak and ash and deliver the logs to the river. The work was done by the slaves and yokes of oxen. Logging of their Barataria grants was necessary before cultivation could begin.[8]

Massy soon dissolved his partnership with Merveilleux, and Bourbeau was killed in 1729 in the Natchez Indian massacre. Jean-Baptiste Massy was an important figure in the early development of the French colony in Louisiana. He was engaged in numerous enterprises of commercial and agricultural exploitation. With other partners, Massy had previously owned

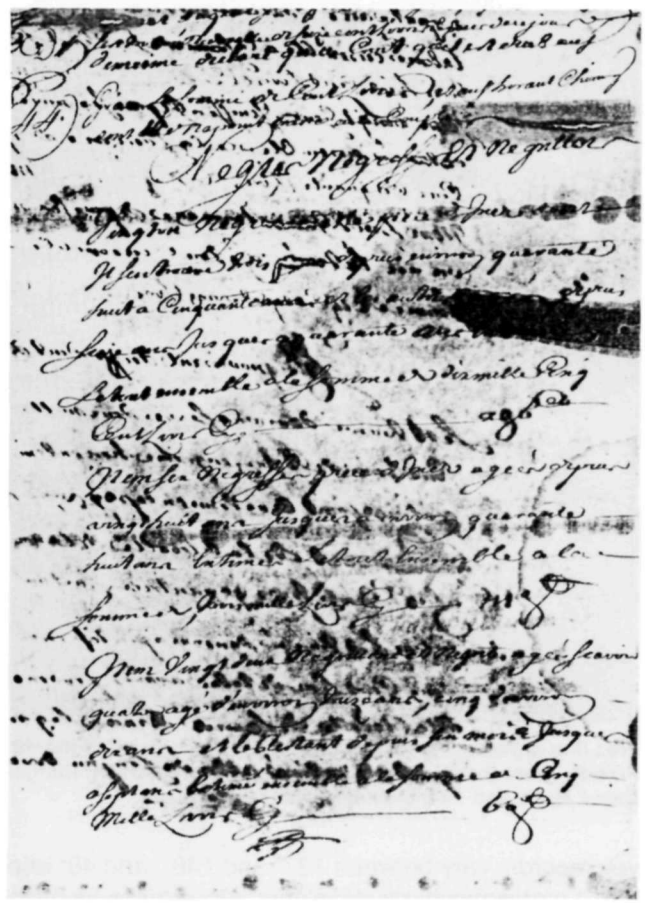


concessions on the Chapitoulas Coast and at Point Coupée. He also owned tracts of land on the west bank of the Mississippi River, near Barataria. He used one of these tracts as a depot and warehouse for the produce of his Barataria Plantation. The other tract was undeveloped. When he died in 1734, Massy was a councillor of the Superior Council of the Province of Louisiana.[9]

The 1726 census shows that Massy was living in New Orleans on the Rue du Quay (the river front, now Decatur Street). He apparently then moved to his Barataria plantation. In 1731, he married Jeanne Faucon Dumanoir, and they had a daughter, Jeanne Anne. The plantation was operated by a French steward, Joseph Cazenave who acted as overseer of the 65 Negro slaves. Cotton and tobacco were the principal crops. At the time of Massy's death, 2500 pounds of cotton seed from the 1733 harvest was being stored for the next year's planting. Also in storage was 200 pounds of damaged tobacco, and more was growing in the fields. Livestock was also raised.[10]

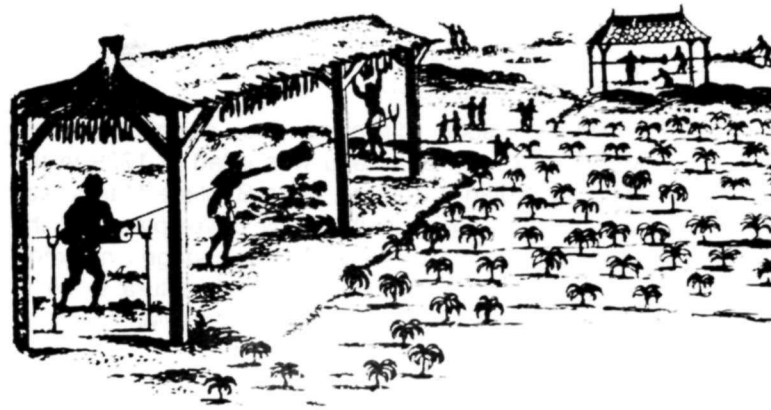
The buildings on Massy's plantation consisted of the main dwelling house, a house for the steward, 10 slave cabins, a building for storing cotton, and two tobacco curing houses. The curing houses were 100 feet long by 22 and 30 feet wide. They were covered with *latanier* (palmetto leaves) and had galleries supported by poles stuck in the earth. The walls of one curing house were constructed of wooden frame laid on the





List of slaves, page from the inventory of the succession of Jean-Baptiste Massy, March 20, 1735, French Superior Council Records, No. 2313, 59/19, Oversize storage Box No. 3, 1735032002, Louisiana State Museum Historical Center, New Orleans.





ground *(sur solle).* The walls of the other curing house were made of upright poles stuck in the earth *(pieux en terre).* There was also a small tobacco storehouse made of *pieux en terre* and covered with *latanier,* measuring 25 feet long by 18 feet wide. The steward's house had the same measurements, and it was roofed with bark.[11]

The construction materials and techniques of the Massy buildings were typical of those used throughout the colony in the early French Period. Wall sills were commonly laid on the damp ground *(sur solle).* Uprights or studs were inserted into the sills and covered with horizontal boards. In this type of French and Canadian building construction, wall frames and roof trusses were usually assembled on the ground and then raised into position.[12]

The construction of walls with upright poles stuck in the earth *(pieux en terre)* was a building technique borrowed by the French from the Indians. The method is not found in France or Canada. Palmetto fronds *(latanier)* were a roofing material also used by Indians.[13]

Le Page Du Pratz commented on the wasting of cypress trees for their bark.

> The cypresses were formerly very common in Louisiana; but they have wasted them so imprudently, that they are now somewhat rare. They felled them for the sake of their bark, with which they covered their houses, and they sawed the wood into planks which they exported at different places. The price of the wood now is three times as much as it was formerly.[14]

Massy's widow Jeanne Faucon Dumanoir, married Gilles Augustin Payen, Chevalier de Noyan, *Major* of New Orleans. She and her husband retained the Barataria property for nearly three decades. They operated two horse ranches there with Benoist Payen, Chevalier de Chavoye, Knight of the Royal Military Order of St. Louis and Captain of a company of the detached marine troops garrisoned in New Orleans, who was married to Marie Faucon Dumanoir, widow of Joseph Chauvin Deléry.[15]

The establishment of *vacheries,* or dairies and stock farms, was important to the French colony. There were so few cows and horses in Louisiana during the early decades of the colony that a royal edict of May 22, 1725 imposed a punishment of death on anyone killing or wounding another's horses and cattle. The killing of one's own cow or ewe, or their female young, was punishable by a fine of 300 livres.[16]

Horses were especially rare in the early years of the colony. In 1721, there were only nine horses in New Orleans. Not even the governor had a horse. By 1732, the number of horses in the French capital had increased to fourteen. Most horses in colonial Louisiana were obtained from the Spanish in New Mexico by Indians and brought to the French. These were of the small Spanish stock from which Louisiana "Creole ponies" descended.[17]

By the end of the French regime, the horses of Barataria had been running wild for many years, and they sometimes invaded the fields of the river front plantations. In 1761, Claude Joseph Villars Dubreuil, the younger, petitioned Governor Louis Billouart, Chavalier de Kerlérec to reunite the abandoned 120-arpent concession of Massy and his associates to the domain of the king and then regrant the lands to other colonists for the establishment of *habitations.* In his petition, he stated that for 17 years no one had watched over the two stud farms of Chavoye and Noyan, except for a Frenchman whom Chavoye had placed there for some years in order to try to prevent the damages that the abandoned horses were causing on Villars Dubreuil's land named Le Petit Désert, or The Little Wilderness, on the river at present-day Westwego.[18]

At the same time, Chavoye petitioned for the title to half of the 40-arpent Massy-Noyan-Chavoye tract to be conceded to him anew. His request was for 23 arpents fronting on the Rivière des Ouachas to reestablish his ranch. He acknowledged that there were no white men living on the land to prevent the horses from causing injury to Villars Dubreuil's land on the river. He stated that Noyan had petitioned Governor Bienville on





November 19, 1736 to reunite the Massy land to the king's domain and grant it anew to Noyan. The new concession to Noyan had been resurveyed by the Royal Surveyor Broutin.[19]

Along with Chavoye's new grant, the rest of the 120-arpent grant to Massy and his partners was reconceded to other colonists early in July of 1761. Twenty arpents of frontage on the Rivière des Ouachas were granted to each of the Sieurs Dezillest, Verdun, Dubourg, De Trant, and Dauterive for the establishment of farms and ranches.[20]

The geography of Barataria was conducive to ranching. The elevated alluvial ridges, barrier islands, and *chénières* made naturally contained pasture lands. Bounded by water, marsh, and swamp, these raised areas were called "islands" or "tongues of land" by the French. They were ideal for pasturing live-stock, because the herds were confined by the bounding waters and wetlands. Since the early days of the colony, animals had been pastured on natural levee ridges in the swamps and marshes near New Orleans. The use of Metairie Ridge for pasturage is described in a petition of 1757 by Louis Césaire Le Breton.

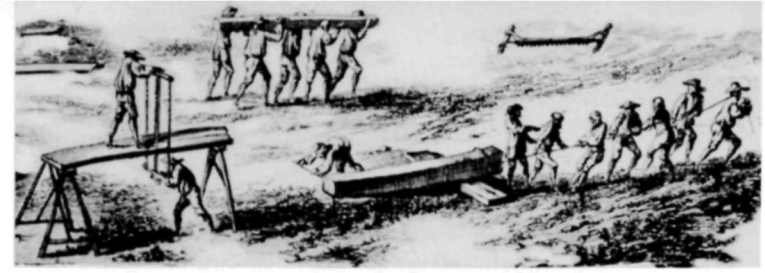
> The petitioner has the honor to call to your attention, Monsieur, that there is on the land in question a tongue of high land which is not sufficient for the pasturage of the numerous animals he keeps on this vacherie, and one farther on, beyond the limits of the 60 arpents of depth granted to him, which he could open by draining the low lands. These lands would give him more expanse. He has not enjoyed the use of these facilities inasmuch as the lowlands have not been conceded to him. As a result, the animals which cannot reach the highlands afoot are forced to go up by way of the Chapitoulas and wander all the way to Cannes Brûlées. Especially in winter when they find no place on which to graze, the beasts stray away, do not return, or even are killed, mostly by runaway slaves. He [the petitioner] has lost a considerable number of animals during the last seven years. These observations . . . are intended only for the preservation of the species, which becomes more and more valuable to the Colony.[21]

The younger Dubreuil described pasture land he purchased from the Indians on the west side of Lake Salvador in 1744 as "tongues of land." These "tongues" were the elevated natural levee ridges of Bayou Matherne, an old distributary of the Lafourche river system. He complained that the wild horses of Barataria invaded Le Petit Désert "when the water was low." Certain lands, such as the natural levees of Bayou des Familles, may have been isolated only during the frequent floods of crevasses and overflows from the Mississippi River. [22]

Cows, horses, and other animals were allowed to run wild on wooded tongues of high land in Barataria, and even on the spoil banks of canals, until the 1960s. In earlier times, they were usually guarded by one or more Negro slaves. In purchasing land from the Indians, the younger Dubreuil said that he was seeking pasture for his "Negro cowherds." His father had engaged a French cowgirl to guard his Barataria cattle in 1738. Her name was Barbe Tolly, and her husband, Vilaine Siriaque, signed an agreement authorizing her to serve in this capacity. Upon the elder Dubreuil's death, the cattle on the Isle of Barataria were being watched by a Negro *vacher* named Pierrot, for whom Bayou Perot was named. The cattle on the isle were so wild that they could not be found and counted when the recorders of the inventory of Dubreuil's succession visited Barataria in 1758. The younger Dubreuil purchased 150 head of cattle at the auction sale of the succession, which was an approximated number. His low bid of 8,000 livres was accepted "considering that it is impossible to catch said cattle alive and that it will be necessary to kill them with a gun."[23]

The high lands of Barataria also continued to be exploited for their natural resources. As King's Contractor of Public Works, the elder Dubreuil removed large quantities of timber and shell from his Barataria properties. Spanish Royal Surveyor Carlos Trudeau's map of 1803 notes that it was from the Indian shell mounds of Barataria that "lime was taken for the public buildings of all of Lower Louisiana."[24]

The elder Dubreuil was one of the wealthiest colonists in Louisiana, owning as many as 500 slaves.



His principal plantations were on the other side of the river, on the Chapitoulas Coast upriver from New Orleans, and immediately below New Orleans. On these lands, he was among the first to raise sugarcane, cotton, indigo, tobacco, and wax-myrtle for the making of candle-wax. In the 1730s, he acquired a 16-arpent tract of land on the west bank of the river, between present-day Gretna and Harvey. On this property, he dug a 25-foot wide navigable canal between 1736 and 1740. By means of the canal, which connected with the Bayou Fatma branch of Bayou Barataria, he extracted timber and shells from Barataria. A sawmill canal ran parallel to the navigation canal. The rear portions of these two canals still exist.[25]

The elder Dubreuil's Barataria lands stretched for about 15 miles from the river toward the Gulf of Mexico. He gave the name of Barataria to the riverfront property, the canal, the bayou, and all the vast backlands that the canal made accessable. Apparently, Dubreuil did not use his west bank or Barataria lands for agriculture, but rather for ranching and the extraction of natural resources. He had a ship-building industry on the Isle de Barataria and brought the ships to the river via his canal.[26]

Before he died in 1757, the elder Dubreuil ceded to his son 15 arpents of his 16-arpent west bank riverfront property. One arpent of the tract, containing the navigable canal, was reserved by the father for himself and all his heirs. The younger Dubreuil acquired his father's Barataria lands from his succession. He followed his father in ranching, lumbering, and building contract work, but did not engage in significant amounts of agriculture. He probably also continued to mine shells in Barataria, and he may have extracted game and fish from Barataria for the New Orleans market.[27]

When the elder Dubreuil died, his Barataria lands were being used to pasture cattle and goats, and several Negro slaves were living on the lands in dilapidated cabins. On one tract was a Negro cabin constructed of *"terre de pieux"* (poles in the earth) and roofed with *"latanier"* (palmetto). Another tract contained a ruined wooden house measuring 35 by 20 feet and roofed with shingles, and three dilapidated Negro cabins. Moored here was a 50-by-14-foot *"chaland"* (barge) which a slave carpenter had made.[28]

In 1772, when the younger Dubreuil died, the Barataria lands that he acquired from his father's estate were still being used for grazing cattle, and three Negro slaves watched the animals. There were two cabins constructed of poles in the earth. One had a chimney. There was also a brick oven for baking bread. Two boats were moored at the bank of the bayou; one measured 48 by 10 feet; and the other measured 30 by 8 feet.[29]

The inventory of the Barataria riverfront *"hacienda"* listed the sawmill, 1,200 pieces of lumber, a carpenter shop and blacksmith shop, carpentry tools, a storehouse, an office, a building for storing meat, a chicken house, a dove cote, 24 slave cabins, 38 Negro slaves, 25 sheep, 3 pairs of oxen, and two boats. Also on the property were 5 houses, 2 kitchens, and 2 brick ovens for baking bread. The principal house was 58 feet long by 30 feet wide. It was a raised house with galleries and 3 chimneys, constructed of *"labrillos en palos"* (bricks between posts).[30]

Listed at the "Grande Baquería" (Great Cow Pasture) on the western side of Lake Salvador, "in the place named Chaquetamaca," were 39 cows, 23 heifers, 33 calves, 15 little calves, 4 bulls, and 15 horses, "big and little." The Negro slaves who tended the animals were Pedro, a 26-year-old Creole; 50-year-old Bangrou; 40-year-old Carlos, and 42-year-old Cathalina, a Creole, with her children, 11-year-old Louisa, and 6-year-old Carlota.[31]

The principal house at the Grande Baquería of Chaquetamaca was 25 feet long by 15 feet wide. It was constructed of brick covered with weatherboards, and it had a double chimney. There was also a wooden cabin that was "used to put the bed." It was 12 feet long by 8 feet wide. In addition, there were six cabins for Negro slaves, indicating that a larger number of slaves were once employed on the property.[32]

Also pastured at Chaquetamaca were 4 cows, 1 heifer, 1 bull, and 3 calves which were the property of Madame Chavoy and were not evaluated by the appraiser of the inventory. Likewise not appraised were 5 cows, 2 heifers, and 3 calves that belonged to Santiago Reims (or Remis) who was "keeper of them all."[33]

The younger Dubreuil's inventory demonstrates the misfortune which befell the Dubreuil family. The elder Dubreuil was one of the wealthiest men in the colony, but his heirs were financially ruined by the economic conditions which arose from the transfer of the colony from France to Spain after 1762. The Dubreuils were forced to seek charity. According to the petition of one family member, they "went into the forest, where they shared the life of savages in order to escape from the shame of their wretched state and from the harshness of people, who in most part, owe their welfare to benefits received from the Dubreuil family." Indeed, when the elder Dubreuil's grandson, Joseph Villars, sold one of the Barataria tracts in 1781, he retained the use of the houses on the property.[34]

At the auction sale of the younger Dubreuil's estate, his New Orleans residence and his Barataria riverfront property were purchased by Francisco Bouligny. Pequeño Desierto and the Grande Baquería at Chaquetamaca were purchased by Charles Jean-Baptiste Fleuriau, son-in-law of the younger Dubreuil.[35]

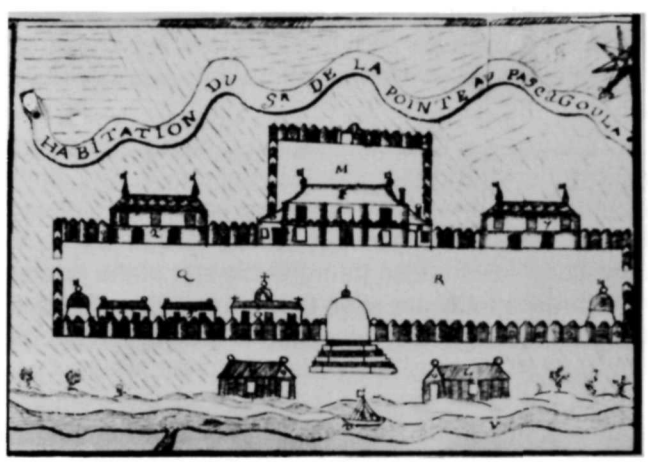
THE JEAN ANTOINE BERNARD DAUTERIVE TRACT

In 1761, Jean Antoine Bernard Dauterive was granted 20 arpents fronting on the Rivière des Ouachas in the reconceding of the 120-arpent grant that belonged to Massy and his partners. A year later, Dauterive acquired the adjoining 20-arpent grants also given in 1761 to Dezillest, Verdun, and Dubourg. According to land claims registered with the United States Surveyor General's Office after 1803, Dauterive ultimately owned 90 arpents of frontage on Bayou Barataria bounded by Bayous de la Borne and Dauphine, with a depth of 110 arpents.[36]



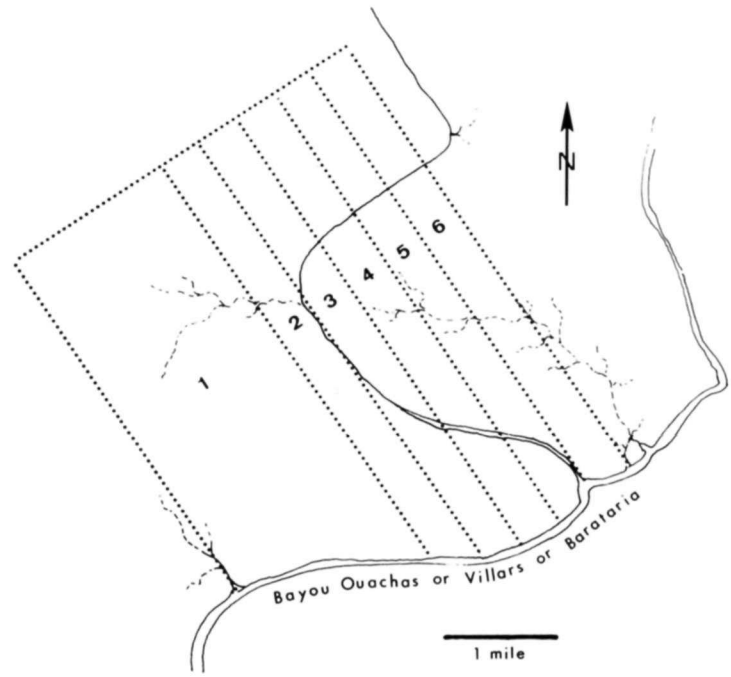
Bernard Dauterive was a French army captain who came to Louisiana in 1755. He married Elizabeth Sabine Joseph Monthault de Monberault in 1764, and they had four children, Dubuclet, who died at a young age, Antoine Bernard, Louis Decomines, and Antoine Marigny.[37]

He settled on his Barataria property, grew indigo, and raised livestock. He apparently reopened some of the fields of Massy and his associates, but he used much of the property for grazing large numbers of cattle, sheep, pigs, and horses. His house was constructed of a mixture of mud, lime, and shells within a wooden framework set on the ground *(sur solle)*, and it had a gallery across both the front and rear. The mud, lime, and shell with which the walls were constructed was a kind of mortar that was used in the earliest French buildings in the Mobile area and along the Gulf Coast. The De la Pointe-Krebs House at Pascagoula, Mississippi is a surviving example of this type of construction material.[38]



Near the house was a dovecote with a room underneath and Negro cabins. The ensemble included a courtyard and garden, and it was surrounded by a palisade fence.[39]

The buildings were located immediately east of the confluence of Bayou des Familles and Bayou Barataria, on a large prehistoric shell mound. This elevated site was probably safe from flooding. When Dauterive sold the property in 1768, the sale was made with 100 cattle, 100 sheep, 20 pigs, 60 piglets, and two Indian slaves,



SUBDIVISIONS OF THE JEAN ANTOINE BERNARD DAUTERIVE PLANTATION

1. **Heirs of J. A. B. Dauterive following his death in 1776.**
2. **Antoine Marigny Dauterive from his father's estate.**
3, 4, 5, 6. **J. A. B. Dauterive to Antoine Boudousquié and Elie Hugues in 1768. Alexandre Guerbois acquired Hugues undivided half of the 40-arpent tract in 1772.**
3. **Alexandre Guerbois by partition with Boudousquié in 1774.**
4. **Antoine Boudousquié by partition with Guerbois in 1774.**
5, 6. **Guerbois and Boudousquié to Pedro Alberto Bonne in 1774.**

Pompée, a 25-year-old hunter and herder, and a half-grown girl named Marianne. A United States Government survey of 1855 named the shell mound which had been the site of Dauterive's house "La Butte Marianne." The mound had undoubtedly been named for Dauterive's Indian slave girl.[40]

In 1768, Dauterive divided his 90-arpent plantation into 10-by-110 arpent strips fronting Bayou Ouachas. Four of these strips cross the study area. The straight portion of the Barataria Road follows one of these property divisions. Another is clearly represented near the north end of the park, on the east side of the bayou. The property line is marked by a linear elevation of less than one foot in height and about fifteen feet wide at the base, with depressions on either side. This appears to be the remnant of a double ditch and levee of the type commonly used for rural property divisons. These boundary divisions were usually topped by a fence and bordered by access roads.[41]

In 1768, Dauterive sold four of the 10-by-110 arpent strips, comprising together 40 arpents facing Bayou



Ouachas, to Antoine Boudousquié and Elie or Hery Hugues. These were the same 40 arpents that had been owned by Massy, and they contained Dauterive's buildings. Boudousquié and Hugues bought the buildings, cattle, sheep, pigs, and Indian slaves with the property.[42]

Elie Hugues and Antoine Boudousquié, also called Villefranche, were in the fur business, and they probably used their Barataria property for fur trapping. Hugues soon returned to France, and his undivided half of the 40 arpents was acquired in 1772 by Alexander Guerbois, also variously called Louis Alexander Guerbois, Pedro Joseph Guerbois, and Pedro Guemboy.[43]

An inventory made at the time of Guerbois' acquisition described the buildings on the Barataria habitation. The house was 50 feet long by 22 feet wide. It was built of *palos en tierra* (poles in earth) and brick, plastered with lime mortar. It had a 10-foot-wide gallery across the front and rear. Exposed portions of the exterior were covered with weatherboards, and the roof was covered with *tejamanils* (Mexican, shingles). A separate kitchen or oven was built of *palos en tierra* covered with mud mixed with lime and shells and was roofed with shingles. A *palomar,* or dovecote, was also on the property.[44]

Guerbois and Boudousquié dissolved their partnership in 1774. They sold half of the land, and partitioned half of it, each retaining 10 arpents. They sold 20 by 110 arpents fronting Bayou Ouachas to Pedro Alberto Bonne. These 20 arpents straddled the confluence of the bayous now called Bayou Barataria and Bayou des Familles. The sale was made with buildings, fields, fences, cattle, horses, sheep, pigs, and utensils. It included the old Dauterive headquarters located at the confluence of the bayous.[45]

The western boundary of this 20-arpent tract sold to Bonne is described above as a visible feature at the northern end of the park. Antoine Boudousquié, who was Printer of the King and Cabildo and New Orleans' first printer, lived in the city. By partition with Guerbois, Boudousquié retained the 10-arpent strip bordering the west side of the Bonne 20-arpent strip, sharing the property line described above as visible. Boudousquié owned the property for 24 years, but records show that he did not use it.[46]

By partition with Boudousquié, Alexandre Guerbois retained the 10-arpent strip to the west of Boudousquié's strip. Guerbois lived on the property with his wife, Elizabeth Trepagnier and daughter Eulalia until his death in 1808. His house and fields were located on Bayou Barataria at present-day Crown Point. Records show that he made little use of his back lands on Bayou des Familles, because they were on the opposite side of that bayou.[47]

Jean Antoine Bernard Dauterive relocated his cattle ranch on a land grant on the prairie of southwest Louisiana in 1768. There, he helped to settle the Acadians, and began the cattle industry of southwest Louisiana through a contract by which he supplied the Acadians with cattle. He retained some cattle and horses on his Barataria property.[48]

The remaining 50 arpents of Dauterive's original 90-arpent Barataria tract passed to Dauterive's heirs. The 10-arpent strip inherited by Antoine Marigny Dauterive adjoined Guerbois' 10-arpent strip on the west. Antoine Marigny Dauterive used the property as a cattle ranch, and he planted cotton there. A dwelling house and two wooden cabins recorded as being on the property were probably located on Bayou Barataria at present-day Crown Point. Marigny Dauterive lived in New Orleans but occasionally resided on his Barataria property.[49]

Marigny Dauterive was a minor at the time of his father's death in 1776 and did not occupy his Barataria land until a later date. Pierre Albert Bonne may have occupied his 20-arpent Barataria tract during the five years of his ownership. Bonne was engaged in the lumber and indigo businesses, and he owned a flock of sheep. He died in New Orleans in 1799 and left as heirs five free mulatto children. According to his will, he had a mulatto daughter named Rozetta "from his intimacy with" a Negress named Catalina with whom he had lived for many years and to whom he gave her freedom. He also had four mulatto sons of minor age named Juan Bautista, Santiago (alias Janvier), Carlos Manuel, and Adelayda from a free Negress named Nanette who had formerly been a slave of Louis Macarty. Bonne also had two slaves, a mother and daughter, who he willed to his mulatto children.[50]

At the time of his death, Bonne owned an eight-arpent-front property on the west bank of the river and a 20-arpent-front property in Barataria. The Barataria property fronted on Bayou Barataria and Bayou Villars and was bounded by the Dauterive property and Lake Salvador. It had been leased for use by José Andoesa prior to Bonne's death, but the Bonne family apparently dwelled on the land during the Spanish and early American Periods. The property, which had been named Ile Dauphin for a previous owner, had become known as Ile Bonne by the late 1770s. Bonne's heirs apparently inhabited the land in the early 1800s, and the name Ile Bonne was retained into the twentieth century.[51]

The French *habitations* regranted by Governor Kelérec from the lands of Massy and his partners in 1761, and those subdivided from Dauterive's tract in 1768, were settled after Louisiana became part of Spain's colonial empire. Eager to be rid of the economic burden of the unprofitable colony, France ceded Louisiana to Spain with the Treaty of Fontainebleau in 1762. It was not until 1769 that Spanish rule was successfully imposed on Louisiana, and it was later still when Spanish policies for development of the province began to be implemented.[52]



The Población de Barataria field patterns, roads, and house sites in the vicinity of the park, traced from "Lake Pontchartrain, La. and Vicinity Hurricane Protection Flood Insurance Study, Jefferson Parish," flown October 1982, File No. H-8-29504, Sheets 14 and 20, USA/CE, New Orleans.

CHAPTER III

LA POBLACIÓN DE BARATARIA

In 1763, the Treaty of Paris ceded Florida from Spain to England. With the exception of the Isle of Orleans, the eastern boundary of New Spain now lay on the westbank of the Mississippi River. The vast territory of Louisiana was the new Spanish frontier, and it entirely adjoined English territory. To help guard against encroachment by the English, Spain sought to people her new frontier with self-sustaining soldier-farmers loyal to Spain.[1]

Such civilian militia settlement programs were developed as an outgrowth of revisions made by the Spanish government in the presidial concept of frontier defense. Because presidios were usually remotely located from sources of supply, they were frequently unable to sustain themselves without a supporting civilian population of farmers and ranchers, even at great cost to the royal treasury. Across New Spain's northern frontier, isolated presidios were pulled back and consolidated in the 1760s and 1770s. New regulations encouraged the colonization of new towns together with local militia companies. New presidios were laid out to include towns, cultivated fields, pasture, and woodland.[2]

As early as 1693, Field Marshal José Francisco Marín, following an inspection of the garrisons of Nueva Vizcaya, recommended that the presidios be replaced with towns defended by civilian militia as soon as Indian hostilities decreased. He proposed that the sites of abandoned presidios remain occupied by the disbanded companies and their families and that they be allotted land to cultivate. He suggested that they be provisioned at government expense with oxen, plows, seed, arms, and horses, and that they be assisted in the construction of their houses. Marín recommended that the populations of strategic towns be increased with people from the Canary Islands. By the 1760s, many of Marín's proposals were being adopted.[3]

For two centuries, immigrants from the archipelago of the Canaries, in the Atlantic Ocean northwest of Africa, had been settling in the New World. Their continuous exodus was motivated by overpopulation and famines in their island homelands. Large numbers of Canarians were among the early Spanish colonists of the Caribbean, Buenos Aires, Venezuela, Florida, and Texas. In the late 1770s, impending war between Spain and Great Britain, and the close proximity of British West Florida, prompted the Spanish government to transport thousands of Canary Islanders to Louisiana.[4]

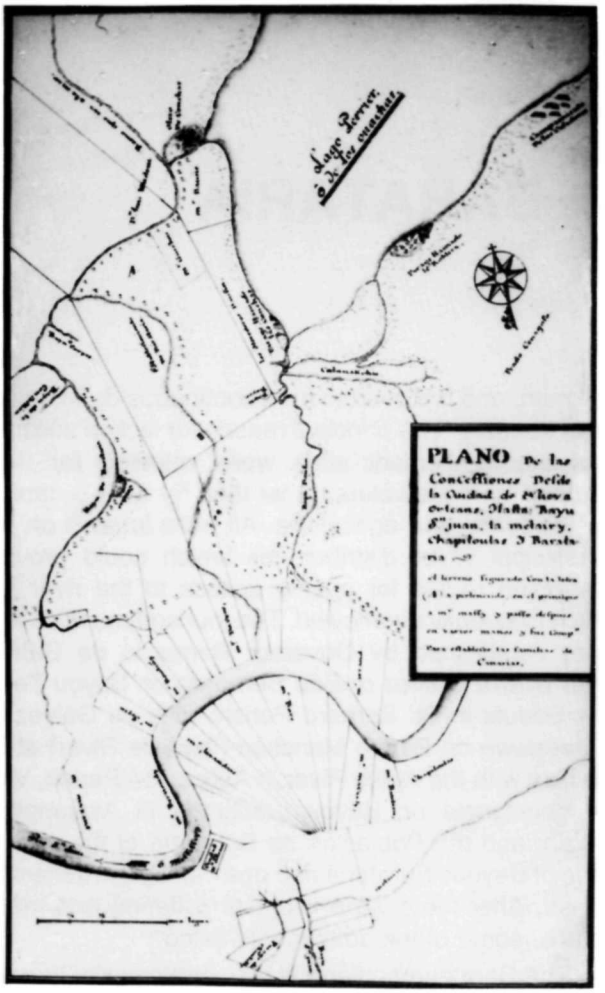
The government-subsidized emigration of Canary Islanders to Louisiana was not an entirely successful program, and it proved to be a continuous drain on the royal treasury. The principal reason for lack of success was that settlement sites were selected for their strategic defense value, rather than for their suitability for residence and agriculture. All were located on old Mississippi River distributaries which could provide navigation routes for enemy access to the river but which frequently overflowed. The four communities that were established by Governor Bernardo de Gálvez were Nueva Gálvez or San Bernardo on Bayou Terre aux Boeufs in St. Bernard Parish, Villa de Gálvez or Galveztown on Bayou Manchac (Iberville River) at its junction with the Amite River in Ascension Parish, Villa de Valenzuela on Bayou Lafourche in Assumption Parish, and the Población de Barataria at the confluence of Bayous Barataria and des Familles in Jefferson Parish. After there were years of suffering and many deaths, some of the settlements failed.[5]

The Barataria settlement was strategically located to defend Bayou Barataria's route from the sea against invasion. In 1779, hundreds of Canary Islanders were settled above the confluence of Bayous Barataria and des Familles. The Spanish government laid out the community in 1778, with the farm plots bordering a royal road, built houses for the settlers, and provided them with utensils, implements, firearms, animals, clothing, money, and rations.[6]

The government acquired the land for the new settlement by purchase, through gift, and by repossession of unused lands. Legal acquisiton of at least some of the land was apparently made after the settlers were residing on their plots, and more land seems to have been obtained at a later date.

A 10-arpent-front by 110-arpent-deep tract of land, fronting Bayou Barataria between Bayou de la Borne and Bayou des Familles, was purchased by the King of Spain from Pedro Alberto Bonne prior to May 14, 1779. On that date, Bonne sold another 10-by-110-arpent strip bordering the King's on the west to Luis Pellerin. Two months later, Pellerin sold this strip to Andrès Jung, who had been made Commandant of the Barataria Canary Islander settlement. Jung donated the 10-arpent strip to the King of Spain on July 12, 1779.[7]

The two 10-arpent tracts acquired by the King of Spain gave important frontage on Bayou Barataria. Their intersection with the juncture of Bayous des Familles and Barataria is to this day called Crown Point. Much of the depth of these two 10-arpent tracts consisted of cypress swamp, therefore, the government



"Plano de las concessiones desde la ciudad de Nueva Orleans hasta Bayu San Juan, la Metairy, Chapitoulas y Barataria". Unsigned, undated. Found between documents dating from 1775 to 1778. Archivo General de Indias, Seville, Papeles de Cuba, Legajo 2358.

repossessed additional adjoining lands that were vacant or disused for distribution to the Canary Islanders. Records indicate that the back lands of the Boudousquié, Guerbois, and Dauterive properties, which fronted Bayou Barataria on the downstream side of the royal land, were not occupied in the 1770s. Also not inhabited was a large grant made by Governor Bernardo de Gálvez in 1777 which extended the river-front plantation of Joseph Ducros to Bayou Barataria and which overlapped portions of the properties fronting the bayou.[8]

The legend on a Spanish map of about 1778 states that the tract of land projected for the establishment of the Barataria settlement was to be the same that had been granted by the French government to Jean-Baptiste Massy in 1726 (see Chapter II). The map shows that the rear of the Canary Islander tract met the terminated extension of the Ducros Plantation. The rear property line of the Ducros Plantation is more precisely shown on the Barthélemy Lafon copy of Carlos Trudeau's "Plano Figurativo de las Tierras de Don Pedro Lartigue" of November 29, 1802. The same boundary line survives on modern topographical maps as the lower line of Section 85, T14S R23E. The rear boundary of the tract originally projected to contain the Canary Islander settlement can thus be precisely measured as crossing Bayou des Familles at a point five miles south of the Mississippi River and five miles north of Bayou Barataria. On the map of about 1778, the line also crosses the old Des Familles distributary at exactly half its length.[9]

The map appears to represent the Canary Islander tract as occupying the Dauterive tract. It contains geographical inaccuracies and, while clearly showing the rear boundary in common with Ducros, was intended to roughly delineate the area to be acquired for the settlement. Since the Ducros tract retained its rear boundary in legal records post-dating the abandonment of the Canary Islander settlement, it may be assumed that the rear Ducros line was officially drawn when the upper boundary line of the Canary Islander tract was originally surveyed.[10]

A United States Surveyor General's cadastral survey map of 1830 shows that the community was later extended further up Bayou des Familles to a distance of 80 arpents from the river, to today's Eighty Arpent Road. This was the rear limit of the "double depth concessions" measuring 40 arpents each of the plantation tracts fronting the river. The Canary Islander farm plots then formed one continuous linear village that stretched for seven aerial miles northward of Bayou Barataria along both sides of Bayou des Familles. This waterway had previously been known as Bayou Barataria and was renamed for the Spanish families that were settled along it.[11]

Over a period of more than two decades, the settlement depopulated. The greatest population losses occurred in the early years of the community, following an unusual series of natural disasters. Most of the crops, animals, and buildings were destroyed or damaged in the hurricanes of 1779, 1780, 1793, and 1794, and by major floods in 1782, 1796, and 1802-04. Bayou des Familles still carried water from the Mississippi when the river was high, and the bed of the old distributary flooded annually. Crevasses on the river frequently added to the severity of the floods. Louisiana experienced an unusually cold year in 1783, with frost in late summer and violent winds from the north. In winter, the river at New Orleans became entirely blocked with ice.[12]

The Canary Islanders had been settled on their Barataria lands for less than a year when the first hurricane struck, on August 18, 1779, as Spanish Governor Bernardo de Gálvez was preparing to lead an attack against the British forts at Baton Rouge and Bayou Manchac. Canary Islander, or Isleño, recruits, along with Spanish and Mexican infantry; militia from New Orleans, the German coast and other outlying settlements; free-men-of-color; Choctaw Indians; and Americans, rose immediately from the devastation of the storm and followed Gálvez into victorious battles. In messages to Diego Joseph Navarro, Captain - General of the Island of Cuba and Province of Louisiana, Governor Gálvez described the destruction of the hurricane.[13]

I am very sorry to inform Your Lordship that the very day of the departure of this officer to carry my despatch, we have been hit by a terrific hurricane, the like of which there is no recollection in the annals of this colony. Although the wind and the rain began on the night of the 17th, it was not until three o'clock in the morning that it attained its full violence, keeping its strength continually until ten o'clock in the morning, then it began to lose its force a little, but not until all the houses, barges, boats and pirogues were demolished, some with many people from these settlements, . . .Others have gone aground, half destroyed and useless, stranded in the woods and finally, there are others of whose fate we are still ignorant. To aggravate the situation, the schooners and gunboats have also sunk.

The village presents the most pitiful sight. There are but few houses which have not been destroyed, and there are so many wrecked to pieces; the fields have been leveled; the houses of the near villages, which are the only ones from which I have heard to this time, are all on the ground, in one word, crops, stock, provisions, are all lost.

Your Lordship might imagine what is my situation, finding myself all at once without any of the help upon which I counted to put my plans into execution, because even if I would dare to go on with them, I could not even take the first step, due to the absolute lack of boats and pirogues, all lost in the storm and because the army men, on whom I counted, have, together with their families taken shelter among the wreckage of their homes, even under the wagons, and I believe that they would rather be killed than to be separated from their unfortunate parents, wives, children and brothers, in this hour of despair and grief, leaving them without a shelter completely exposed to the inclemency of the weather . . . (extract from Despatch No. 202, August 19, 1779)

I cannot count at all on any provisions; all to the contrary, I am afraid that there will be hunger in this colony and for this reason I have instructed all the commanders of my jurisdiction to force their respective subjects to plant immediately a certain amount of potatoes and peas, believing this to be a measure of great importance . . . (extract from Despatch No. 204, August 28, 1779)[14]

In response to the natural disasters, the government relocated some families elsewhere and reestablished others in Barataria in successively fewer numbers. In 1779, a large group was moved to the new Canary Islander settlement of Valenzuela on Bayou Lafourche. About 250 people remained in 57 households in Barataria until 1782-3 when more than 100 settlers were relocated at the Canary Islander settlement of San Bernardo on Bayou Terre aux Boeufs, and about 38 were moved to Valenzuela. The remaining Barataria inhabitants numbered about 100, and they were still being heavily provisioned by the government upon the death of Commandant Jung in 1784.[15]

The colonists daily faced other hardships, subtropical heat, swarms of insects, illness, and death. Of great danger were the large bands of *cimarrones,* or runaway Negro slaves, who lived in the swamps in Barataria. These men, women, and children roamed in packs on the fringes of the inhabited lands, stealing food and goods necessary for their survival, and occasionally committing murder.[16]

They built huts for themselves deep in the woods, but the abandoned houses of departing settlers undoubtedly attracted the attention of the *cimarrones* who probably took up intermittent residence in them. Even the houses ruined by storms may have served as shelter for *cimarrones* upon occasion.

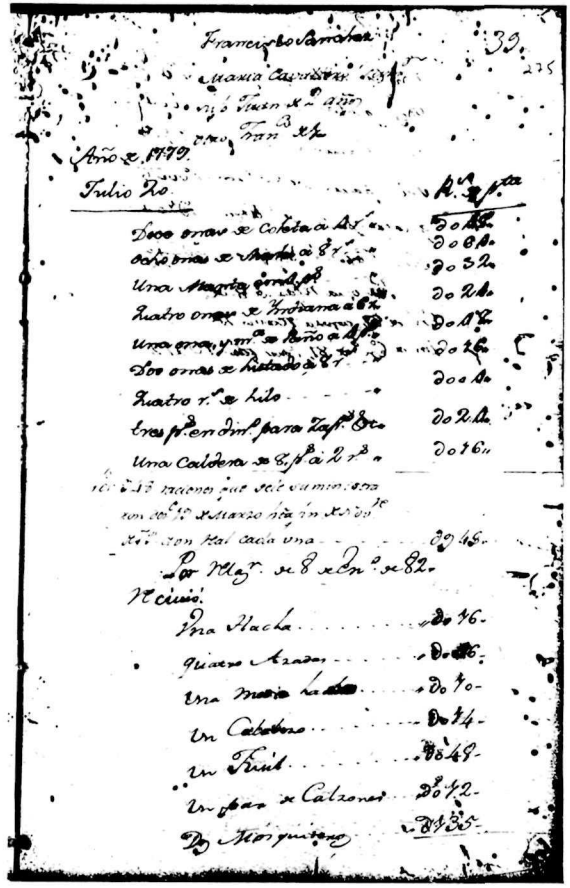
In 1784, a group of *cimarrones* was apprehended in a robbery of the storehouses of the Canary Islander settlement in Barataria. One Isleño, Antonio Suárez, testified in the trial of the captured Negroes that they had robbed his family of shirts, trousers, a jacket, a chemise, petticoats, a bed sheet, a woolen blanket, sacks, a bucket, a sifter, a half barrel of rice, a third of a barrel of salt, two pounds of salt meat, cheese, five barrels of corn, and money.[17]

The 1788 census of the "Pueblo" of Barataria lists a total of 40 "souls": 9 white females, 16 white males, 11 free male mulattos and Negroes, 1 female mulatto or Negro slave, and 3 male mulatto or Negro slaves. In the 1796 crevasse, 27 people belonging to five Canary Islander families lost all their crops and animals. After the crevasse of 1802-4, most remaining Canary Islander families were relocated to Bayou Terre aux Boeufs. Two families are documented as having remained on Bayou des Familles after the acquisition of Louisiana by the United States.[18]

There are two primary sources that recount the names of the individual Canary Islanders settled in Barataria. The first is the "Libro Maestro P.[ara] sentar el cargo del dano.[tivos] de la nueba Pob.[lación] Barataria," or the "Master Book in order to estimate the recording of the donations to the new Settlement of Barataria." This is a worm-eaten manuscript numbered Legajo 548 in the Papeles de Cuba in the Archivo General de Indias in Seville. It contains 57 folios, one for each household established at Barataria by July 20, 1779 and still functioning in 1782.

The second source giving the names of the individual settlers is the series of ship lists compiled by the Spanish government upon embarcation from the Canary Islands. These are in the Papeles de Santo Domingo, Legajos 2661 and 2662, in the Archivo General de Indias in Seville. The lists have been published as an appendix to an article by Miguel Molina Martínez entitled "La Participacion Canaria en la Formacion y Reclutamiento del Batallon de Luisiana," in *IV Coloquio de Historia Canario-Americana (1980),* Tomo II, edited by Francisco Morales Padron, and published by the Cabildo Insular de Gran Canaria, Ediciones del Excelentisimo, in 1982. The ship lists compiled upon embarcation from the port of Santa Cruz de Tenerife show that the 57 families later settled in Barataria then totaled 252 individuals.

For the present study, the names on the worm-eaten "Libro" were compared with those on the published ship lists, and a list thus derived of the Barataria settlers follows below. The preparation of this list was a collaborate effort with Dr. Barbara Holmes of Albuquerque, New Mexico, and Paul Newfield, III of Metairie, Louisiana.



Folio 39 of the "Libro Maestro P. sentar el cargo del dano. de la nueba Pob. Barataria," listing supplies given to the family of Francisco Sánchez, Archivo General de Indias, Seville, Papeles de Cuba, Legajo 548.

The Canary Islanders who were settled in Barataria were among the passengers transported on five of the ships that sailed from the islands. The packetboat *Santisimo Sacramento* was the first ship to depart for Louisiana from the port of Santa Cruz de Tenerife on Tenerife Island. It departed on July 10, 1778 with 125 infantry recruits, of whom 53 had families. The ship had a total of 264 passengers. It arrived at Havana, Cuba in September 1778, and stopped there because of much illness aboard. Six recruits had died on the voyage, and others were too sick to travel further. In October 1778, the ship departed for Louisiana, leaving 14 recruits and their families in Havana. The ship arrived in New Orleans on November 1, 1778. Most of the passengers appear to have been settled at Galveztown. The "Libro Maestro" shows that one family comprised of six people was settled at Barataria.[19]

The polacre *La Victoria* sailed from Santa Cruz de Tenerife on October 22, 1778 with 292 passengers and 18 nursing babies. Among the passengers were 88 recruits. The ship sailed directly to New Orleans and arrived on January 14, 1779. The "Libro Maestro" shows that 11 of the families that sailed on the ship, having a total of 52 people, were settled at Barataria.[20]

The frigate *San Ignacio de Loyola* sailed from Santa Cruz de Tenerife on October 29, 1778 with 423 passengers and 37 nursing babies. Among the passengers were 125 recruits. The ship entered the Missisippi River on January 9, 1779. By January 15, 1779, it apears to have docked at New Orleans. The "Libro Maestro" shows that 34 of the families that sailed on this ship, having a total of 144 people, were settled at Barataria.[21]

The packetboat *San Juan Nepomuceno* sailed from Santa Cruz de Tenerife on December 9, 1778 with 202 passengers and 19 nursing babies. Among the passengers were 53 recruits. The "Libro Maestro" shows that the ship had reached Louisiana by March 1779. According to the "Libro," 10 of the families that sailed on the ship, having a total of 46 people, were settled at Barataria at that time.[22]

The frigate *La Santa Faz* sailed from Santa Cruz de Tenerife on February 14, 1779 with 406 passengers, including 28 nursing babies. Among the passengers were 102 recruits. By early July, the ship was in Louisiana. The "Libro Maestro" shows that one family that sailed on the ship, consisting of four people, was settled at Barataria.[23]

The following list is presented in the order that the families appear on the folios of the "Libro Maestro." The folio number of each family is listed in the first column. The abbreviation for the name of the ship that carried each family is listed in the second column. The names of the family members are presented in the third column as they are listed in the published embarcation lists. Additional notations compare variations between the "Libro" and other sources.

The "Libro" lists appear to have been prepared from the ship lists because the ages of the individuals, notably the infants, are the same. However, there are spelling variations in the names. For example, José is rendered as Josef in the "Libro," Ximénez is substituted for Jiménez, and de Orta is given as de Horta. Occasionally, the name of a wife or child differs. Some family members given in the ship lists are absent from the "Libro" lists. The missing names appear to represent deaths that occurred prior to the beginning of the "Libro" lists on July 20, 1779. Two recruits had acquired new families between the time that they embarked from the Canary Islands and the time of the recording of the "Libro."

The same order is followed in listing family members in both the "Libro" and the ship lists. Presumably, it is the order of the importance of the individuals. The male head of the family is listed first, followed by the name of his wife. The male children are listed next, in order of their ages with the oldest first. The female children are next listed in the same order. In some cases, second sets of children are listed.

The order in which the families are listed in the "Libro" may have some meaning in regard to their settlement in Barataria. It may reflect the sequence in which the families were sent to settle in their new homes or that in which their tracts of land lined the bayou. Families that sailed on the same ship are frequently listed in close sequence. Occasional repetition of family names in these sequences suggests that relations may have been given tracts of land near each other.

THE CANARY ISLANDERS SETTLED IN BARATARIA - 1779



CODES FOR SHIP NAMES

SS - *Santisimo Sacramento*
FZ - *La Santa Faz*
VT - *La Victoria*
IL - *San Ignacio de Loyola*
JN - *San Juan Nepomuceno*



"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
1	VT	**Melchor Jiménez** Catalina Perdomo, his wife Juan, 8 Diego, 6 Josefa, 7 Francisco, 13 months

The daughter Josefa is not listed in the "Libro," therefore she probably had died.

2	VT	**José Herrera** Lucía González, his wife Ignacio, 8
3	IL	**Juan Jiménez** Juana, 20 María, 14

The relationships of the individuals in this household are not specified in the ship list or in the "Libro." The "Libro" notes that these people were moved to Valenzuela in 1782.

4	IL	**José Hidalgo** Isabel Zambrana, his wife Gregoria, 10 Francisca, 9 Juan, 10 months

The "Libro" notes that this family was moved to Valenzuela in 1782. The tract of land granted to this family at Valenzuela is shown on copies of maps from the Archivo General de Indias in the Louisiana Collection of the Tulane University Library. Isabel died at the age of 55 and was buried under the name of Morales on May 19, 1800 at Ascension Church in Donaldsonville *(Diocese of Baton Rouge Catholic Church Records,* vol. 2, 1770-1803, Baton Rouge: Diocese of Baton Rouge, Department of Archives, 1980, p. 555).

5	IL	**Lorenzo Hernández** María Jimenez, his wife Ana, 2 María, 5 months

The "Libro" lists this family as having been moved to Valenzuela in 1782. Lorenzo died at age of 45 and was buried April 3, 1801 at Plattenville, Assumption Parish. (*Diocese of Baton Rouge Catholic Church Records,* vol. 2, 1770-1803, p. 381).

6	SS	**Juan Cabrera** Lorenza Artiles, his wife Juan, 2 Francisco, 1 María, 12 Sebastiana, 4

The "Libro" notes that the elder Juan "died 24 of June of 1780, with 6 in family." The "Libro" does not list the family members.

"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
7	IL	**Antonio Suárez** Juana Suárez, his wife Francisco, 10 months

This family was robbed by runaway slaves in Barataria in 1784. (*Louisiana Historical Quarterly,* vol. 20, no. 31, July 1937, pp. 860-1.)

8	IL	**Pablo Ruiz** María Olivares, his wife Juan, 4

The "Libro" lists the family head as Pablo Suárez Ruiz. Archaeological investigation has verified the dwelling site of this family (Site 1) at the lower boundary of a 7-by-40 arpent land grant fronting both sides of Bayou des Familles posthumously made to Pablo Suárez Ruiz by Governor Casa Calvo on April 2, 1800. Documentation has yet to specify if this was the location of the family tract since their placement in Barataria in 1779. Pablo and his son Juan apparently both died, because they both disappear from the record. The widow remarried to José Gálvez, a native of Cartagena, and they farmed the tract until his death in 1802. Widowed again, María Olivares continued to live on the land with her slaves until her death in 1807. *(American State Papers. Public Lands,* Washington: Gales and Seaton, 1832-1861, vol. 2, p. 332 and vol. 3, p. 509; Will of José Gálvez, November 4, 1802, N. Broutin, Notary, NONA; Will of María Olivares, February 5, 1806, N. Broutin, NONA.)

9	IL	**Juan Alvarado** María Suarez, his wife Tomás, 4 Isabel, 2 Francisca Antonia, sister-in-law

The "Libro" lists the age of the sister-in-law as 20 years. It notes that "one died," and that the family was moved to Valenzuela in 1782.

10	IL	**José Antonio Ventura** Antonia Pesos, his wife José, 2 Lorenza, 7 María, 2

The "Libro" spells the wife's name as Pérez.

11	IL	**Lorenzo Rodríguez de León** María Espino, his wife Luis, 12 Antonio, 8 Sebastiana, 6

Antonio is not listed in the "Libro," therefore he probably died. Sebastiana was living in Ascension Parish when she married Vincent Mora on November 1, 1790 *(Diocese of Baton Rouge Catholic Church Records,* vol. 2, 1770-1803, p. 499, p. 554).

"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
12	IL	**Vincente Delgado** Felipa Jiménez, his wife Isabel, 3 Sebastiana, 3 months
13	IL	**José Dominguez** María Francisca, his wife Felipa Dominguez, his mother Fernando, 8 Tomasa, 7

The "Libro" does not list the mother and the two children and notes that there were deaths in the family.

14	IL	**Juan Alemán** Juana Ramírez, his wife Antonio, 14 Baltasar, 5 Pedro, 2 Josefa, 9 Sebastiana, 7

The "Libro" notes that this family was moved to Valenzuela in 1782. The tract of land granted to this family at Valenzuela is shown on copies of maps from the Archivo General de Indias in the Louisiana Collection of the Tulane University Library.

15	IL	**Francisco Ramírez** Ana Pérez, his wife Francisco, 4 Antonia, 5 months

The children are not listed in the "Libro," and they probably had died. The "Libro" notes that the family was moved to Valenzuela in 1782.

16	VT	**Domingo López** Francisca, sister, 26

The "Libro" names the sister as Catalina, aged 26.

17	VT	**Antonio Martel** Francisca Antonia, his wife Antonio, 6 Domingo, 2 Blasina, 11

This family was still living in Barataria in October 1796 when the flood waters of a crevasse destroyed all their crops and animals. The daughter Blasina, or Blasa, was by then the widow of Pedro Herrero, and she was living on a separate tract of land with her four children. (Archivo General de Indias, Papeles de Santo Domingo, Legajo 2613, folio 575, letter from Juan Ventura Morales to Diego de Guardoqui, number 48, October 26, 1796.)

18	IL	**Juan Espino** Joaquina Soler, his wife Miguel, 1

There were six members of this family when they moved to San Bernardo in January, 1783. (Gilbert C. Din, *The Canary Islanders of Louisiana,* Baton Rouge: LSU Press, 1988, p. 50, note 6).

19	VT	**Pedro Guedes** Isabel de Sosa, his wife Sebastiana, 22 José, 7

This family, which also went by the name of Ramírez, has been identified as later residing in St. Bernard Parish. (Shirley Chaisson Bourquard, *Early Settlers on the Delta,* privately printed, 1988.)



"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
20	IL	**Manuel Ojeda** Francisca Medina, his wife Juan, 8 months María, 3

This family has been identified as later living in New Orleans. (Shirley Chaisson Bourquard, *Early Settlers on the Delta.*)

21	VT	**Bartolomé Hernández Hidalgo** Isabel Hidalgo, his wife

Copies of maps from the Archivo General de Indias in the Louisiana Collection of the Tulane University Library, of land grants at Valenzuela, dating from about 1782, show that this family was granted a tract of land on Bayou Lafourche. Bartolomé died at the age of 48 and was buried on May 30, 1800 at Ascension Church at Donaldsonville, leaving a family (*Diocese of Baton Rouge Catholic Church Records,* vol. 2, 1770-1803, p. 379).

22	IL	**Francisco de Orta** Josefa López, his wife Pedro, 8 Antonia, 20 Josefa, 11 Isabel, 10

The family name is given as de Horta in the "Libro."

23	VT	**Gaspar Sánchez** Beatriz Flores, his wife Ana, 10 Chistóbal, 6 Francisco, 4 Josefa Pérez, sister-in-law, 16

The "Libro" gives the sister-in-law's name as Josefa Flores. In 1786 Gaspar Sánchez received a land grant in St. Bernard Parish (Shirley Chaisson Bourquard, *Early Settlers on the Delta*).

24	IL	**José Hernandez Corvo** Beatriz Francisca, his wife Salvador, 8 Antonia, 4 Francisco, 14 months

The wife and the 14-month-old child are not listed in the "Libro," and they apparently died.

25	IL	**Gregorio Ojeda** María Suáres, his wife María, 5 Josefa, 3 Rosalía, 1 Catalina Quintana (nursing infant)

Rosalia is not listed in the "Libro," and she probably had died. The "Libro" notes that Catalina Quintana died in Charity Hospital in March 1779. José Suárez is listed on folio 57 of the "Libro" as originally residing with this family in Barataria.

26	IL	**Cristóbal Quintero** María Ruano, his wife Cristóbal, 18 María, 14 Beatriz, 10

Another Cristóbal Quintero is listed by himself on the ship list. This may have been a duplicate listing of the son Cristóbal, who at age 18, could have also been a recruit.



"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
27	IL	**Gregorio Judas Ravelo** Melchora de los Reyes, his wife José, 3 María, 8
28	IL	**Manuel Dominguez** Juana Francisca, his wife Antonio, 19 Agustin, 18 María Luisa, 12 José, 5

The "Libro" notes that this family was moved to Valenzuela in 1782.

29	IL	**Antonio de Fuentes** Marcela Pérez, his wife Juan, 11 Francisco, 8 Pedro, 6 José, 4 Ana, 2

Members of this family have been identified as later residing in St. Bernard Parish. (Shirley Chaisson Bourquard, *Early Settlers on the Delta.*)

30	JN	**Bartolomé Monzón** María Peñales, his wife Francisco, 5 Isabel, 4 Juana, 2 Juan, 13 Josefa, 20

The "Libro" notes that this family was moved to Valenzuela in 1882.

31	IL	**Felipe Francisco** Bernarda Francisca, his wife Domingo, 18 Felipe, 12 José, 9 Lorenzo, 4 María, 23 Rosalía, 14 Andrea, 12

José is missing from the "Libro" list, and he probably had died.

32	IL	**Gaspar Ortiz López** María Sánchez, his wife Juan, 3 María, 1
33	IL	**Agustín Romero** Polonia Rodríguez, his wife José, 12 Domingo, 10 Juan, 7 Agustín, 4
34	IL	**Matías Francisco**

The "Libro" notes that Francisco lived in Barataria with two unnamed family members.



"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
35	VT	**Antonio González** Rosalía Ortega, his wife José, 8 Francisco, 4 María, 12 months Josefa Ortega, sister-in-law

Francisco and María are not listed in the "Libro," and they probably had died. The "Libro" lists the sister-in-law as being 20 years old. Members of the family have been identified as later residing at English Turn; Rosalía Ortega also used the last name "de Campos;" Josefa Ortega de Campos married Carlos Suárez on April 5, 1779 in New Orleans (Shirley Chaisson Bourquard, *Early Settlers on the Delta*).

36	JN	**Barnardo Nieves** María Rodríguez, his wife Juan, 2 Brígida, 1 month Isabel, sister-in-law, 17

This family moved to San Bernardo in December, 1785. (Din, *The Canary Islanders of Louisiana,* p. 51).

37	IL	**Domingo Vincente Morales** Gegoria Hidalgo, his wife
38	VT	**Francisco López Machado** Margarita Ramírez, his wife María, 3 months

The "Libro" lists "daughter María, 19 years." On January 20, 1789, Margarita Ramírez was buried in Ascension Parish at Donaldsonville; on July 2, 1789, the widower remarried to María González, widow of Pedro Caballero who was also formerly the head of a Barataria household, see folio 56 of the "Libro" (*Diocese of Baton Rouge Catholic Church Records,* vol. 2, 1770-1803, p. 614, p. 329, p. 506).

39	IL	**Francisco Sánchez** María Caballero, his wife Juan, 2 Francisco, 1

Francisco Sánchez, widower, was still living in Barataria with his seven children when the flood waters of a crevasse destroyed all of his crops and animals in October 1796. (Archivo General de Indias, Papeles de Santo Domingo, Legajo 2613, folio, 575, letter from Juan Ventura Morales to Diego de Gardoqui, number 48, October 26, 1796.) In the late eighteenth century, the farm of Francisco Sánchez was located on the Camino Real de Barataria, on the east bank of Bayou des Familles, near the confluence of Bayou Coquilles. (McDonogh *v.* De Gruys *et al.*, Docket No. 1007, June 2, 1845, and Police Jury of the Parish of Jefferson *v.* Allou D'Hémécourt and John McDonogh, May 1844, Docket No. 5209, LSCC/UNO). Archaeological investigation has tentatively identified the site of the farmhouse as Site 2. A daughter, Anna, born in Barataria, married François Dominguez, son of Agustin Dominguez (see "Libro" No. 28) and Lorenza Gonzales, on April 21, 1806 in Assumption Parish. (*Diocese of Baton Rouge Catholic Church Records,* vol. 3, 1804-1819, p. 271.)

40	IL	**Gabriel Hernández** Bárbara Melián, his wife Vicente, 17 Félix, 15



"LIBRO MAESTRO" FOLIO NO.	SHIP	HOUSEHOLD
41	IL	**Antonio Ramírez** Ana Santana, his wife

This family has been identified as later living in St. Bernard Parish; the wife also used the surname Pena. (Shirley Chaisson Bourquard, *Early Settlers on the Delta.*)

42	IL	**Agustín Sánchez** Francisca Ortiz, his wife
43	JN	**Antonio Pérez** Catalina Pérez, his wife Nicolás, 8 María, 5
44	JN	**Fernando Morales** Bernarda González, his wife Isidro, 1 month Fernando, 2
45	JN	**Antonio José de Armas** María Delgado, his wife Domingo, 2 months

Domingo is not listed in the "Libro," therefore he probably had died.

46	JN	**Pedro Caniles** Sebastiana Moreno, his wife Antonia, 10 Juan, 7 María, 4 Catalina, 8 months

Catalina is not listed in the "Libro," therefore she probably had died. Members of this family have been identified as later living in New Orleans and subsequently in St. Bernard Parish (Shirley Chaisson Bourquard, *Early Settlers on the Delta.*)

47	JN	**Bartolomé Caballero** María Artiles, his wife Diego, 17 Antonio, 6 Bartolomé, 2 María, 12 Agustina, 3 Andrea, 1 month

The "Libro" appears to list Diego as being 7 years old. Members of this family have been identified as later residing in St. Bernard Parish (Shirley Chaisson Bourquard, *Early Settlers on the Delta.*)

48	JN	**José Suárez** Francisca Rodríguez, his wife María, 5
49	IL	**Felipe Artiles** Juana Jiménez, his wife Juan, 11 Antonio, 7 María, 2 Juan Cazorla, brother, 15

Members of this family have been identified as later residing in St. Bernard Parish. (Shirley Chaisson Bourquard, *Early Settlers on the Delta.*)

50	IL	**Juan Melián** María Ortiz, his wife



51	IL	**Simón Casimiro** Catalina González, his wife
52	VT	**Juan Alonso Romero** María José, his wife Juan, 13 Francisco, 4 Antonio, 2 Rosalía, 7 Andrea, 5 María, 7 months

The "Libro" appears to list the wife's last name as Jorge.

53	FZ	**Mateo Henríquez** Josefa Vélez, his wife Felipe, 15 María, 2 months

The "Libro" lists Mateo Henríquez as living in Barataria with "two other persons." One member of his family apparently had died.

54	JN	**Miguel Suárez** María de la Cruz, his wife Domingo, 11 Sebastián, 7 Miguel, 1 month

The "Libro" lists Miguel Suárez as living alone in Barataria. All the members of his family appear to have died. On December 5, 1779 Miguel Suárez, widower of María del Pino and a resident of Barataria, married Francisca Antonia Mata, daughter of Juan Mata and Ysabel Suárez, natives of Aguimes on Gran Canaria (Alice D. Forsythe, "Notes on Some of the Canary Islanders Who Settled in Louisiana," *L'Heritage,* vol. 1, no. 4, September, 1978, p. 271).

55	IL	**Domingo Hiedra**

In the "Libro," the spelling of the last name of this recruit is difficult to read and could begin with a "Y."

56	VT	**Pedro José Caballero** Ana González, his wife Andrea, 7 Juana, 5 Asunción, 4 Miguel, 9 months Josefa, mother-in-law

The "Libro" lists a son named Domingo, aged 4 years, but does not list a child named Asunción. The wife's name is given as María González in the "Libro." Copies of maps from the Archivo General de Indias in the Louisiana Collection of the Tulane University Library, of land grants at Valenzuela, dating from about 1782, show that this family was granted a tract of land on Bayou Lafourche. By July 2, 1789, Pedro Cavallero was deceased, as his wife, María González, remarried on that date to Francisco López Machado who was also formerly the head of a Barataria household, see folio 38 of the "Libro" *(Diocese of Baton Rouge Catholic Church Records,* vol. 2, 1770-1803, p. 329, p. 506).

57	JN	**José Suárez**

The "Libro" lists this recruit as "now with family and before was grouped with that of Gregorio Ojeda," as of January 8, 1782. (See folio 25 of the "Libro.")



The purpose of the "Libro Maestro" was to record the goods and sums of money disbursed among the families by the Spanish government. The "Libro" may not be the first or the only record book that was kept for the Barataria settlers. The recording stops in 1782, and documentation on the settlement after that date must be obtained from other sources.

The entries of goods and money given to each family are largely repetitious, the variations being in quantity according to the size of each family. The first entry for each family, on July 20, 1779, lists yards of linen, cotton, printed calico, and other types of cloth; spools of thread; twine; shawls; blankets; shoes; hats; handkerchiefs; cauldrons or kettles; and money "to buy shoes and other things." These are personal and household items which were issued subsequent to an initial disbursement of farming tools and other basic supplies not listed in the "Libro."

The second entry for each family in the "Libro," written in a different pen, notes the expenses of rations disbursed according to orders issued on March 14 and November 30, 1779.

The third entry for each family, also written in a different pen, was made following an order of January 8, 1782 to distribute supplies. These supplies included axes and hatchets, hoes, sickles, breeches or pants, rifles, mosquito nets, knives with two handles (probably draw knives), iron shovels, shirts, woolen cloaks, petticoats, and shawls. This disbursement appears to represent a reissuing of essential items, probably following a storm or flood.

A final entry lists in yet another pen additional sums of money spent by the government on the families in 1779, 1780, 1781, and 1782. Many of these expenditures were undoubtedly also made after storms and floods. The final entry sometimes mentions deaths in a family or the relocation of a family to Valenzuela on Bayou Lafourche. According to these last notations, eight of the Barataria families were moved to Valenzuela in 1782.

Initial supplies, equipment, household goods, animals, and seeds were supplied to the settlers prior to the first recording in the "Libro." Among these, four pirogues and twenty-four mill stones are documented. The mill stones were to grind corn which the settlers were expected to grow. The inventory of the succession of Commandant Andrès Jung lists a receipt "on account, for rations for the families of Barataria, dated January 9, 1779." Some families may have been settled in Barataria late in 1778.[24]

The commandant was the civil officer who was appointed by the governor to regulate the affairs of the community, issue its supplies, and maintain a record of government expenditures. He usually did not live in the village, but came periodically to make inspections and handle special problems. Andrès Jung (also spelled Juen) was a ship chandler and ship builder. An influential resident of New Orleans, he also had a plantation on Bayou St. John and another on the north side of Lake Pontchartrain.[25]

The terms of Canary Islander settlement and the amount of land to be allotted them was decreed by Governor Bernardo de Gálvez on February 19, 1778.

Decree as to immigration, which is to be observed by the commandants of the posts in this province to which families shall immigrate, to the end that they may be settled in accordance with the pious and humane intentions of His Majesty.

Upon the arrival of the persons whom I shall propose to settle, the commandant shall take pains to locate them in the most suitable place, as near as possible to each other, that distance may not make impossible the aid which they must render to one another. The commandant shall assign to each family a frontage of five *arpents [arpanes],* with the customary depth.

For their living there shall be supplied during the first year at the charge of the royal treasury, to each family, which is to be understood to mean a husband and wife, a barrel of maize in the ear a head, for each one of the age of twelve *[en cada uno de los doze de él]* and for the children if they have any, from the age of six to that of twelve, a half barrel for each one, for those who exceed this age shall enjoy the aforesaid ration complete.

In addition to the aforesaid aid, the royal treasury will buy for each of the families referred to an axe *[haza]*, a hoe, a sythe or sickle *[volate ú hoz]*, a spade, two hens, a cock, and a pig of two months, with which they may easily found and establish a household which will provide them with a living, or may even make their fortune.

If there should be any among the children whose age and strength fit them for farm labor, there shall be added a hoe only for each one, since the other tools are to be provided only for a family, in which the children are included.

The kindness and gentleness with which the new colonists especially are to be treated will be shown in the same degree as the favorable intentions of the sovereign; and any commandant who shall deviate from this precept will expose himself to censure, while those who carry out these provisions with energy, and who give aid and succor to those who need them will manifest their zeal in His Majesty's service, and will obtain His Majesty's gratitude.

The source and origin of all empires has been the refuge and kind usage which men find in the gentleness of the laws. The good or evil administration of them [apparent omission in the transcript] is the greatest impediment to the building up of a government, for not only are those who are present and who are exposed to them exasperated, but others are prevented from coming. Hence as our laws are extremely mild they ought not be obscured by ambition and self-interest, as has been the case with some settlements formed for the king.

In all cases in which the commandant discovers the lack of effort of a settler, and in which his sloth or abandonment should prevent him from being entitled to these benefits, the commandant, after giving warning, should inform me, that I may take measures in the case.

Since I have received no warrant from His Majesty for the said supplies, and have taken upon me to provide them, the commandants shall notify the immigrants that I am in doubt whether the assistance is provided at the expense of the royal treasury, or they will be obliged

to reimburse the cost of it, when their means will permit. I have reported on this point to the king, asking for his royal decision.

The commandants shall be under obligations to send every six months an exact and detailed report of the increase or diminution of the families, with the circumstances of their progress, and the obstacles to it, in order that remedies may be promptly provided, if the case require them. In case of death or abandonment of a settler, the commandant shall take care to recover the tools which have been given.

For payment of the disbursements made for the supply of provisions and for the importation of the fowls and pigs, the commandant shall send, every three or every six months, as may be convenient, a certificate of the amount, that a corresponding order for payment may be sent by me.

Nueva Orleans, February 19, 1778.

Bernardo de Gálvez[26]

Since the sixteenth century, town planning and land use in the Spanish New World had been regulated by a series of royal laws. In 1681, these and other laws were codified into the monumental *Recopilación de leyes de los Reynos de las Indias.* Among the listings were numerous ordinances containing detailed instructions for the laying out of new settlements. The concepts expressed in the ordinances were based upon Greek and Roman principles of town planning and land use. Royal rules and regulations for establishing a new community included selection of a healthful, pleasant, and defensible location; fertile lands for farming and pasture; availability of water, fuel and building materials; good roads and access to rivers and seaports; orderly streets, lots, and buildings; and a large plaza with designated locations for commercial and municipal buildings and a church.[27]

The *Recopilación* provided for the *fondo legal* or four-square league townsite as the town's land grant for buildings and commons, plus an additional common pasture area of about a league in length. (A league is about three miles.) The law required that municipal planning follow a grid-system; that the surrounding arable land, pasture, and woodland be carefully designated and alloted; and that water use be regulated.[28]

The Spanish *municipalidad* was derived from the Roman *municipium.* As such, it constituted a local geographical area and its government rather than a political entity. The Spanish municipality used in New World colonization included the fields, streams, forests, and meadows that surrounded the town. Colonial municipalities were ranked according to their size, type, and importance: *ciudads* (large cities), *villas* (cities), *pueblos* (towns), *plazas* (villages), *lugars* (small villages), and *poblaciónes* (loosely-grouped ranches and farms).[29]

Villas, pueblos, and *plazas* usually originated as walled towns, their fortification made necessary by the dangers of their locations. The *población* was the preferred form of settlement in locations where the dispersal of houses amid the fields and pastures was possible. This arrangement allowed the settlers easy access to their fields and animals, and it allowed them to guard their farms and ranches against marauders and wild animals. Nevertheless, a *población* may have had a church, a public building, stores, and a fortification as a focal point of the settlement.[30]

As previously noted, the Louisiana settlements established for the Canary Islander immigrants incorporated both military and civil functions, and they combined aspects of presidial and civil town planning. The Villa de Gálvez on Bayou Manchac (Iberville River) was laid out as a fortified grid-pattern town with outlying farm plots for each family. This was the system of partitioning land provided for in the *Recopilación,* that families should receive town lots *(solares)* and arable fields *(suertes)* according to their merits and needs, as well as the use of common pasture and woodland. A similar village with similar division and apportionment of land was laid out by order of Charles-Philippe Aubry, French acting governor of Louisiana, for the first Acadian settlement at the Attakapas Post in 1765.[31]

The Villa de Valenzuela on Bayou Lafourche was likewise planned as a village separate from the farm lands. However, the communities on Bayou Terre aux Boeufs and Bayou des Familles were established as long, linear settlements with buildings and fields strung out along the bayous. In the pattern established by the French in Louisiana which partitioned strips of land fronting on waterways, these villages were laid out as narrow plots of land fronting the bayous and extending in depth to the French *profondeur ordinarie,* or ordinary depth, of 40 arpents, or 7680 feet.[32]

Where land was limited along stream courses, the Spanish adopted this method of land divison which derived from a system used along streams in northwestern France. Much of the depth of the tracts along bayous consisted of swamp. The small amount of arable land bordering the bayous necessitated long, linear settlements. For this reason, the strung-out Barataria settlement was called a *población.*[33]

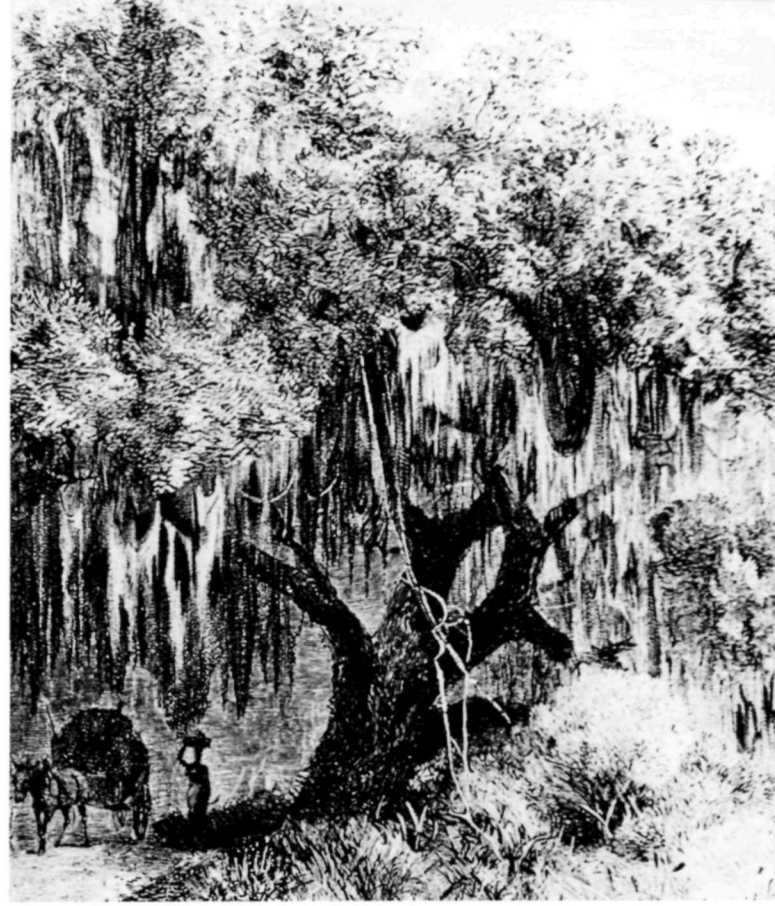
The buildings and animal enclosures were lined up for miles along the highest level of the crest of the east bank natural levee of Bayou des Familles. The Camino Real de Barataria passed along the crest nearby, en route from the Mississippi River to Bayou Barataria. The cultivated fields extended at right angles down both sides of the natural levee, into the old river bed and down the backslope toward the swamp. The plan of Población de Barataria, as laid out by the Spanish government, was that of a linear village typical of the settlement pattern historically adapted to the distributary levee ridge systems of the Mississippi River's deltaic flood plain.

Likewise, prehistoric Indian settlement conformed to the geomorphic configuration of the deltaic plain, with linear villages occupying elevated positions on the natural levees. For both prehistoric and historic

peoples, the linear arrangement of dwellings allowed for maximum exploitation of the environment by giving each household a high strip of ground with direct access to the waterway and to the diverse food resources immediately available in the various ecosystems on both sides of the natural levee. The Población de Barataria was laid out upon a linear Indian settlement that dates back more than a thousand years (see Chapter I). A series of Indian middens which line the natural levee crest of Bayou des Familles helped to provide elevated foundations for the houses of the Spanish village.

The Spanish house sites consist of earthern mounds about 40 feet in diameter and more than 2 feet high. One or more shallow pits situated near most of the mounds were probably dug for borrow for additional embankment of the mounds. The proximity of the 15 house sites that have been located along the semi-circular course of the natural levee in the park indicates that the tracts of land allotted the Isleños varied between one and three arpents in breadth. Since at least 57 families had been settled in separate households by mid 1779, and since the cartographic record shows that the *población* was originally projected to extend only five miles north of Bayou Barataria, the tracts of land into which the settlement was subdivided would have originally been very narrow.[34]

Traces of the Canary Islander field system are visible in both old and recent aerial photographs as a series of faint, criss-crossing lines in the crown cover of the forest. The tree lines reflect a communal agricultural system that swept across Bayou des Familles, transecting all legal boundary divisions and grant or section lines. South of the park, the tree lines cross open pastureland where the basic field division seems to have been one-half arpent (96 feet). In the forest at the southern end of the park, a series of parallel tree lines run perpendicular to the bayou at 20° at every one and one-half arpents (288 feet), with heavier tree lines at every three arpents (576 feet). These are identifiable on the ground as large trees lined up in perfect rows on what must be the sunken levees flanked by silted-in ditches that marked the Isleño plot divisions.[35]



At the south end of the park, the equidistant spacing of mounds on the natural levee crest corresponds with the tree lines spaced at every one and one-half arpents. European artifacts have been found only on those mounds located at every three arpents, while prehistoric Indian materials have been found on almost every mound. Excavations may reveal that the mounds situated between those spaced at three arpents were occupied briefly by Isleño households but vacated soon



Site 2, looking SE. Ranger David Lambert demonstrates elevation of house mound.



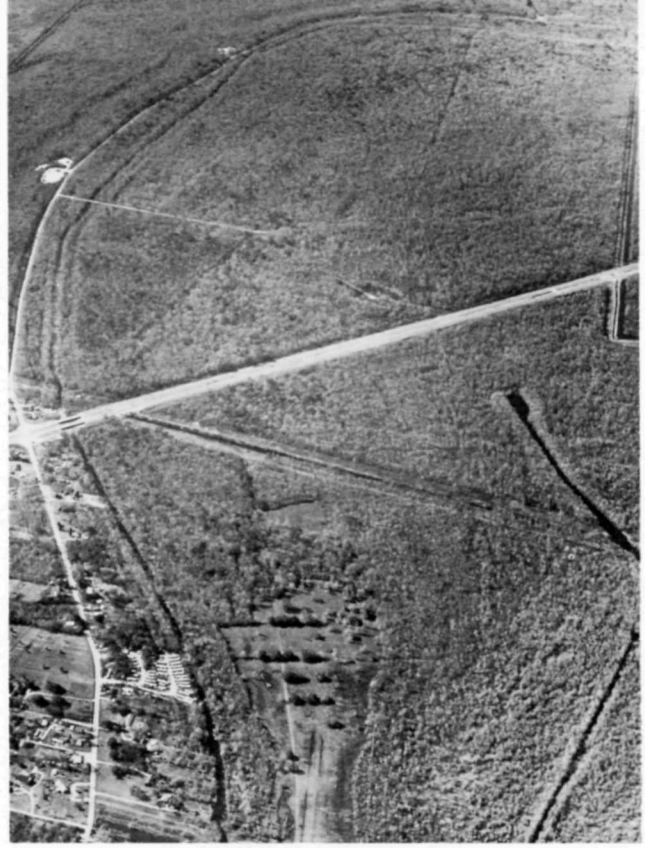
Fallen tree limbs lie across Chemin de Barataria/Camino Real de Barataria in northern part of the park, looking SW.

after the founding of the village. Every other plot may have been abandoned to the neighbors adjoining downstream, because the close spacial sequences and artifact frequencies of house sites at the northern end of the park suggest that alternate sites were abandoned earlier than others.

The 20° tree lines at the south end of the park cross the natural levee about 50 feet southward of the mounds. Crossing field ditches and/or roads, represented by tree lines and ground features, bisect the 20° lines at 107° to 124°. These cross the entire meander bend and serve as the boundary and field divisions of the tracts facing the upper bend of the bayou. On the upper bend, many cross-ditches and roads follow the 20° compass bearing of the boundary and field divisions of the tracts that face the lower bend. Thus, the layout of the Canary Islander village consisted of a communal cross-ditch-and-road system wherein the boundaries of the plots and their internal field ditches and roads bisected each other as they proceeded from the bayou frontages on the opposite bends of the meander.

Aerial photographs suggest that this massive agricultural system extended about 6000 feet from the bayou and that it was superimposed upon an equally massive field system of the French Period (see Chapter II). Some field divisions of the French system were also used by the Isleños (see Chapter IV).

The parallel crossroads, more than one of which probably served as the Camino Real, followed the semicircular ridges of the meander bend as they passed through the fields. At the north end of the park, the road is consistantly located about 200 feet eastward of the house sites. At the south end of the park, two trails about 75 feet apart pass along the levee crest on either side of the house mounds. The original Camino Real in this area may have been one of several roads that lie eastward of the house sites. These roads are discernable as passages through the lower story of the forest. In aerial photographs, their routes connect with old roads south of the park.



Looking upstream along Bayou des Familles, with the Camino Real on the east bank (below) leading into park (above) and field patterns that date back to the Población de Barataria.

The Camino Real de Barataria served as a public highway until the early twentieth century (see Chapter VIII). Archival documents state that it was "a royal road built by the King." Some traces exist of old road beds leading from the Camino Real to house sites.[36]

Land title records exclude the existence of the settlement and give no indication of the size and placement of the original tracts or the names of their occupants. A plan of the layout of the *población* has not been located in the Spanish archives, possibly because of the death, at this time, of Royal Surveyor Luis Andry, "the only person in the country who could make exact maps."[37]

Because the Islēnos were given no legal title to the plots of land assigned to them, it was not possible to find the location and plan of the community in Barataria through archival record alone. When the settlers abandoned their plots, the land reverted to former owners or was granted to others in later years (see Chapter IV).

It remained for archaeological field surveys to locate some traces of the *población*. The geomorphic configuration of the abandoned river channel pointed to the elevated land at the crest of the natural levee as the most likely location for probable dwelling sites. Aerial photographs were used to trace portions of the course of the old Camino Real that are now overgrown by the forest. A corridor at the edge of the natural levee



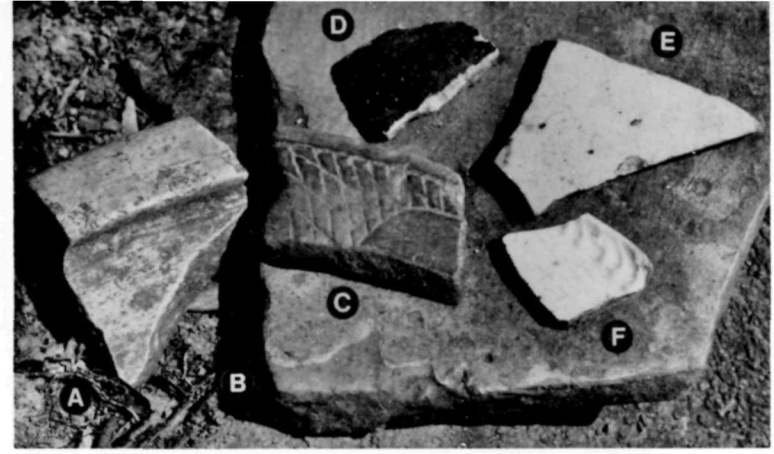
An Isleño double-ditch-and-levee boundary division bordered by a road, running at 124°, incorporated into the west bank field system of the late Spanish Period Suárez grant, measured by Ranger Randy Follett, looking SE.

ridge was explored, and two sites were found at a distance of about three arpents apart. Projecting this spacing, the probable positions of other sites were plotted on maps and air photos which were then used with a rope and a compass to locate the building sites from the route of the Camino Real. This procedure served to test the hypothesis of a systematic layout for the community and was carried out largely with the assistance of Michael Comardelle. By this method, 15 building sites were located in the park.

Six dwelling sites were located by the study in 1986-7. Test excavations were carried out on these in 1988 by archaeologists Jill-Karen Yakubik and Herschel Franks, who contributed their findings to this book. Additional field surveys with Michael Comardelle in 1988-90 located nine more house sites. Two of these were located by walking the compass bearings between the sites originally discovered. Two more were found at the north end of the park, in a line of closely positioned possible house mounds and Indian middens along the edge of the crest of the natural levee. Five house sites were located at the south end of the park, along with other possible house mounds and Indian middens lining the natural levee crest.

The house sites are identifiable by earth mounds of the same size, shallow pits, and similar surface artifacts. Especially diagnostic of the late eighteenth century are the pieces of soft, small, hand-made bricks, and the European ceramic types: coarse earthenwares, stoneware, French faience, and British creamware and pearlware. Highly visible scatterings of creamware sherds were present on all but one of the house sites where ceramics have yet been found. The settlement provides the earliest date yet documented for the widespread availability of British refined earthenwares in south Louisiana.

Coarse earthenwares, stonewares, and tin-enameled earthenwares (faience, majolica, and delft) were generally present throughout the Colonial Period in the lower Mississippi River Delta. Cream colored earthenware was perfected in the 1760s by Josiah Wedgwood in England. At that time, Louisiana was being transferred from France to Spain, and illegal British trade was being allowed to pervade south Louisiana. British merchandise was readily available after 1763 when West Florida, which bounded the Isle of Orleans north of Lakes Pontchartrain and Borgne, was ceded by Spain to England. Manchac, downriver from Baton Rouge, became a center of British commerce, with warehouses erected by British merchants to store goods transported from the Gulf of Mexico via Lakes Borgne, Pontchartrain, and Maurepas, and Bayou Manchac. French settlers in Louisiana traded with the Manchac merchants, as well as with British "floating warehouses" that were always present on the Mississippi River. Two large British merchant ships were constantly tied up to trees along the river just above New Orleans, on on the opposite bank, near

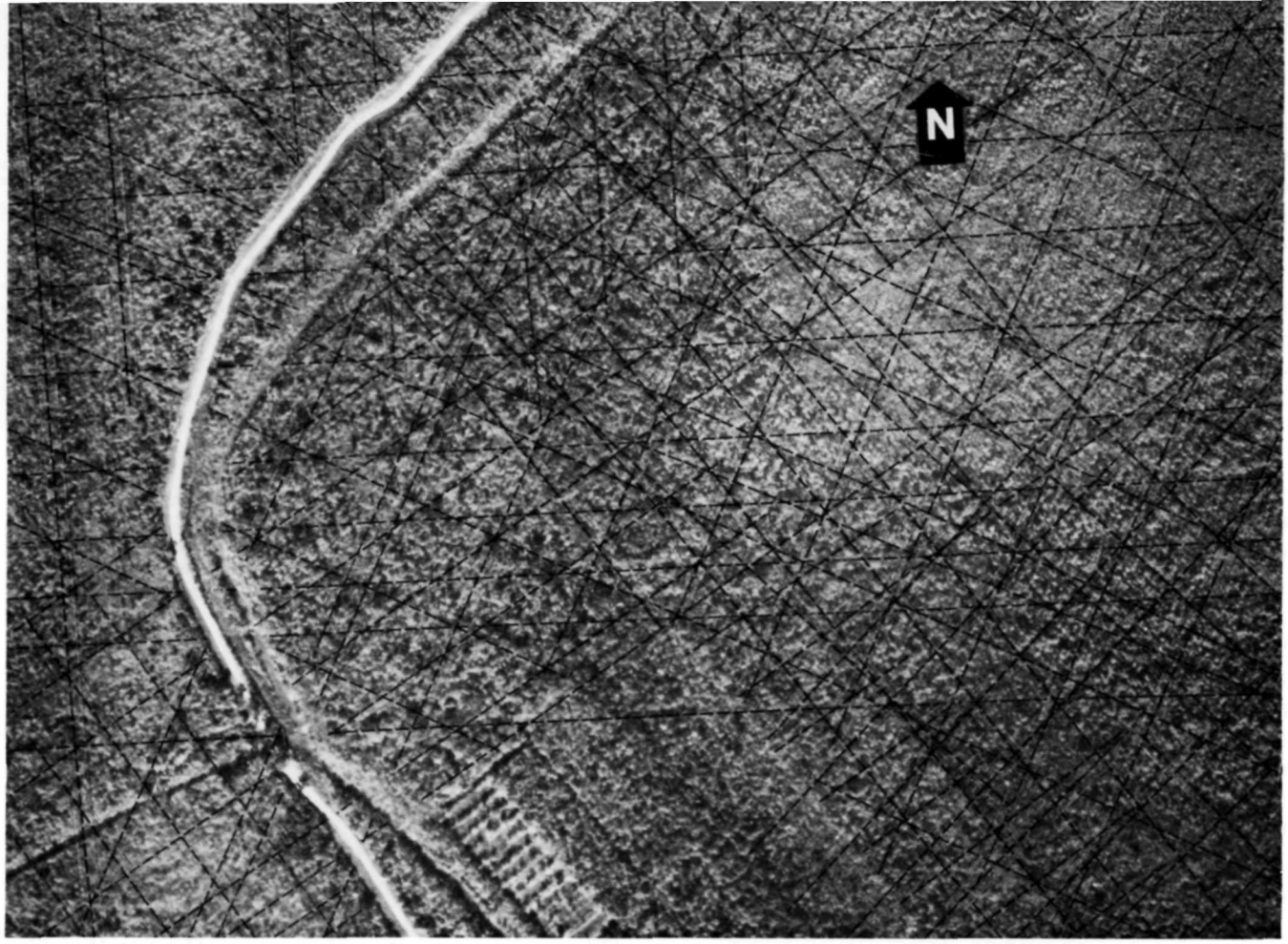


Ceramic sherds on Site 6, typical of those scattered on *población* house sites; A: yellow lead-glazed, buff-bodied, coarse earthernware; B: yellow lead-glazed, red-bodied, coarse earthernware; C: historic Indian ware similar to the type Maddox Engraved; D. *faience brune*, pink-bodied coarse earthernware with tin-glazed white interior and brown exterior; E. pearlware with a trace of blue underglaze hand-painting; F: creamware rim with feather edge relief pattern.

Barataria. However, the presence of English ceramics on the Barataria sites may be directly attributed to Commandant Andrès Jung, who was in the shipping business and who owned a plantation north of Lake Pontchartrain. On Jung's Bayou St. John plantation, in present-day City Park, was "the king's warehouse" which stored supplies to be distributed to the Canary Islanders in Barataria. Bayou St. John was known in the days of sailing ships as the "back door to New Orleans." Ascending the Mississippi River to New Orleans was difficult for sailing ships, but small vessels could easily reach Bayou St. John via the lakes. It was because of this quick access to the river by means of the bayou and an Indian portage that Bienville founded New Orleans on the site of the Vieux Carré. Despite government restrictions, a "scandalous illicit trade" was carried on through Bayou St. John.[38]

Large amounts of creamware and pearlware were exported from England, because the wares were economical to produce. Pearlware was manufactured to imitate Chinese porcelain by whitening the body and/or glaze of creamware and by applying blue painted underglaze chinoiserie designs. Wedgwood began to manufacture a ware which he named "Pearl White" in 1779, the year that the Canary Islanders were settled in Barataria. It has been assumed that he invented pearlware, however, other English potters had been marketing the ware as "blue painted white ware" and "China glaze" ware at least since the early 1770s. The free stylistic treatment of decorative motifs on the chinoiserie and polychromed pearlware sherds found on the Barataria house sites most resembles hand-painting on ceramics produced by the Spode Pottery of Staffordshire and the Leeds Pottery of Yorkshire. Leeds manufactured light weight wares for an extensive export business.[39]

Investigations recently reported in the journal of the Society for Historical Archaeology of American and British military sites of the Revolutionary War on the East Coast recovered both creamware and pearlware



Tree-lines delineating French and Spanish field systems at the north end of the park, visible in air photo of December 15, 1958, 5-58-171, USA/CE, New Orleans.

sherds from contexts dating as early as 1778. Except for small amounts of porcelain, which has yet to be found on the Isleño sites, the ceramic types and frequencies of the American and British military sites are similar to those of the house sites of the soldier-farmers who were placed in Barataria at the same time period by the Spanish government. (See Charles L. Fisher, "The Ceramics Collection from the Continental Army Cantonment at New Windsor, New York," *Historical Archaeology*, vol. 21, no. 1, 1987, pp. 48-57; and John L. Seidel, "'China Glaze' Wares on Sites from the American Revolution: Pearlware before Wedgwood?," *Historical Archaeology*, vol. 24, no. 1, 1990, pp. 82-95.)

It is possible that all the British wares found on the Barataria house sites were issued to the Canary Islanders upon the establishment of the settlement in 1778-79. Nine of the house sites produced a total of 210 creamware sherds, and five sites produced a total of 49 pearlware sherds. These constitute the greater majority of European sherds recovered from the sites.

Most ceramics found on the house sites are English and French. Spanish majolica was found on one site. Ceramics of the Canary Islands, which have distinctive traditions of primitive pottery dating back to the islands' aboriginals, were not identified on any of the sites. However, ceramic sherds and other artifacts from the Canaries may yet be found in Barataria. Other cultural materials commonly scattered over the surface of the sites include prehistoric and historic Indian potsherds, gunflints, blown glass sherds, lumps of *bousillage*, wrought-iron nails, and sawn animal bones.

Many undiscovered house sites of the Población de Barataria undoubtedly lie in the park, as well as along the length of Bayou des Familles. The semi-circular course of the village through the old sugarcane fields and the pecan orchard in the center of the meander bend has been especially obscured. However, sites have been found in the ploughed fields, and others could probably be located by projecting the survey methodology and plotting the probable positions of the sites.

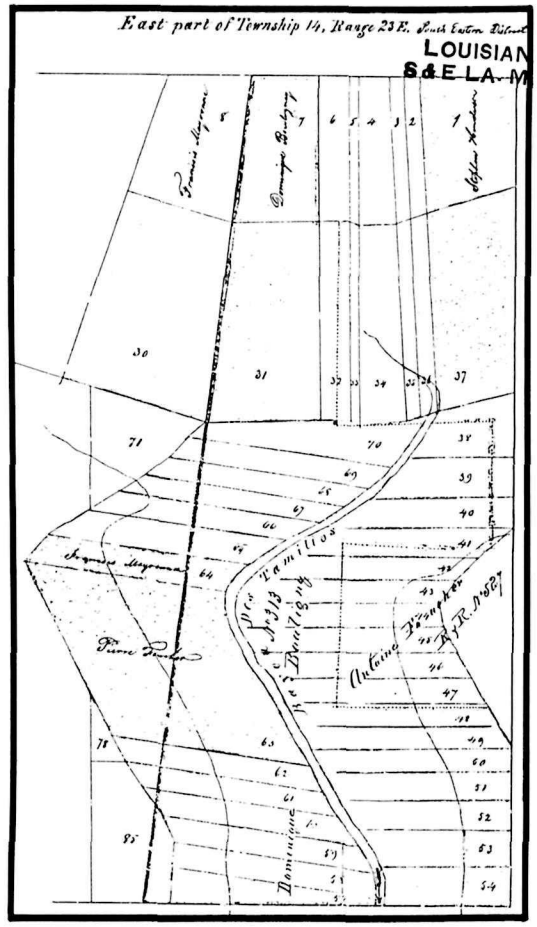
The sizes of the Isleño tracts cannot be assumed to always be precisely the same as the distances plotted between the sites, for several reasons. The dwellings may not have been identically situated relative to each tract. Furthermore, the line of sites curves with the meander bend of the bayou, and this displaces their positions relative to a line drawn at a right angle to tracts running perpendicular to the bayou. Also, the plots could have been surveyed from the Camino Real, as suggested by such a late Spanish Period survey of properties on Bayou des Familles. The measurement of frontage on the bayou or the road would have resulted in irregularly sized tracts because of changes in the angles of the curves of the meander bends.[40]

Comparable documentation pertaining to other Ca-

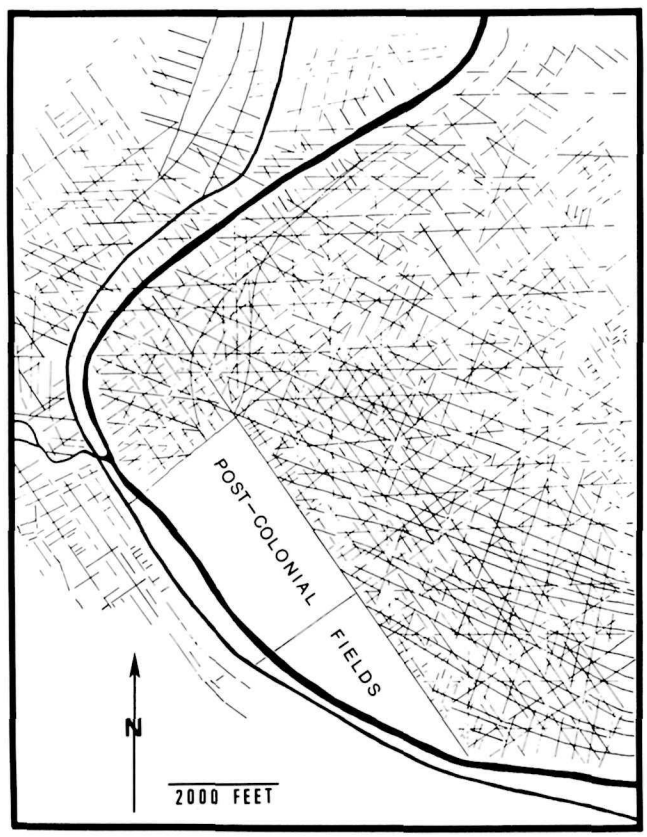
nary Islander settlements in Louisiana, especially that of San Bernardo, is helpful in understanding the means by which the Población de Barataria was established. The Isleños of San Bernardo were originally allotted 3-by-40-arpent tracts fronting Bayou Terre aux Boeufs. Later, their plots were apparently reapportioned according to their needs. The residents of San Bernardo later testified to the United States Committee on Private Land Claims that the commandant "gave to each of the emigrants a portion of land, which was varied in quantity in proportion to the number of individuals in each family; and that the portion assigned each was very small - some two, some three, and others three and a half, arpents in front and forty deep; and that said commandant had built, under a contract with the King of Spain, a small house on each of the portions of land assigned to the emigrants, and supplied them with provisions for some time . . . and that in the year 1785, a church and parsonage house had been built for the use of the colony by the Government on the Terre aux Boeufs . . . ."[41]

Felix Marrero, a San Bernardo resident who was originally settled in Barataria but who left in 1781 and is therefore not listed in the Barataria "Libro," testified that he was given a tract of land having 3 arpents and 17 toises fronting on both sides of Bayou Terre aux Boeufs. He explained that "some of the settlers received more, and some less, according to their families. The King of Spain constructed for each settler a house on the land given them, together with rations of rice and salt for eight months. Mr. Marigny was the commandant of the post, and had the houses built and furnished the rations."[42]

The number of family members may not have been the only determinant of the size of the tracts. An 1830 cadastral survey map of the township north of the park shows that the land on both sides of Bayou des Familles was divided into 40-arpent-deep-tracts with frontages that ranged between 4.7 and 7.2 arpents. The sizes of the tracts were determined by the geomorphic configuration of the abandoned river distributary. Those located on the cut banks have nearly twice the frontage of those located on the point bars of the meander bends. The *población* had apparently been enlarged, because the tracts begin at the rear of the 80-arpent "double depth" of the river-front plantations, which would have extended the settlement to a total length of seven air miles. The tracts undoubtedly represented abandoned Canary Islander plots, because most were unclaimed. The map shows that the east-west tracts continued down the bayou, into the township below. East-west tree lines are shown on aerial photographs cutting straight across the natural topography of the meander bend at the north end of the park. In this area, the tree lines criss-cross each other and appear to represent reallottments of tracts, repositioned in relation to the bayou. Alterations were apparently made to the original plan of the *población* after large numbers of settlers were removed following floods and storms.[43]



William H. Cobb and John Maxwell, United States Deputy Surveyors, cadastral survey map of part of T14S R23E, 1830, State Land Office, Baton Rouge, Louisiana.

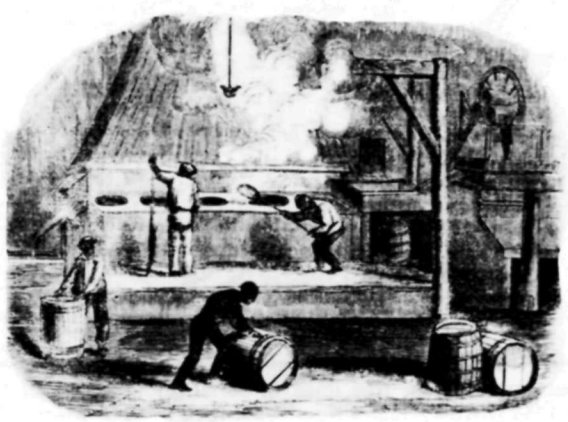


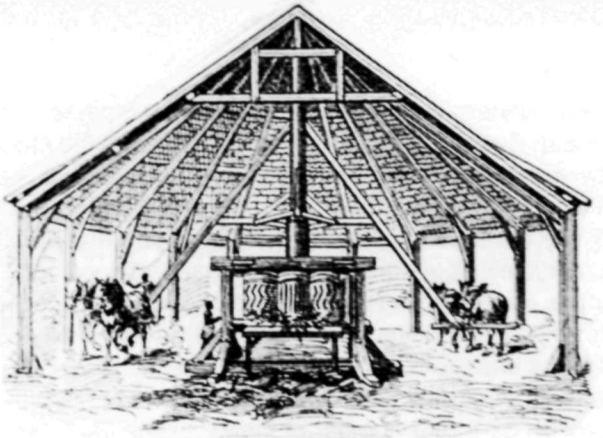
Conspicuous linear tree lines in aerial photographs of 1945 and 1958 (R-76-37-126, 4 Nov. 1945; R-76-37-125, 4 Nov. 1945; 5-58-171, 15 Dec. 1958.) USA/CE, New Orleans.

The individual tracts were apparently enlarged to provide each family with more elevated land for cultivation and pasture. Grown children who married and wished to establish farms of their own were probably assigned new plots. In readjusting the boundaries of the tracts of land, buildings were probably reassigned to new residents. Some abandoned dwellings may have been reinhabited.

Documentation shows that the buildings, barnyards, and fields of the *población* were originally located on the east side of Bayou des Familles, along the Camino Real. The land on the west side of the bayou remained largely wooded and was used for grazing livestock, perhaps in a common pasture. However, flooding of the old river bottom frequently destroyed the Isleños' crops, and they apparently later farmed the more elevated natural levees on both sides of the bayou. Traces of agricultural features on both sides of the bayou have survived from the Canary Islander occupation. Isleños who remained in Barataria began cultivating sugarcane as their staple crop. Some were undoubtedly skilled in the cultivation of sugarcane, because it had long been a major crop of the Canary Islands. By the early 1800s, the Isleños of San Bernardo were planting cane to sell or grind on shares at the mills of neighboring plantations. They also raised vegetable produce for the New Orleans market. [44]

The growing of sugarcane requires a system of drainage and irrigation ditches. Ditches in heavily wooded areas that have not been cultivated in 200 years were part of the Canary Islander system. Other ditches originally dug by the Isleños may have been incorporated into later agricultural systems. The main ditch of the Christmas Plantation (see Chapter VI) that follows the crest of the east bank natural levee may have been originally dug during the Canary Islander occupation for the purpose of irrigating from an upstream position on Bayou des Familles. Infra-red aerial photographs show other linear features, unrelated to the natural topography, which emanate from the bend of the bayou above the point bar of the meander. These could also have been ditches dug to supply domestic water needs, since many dwellings were located more than 1000 feet from the bayou's swampy shores.





Sophisticated irrigation systems had long been in use in the Canary Islands. The technology and public institutions involved in these systems derived from Roman and Islamic practices introduced into Spain. The codified instructions for the founding of new settlements given in the *Recopilación* included detailed regulations on the construction and use of community irrigation systems, according to Roman and Islamic practices. All irrigation communities in the Spanish New World reflect these origins in layout and in water distribution customs and laws.[45]

In the Mississippi River Delta, water-control is usually concerned with over-abundance, and most communal efforts are directed at maintenance of levees and drainage systems. Properties located along the river were able to individually obtain irrigation needs by cutting canals through the natural levee and allowing water to drain down the backslope. However, the bed of the old Barataria-des Familles river distributary slopes down to the bayou. A ditch drawing water from upstream and following the highest elevation of the natural levee would be necessary to irrigate the old river bed. This system is commonly used in river valleys. In Spanish New World communities, the main encircling ditch, from which lateral ditches drain by gravity, is called the *acequia madre,* or mother ditch. The communal maintenance of the *acequia madre* is the basis of the political, legal, and social institutions of the Spanish irrigation communities.[46]

The levee crest ditch appears to have left the post-Civil War plantation soon after crossing the present intersection of the Old Barataria Road and the Shell Road. A slight depression that follows the curving levee appears to be the silted-in ditch. Within the plantation property, a few of the perpendicular outfall ditches also drain down the levee backslope. At least one of these leaves the plantation property and continues for about 2000 feet down the backslope and through the swamp. The purpose of the curving levee crest ditch may have been to irrigate both the old river bed and the natural levee backslope by bringing water from the bayou upstream.

A series of concentric roads and ditches looped through the point bar at equal spacings of about 500 feet, following the irregular contours of the ridge-and-swale topography of the abandoned distributary. They were incorporated into the geometric field system of



Site 2. Pit for borrow and/or the making of *bousillage.*

the post-Civil War plantation (see Chapters VI and VIII). The Canary Islanders may have farmed the elevated ridges and used the swales for drainage and irrigation. Such contour farming was extensively practiced on artificial terraces in the mountainous Canary Islands.[47]

The settlement pattern of the Población de Barataria can thus be found in the forest today, with the sites of the buildings of the village lining the highest levee ridge, bordered by the Camino Real and overlooking the fields on both levee slopes. The six dwelling sites originally discovered were numbered in sequence from north to south. Sites 1, 2, 3, 4, and 5 were found towards the northern end of the park, in the upper part of the meander bend. Since the Canary Islanders departed, this area has been used only for logging, livestock grazing, hunting, and trapping. It is presently undergoing various stages of reforestation, with old oaks interspersed amid young trees. The dense undergrowth, including a thick understory of palmetto, restricts visibility of the ground. For this reason, the building sites are difficult to locate.

Site 1 straddles the lower line of Section 38 and the upper line of Section 57, T15S-R23E. This section line was established in the nineteenth century by the United States Surveyor General's Office to designate the lower line of a private land claim based on a Spanish land grant to Canary Islander Pablo Suárez Ruiz. A nineteenth century granite boundary marker is located on this property line, on the bayou side of the Camino Real. Remains of a barbed wire fence follow the grant line.[48]

The grant was made in the name of Pablo Suárez Ruiz, deceased husband of María Olivares, in 1800, presumably to confirm existing and long-standing occupancy (see "Libro" No. 8). In his survey of April 2-3, 1800, Royal Surveyor Carlos Trudeau specified that the property was occupied by "Madame Pablo." Archaeological investigation has verified that the dwelling



Site 2 excavations. Looking W.

site on the lower property line was inhabitated at this late date.[49]

Trudeau ran his survey on the Camino Real, rather than on the swampy frontage of Bayou des Familles. His compass bearing of S72°30'E for the lower grant line, which he projected from the road, positioned the widow's house within her property. When the grant was later resurveyed using the bayou as the frontage, the lower boundary line was redrawn to lie across the location of the house.[50]

Trudeau approximated a frontage of seven arpents, eight toises (1393.89 feet) by measuring the width of the triangular east bank portion of the property where it was bisected by the road. Later surveys made from the bayou enlarged the frontage and altered the positions of the boundary lines. The compass bearing of the present lower grant line, S63°45'E, was established by United States Deputy Surveyor Maurice Hauké in 1855. At that time, the present bearing of the upper line was set at S47°15'E, and the bayou frontage was found to be 1544.4 feet.[51]

The Suárez site is archaeologically extensive. It includes Site 7, a mound with a surface scatter of brick and creamware located 180 feet upstream, and Site 10, a mound upon which a brick fragment was noted located 360 feet upstream. During field surveys, scatterings of *Rangia* shell, glass, and other cultural materials were observed between Sites 1 and 7. A complex of farm buildings occupied this area for several decades (see Chapter IV).

A series of mounds and low rises, some scattered with *Rangia* shell, continues to edge the crest of the natural levee to the northern boundary of the park. These may represent locations of farm structures on the Suárez tract, and/or *población* house sites, and/or Indian middens. Artifacts have yet to be found on these possible sites.

Site 2 is located about 580 feet downstream from Site 1. It contains two adjoining house mounds. Part of an exposed brick foundation was observed on the surface of one of the mounds during field surveys. A linear clearing that appears to be an old road bed leads



Live oaks in a cluster of E-W/N-S tree alignments at the north end of the park, which mark a repositioning of the Spanish village field plots.

from the site to the Camino Real. Documentary evidence suggests that the Francisco Sánchez family farm was located in this area during the late Spanish and early American Periods (see "Libro" No. 39). Ceramic analysis suggests that this site may have been inhabited during these periods, perhaps by Sánchez.

Site 3 is located about 900 feet downstream from Site 2. In this area, the Camino Real has long been abandoned and is overgrown by the forest. However, its former route is still discernable as it passes about 180 feet from the house site.

Site 4 is located about 800 feet downstream from Site 3. It also lies about 180 feet from the overgrown Camino Real. The edge of the house mound has been cut by the ditch that follows the crest of the natural levee.

Site 5 is located about 480 feet downstream from Site 4 and a little more than 200 feet from the overgrown road. It is positioned somewhat further down the natural levee slope toward the river bottom than the other sites and is densely covered with palmettos.

Two additional sites were more recently discovered near Site 3. These were numbered Sites 8 and 9. Site 8 is located about 280 feet south of Site 3, and about 200 feet from the Camino Real. Site 9 is located about 230 feet due north of Site 3 and, likewise, about 200 feet from the Camino Real.

Downstream from this sequential series of sites, the point bar of the meander bend was largely cultivated with sugarcane during the Post-Civil War Period. Archaeological sites are most difficult to locate here. Not only is the area heavily wooded, but the ground has been repeatedly plowed. Site 6 was found in the former sugarcane fields. It is located about 3,500 feet downstream from Site 5, on the crest of the natural levee.

The artifact scatter at Site 6 stretches over an area more the 300 feet in diameter and may derive from



more than one house site. This area is cut by the main ditch that follows the levee crest, and by perpendicular ditches on both sides spaced at one-half arpent apart and paralleled by furrows and beds about five feet apart. A road bed runs on the eastern spoil bank of the main ditch.

Although ploughing has dragged the artifacts, the scatter is equally distributed over the area in all directions from a central concentration of materials where test excavations were carried out. This concentration of artifacts is located on the downward side of the main ditch and its juncture with an outfall ditch. The density of materials here may represent an accumulation from ditch spoil that migrated down the main ditch from a house site about 150 feet upstream where there is a pronounced rise in the ground, as well as some materials from another house site about 100 feet further downstream. With such positioning, the sites would be spaced about one and one-half arpents apart and would continue the village pattern suggested by the mounds at the south end of the park. The quantity of artifacts also suggests more then one house site in the area of Site 6.

Downstream from Site 6, at the south end of the park, five house sites were discovered lining the natural levee crest at equidistant increments of three arpents (576 feet). Between each of these sites, at intervals of precisely one and one-half arpents (288 feet), are mounds containing prehistoric Indian materials which may have also supported houses of the Isleño village. European artifacts have yet to be found on these. The area is heavily wooded and has not been farmed in about 200 years.

Site 13 is located about 600 feet southeast of the artifact scatter at Site 6, at the western corner of the Old Barataria Road and the Shell Road. This site also consists of a scatter of cultural materials in what was formerly cane fields and pecan orchard. The artifacts are scattered over an area about 100 feet square, and they are assocated with *Rangia* and oyster shell bankline Indian middens.

Site 11 is located three arpents southeast of Site 13, on the Barataria Road. The house mound was partially destroyed by the road, but blown glass, wrought-iron fragments, and other materials suggestive of a house site, have been found 50 feet to the east of the road on a linear elevation about 30 feet wide, 150 feet long, and one or two feet high. Indian sherds and *Rangia* and oyster shells are located on the linear rise as well as at the road sides and across the road in the back



Live oaks on the Camino Real at the boundary line of an Isleño plot, SE of Site 15, looking NW.

ditch of the post-Civil War plantation. The Camino Real passes to the north and east of the site.

Site 12 is located three arpents southeast of Site 11, and about 200 feet northeast of the Barataria Road. The Camino Real passes on both sides of the site. The house mound measures about 40 by 60 feet. The cultural material includes Spanish colonial artifacts and prehistoric Indian potsherds and *Rangia* shell.

Site 15 is located three arpents southeast of Site 12 and about 450 feet northeast of the Barataria Road. The house mound is about 40 feet in diameter and is situated on an elevated ridge 60 feet wide by 130 feet long. Three small pits are located adjacent to the mound. At the south end of the elevated ridge, 50 feet from the house mound, the present trail turns and crosses over the ridge. At this point there are two live oaks that apparently mark the boundary of the Canary Islander tract. From the larger tree, a line of large oaks and other trees, some dead or dying proceeds down the backslope of the natural levee at the 20° angle of the village plots. Nearby, parallel rows of smaller trees and palmettoes also line up upon sunken field embankments. Cultural materials found on the house mound include European artifacts and prehistoric Indian potsherds and *Rangia* and oyster shells.

Site 14 is located three arpents southeast of Site 15, about 750 feet from the Barataria Road, and 460 feet from the southern park boundary line. The mound which is especially elevated, measures 50 feet wide by about 75 feet long. It is situated on a longer ridge that is about 75 feet wide. The Camino Real passes on both sides of the site. Two soft, colonial brick fragments were found on the site, along with a few *Rangia* shells. At 50 feet southeast and 240 feet northwest of the mound, live oak tree lines proceed down the natural levee backslope at 20°, on sunken levees that apparently divided the Isleño tracts.

A linear earthwork about 30 feet wide and about two feet high borders the eastern side of much of the length of the south end of the Barataria Road. It follows the 10-arpent Dauterive subdivision line of 1768 that is shown on modern topographical maps as the line between Sections 11 and 57. The feature may have been a double-ditch-and-levee marking this boundary, or it may have been constructed by the original French grantee Jean-Baptise Massy, because it follows the compass bearing of his grant (see Chapter II).

The earthwork may also have been constructed by the Spanish government, since it marks the lower boundary of the land originally obtained by the King of Spain for the Canary Islander settlement. It may have served as a dam and raised road bed crossing the large chutes in the old river bed which would have carried flood waters. Today, the wet swales are encountered when walking the park trail that follows the Barataria Road. The earthwork contains occasional Indian potsherds, sometimes exhumed by crawfish and other animals. It may be partially composed of Indian middens or of midden material. No European artifacts have been noted on the feature except at the possible House Site 11, which may have been partly located on it.



One or more burial grounds may have been located on Bayou des Familles, because documentation shows that the community suffered many deaths. As previously described, the *población* was probably laid out to contain a plaza with a church, rectory, public buildings such as warehouses and a fortification, and perhaps a house for the intendant. In colonial town planning, cemeteries were usually established in the vicinity of the plaza, but somewhat removed.[52]

The Spanish government planned to build a church for each Isleño settlement, however, it has not been documented that a church was ever constructed in the Población de Barataria. Nevertheless, land was probably set aside for this purpose, as well as for the plaza and other buildings. Plazas were usually centrally located for the convenience of the inhabitants. The center of the original *población* of 1779 would have been located approximately in the center of the meander bend which is part of the park.[53]

The site reserved for a plaza may rather have fronted on Bayou Barataria, the principal route of commerce and communication, and the military objective of the community. The location may have been where

the Camino Real terminated at the bayou. Most of Bayou des Familles was not navigable, being shallow and grown over with cypress trees.[54]

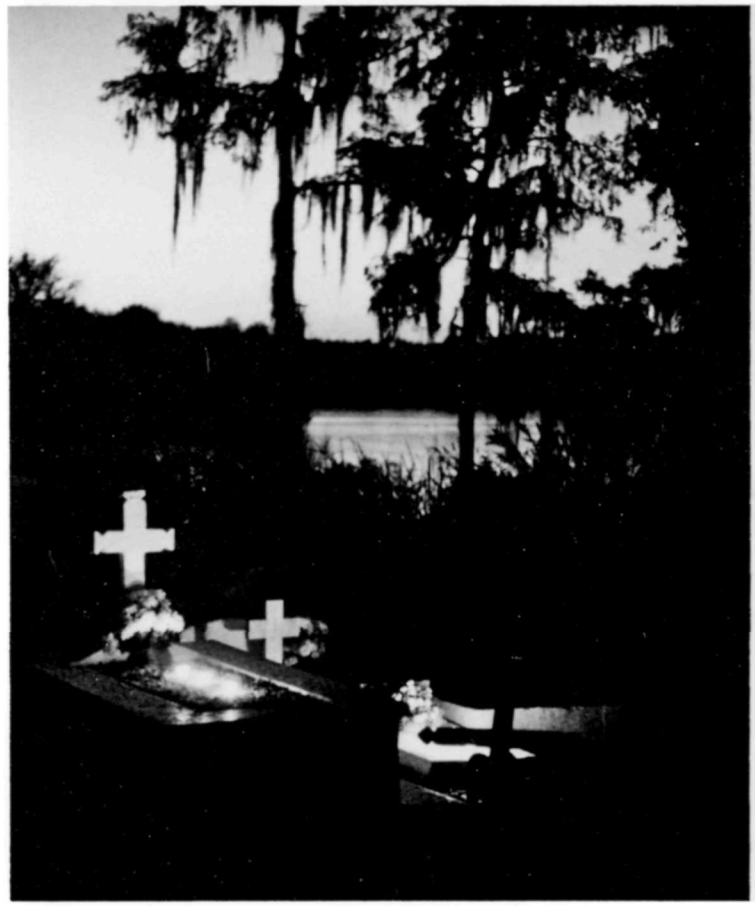
The Isleños may have adopted the Indian practice of burial in earth and shell mounds which prevails in the Barataria region today. The mining of shells from the mounds formerly located at the confluence of Bayous Barataria and des Familles and on Bayou Coquilles would have removed any burials. The use of the Berthoud-Fleming Indian mound on Bayou Barataria as a public burial ground on private property may date back to the time of the Isleño settlement. Mortuary traditions practiced at cemeteries in Barataria, as well as at those in St. Bernard Parish, appear to reflect folk traditions of the Canary Islands. The continuance of these traditions in Barataria suggest that a larger Canary Islander element survived in the local population than has been recorded in official records.[55]



Berthoud-Fleming Cemetery and Indian Mound on Bayou Barataria.

The burning of candles on graves for the souls of the dead, the floral decoration of burial places, and the practice of leaving offerings to the dead, are customs traditionally found in Barataria, St. Bernard Parish, and the Canary Islands. The Spanish ritual of burning lights before tombs of the dead on All Saints' Day (November 1) was practiced on that night, the Eve of All Souls' Day (November 2), in the Canary Islands. A nineteenth century traveler described the Canary Island ceremony on a rainy night.

> At the cemetery we found a great number of men, all in their blankets; lighted lamps were scattered everywhere, for it was the custom to burn lights on All Saints' night at the graves of the departed. When fine, the women attend, and place wreaths and crowns upon the graves, but to-night only men were present, the better classes sending their *medioneros*, stewards or men-servants, whose business it is to keep watch at the graves, fill the lamps with oil, and keep them burning. Whatever there may be on a fine night when the relatives of those dead are present and praying beside the tombs, there was no solemnity to-night. The effect of the lights was curious, the whole cemetery being lit with innumerable lamps, four, six, or eight on each tomb; some were suspended from the iron railings enclosing the burying-places, and others were laid upon the ground. As well as we could see by the light of the lamps, there seemed to be several handsome marble monuments.[56]



Candles burn on All Souls' Eve on graves in the Berthoud Indian Mound Cemetery on Bayou Barataria.

However, the custom of commerating the dead with flowers and lights was not limited to All Souls' Eve in the Canary Islands. On the Fiesta de la Cruz, May 3, "every cross, however humble, is decked with a garland of flowers . . . and in front of many of the crosses a lamp is lighted on this one night of the year." Also throughout the year, many little flower bedecked wayside shrines and crosses were nightly lighted with oil lamps.[57]

The elaborate mortuary customs of the aboriginals of the Canary Islands, who intermingled with the Spanish conquerors, included the burning of incense and the offering to the dead of food and drink, and personal and religious items. Although a common practice among primitive peoples world-wide, it is interesting that the custom of leaving offerings to the dead long prevailed in the cemeteries of Barataria and St. Bernard. Homemade, wooden boxes with glass doors and gabled roofs topped with crosses were placed on graves as receptacles for religious statuary and mementoes of the dead. They also served to house offerings of food and medicine, children's toys, trinkets, and ornaments.[58]

In Barataria and St. Bernard, families gather in the cemeteries at dusk on All Saints' Day. In the preceding weeks, the grounds were weeded, and the graves and tombs were cleaned and white washed and decorated with magnificant displays of flowers. At nightfall numerous candles are lit on each grave, and the families keep a vigil of prayer for the souls of the dead.[59]



Just as they used Indian mounds for burial grounds, European settlers in Barataria built houses on them. Indian mounds and middens were the only elevated places in the low, flood-prone delta. It may be speculated that this local usage served as the example for the raising of small earthern mounds as foundations for the houses of the Población de Barataria. The mounds are the strongest evidence that the sites discovered represent a unified effort to construct a planned community.

Most of the mounds are about 40 feet in diameter. This closely corresponds with documented lengths of houses built by the Spanish government in other Canary Islander communities. In 1779, a contract was let for the construction of houses in Galveztown measuring 32 by 16 feet with a gallery along one length. In the same year, a contractor was hired to construct houses measuring 30 by 15 feet, probably also with a gallery, in Valenzuela. Also in 1779, the government provided Malagueño settlers in New Iberia with houses measuring 28 feet long by 15 feet wide with galleries across both lengths. These houses were raised nine feet above the ground because of the danger of floods.[60]

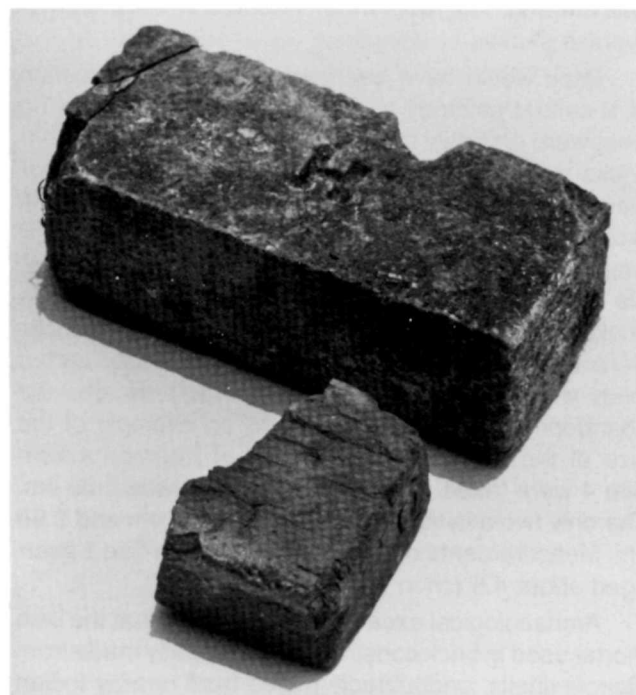


Probable house type erected by the Spanish government on earth embankments on the plots of land assigned to each Canary Islander family on Bayou des Familles.

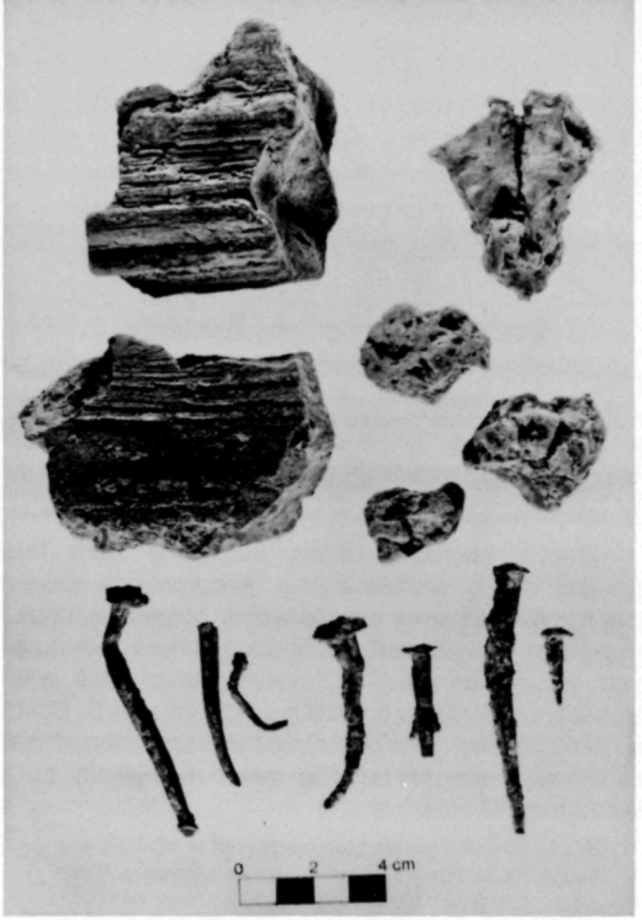
The architectural debris recovered from the mounds during archaeological investigations shows that the houses were built of wood, *bousillage,* brick, and lime mortar. *Bousillage,* or daub, a mud-and-moss mixture that was used to fill timber-framed walls, was probably prepared in the nearby pits. Lauren C. Post, in his *Cajun Sketches,* described the preparation of this traditional Louisiana building material originally borrowed from the Indians.

> When a house was ready to be daubed, a big hole was dug in the yard. Into it went mud, moss, and water. These were tramped and stirred until the consistency was right, and then the mixture was daubed into the spaces between the studs.[61]

Half-timber construction was brought to Louisiana by the French. In this building technique, squared timber uprights and diagonals were joined with tenons and mortices into sills or embedded in the ground, and the spaces between them were filled with brick or *bousil-*



Brick imprinted with an "H" typically found on building sites associated with the post-Civil War Christmas Plantation, compared to end of small brick from Site 2, typical of brick fragments found on the Spanish sites.



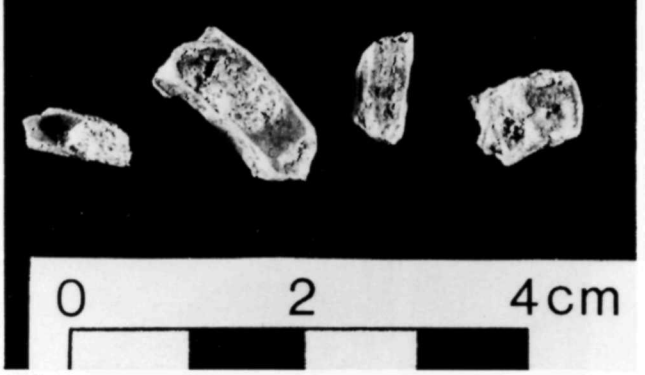
Architectural materials. Upper left: hand-made brick fragments (Site 4), upper right: *bousillage* (Site 1), bottom: wrought-iron nails (Site 2).

lage. Exposed walls were then covered with weather boards. Interior and gallery walls were finished with lime plaster. The numerous wrought-iron nails found in the excavations indicate that the houses were largely built of wood. The roofs were undoubtedly covered with cypress shakes or shingles.[62]

Brick would have been used for the construction of a central chimney with a double fireplace, serving what were probably the two rooms of the house. Either bricks or cypress blocks would have been used for piers if the houses were built on sills and raised. A broken-brick footing for a brick or wooden pier or sill was found partially exposed on the surface of one of the two adjoining mounds at Site. 2. The hand-made bricks are small and crudely formed. No whole bricks were found on the sites; they were probably carted away with other usable materials some time after the abandonment of the dwellings. As an example of the size of the bricks, measurements of fragments from Site 4 were taken. Their average height was 4.69 cm. The only two available widths were 10.66 cm and 9.90 cm. Measurements of brick fragments from Site 2 averaged about 4.5 cm in height.[63]

Archaeological excavations confirmed that the lime mortar used in brick construction was locally made from *Rangia* shells, undoubtedly mined from nearby Indian mounds. Small pieces of shell adhered to lumps of lime were recovered.

The roofs of the houses were either hipped or gabled. An interior ladder may have given access to storage space in the attic. One or more galleries may have been supported by posts embedded in the ground. The houses may have taken the form of the popular "creole cottage," with the gallery contained under the pitch of the gabled roof, or, galleries may have been attached at the eaves, giving a double-pitch to the roof.[64]



***Rangia* shell fragments with adhering mortar from Site 4.**

Typically, the openings in the houses would have contained batten French doors opening outward as well as partially glazed French doors opening inward. The doors would have been fitted with wrought-iron hooks and strap hinges. The exterior and interior walls and ceilings would have been finished with whitewash.[65]



Joseph Chalon was contracted to erect the houses of the Población de Barataria. Like Commandant Jung, Chalon owned a plantation on Bayou St. John. A wealthy and socially prominent lawyer with vast land holdings, he probably directed his slaves or a building contractor in the construction of the houses.[66]

Chalon was also contracted to repair and reconstruct the *población* houses damaged by storms. Archaeological investigations determined that the brick feature at Site 2 is a remnant of a reconstructed building or a later construction using broken bricks from the wreckage of storms. Much construction and repair work was probably carried out by the Isleños themselves. The "Libro" lists construction tools that were allotted to each family.[67]

Ancillary buildings, such as detached kitchens, barns, sheds, chicken houses, and privies, would have been located near each dwelling. The structural assemblages would have been surrounded by cypress fences.

ARCHAEOLOGICAL INVESTIGATIONS OF THE SPANISH COLONIAL SITES

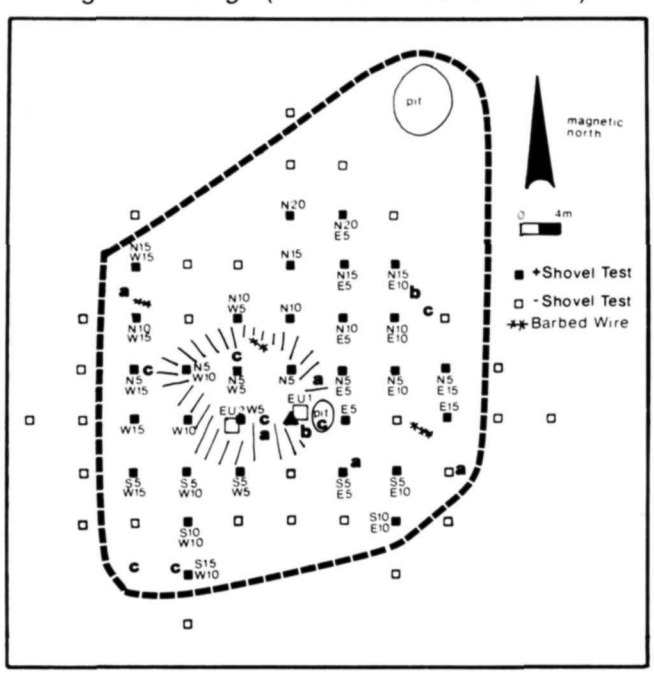
In 1988, the Southwest Regional Office of the National Park Service contracted Jill-Karen Yakubik and Herschel A. Franks of Earth Search, Inc. to conduct archaeological excavations at the six sites described above which were discovered during the field surveys of 1986-7. The purpose of this investigation was to verify that these sites were part of the remains of the Población de Barataria. Summarized below are the findings of in-depth reports submitted to the NPS which confirm that the sites are the remains of the Canary Islander settlement.[68]

In further reconnaissance, additional sites were located. More archaeological investigations are necessary to confirm assumed Canary Islander occupation at these sites.

Colonial Site 1 (16JE197)

The site measures about 48 meters N/S and 38 meters E/W at its maximum extent. An earth mound, about .7 meters in height, and measuring 14 meters N/S and 16 meters E/W, is located in the west-central portion of the site.

A small oval depression, probably a tree-fall, is located at the eastern edge of the mound. A larger (about 6 meters diameter) depression is located to the northeast of the mound. As described earlier in this chapter, such depressions are associated with most of the colonial sites and probably represent borrow pits for the construction of the house mounds and/or for the making of *bousillage* (mud and moss for wall fill).



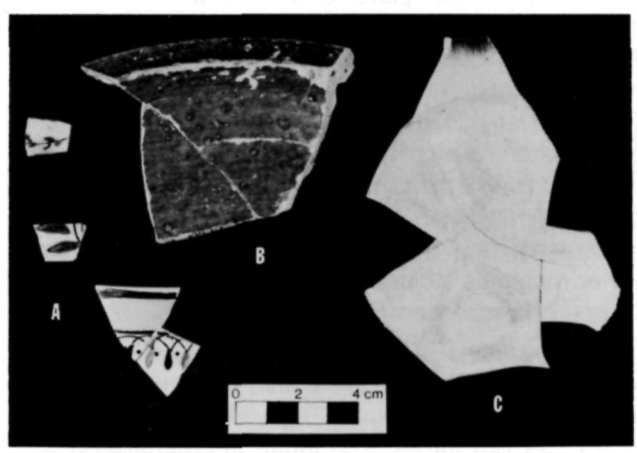
Excavation map of Site 1. a: creamware, b: pearlware, c: brick.



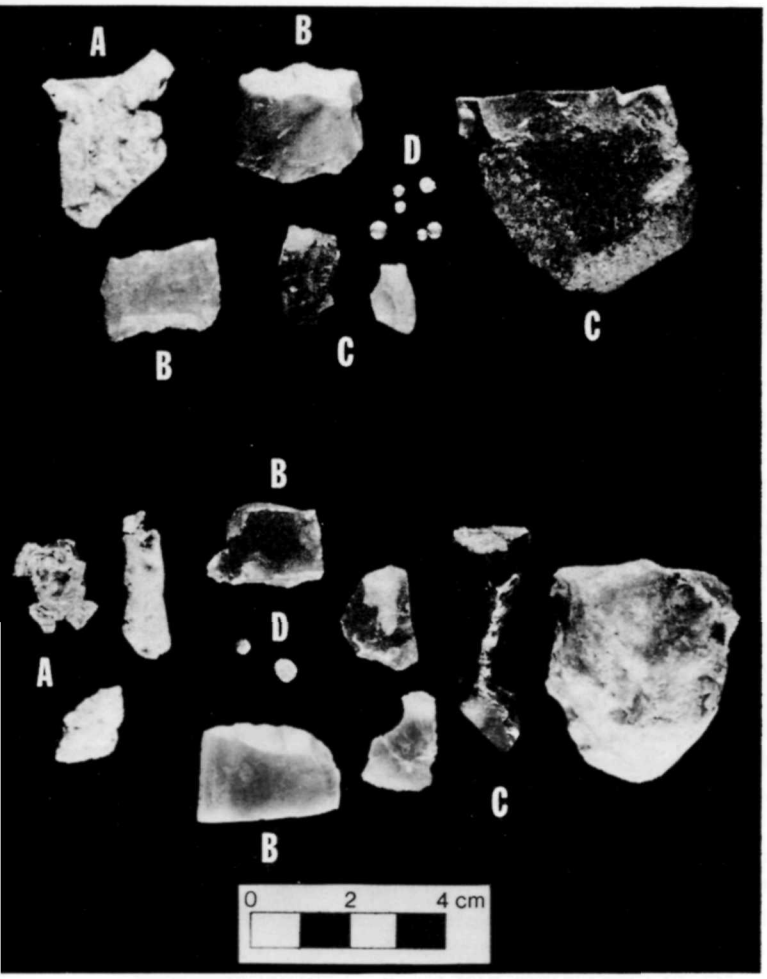
Blue hand-painted pearlware saucer from Site 1.

A 1 x 1 meter unit was excavated on the eastern slope of the mound adjacent to the tree-fall. Artifacts recovered included creamware (a late eighteenth century British ceramic type), lead glazed coarse redware, a pipestem, a gunflint fragment, brick, and a *bousillage* fragment. One square, probably wrought nail shaft fragment was recovered along with other unidentifiable metal fragments. Also, four fragments of a small bowl of Saintonge green glazed buff earthenware were found. This French coarse earthenware type has been recovered from eighteenth century French sites on Cape Breton Island, Nova Scotia (the Fortress of Louisbourg) and from Restigouche River, New Brunswick (the wreck of the *Machault*).[69]

A second 1 x 1 meter unit was excavated adjacent to a particularly rich shovel test. This shovel test yielded faunal material, three pearlware sherds, a felling axe blade broken at the eye, and a large fragment of black English flint from which flakes had been removed but



Ceramics from Site 1. A: polychrome hand-painted pearlware sherds, B: Saintonge green glazed buff earthenware bowl, C: blue shell-edged pearlware plate.



Artifacts from Site 1 (above) and Site 6 (below). A: lead scraps, B: gunflints, C: flint debitage, D: lead shot.

which still had some cortex.

Ceramics from this unit included eighteenth century French coarse earthenwares, and British creamware, and pearlware. Creamware became readily available in Louisiana earlier than pearlware. Both continued in use into the nineteenth century. Twenty-eight sherds of creamware were recovered, including a pitcher spout fragment. Both undecorated pearlware and polychrome hand-painted pearlware were collected. Also, the majority of a small, finely cast and painted, blue shell-edged pearlware plate and a blue hand-painted pearlware saucer with an Oriental motif were found. Architectural debris included many wrought nails and nail fragments, brick, *bousillage,* and burnt *bousillage.* Clothing remains included a fragment of a single-hole bone button, a small brass shank-type button, and a badly corroded piece of metal which may also have been a shank-type button. A small two-tined buckle which may have been a knee buckle was recovered. Other materials included hand-blown glass, pipe fragments, charcoal, and *Rangia.*[70]

The remains of armaments also were recovered from the second excavation unit. Gunflints manufactured from both French and English flint were collected, as well as flint flakes. The latter, in combination with the flint block collected from the adjacent shovel test, indicate that the site's residents were knapping their own gunflints. The presence of a lead fragment suggests that ammunition was manufactured on the site.

Soil was collected from the unit for wet screening through nested 1/4" and 1/16" screens. Additional artifacts collected from these soil samples included annular creamware, manganese glazed redware, pipebowl fragments, a hand-blown bottle lip, nails and nail fragments, and unidentifiable metal. Bone, *bousillage,* charcoal, and brick also were recovered. In addition, two fragments of sandstone were collected. These were probably used for grinding and/or abrasion.

Materials recovered in the 1/16" screen included glass, metal, brick, *bousillage,* burned *bousillage,* burned *Rangia,* and charcoal. Six pieces of lead shot were found, ranging in size from 3 mm to 7 mm. The surface irregularities of the shot indicates that they were probably made and/or used by the Isleños. Animal and plant remains also were collected.

One sherd manufactured by Indians was identified as Addis Plain *var. St. Catherine.* The sherd was collected during shovel testing in the northeast corner of the site.

Analysis of materials recovered during shovel testing suggests that architectural debris (brick, *bousillage,* and nails) is concentrated in three areas. All positive shovel tests located along a line bisecting the mound along its east/west axis yielded architectural remains. Additonal architectural materials were clustered to the northeast of the mound and west of the mound in a line running N/S. Another cluster of positive shovel tests containing architectural debris was located to the southwest of the mound. These architectural materials may represent the remains of outbuildings as well as a house which formerly stood on the mound.

Domestic debris was fairly evenly distributed across most of the site, except where concentrated in the area of Unit 2. This concentration suggests a refuse disposal area for the site's inhabitants, probably adja-

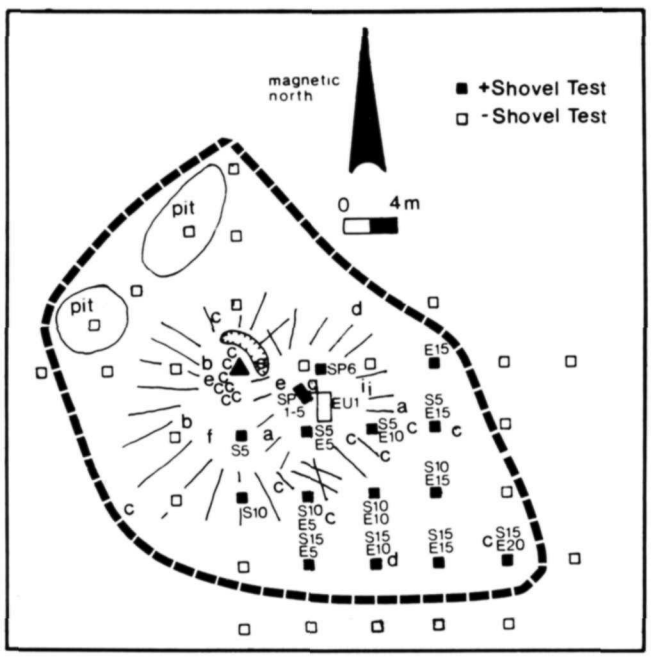


Brass shank-type button with silver leaf decoration from Site 2 (left), and part of a bone button from Site 1 (right).

cent to a doorway to the residence formerly located on the mound. The remainder of the domestic debris at the site likely represents dispersal of refuse through the action of animals, etc.

Colonial Site 2 (16JE214)

The dimensions of Site 2 are about 32 meters N/S and 36 meters E/W. Two immediately adjacent mounds, separated by a slight depression, occupy the center of the site. Each mound is about 10 meters in diameter, and about .5 meter high. At the northern edge of the western mound is a crescent-shaped depression. This probably represents a tree-fall. To the northwest of the mounds are two pits or depressions. The northern pit is 10 meters long and 4 meters wide, and the southern pit is about 4 meters in diameter. Shovel tests excavated within and between these pits recovered no artifacts.



Excavation map of Site 2. a: polychrome hand-painted pearlware; b: faience; c: creamware; d: pearlware; e: glass, f: 1 blue shell-edged pearlware, 2 polychrome hand-painted pearlware, 1 pearlware and 1 creamware; g: unglazed buff earthenware; h: modern porcelain; i: brick.

The majority of the ceramics were recovered from the surface. These included creamware (18 sherds), undecorated pearlware (four sherds), polychrome hand-painted pearlware (four sherds), and blue shell-edged pearlware (one sherd). The only two sherds of faience (French tin glazed earthenware) recovered were collected from the surface. Other surface material included one sherd of unglazed buff earthenware which probably derived from a storage vessel, and dark green blown glass. Most of this material was found on the surface of the mound. Despite this relatively dense surface scatter of artifacts, few artifacts were found in shovel tests.

A small collection of surface artifacts was made at the site by Betsy Swanson prior to archaeological investigations. It consisted of five creamware sherds, two sherds of hand-blown glass, a gunflint, brick fragments, two wrought nail fragments, and three sherds of crude, unglazed light brown pottery. The artifacts were recovered adjacent to the tree-fall. The collection was examined by Charles Pearson, George Castille, and David Kelley of Coastal Environments, Inc. They observed that the crude pottery was not comparable to any known sherds ever collected, was too poor to be Indian-made, and could represent pottery locally made by the settlers themselves.



Artifacts from Site 2. Center: 5 creamware sherds with Royal pattern. Clockwise from top: wrought-iron nail fragments; side or base of a square whiskey bottle, brownish-green blown glass; glass sherd of a wine bottle, yellowish-brown blown glass; black musket flint, whole and used; 3 pottery sherds, thick, crude, light-brown ware, poorly made and poorly fired, perhaps home-made by settlers; brick fragment.

A 1 x 2 meter unit was excavated at the location of a partially exposed brick feature on the eastern mound. Brick fragments, nails, mortar and daub were recovered while clearing the feature. Also, a kaolin pipestem fragment and a brass shank-type button with silver leaf decoration were found.

The feature consisted of broken brick, one brick course in depth. It measured about 1 meter in length and .4 meter in width. Materials recovered from the areas to the north and to the south of the feature included wrought nails, glass, brick, daub, mortar, charcoal, and bone. This debris was more heavily concentrated to the south of the feature. A concentration of daub was located on the north and south of the bricks adjacent to the west central portion of the feature. When this concentration was removed, it was found that the daub extended under the bricks for the majority of the feature's length. Thus, the bricks were laid into the daub, which probably served to hold the bricks in place.

Water screening of soil from the daub concentration on the south side of the feature yielded large fragments of daub and mortar. Bone, brick, and charcoal also



Site 2. Excavation of brick footing unit, Ken Jones, Michael Comardelle, and Jill-Karen Yakubik.

were present in the concentration.

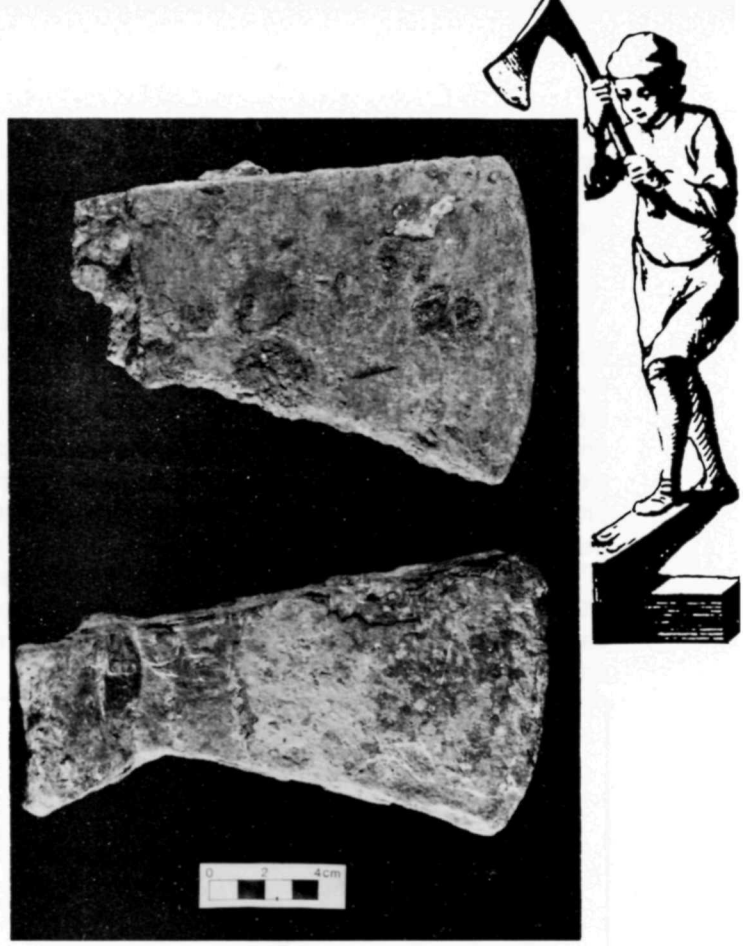
The remains of a hardened clay floor were uncovered adjacent to the southwest portion of the feature. The floor was 1 to 2 cm in thickness. Removal of the daub concentration on the south side of the feature demonstrated that the floor extended underneath the daub. This indicates that the floor was prepared and allowed to harden before the construction of the superstructure.

Beneath the hardened floor was a stratum of mottled clay. This stratum contained daub, mortar, charcoal, bone, and brick. Underlying the clay was a thin lens of charcoal. The charcoal appears to have been intentionally spread since the underlying clay showed no evidence of having been fired.

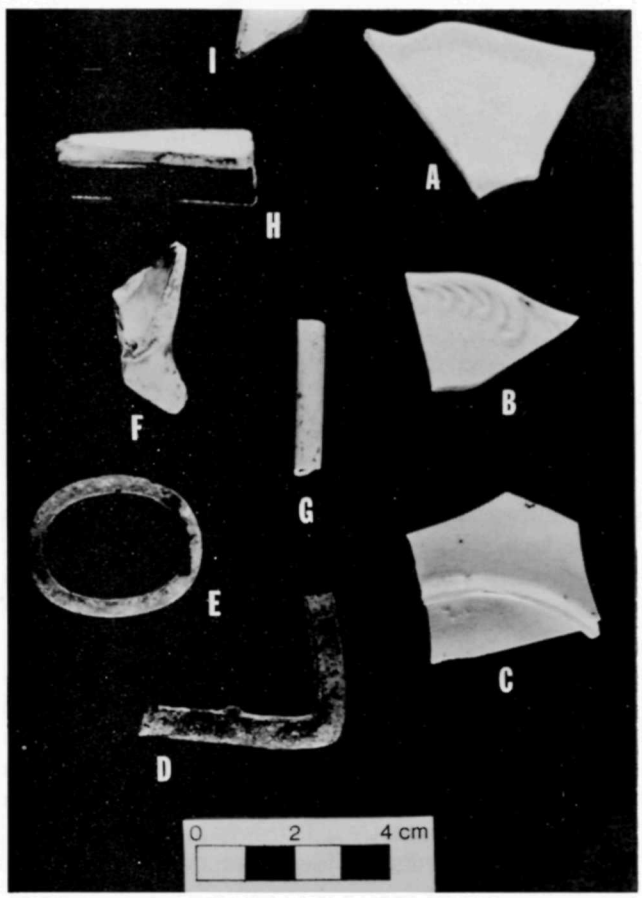
A metal probe was used to determine if the brick feature extended beyond the confines of the excavation



Site 2. Footing of broken brick and underlying layer of hardened clay.



Axe heads from Site 1 (above) and Site 2 (below).



Ceramics from Site 2. A-C: creamware, D: faience, E-G: polychrome hand-painted pearlware, H: blue shell-edged pearlware.

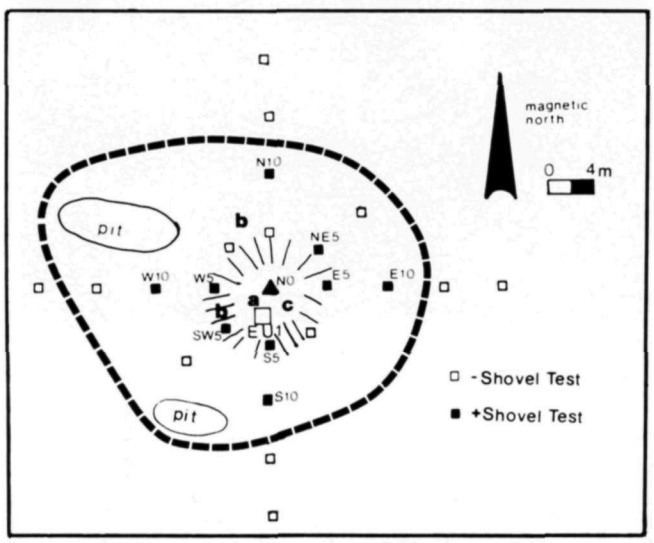
unit. No additional structural remains were found, but brick fragments, creamware, coarse earthenware, nails, glass, daub, charcoal, bone, and metal were recovered from the west of the feature. In addition, an axe head was found north of the excavation unit. Like the axe from Site 1, it was a felling axe broken at the eye.

Because the brick feature did not extend beyond the limits of the excavation unit, it has the appearance of a support for a pier rather than remains of a continuous wall foundation. This possibility would suggest that the floor was from an earlier construction episode. However, it is possible that this is the only preserved portion of a continuous foundation, and it may have supported a squared log sill.[71]

Spatial patterning of the subsurface cultural remains may suggest the presence of a second structure located to the southeast of the mound. Architectural debris consisting of brick and nails was concentrated in shovel tests in this area. Creamware and pearlware were collected from both the shovel tests and from the surface, suggesting that if a second structure was formerly located here, it probably had a domestic function.

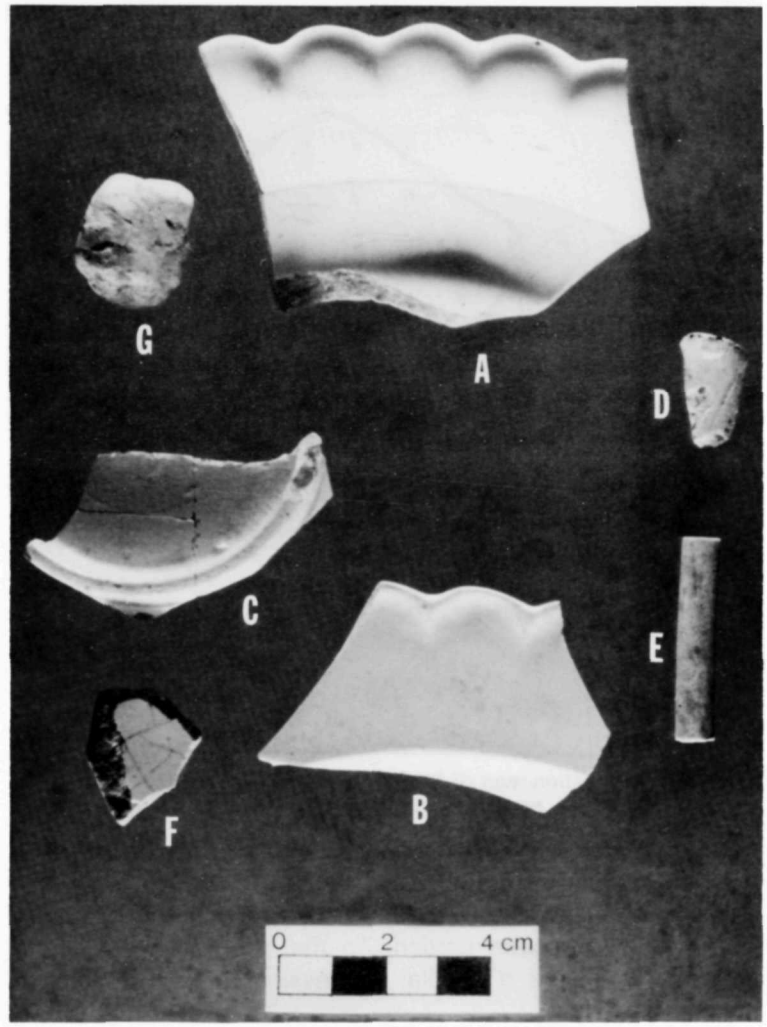
Colonial Site 3 (16JE215)

The site measures 26 meters N/S and 34 meters E/W at its maximum extent. A mound located in the center of the site, measures about 12 meters in diameter and about .75 meters in height. To the northwest of the mound is a depression or borrow pit similar to those at other sites. This pit measures about 10 meters by 4 meters.



Excavation map of Site 3. a: 10 creamware, 1 pipestem, 1 *bousillage*, 1 square nail; b: lead glazed redware; c: brown faience.

Artifacts recovered from shovel tests included Saintonge green glazed buff earthenware, lead glazed redware, creamware, blown glass, and *bousillage*. A 1 x 1 meter unit was excavated in the southwest corner of the mound. Artifacts recovered included creamware, a sherd of pearlware, blown glass including a wine bottle kickup, pipe fragments, wrought nails and nail fragments, brick fragments, *bousillage*, and a spike.



Artifacts from Site 3. A-C: creamware, D-E: kaolin pipe fragments, F: faience, G: *bousillage*.

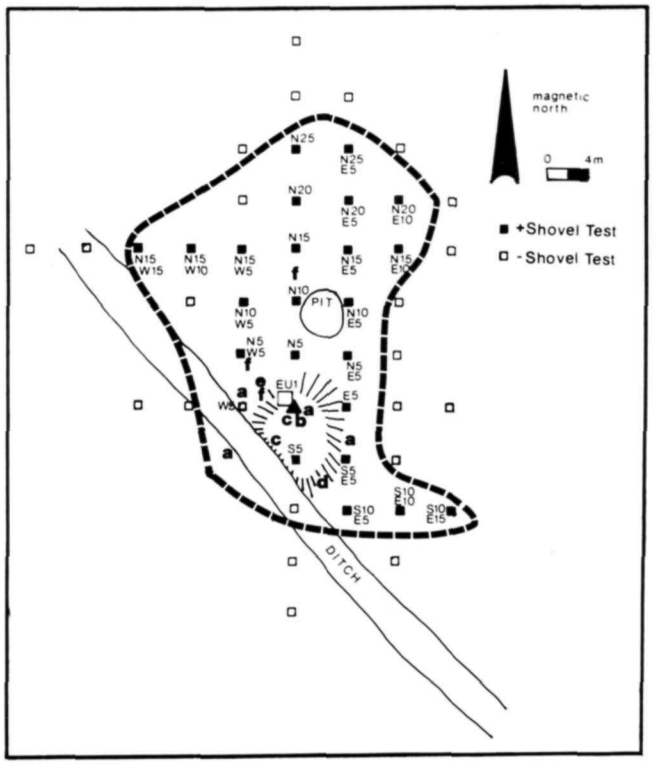
The artifact density at the site was lower than that at Sites 1, 2, 4, and 6. The relatively light artifact density and the limited horizontal extent of the scatter suggests that this site was occupied for only a short period of time. The light scatter across the site appears to represent random dispersal of refuse.

Colonial Site 4 (16JE198)

The site measures 40 meters N/S and 30 meters E/W at its maximum extent. A mound, about .75 meter



Site 4. Looking SSE.



Excavation map of Site 4. a: faience, b: pipebowl, c: redware, d: glass, e: sandstone, f: brick.

high and 12 meters in diameter along its N/S axis, is located in the southern portion of the site. The site, including the mound, was cut by a drainage ditch in its southwestern portion. To the north-northeast of the mound is a circular depression about 5 meters in diameter.

A 1 x 1 meter unit was excavated on the north slope of the mound. A dense scatter of brick fragments was concentrated along the east wall of the unit. The majority of artifacts recovered consisted of brick fragments, although *bousillage,* a spike, nails, faience, Saintonge green glazed buff earthenware, and wine bottle fragments also were collected. In addition, several *Rangia* fragments with adhering mortar were found. This confirms the use of local shell for construction mortar.

Ceramics found on the surface and during shovel testing include a wide variety of coarse earthenwares and faience. Only one sherd of creamware was recovered. Other materials include blown glass, pipe fragments, wrought nails and nail fragments, brick, *bousillage, Rangia,* charcoal, and bone. A fragment of sandstone was collected from the surface.

Four ceramic sherds manufactured by Indians were collected from shovel tests in the northernmost portion of the site. These were classified as Addis Plain *var. St. Catherine* (two), Maddox Engraved *var. unspecified* (one), and Moundville Incised *var. Buras* (one). As discussed below, it is likely that Indian pottery was used by the site's Canary Islander inhabitants.

The highest concentration of brick in shovel tests occurred along and roughly parallel to the ditch. This suggests that architectural debris was deposited in the spoil on the eastern bank of the ditch when it was constructed. *Bousillage* was recovered only from the excavation unit on the mound and from shovel tests immediately adjacent to the pit.

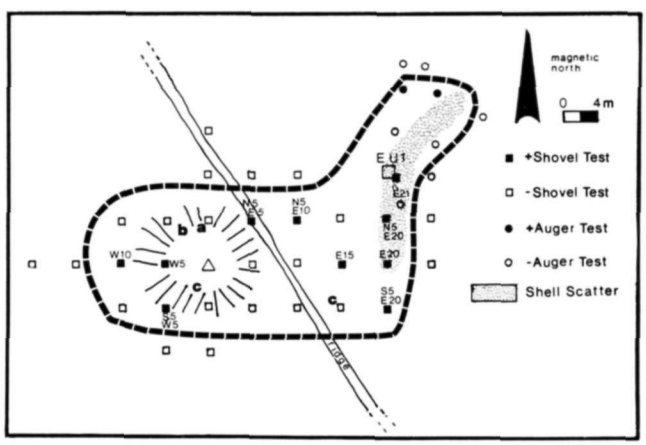
The patterning of domestic debris at this site appears to differ from that seen at Sites 1, 2, and 3. Only one sherd of glass was recovered from a shovel test in the area south and southwest of the pit and including the mound, although ceramics, glass, and a pipe fragment all were found on the surface of or adjacent to the mound. Similarly, relatively little ceramics and glass were recovered from the excavation unit. However, European ceramics, a pipe fragment, and/or faunal remains were recovered from 9 of the 14 positive shovel tests north and northwest of the pit. This may suggest that the site's inhabitants kept the area immediately adjacent to the residence fairly free from debris, and that they disposed of the majority of their household refuse to the north of the mound.

Colonial Site 5 (16JE199)

The site includes a low mound about .3 meter high and 13 meters in diameter. To the east of the mound and extending in a northwest-southeast direction is a linear ridge about 1 meter wide and .2 meter high, skirting the northeast edge of the mound. Documentation and previous field surveys indicate this ridge is related to 1910 subdivision road construction (see Chapter VIII). To the east of the mound and the ridge



Site 5. Looking NE.



Excavation map of Site 5. a: creamware, b: creamware not collected, c: brick.

is a crescent-shaped shell scatter about 22 meters NE/SW and 4 meters wide. It is located on a very slightly elevated feature. Maximum site dimensions are 30 meters N/S and 44 meters E/W.

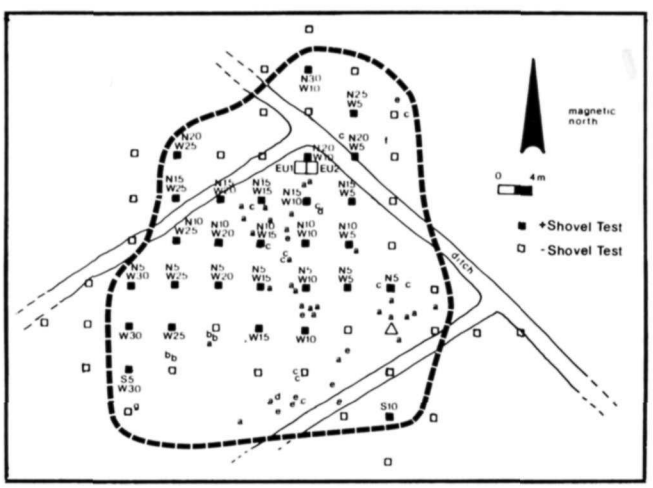
Shovel tests at the site recovered *bousillage,* brick fragments, a nail, charcoal, and bone. The *bousillage* was concentrated on and adjacent to the southwest corner of the mound. The nail also was found in this area.

Two sherds of creamware were noted on the surface at the time the site was initially inspected. These were flagged for later collection, but only one was found when the crew returned to define the site. These were the only European ceramics noted. In addition, one aboriginal sherd classified as Addis Plain *var. St. Catherine* was recovered. The limited number of artifacts from this site may suggest that the site was only occupied for a very brief period of time.

A 1 x 1 meter unit was excavated in the shell scatter to attempt to determine whether it was European or aboriginal in origin. A dense lens of *Rangia* was found between 7 and 17 cm below the surface. No artifacts were recovered from the unit. However, a fragment of blown glass was found on the surface of the unit.

Colonial Site 6 (16JE216)

This site is located within the formerly plowed fields of Christmas Plantation (see Chapter VI). It measures about 44 meters N/S and 40 meters E/W. Three of the plantation ditches cross the site.



Excavation map of Site 6. a: brick, b: oyster shell, c: creamware, d: faience, e: Southern French storage jar, f: coarse earthenware, g: pearlware.

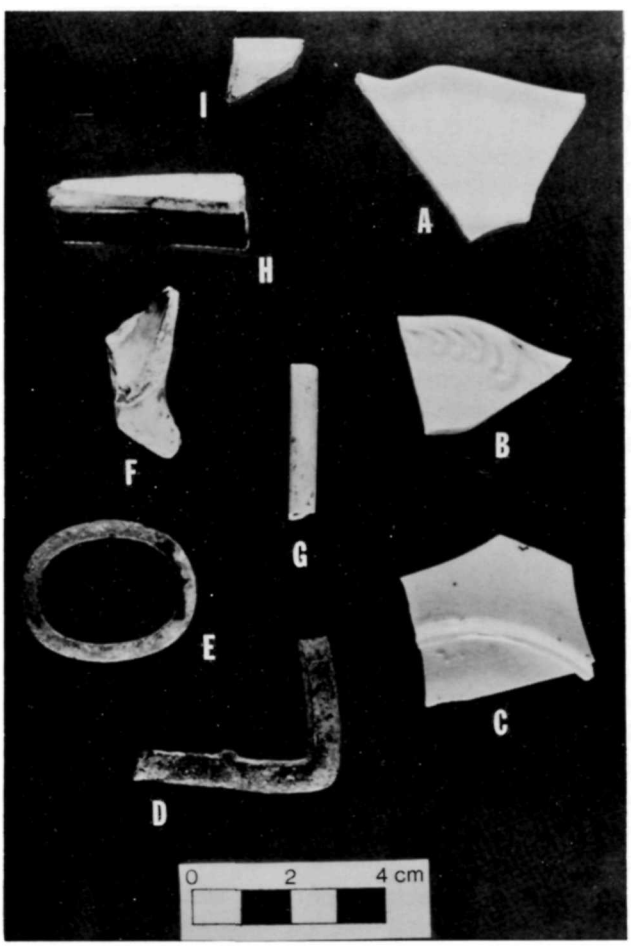
Surface artifacts were relatively dense at the site. They included brick, creamware (13 sherds), brown faience (two sherds), and European coarse earthenwares (11 sherds). Ten of the latter appeared to derive from large storage vessels, and seven of these possibly derived from a single, yellow glazed storage vessel manufactured in southern France. The only pearlware sherd collected from the site was recovered from the surface.



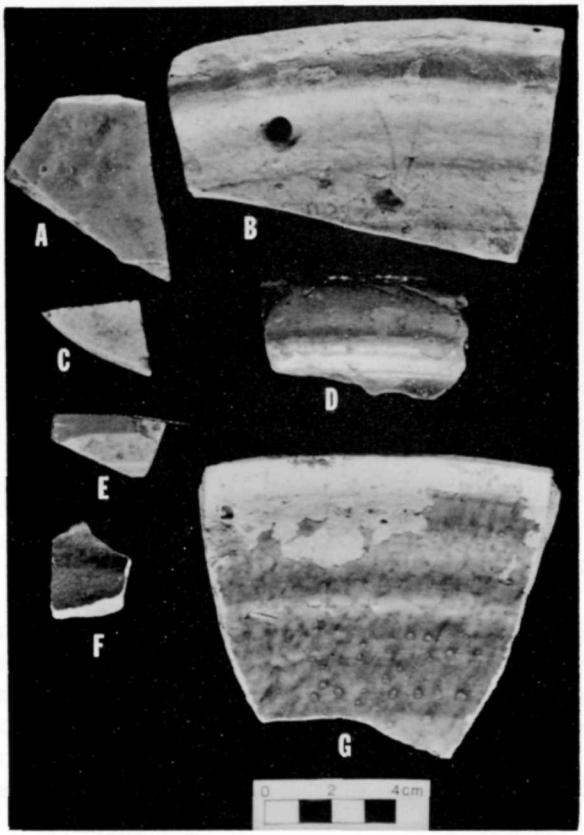
Site 6. Excavation of unit, Ken Jones, Michael Comardelle, Herschel Franks, Jill-Karen Yakubik, and Frank Ehret, Jr.

One shovel test revealed a dense concentration of domestic architectural debris, including Saintonge green glazed buff earthenware, glass, nails, and large amounts of brick. This area, located at the junction of two plantation ditches, was evidently too close to the ditches to have been plowed. A 1 x 2 meter unit was excavated here.

Artifacts, including historic and aboriginal ceramics, glass, brick, *bousillage,* bone, and nails were recovered from the upper two strata in the unit, but artifact density



Artifacts from Site 6. A-C: creamware, D-E: buckles, F-G: kaolin pipe fragments, H-I: faience.



European coarse earthenwares from Site 6. A-B: lead glazed redware; C: redware, interior white slip and lead glaze; D-E: trailed slip redwares; F: Albisola slipped; G: Saintonge green glazed buff earthenware.

was relatively low. Underlying these was an artifact-rich stratum. Ceramics recovered from it included Saintonge green glazed buff earthenware, lead glazed redware, slipped and glazed redware, faience, and creamware. Albisola slipped redware, a type that was manufactured in northern Italy and is common on late eighteenth century French sites, also was found. Blown bottle glass also was collected, as well as a buckle, pipe fragments, gunflints and flint debitage, lead shot and lead fragments, and metal. Sandstone also was recovered from the unit. Architectural debris included wrought nails and nail fragments, brick, *bousillage,* and burnt *bousillage.* A relatively large quantity of animal bone was collected.[72]

Aboriginal ceramics were recovered from this unit in direct association with the European material. These sherds were analyzed by Marco Giardino. They included 32 decorated sherds, mostly of the type Maddox Engraved. The Indian ceramics from Site 6 probably represent the fragmented remains of a few dozen vessels. The relatively large number of aboriginal sherds collected here, and the smaller numbers collected at Sites 1, 4, and 5, indicates that the European settlers were trading with Indians who probably also lived somewhere in the Barataria region. The Indian wares were obtained by the Canary Islanders either for their contents and/or for the containers themselves.

Soil was collected from the stratum for water screening. Additional faience, coarse earthenware, creamware, and aboriginal ceramics were collected from the 1/4" screen, as well as glass, gunflint fragments, pipe fragments, nails, unidentifiable metal, brick, mortar, *bousillage,* bone, and charcoal. Small ceramic fragments were collected from the 1/16" mesh, as were fragments of tin glaze which had chipped off the ceramic body. Glass, gunflint fragments, shell, and bone all were collected from the fine screen, and brick, *bousillage,* burnt *bousillage,* mortar, charcoal, and metal were all present. Lead shot (2 to 4 mm diameter) similar to that from Site 1 was collected.



Rim of a Southern French storage jar from Site 6.

Four additional sites were identified in 1989. No subsurface testing was undertaken.

Colonial Site 7

The site is located about 60 meters north of Site 1. A low (.3 meter height), poorly defined mound about 6 meters in diameter is present. Brick fragments and one sherd of creamware were noted on the mound. Two depressions are located to the west and northwest of the mound. These measure about 3 and 5 meters in diameter, respectively. The proximity of this site to Site 1 suggests that the two may be related. The documentation states that Site 1 was occupied by the Widow Olivares. This may be the site of one of the three slave cabins that were located on her property.

Colonial Site 8

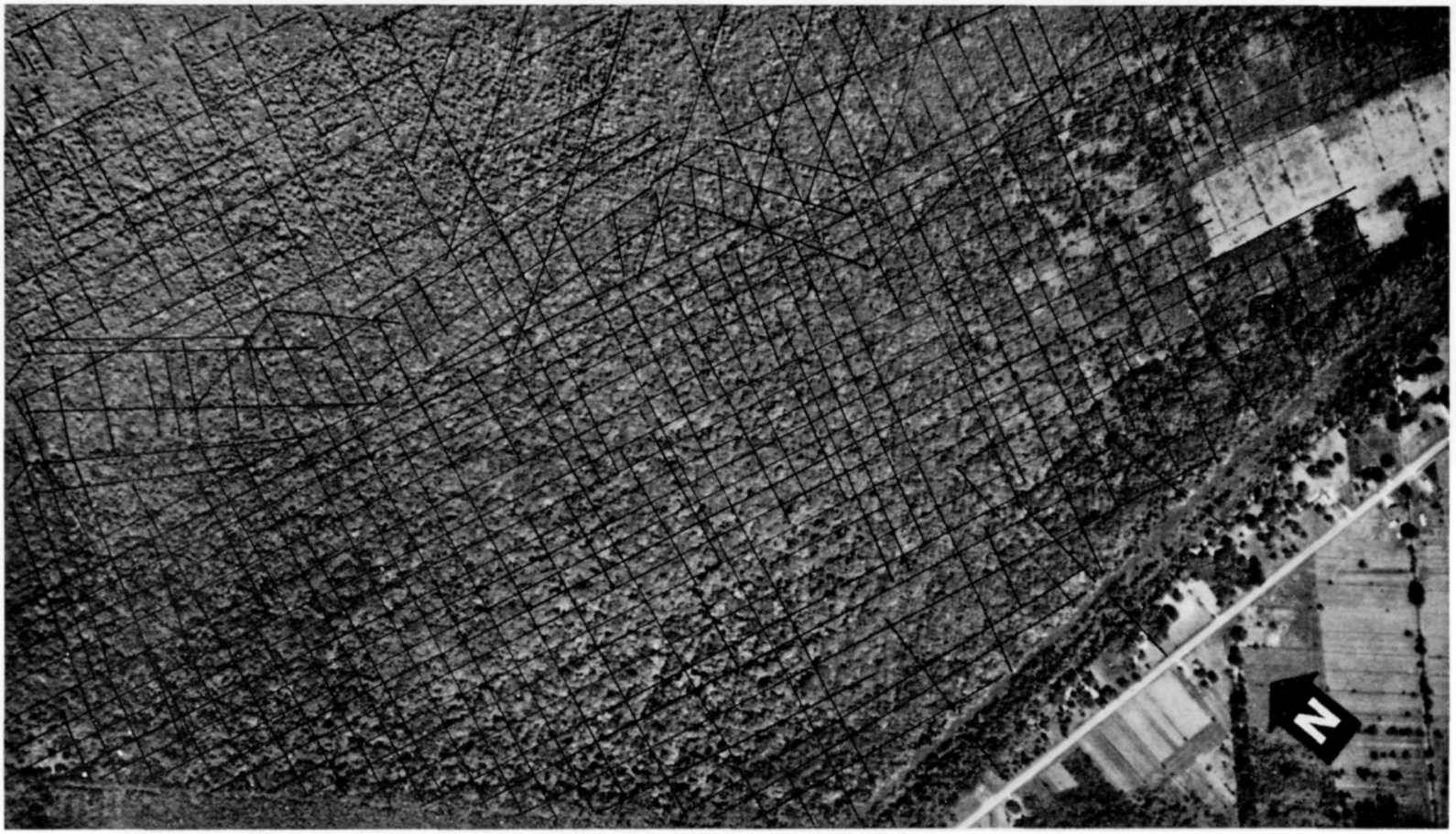
The site is located between Sites 3 and 4. A mound, the prominent portion of which measures about 7 meters in diameter, is present. It is about .5 meter high. Two brick fragments, a creamware sherd, and a blue hand-painted pearlware sherd were found on the mound. A depression is located southeast of the mound.

Colonial Site 9

The site is located north of Site 3. One fragment of daub was observed on the mound. The mound is about .4 meter high, and the most prominent portion of it measures about 7 meters in diameter.

Colonial Site 10

The site is located NE of Site 7. It consists of a mound measuring about 12 meters in diameter. One brick fragment was found on the mound.



Tree-lines delineating the farm plots and field systems of the Población de Barataria in the vicinity of the south end of the park, visible in air photo of May 17, 1945, National Ocean Survey, C & GS 20 La. 1250 29 90 C 2790, National Archives, Washington, D. C.

In 1990, the sites at the south end of the park were surveyed and surface artifacts were flagged with the assistance of volunteers from the Louisiana Archaeological Society and park rangers. Archaeologists Charles Pearson and Richard Fuller of Coastal Environments, Inc. offered to tour and evaluate the sites. The surface finds were collected and bagged at that time. Fuller was contracted by the Park to analyze the artifacts in a report entitled "Identification and Analysis of Artifacts from Thirteen Sites in and Adjacent to the Barataria Unit of the Jean Lafitte National Historical Park, Jefferson Parish, Louisiana." The following site descriptions are partly derived from his report and from Pearson's observations.

Colonial Site 11

The site is located 3 arpents SE of Site 13 which lies at the W corner of the Barataria Road and the Christmas Plantation Headquarters Road. Site 11 was disturbed by construction of the Barataria Road which, at this location, passes for about 60 meters through a scattering of shell and artifacts.

A linear elevation measuring 9 by 45 meters is located E of the Barataria Road. On it were found an olive green, blown glass bottle sherd; iron fragments, possibly of a kettle and a square nail; a brick fragment; bone; and an undecorated historic Indian potsherd. A metal detector determined that more metal is buried in the mound. The Camino Real passes to the NE of the mound.

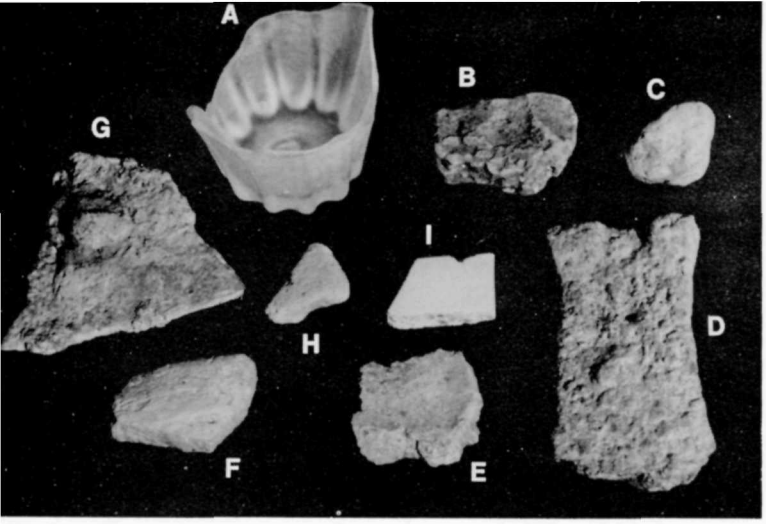
Colonial Site 12

The site is located 3 arpents SE of Site 11. The house mound measures 12 by 18 meters, but cultural material is scattered over a larger area. An animal hole shows that *Rangia* shells are located within the mound to a depth of at least 30 centimeters.

The collected artifacts consist of a creamware sherd; part of a wrought-iron strap-hinge with a flared shape; a piece of iron kettle or shovel; an olive green wine bottle lip dateable to 1780-1810; a clear, blown glass, rib-moulded tumbler base with a rough pontil; soft brick fragments; a lump of *bousillage*; and a piece of finger-shaped, baked clay, probably a coarse earthenware sherd. Also collected were 3 prehistoric Indian sherds of the types Baytown Plain *vars. Satartia* and *unspecified*, probably dating from the late Marksville to early Troyville Periods (200-500 A.D.).

Colonial Site 13

The site is located 3 arpents NW of Site 11, at the W corner of the Barataria Road and the Christmas Plantation Headquarters Road, in former sugarcane field and pecan orchard. The artifact scatter was dragged by the plow for 60 meters in a SW direction, but was concentrated in a 30 meter square area near 2 linear river bank shell middens. The middens, which are situated about 18 meters apart and run NW-SE, contain clam, oyster, and some whelk shells. They bordered bank line ridges that have been leveled by the plow.



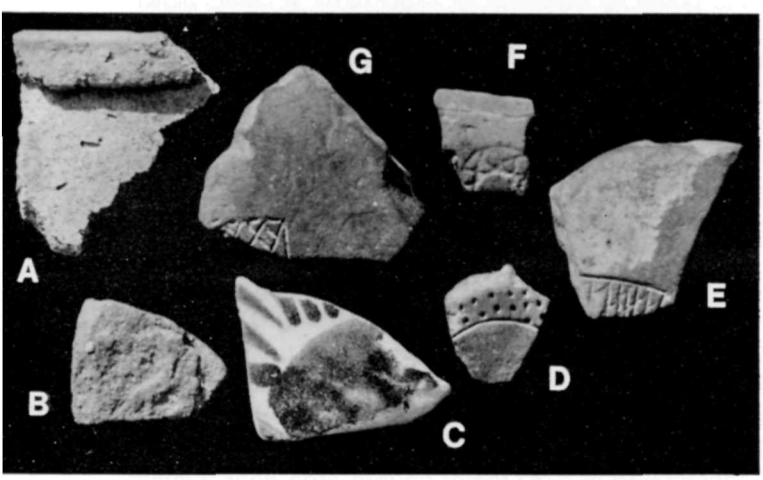
Artifacts from Site 12. A: rib-moulded, blown glass tumbler base; B: brick fragment; C: *bousillage*; D: pivot end of a wrought-iron strap-hinge; E: Baytown Plain *var. unspecified* Indian potsherd; F: Baytown Plain *var. Satartia* rim; G: iron kettle fragment; H: finger-moulded, baked clay, probably European earthenware; I: creamware.



Site 14, looking SW. House mound examined by John Polk, Charles Pearson, Ranger David Muth, and Rick Fuller.

They continue on the opposite side of the Christmas Road where prehistoric Baytown Plain *vars. Troyville* and *unspecified* sherds were collected. These sherds indicate aboriginal occupation of the natural levee from the late Marksville to Coles Creek Periods, about 200 to 700 A.D.

The house mound has been obliterated, but the concentration of surface artifacts indicates that it was located nearby. European earthenwares collected consist of soft-paste, tin-glazed, hand-painted Puebla Blue on White majolica (4 sherds); soft-paste, green lead-glazed with underglaze white slip Saintonge ware (1 sherd); soft-paste, glaze missing with underglaze white slip, possible Saintonge ware (3 sherds); soft-paste, unglazed, unslipped ware (2 sherds); hard, gritty paste, yellow interior lead-glazed storage vessel (2 sherds); hard, gritty paste, green interior lead-glazed storage vessel (3 sherds); hard, gritty paste, unglazed storage vessel (9 sherds, 3 with wheel-throw marks).



Ceramics from Site 13: A-B: hard, gritty paste, lead-glazed interior European ware; C: Puebla Blue on White majolica; D: historic Indian zoned punctated ware similar to the type Owens Punctated; E-G: historic Indian zoned cross-hatched ware similar to the type Maddox Engraved *var. Emerald*.

These European ceramics are comparable to those recovered from the other Spanish house sites in the park, except that Spanish majolica, rather than French faience, was collected, and no British refined earthenwares were found. The historic Indian sherds collected are also comparable to others recovered from *población* sites. They consist of 4 decorated sherds similar to those previously classified as Maddox Engraved *var. Emerald* from nearby Site 6, an unclassified zoned punctated sherd probably descended stylistically from the type Owens Punctated, and 7 plain sherds.

Other materials collected include soft brick fragments; *bousillage* lumps; a piece of ground sandstone; a clear blown glass sherd, dark green blown bottle glass sherds; and bone of a large bird, perhaps turkey or heron.

Colonial Site 14

The site is located 3 arpents SE of Site 15. The house mound measures 15 by 23 meters and is about 1 meter high. It is located on an especially elevated ridge of the natural levee. The Camino Real passes on both sides of the house mound. Two soft brick fragments and a few *Rangia* shells were found on the site.

Colonial Site 15

The site is located 3 arpents NW of Site 14 and 3 arpents SE of Site 12, on the Camino Real. The house mound measures 12 meters in diameter and is situated on an elevated ridge 18 meters wide by 40 meters long. Adjacent to the mound are 3 small pits.

Rangia and oyster shell are scattered over the mound. Materials collected include soft brick fragments; chalky lime mortar or wall plaster; a thin, light green blown glass sherd; 2 iron pot fragments; and a prehistoric Baytown Plain *var. unspecified* sherd. Modern metal and glass, probably dumped during oil exploration of the 1960s, were also collected. A large iron pipe about 3 meters long lies by the side of the road nearby, where it apparently fell off a passing truck.



An agricultural ditch of the Isleño village, running through the swamp at 20°, channels waters of Bayou aux Carpes.

Aboriginal potsherds were also collected from some of the earth and shell mounds situated in between the house mounds and from adjacent bank line shell middens. All of the sherds are prehistoric, dating from the Marksville, Troyville, Coles Creek, and Plaquemine Periods, or from about 200 A.D. to 1500 A.D. (see Chapter I).

The materials collected for analysis from the sites on the natural levee at the south end of the park provide evidence of frequent utilization of the Bayou des Familles levee crests from about 200 A.D. to modern times. The mixture of prehistoric and historic artifacts on the surface of the Canary Islander house mounds indicates that the houses were built upon Indian middens. Excavations would be necessary to determine if the mounds are composed of undisturbed middens, or if midden material was used by the Spanish to construct the mounds, or if the mounds represent both possibilities.

Reinvestigation of the series of mounds at the north end of the park might clarify the relationships of the aboriginal and European materials recovered from the house mounds. Further tests would probably show that the entire length of the Spanish village is superimposed upon aboriginal sites dating as early as the Marksville Period. Excavations all along the levee crest might revise local ceramic chronologies and introduce new type names and definitions for the regional characteristics and decorative styles of the aboriginal pottery of Barataria. Of special interest is the historic presence of the indigenous Ouachas and Tchaouachas Indians in the study area, their relationship to the colonial settlers, and the provenience of the decorative motifs of their pottery.

Additional archaeology could extend the layout of the Spanish village. Further excavations might also recover artifacts from the Canary Islands and could reveal a greater frequency of British refined earthenwares, especially pearlware which was thought not to have been invented until after the Población de Barataria was laid out.





Detail of "Plan Del Local De las tierras que Rodean la Ciudad de Nueva Orleans," June 1, 1803, traced from original in Howard Library (now in HNOC) for Works Progress Administration Soil and Foundation Survey, F. S. Porter, draughtsman, June, 1936, State Land Office, Baton Rouge.

CHAPTER IV

SETTLEMENT OF THE LATE SPANISH PERIOD

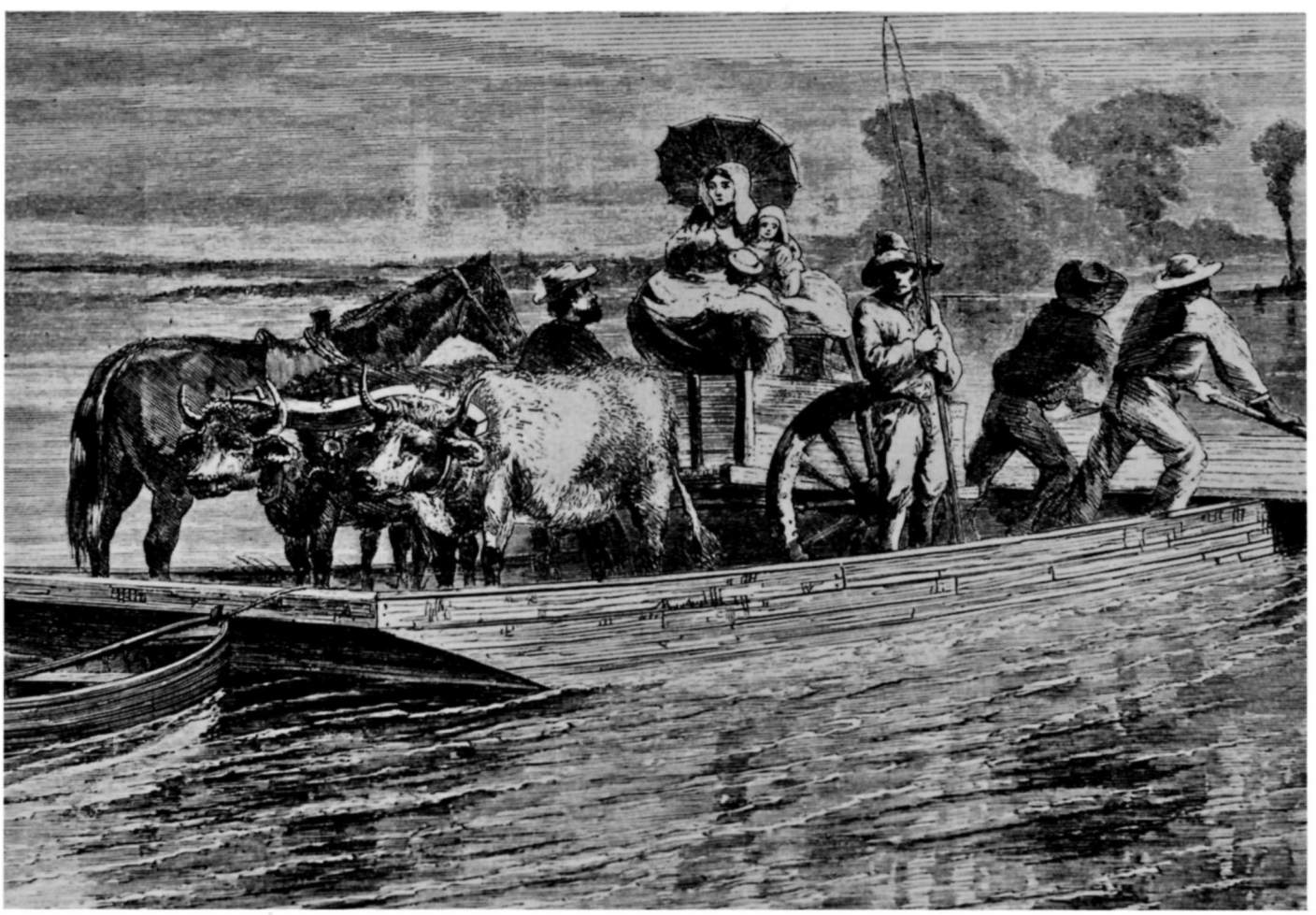
The Spanish government regranted the abandoned lands of the Población de Barataria in the last decade of the eighteenth century. Most of the new grants were large, measuring 20 or 40 arpents of frontage by 40 in depth on both sides of Bayou des Familles. The large grants were made to induce settlers to remain on the bayou, even though there were only narrow widths of arable and grazing land that were above the level of frequent floods.

The complete record of Spanish grants on Bayou des Familles has yet to be found because of broken chains of title. Many grants were abandoned when floods drove grantees from their tracts. These grants were nullified by the Spanish government, and the vacated lands were then regranted or were left unoccupied for years.

By the nineteenth century, the tracts that had composed Spanish grants were in litigation with those of the crossing 10-arpent tracts subdivided from the Dauterive property in 1768. According to the court proceedings and the judgments rendered, both record and memory had been lost of the position and relationships of a number of the Spanish tracts.[1]

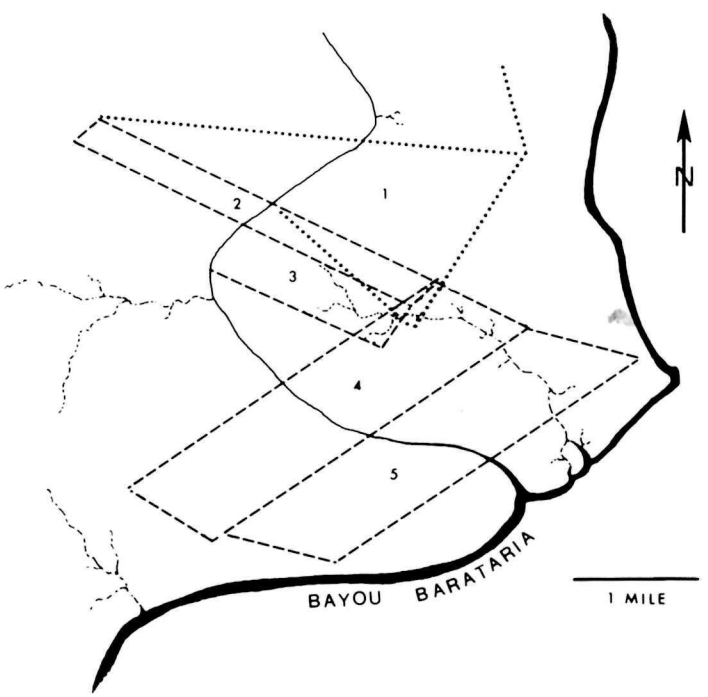
Some Spanish grants were surveyed and certified by the United States Surveyor General's Office in the early nineteenth century, and the positions of these tracts are identifiable. Most of these were granted in the 1790s by Spanish Governor Luis Francisco Héctor, Baron de Carondelet. The Barataria settlement was not regarded by Carondelet as having military importance. He rather advised in 1794 that a fortification be constructed on Grande Terre Island on the Gulf of Mexico at Barataria Pass to guard against enemy invasion via Bayou Barataria and Bouligny's (formerly Dubreuil's) Canal which connected with the Mississippi River. In settling vacant lands on Bayou des Familles, Carondelet was adhering to the long-established Spanish policy of populating the colony by encouraging agriculture and livestock raising.[2]

On upper Bayou des Familles, at the rear of the



riverfront plantations, Carondelet granted a parcel that measured 25 by 30 arpents to Joseph Enoul Dugué Livaudais in 1797. Small plots that had apparently been previously laid out for Canary Islanders were acquired by Joseph Montegut, royal surgeon of the New Orleans Cabildo, and Martha Dauphin, a free-woman-of-color, in 1796. The Montegut tract measured 6 by 40 arpents, and the Dauphin tract measured 12 by 40 arpents. Moving downstream, a tract measuring 40 by 40 arpents on both sides of Bayou des Familles was granted to Carlos Juan Bautista Fleuriau, a prominent official of the Spanish Cabildo, in 1797. Some grantees did not live on their properties but placed others there to farm, raise livestock, and exploit the resources. Fleuriau and Livaudais each had a plantation on the Mississippi River and a large tract of land on the west side of Lake Salvador.[3]

Below the Fleuriau tract, Carondelet granted 15 arpents fronting both sides of the bayou by 40 arpents in depth to Antonio Vart in 1794. Vart requested a tract located "where once were established the Isleño families" in order that he might operate a cattle ranch. Royal Surveyor Carlos Trudeau noted on Vart's grant application that the tract was "part of the land that was abandoned about twelve years ago by the Isleño families who came here then moved to the St. Bernard Establishment at English Turn where they were granted other lands." Carondelet made the grant with the condition that Vart make a road and clearings within one year and that he live on the land and have it under cultivation within three years.[4]



LAND GRANTS OF THE LATE SPANISH PERIOD

1. **Antonio Vart from Governor Carondelet, October 15, 1794, for 15 arpents on the upstream side; and Nicolas Daumé or Domé or Daumais) from Governor Carondelet, August 21, 1794, for 12 arpents on the downstream side.**
2. **Pablo Suárez Ruiz from Governor Casa-Calvo, April 2, 1800, for 7 arpents and 8 toises in front, by 40 depth, on both sides of Bayou des Familles.**
3. **Daumé grant in location later claimed by John McDonogh.**
4. **Louis Pelteau from Governor Carondelet, September 3, 1794, for 20 arpents in front, by 40 in depth, on both sides of Bayou des Familles.**
5. **Juan or Jean Normand from Governor Carondelet, March 20, 1794, for 20 arpents in front, by 40 in depth, on both sides of Bayou des Familles.**

Adjoining the Vart tract on the downstream side was the grant of Nicolas Daumé (also spelled Domé and Daumais). He received 12 arpents on both sides of Bayou des Familles by 40 arpents in depth from Governor Carondelet in 1794. The Daumé tract is discussed more fully below, because nineteenth century litigations placed the tract further downstream, within the park. Early records show that the lower Daumé property line was actually that which now forms the upper boundary line of the park at the protection levee.[5]

Within the present park lay the tract granted to Louis Pelteau by Governor Carondelet in 1794 for 20 arpents of frontage by 40 arpents of depth on both sides of the bayou. Pelteau's lower property line forms the lower boundary line of the park. It was adjoined below by another Carondelet grant of 20 by 40 arpents, also made in 1794, to Jean Normand, who sold it in 1800 to Jean Joseph Jourdan.[6]

Another grant documented to have lain within the park was that made in 1800 by Governor Sebastián Calvo de la Puerta y O'Farrell, Marqués de Casa-Calvo, to Pablo Suárez Ruiz, a Canary Islander. The grant was for about 7 arpents of frontage on both sides of the bayou by 40 arpents in depth. The upper line of the grant adjoined the lower Daumé property line.[7]

Documentation shows that other farms and ranches were located on Bayou des Familles in the late Spanish Period, but records do not specify the positions of these properties. Governor Carondelet made a 20 by 40 arpent grant in 1795 to Juan Bautista Cezan (also spelled Saizan, Zeizan, and Seisan), alias Austible. Cezan requested his tract for the "purpose of supporting his numerous family." He asked for 20 arpents on both sides of the bayou because the lands had "in greatest width only two arpents that are cultivatable," the rest being "continuously flooded." Cezan petitioned for vacant land "between Pelteau and Sánchez," which Surveyor Trudeau certified as being part of lands vacated for 12 years by Canary Islanders who had been moved to English Turn. Records do not show if Cezan actually occupied the land. He also had a plantation on the river opposite New Orleans.[8]

The 20-arpent tract that Cezan requested above that of Pelteau is defined at its upper boundary by an earthen levee measuring about 3 feet high and 15 feet wide at the base. It is bordered on both sides by a ditch. Such double-ditch-and-levee constructions, surmounted by a fence, were standard property divisions in the eighteenth and early nineteenth centuries. The levee stretches nearly half a mile across the old river



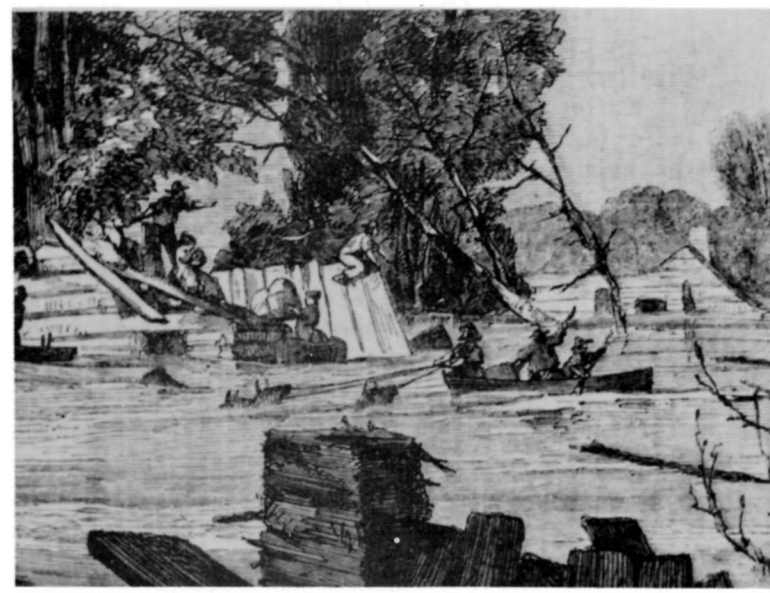
Double ditch and levee marking the upper boundary of the Spanish land grant of 1795 to Juan Bautista Cezan, enlarged during the post-Civil War plantation period and used as a raised road bed and bridge crossing of Bayou des Familles known as the Old Derrick Road. Looking NE.

bed. It probably also served to control floods in the meander bend and was undoubtedly enlarged during the post-Civil War plantation period. In the early twentieth century, the so-called "Old Derrick Road" ran on top of this levee, with a wooden bridge crossing at Bayou des Familles (see Chapter VIII).[9]

The levee has the same compass bearings as those of the Pelteau and Normand grant lines. The presence of the levee suggests that Cezan brought the tract under cultivation, and that a dwelling associated with his ownership was built upon it. One Spanish Colonial house site has been located within the tract. Archaeological analysis of the ceramics found on this site, described as house site no. 6 in the Población de Barataria, indicates that it represents an earlier Canary Islander habitation site (see Chapter III). Additional surveys are needed to locate other archaeological sites of the Spanish Colonial Period that undoubtedly exist within the 20-arpent tract. The tract was entirely cultivated with sugarcane in the post-Civil War period, and later, partly with a pecan orchard.

While new land grants were being made on Bayou des Familles in the late eighteenth century, some Canary Islander families remained there on plots they had earlier been allotted by the Spanish government. The positions of these plots are yet to be documented. Cezan's grant petition specified that the land on the upper side of the tract he requested was occupied by "Sánchez." Other records verify that the farm of Canary Islander Francisco Sánchez was located in the vicinity of the confluence of Bayous des Familles and Coquilles. His plot probably occupied a portion of the wedge of land that lay between the apparent Cezan tract and the Suárez property, straddling Bayou des Familles near Bayou Coquilles. His house was said to have been located on the east bank of this bend of Bayou des Familles, near the Camino Real. It is likely to have been that described as house site no. 2 of the Población de Barataria, as suggested by ceramic evidence (see Chapter III).[10]

Francisco Sánchez was settled in the *población* in 1779 with his wife, María Caballero, and sons Juan, aged two years, and Francisco, aged one year (see "Libro" No. 39). He was a widower with seven children in 1796 when a crevasse on the Mississippi River destroyed his crops and animals. Later records show that the Sánchez farm was still located on Bayou des Familles in the early nineteenth century. Four other Canary Islander families suffered complete losses in the flood, those of Fernando Rodríquez, Blasa Martel, Antonio Martel, and José Gálvez. Relief supplied by the government consisted of a fourth of a barrel of rice per month per person for the duration of one year.[11]



Fernando Rodríguez was not listed in the "Libro Maestro" as one of the original settlers of the *población*. He and his wife Rita Perdomo and his sisters Lucía and María embarked for Louisiana on the polacre *La Victoria* in 1778. He was apparently situated in Barataria some years after the establishment of the original *población*. At the time of the 1796 flood, he was living in Barataria with his wife and seven children. Antonio Martel was listed among the original settlers with his wife, Francisca Antonia, and children Antonio, aged six years, Domingo, aged two years, and Blasina, aged eleven years (see "Libro" No. 17). In 1796, either the elder or younger Antonio was listed with wife and two children among the victims of the flood. Blasina, or Blasa, Martel, widow of Pedro Herrero, was listed as occupying a separate household with her four children at the time of the flood. Pedro Herrero was not among the original settlers of the *población*, but more than one so-named sailed for Louisiana with the emigrants. The farm of José Gálvez and his wife was also destroyed by the flood (see the following discussion of the Pablo Suárez Ruiz tract).[12]

Spanish grant tracts that are within the park and are identifiable as to position because they were surveyed and certified by the United States Surveyor General's Office are described below in greater detail.

THE LOUIS PELTEAU GRANT

Louis Pelteau received a grant of 20 arpents front by 40 arpents in depth on both sides of Bayou des Familles from Governor Carondelet in 1794. The tract lay across the southern part of the study area. The lower line is today followed by a powerline and the park boundary. The upper line was located about 250 feet above the Shell Road. Pelteau lived on the east bank of the bayou and farmed the land for many years. The frame of his house was said to be still standing in 1830, but its site has not been located.[13]

In his grant petition, Pelteau said that he had been an inhabitant of Barataria for many years, and he knew two people who previously occupied the tract of land. They had become obliged to forfeit the tract to him, and he had acquired their power of attorney. Inasmuch as these "two people" were probably Canary Islanders and had no proof of ownership, he requested that the land be granted to him. He asked for 20 arpents of frontage "in the place which had been inhabited by the Spanish families, which has been recognized as having only two arpents that are cultivatable; the rest continuing to be inundated during part of the year and not cultivatable nor usable by animals."[14]

Surveyor Trudeau certified that Pelteau was requesting vacant land that was "part of the lands which were abandoned about twelve years ago by the families that came from the Canary Islands. These families emigrated to the settlement of St. Bernard at English Turn where they were given land which was much more conducive to their mode of life." However, Pelteau's petition indicates that the tract he requested continued to be inhabited by Isleños after the flood of 1782. Governor Carondelet approved the grant with the conditions that public use of the Camino Real continue unencumbered and that the land be cultivated within one year.[15]

The heirs of Louis Pelteau, who spelled their name Peltot, sold the property to John McDonogh in 1829. Part of the Pelteau tract was later cultivated with sugarcane and part with pecan orchard. A portion of the tract that lies on the east bank natural levee is relatively undistrubed and may contain artifacts and sites associated with Pelteau's occupation. The area most likely to contain cultural material and building sites from Pelteau's ownership is a two-arpent width at the crest of the natural levee, since this was the width of land stated by Pelteau to be above the normal yearly flood level.[16]

At least five house sites of the Isleño village are located within the Pelteau grant, on the natural levee crest (see Chapter III). One or more of the houses may have been reoccupied by the Pelteau family. Crossing tree lines in this heavily wooded area mark the field patterns of both the Población de Barataria and the French Massy-Dauterive grant. The Pelteaus kept some of the fields in cultivation well into the nineteenth century.

THE NICOLAS DAUMÉ GRANT

In 1794, Governor Carondelet granted Nicolas Daumé (also spelled Domé and Daumais) a tract of land measuring 12 arpents on both sides of Bayou des Familles by 40 arpents in depth. The lower boundary line of the grant is today followed by the protection levee and the park boundary. Noël Jourdan purchased the Daumé tract and sold it to John McDonogh in 1833 by private act of sale in St. James Parish. The United States Surveyor General's Office certified McDonogh's claim of 12 arpents on the east side of the bayou based on the acquisitions from Jourdan and Daumé and located the tract as lying between the Pelteau and Suárez grants. Ths tract became part of McDonogh's holdings in Section 57 of T15S-R23E.[17]

There is confusion as to the location of the Daumé grant in public records. Other records show it to have been located in a more northerly position along the bayou, outside of the park. The 12-by-40-arpent Daumé grant was also certified by the Surveyor General's Office as part of the claims of Dominique Bouligny and Marie Joseph Rochejean, which were located in the more northerly position. The claim of Marie Dauberville, Widow Bouligny, for the Suárez grant also locates the Daumé grant on the north side of the Suárez grant. Furthermore, Daumé's land is shown on the north side of the Suárez property on Trudeau's "Plano Figurativo de las Tierras de Don Pedro Lartigue" of November 29, 1802.[18]

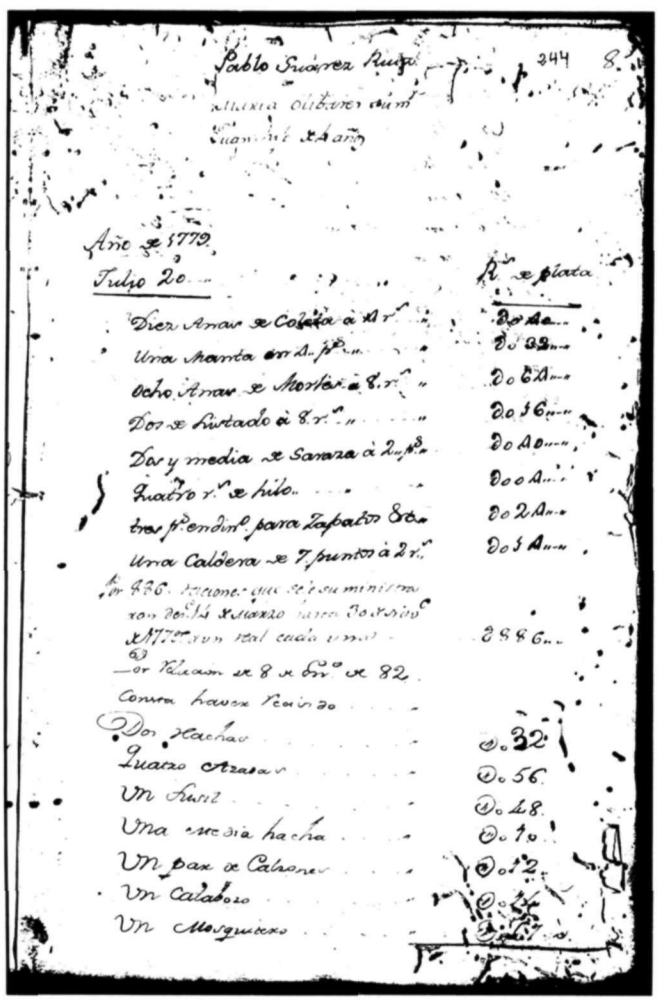
Five Spanish colonial building sites have been located on the Daumé tract certified to John McDonogh (see Chapter III). Another, the Suárez house site, straddles the Daumé-Suárez grant line. A bridge crossing site is located on the Daumé-McDonogh tract (see Chapter VIII). Some of these cultural remains were probably associated with the occupation of this area by Canary Islander Francisco Sánchez, mentioned above. Records suggest that Noël Jourdan, son of Jean Joseph Jourdan, may have occupied his land, but it was probably not the tract certified to McDonogh by the United States government.[19]



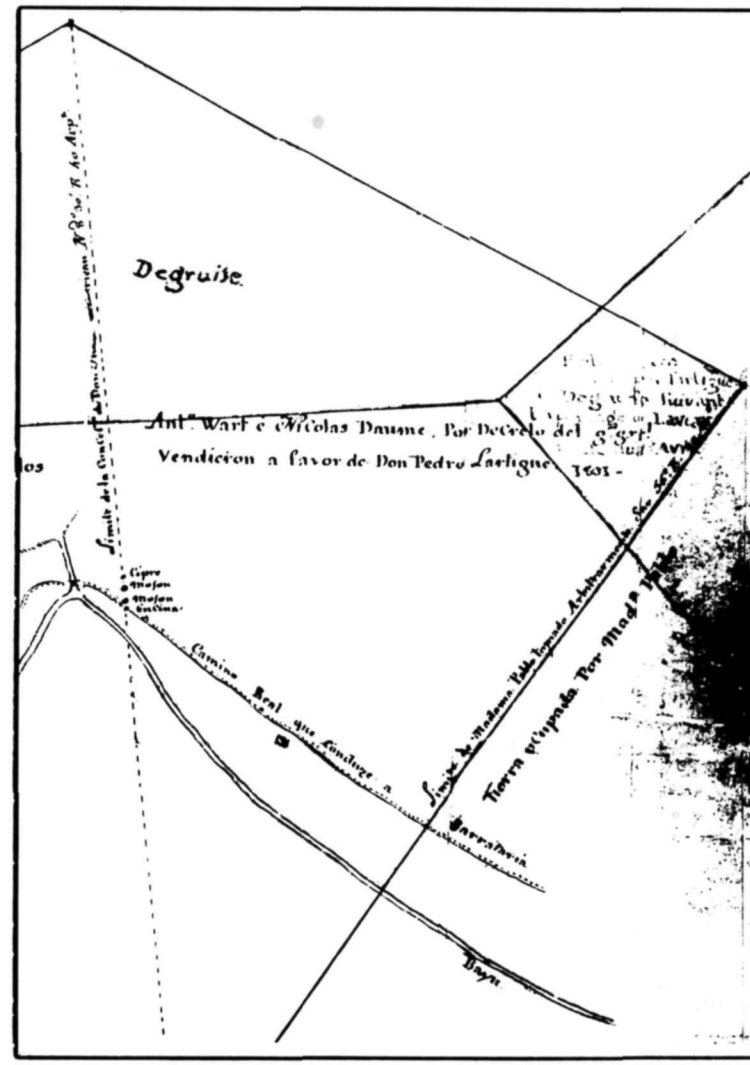
THE PABLO SUÁREZ RUIZ GRANT

On April 2, 1800, Governor Casa-Calvo made a grant of seven arpents and eight toises fronting both sides of Bayou des Familles by forty arpents in depth to Pablo Suárez Ruiz, a Canary Islander who, with his wife, María Olivares, and four-year-old son Juan, was among the original settlers of the *población* in 1779 (see "Libro" No. 8). As finally determined by the United States Surveyor General's Office, the Suárez grant consisted of Sections 3 and 38, which lie within the park, and part of Section 1, in T15S-R23E.[20]

Army recruit Suárez sailed with his family from Santa Cruz de Tenerife on the frigate *San Ignacio de Loyola* on October 29, 1778. They were established in Barataria by March 1779, and they were repeatedly reestablished there after hurricanes and floods. Among the supplies given to them by the Spanish government between 1779 and 1782 were bolts of cloth and spools of thread, shawls and blankets, a cauldron or kettle, two axes, four spades or hoes, a scythe or sickle *(un calabozo)*, a rifle, "a knife with two handles" or drawknife, an iron shovel, a mosquito net, eight shirts, five pairs of breeches, a woolen cloak, seven pesos "to buy shoes and other things," and barrels of rice and corn.[21]



"Libro Maestro P. sentar el cargo del dano. de la nueba Pob. Barataria," Archivo General de Indias, Seville, Papeles de Cuba, Legajo 548, folio 8, listing supplies given to the family of Pablo Suárez Ruiz.



Carlos Trudeau, "Plano Figurativo de las tierras de Don Pedro Lartigue," November 29, 1802, copy by Barthélemy Lafon, January 16, 1806, Plan Book 106, folio 28, NONA. Detail showing the overlapping claims of Lartigue and Jean-Baptiste Degruy (Degruise), the "land occupied by" the widow of Pablo Suárez, and the lands formerly belonging to Antonio Vart (Wart) and Nicolas Daumé. The "Royal Road that leads to Barataria" follows the bayou.

Both Pablo Suárez and his son apparently died, and María Olivares, Widow Suárez, remarried José Gálvez, a native of Cartegena. The list of victims of the 1796 flood includes that of "Josef Gálvez and his wife." Records have yet to clarify the dates of Pablo Suárez's death and the remarriage of María Olivares. José Gálvez also died, in 1802. María Olivares, or Madame Pablo as she sometimes continued to be called in official documents, remained on her Barataria property until her death in 1807. Records indicate that, of the several hundred Canary Islanders settled in Barataria



The Suárez house mound (Site 1), looking N.

by the Spanish government, María Olivares was the last remaining Isleña known to have resided there.[22]

In his will of 1802, José Gálvez, who was "sick in bed," stated that he had a plantation in Barataria, fifty head of cattle, two horses, and two dairy cows. He also had two Negro slaves, Felipe, aged 25 years, and María, aged 30 years.[23]

When María Olivares died in 1807, she was relatively prosperous. Some of the wealth described in her will and the subsequent inventory of her estate was undoubtedly inherited from her second husband. On her property were a "principal cabin" and three little Negro cabins, a dairy creamery, and a chicken house. Equipment on the property included six cauldrons (*chaudières*), a cross-cut saw, one large iron grate and two smaller ones, an evaporating pan or a wide deep pan (*une bassine*), two candle moulds, an implement or object used for wheat (illegible, perhaps a flour mill), and other items illegibly written. All the equipment was said to be in bad condition and was evaluated together at 30 *piastres*.[24]

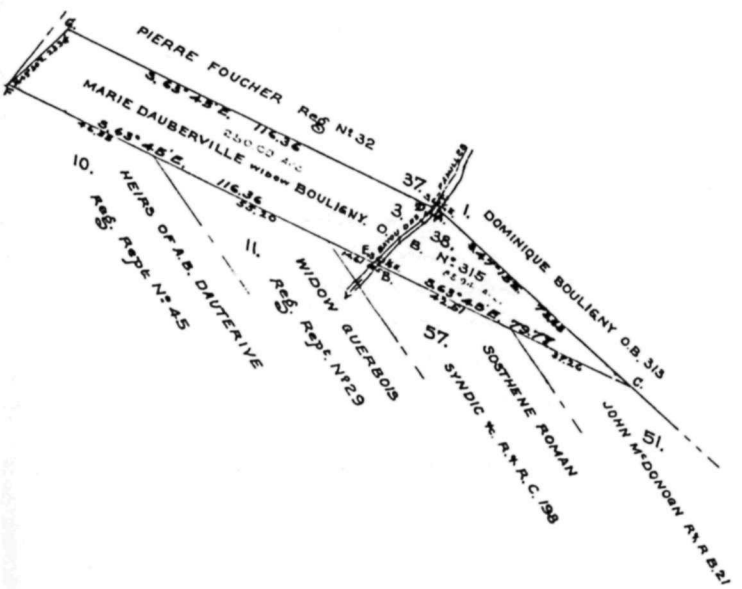


Domestic articles included a cypress *armoire*, an old wooden chest, a bed furnished with three mattresses and a mosquito net, five spoons, ten plates, a dish, a coffee pot, a water pot, a soup tureen, five shallow bowls, two barrels of *maiz* (shelled corn), one barrel of rice, one barrel of wheat, and one *Dame Jeanne de tafia* (demijohn of rum).[25]

María Olivares had two slaves, a 55-year-old Negro man named Bautista, and a 35-year-old Negro woman named María. Since three Negro cabins were inventoried as standing on the property, there must have formerly been more slaves attached to the property. In her will, María Olivares gave her slave María her freedom.[26]

The farm animals consisted of 48 cows, 6 horses, 28 goats, 4 pigs, and 25 chickens. The entire estate of María Olivares was evaluated at 2,014 *piastres*.[27]

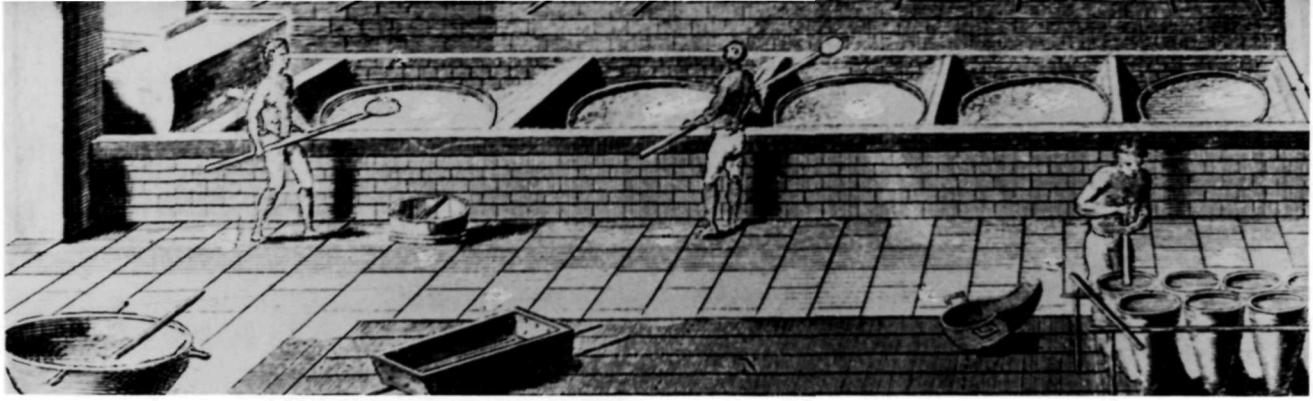
María Olivares left her property to Marie Dauberville, widow of Francisco Bouligny, and their young son, Luis Bouligny. The rear of a large plantation which fronted the Mississippi River and which was jointly owned by Luis and another son, Domingo, adjoined the upper side of the Suárez tract. The position of these property lines was in dispute and when the dispute was settled, the Bouligny line was drawn across part of the eastern Suárez tract. The protection levee and the northern park boundary follow the Bouligny property line as it crosses the former Suárez property and creates the upper boundary of Section 38.[28]



Survey plat of the private land claim of Marie Dauberville, widow Bouligny, field survey by Maurice Hauké, 1855. Bureau of Land Management, Eastern States Office, Reston, Virginia.

In the early 1800s, Luis Bouligny operated a dairy farm on rear portions of the plantation he owned with Domingo, adjacent to the Suárez tract. Luis did not live in Barataria but visited the dairy every week. He traveled to it on the Camino Real and passed through the property of Widow Suárez each week. He and his mother apparently befriended the lone surviving woman of the Canary Islander settlement, in the last years of her life.[29]

Luis Bouligny and his mother, Marie Dauberville



Bouligny, partitioned the Suárez tract. Luis became owner of the land on the east side of the bayou "with the establishments found there," and his mother became owner of the west bank land, along with some moveable objects and the slave Bautista. Thus, the Suárez buildings seem to have been located on the east side of the bayou. Building sites have been located at the lower east bank boundary line (see Chapter III). Other sites undoubtedly exist.[30]

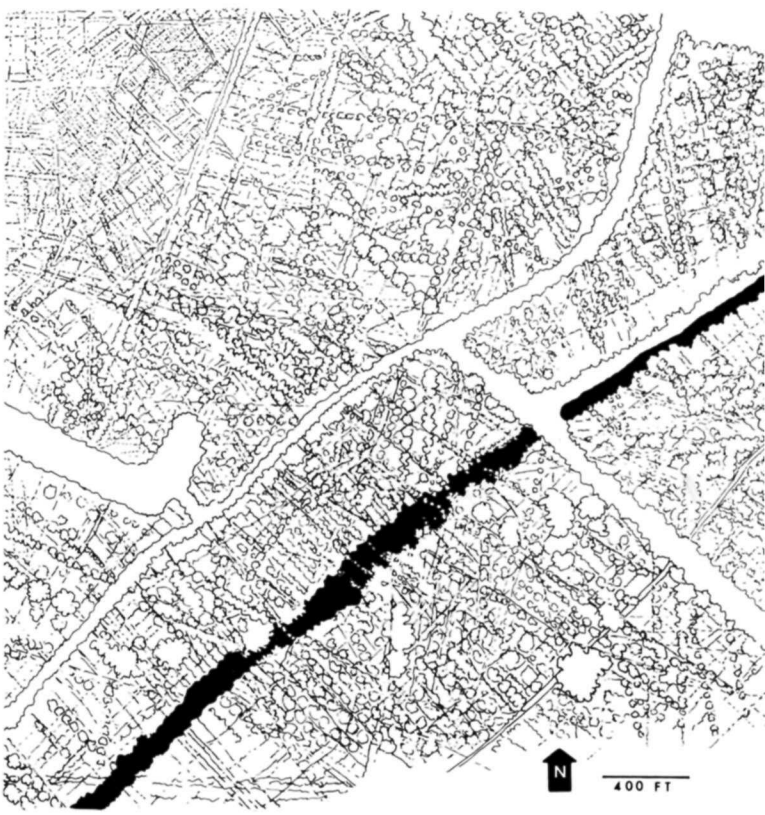
The Suárez tract was logged until recent years and is undergoing reforestation. The high lands on both sides of the bayou are covered with a woodland composed largely of young trees and saplings, interspersed with old oaks, and a thick understory of palmetto. Aerial photographs show many signs of cultivation, extending from both banks of the bayou, across the natural levees, and down the backslopes into what is now swamp. The compass bearings of several overlapping agricultural systems that are visible in aerial photographs correspond with documentary records.

The boundary lines and parallel field divisions of the surveys of Spanish Royal Surveyor Carlos Trudeau in 1800 and United States Deputy Surveyor Maurice Hauké in 1855 cross the tract at 107°, 124°, and 116°. These are extensions of ditches and roads with the same compass bearings which crossed the rear of the farm plots of the Población de Barataria that faced the lower meander bend of the bayou. The 20° bearing of many of the cross ditches and roads on the Suárez tract corresponds with the boundary divisions of the village plots facing the lower bend. The Suárez boundary lines and field ditches thus reflect the communal, cross-patterned layout of the Canary Islander village. A series of east-west and north-south tree lines that cross the Suárez tract apparently reflect another allocation of the village's plots that is seen in a United States cadastral survey map of upper Bayou des Familles (see Chapter III).

Another series of tree lines, ditches, spoil banks, and levees on the Suárez tract date back to the French grant of Jean-Baptiste Massy and his associates of 1726, which Bernard Dauterive acquired in 1761-2. As variously documented, the compass bearings of these features run at 137°, 145°, and 146°, with cross ditching



Suárez grant line ditch and levee (with live oak, center), marking upper boundary on the west bank of Bayou des Familles and following the 124° bearing of Royal Surveyor Carlos Trudeau's 1800 survey. Perpendicular in foreground are the front ditch and levee of the Suárez fields. Looking NW.

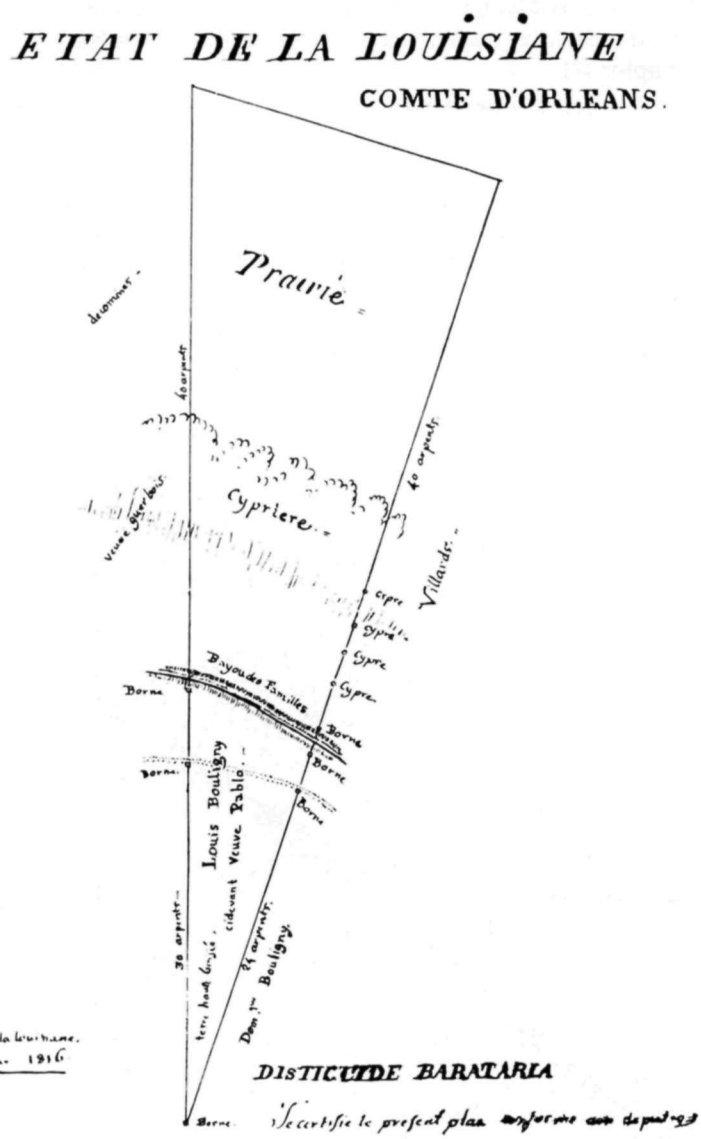


Colonial and antebellum field patterns along Bayou des Familles at the north end of the park. Traced from aerial photos flown 3-3-87, Jefferson Parish Multi-Purpose Cadastral, 21-1, 21-2, 21-3, 22-1, 22-2, 22-3, 23-1, 23-2, 23-3, scale of photos: 1" = 400', Jefferson Parish Drainage and Pump Stations Department.

and roads at about 50°. These were partially incorporated into the Spanish agricultural systems (see Chapter II).

By the time of Maria Olivares death, it appears that the east bank was used for the pasture of numerous animals. At that time, the natural levee backslope on the east bank tract was more elevated. An 1816 survey plan by Barthélemy Lafon labels this area "high wooded land." Inundated cypress swamp covers this part of the tract today.[31]

A notable feature on the east bank, at the edge of the swamp near the bayou and about 350 feet southwest of the protection levee, is a great quantity of slag, with some pieces of unburnt coal, scattered over an area about 200 feet wide. Large oak trees grow amid the slag deposits which, in places, are about two feet deep and sometimes cover Indian shell middens.



Barthélemy Lafon, Survey plan of the property of Louis Bouligny, February 8, 1816, annexed to act of sale of land from Louis Bouligny to Léon Dauphin, June 30, 1834, T. Seghers, notary, NONA.



Cast-iron kettle embellished with a coat of arms consisting of an oval cartouche supported by rampant lions and surmounted by a crown, found buried in the ground on Bayou des Familles one mile north of the study area and outside of the park.

The west bank of the Suárez tract is situated on a cut bank, therefore the natural levee is near the bayou. On it remain ditches, furrows, a canal, and road beds. The first feature encountered to the south of the protection levee is a silted-in ditch that marked the upper Suárez boundary. It is six feet wide and less than one foot deep. Large oak trees grow on the sides of the ditch and partially within it. The compass bearing of the ditch does not correspond with the American surveyor's grant line shown on modern topographical maps. It follows the S56°E (124°) upper line reading of Royal Surveyor Trudeau's 1800 survey.[32]

Smaller field ditches and faint traces of furrows continue down the west bank, running in the same direction, interspersed with ditches which follow the compass bearings documented by surveys of the French grant lines, 137°, 145°, and 146°. One of these is a canal which lies about 800 feet downstream from the park boundary. It is about 8 feet wide and, unlike the field ditches, empties into the bayou. Levees about 10 feet wide flank the canal which comes to an abrupt end 200 feet eastward of Highway 45. At the head of the canal is a double-ditch-and-levee bordered by a road on the upstream side which has a compass bearing of 124°. It lies 3 arpents downstream from the upper Suárez grant line ditch and undoubtedly represents a boundary line between earlier Canary Islander plots. The feature continues through the Suárez tract on the west side of Highway 45, as do the field ditches and furrows.

To the southwest of the end of the canal, at the base of an oak tree, is a scattering of coal, slag, and clam shells. An agricultural structure may have been located on this site.

At the edge of the swamp bordering Bayou des Familles is a ditch/levee/road system that parallels the bayou and runs perpendicular to the other agricultural features. Beside the swamp is a slightly elevated strip of ground that is partially washed out. This is the remains of a 25-foot-wide road built in 1841 by Louis Chauvin Deléry de Boisclair under contract for the Jef-

ferson Parish Police Jury (see Chapter VIII). West of the road bed is a levee measuring about six feet wide at the base and one foot high. Between the levee and the ditches and furrows of the field is a shallow ditch about six feet wide. The ditches of the field empty into this ditch. The levee was originally much higher and served to prevent overflow from the bayou into the field in times of high water. Another road bed about 40 feet wide and edged with embankments about nine feet wide at the base and about two feet high runs north-south and northeast-southwest across the field to the head of the canal.[33]

The 1855 field notes of United States Deputy Surveyor Maurice Hauké describe a fenced field on the west bank Suárez tract. The notes do not specify if the field was in cultivation or if it was an old fallow field. If the land was used for agriculture in later years, after the tract was absorbed into larger properties, the Canary Islander's field system may have been reused, because the ditches and furrows follow the compass directions of the colonial boundary lines.[34]

The 1855 survey also recorded a bridge crossing Bayou des Familles on the Suárez tract. According to the survey field notes, the bridge was located 356 feet down the bayou from the upper corner of the east bank of the tract. Near this position, a spit of mushy ground projects into the bayou, as does a similar spit on the opposite bank. Cypress trees grow on them and align with the 124° Suárez property lines. A probe located a submerged brick bridge support at the end of the east bank spit. The bricks appear to date from the Suárez occupation (see Chapter VIII).[35]

A catastrophic flood finally drove most settlers from Bayou des Familles. In 1802, a crevasse occurred on the Mississippi River at the place where Bayou des Familles emerged from the river. It was two years before the entrance to the old distributary could be closed with a retaining levee. The crevasse took place on the plantation of James Porte and was called Crevasse de Porte. Most of the remaining Canary Islanders who had been placed in Barataria by the Spanish government were, at this time, moved to Bayou Terre aux Boeufs.[36]

Records indicate that the only Isleños who remained on Bayou des Familles were María Olivares and the family of Francisco Sánchez. Others who maintained their establishments were Jean Joseph Jourdan and Martha Dauphin, the free-woman-of-color.[37]

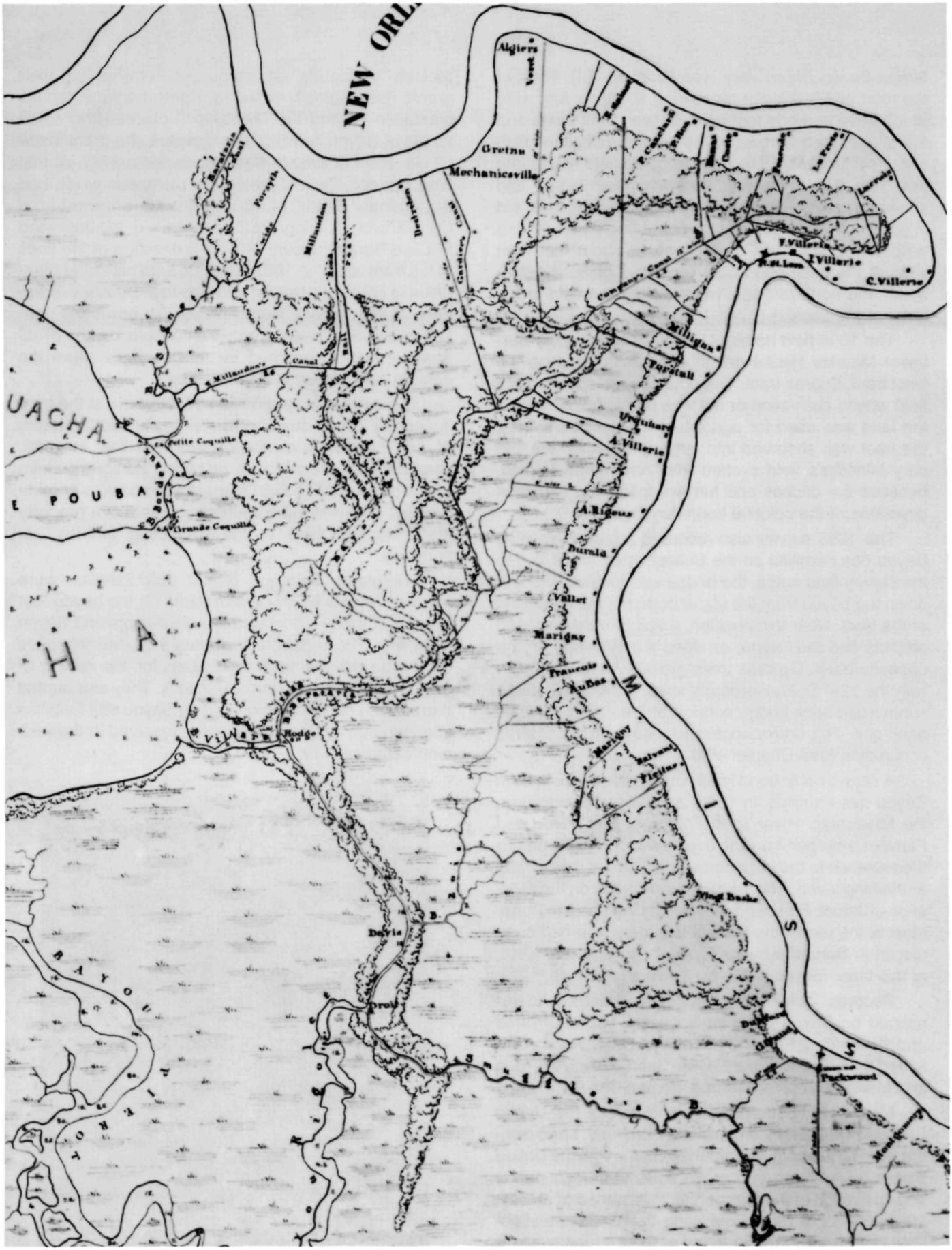
Meanwhile, Louisiana became part of the United States in 1803 with the Louisiana Purchase. Land owners were required to register their claims with the United States government and prove continuous occupation and cultivation of their properties for a period of at least 10 years prior to 1803. Conflicting claims with questionable titles were made to many of the frequently abandoned lands on Bayou des Familles.

Disputes over conflicting claims had begun in the late Spanish Period. Large plantation owners on the Mississippi River and on Bayou Barataria sought to reclaim "backlands" on Bayou des Familles that their grants had originally included. Pedro Lartigue, whose plantation fronted the Mississippi, claimed the entire length of Bayou des Familles by virtue of a grant made by Governor Gálvez to a former owner in 1777. At that time, Joseph Ducros owned the plantation which had an "ordinary depth" of 40 arpents. He obtained from Gálvez "a complete grant for the whole of the back land to Lake Barataria, continuing the direction of the lines of his front tract." In 1803, Lartigue sold his sugar plantation to Francisco Dutillet and Domingo Bouligny. Francisco Deléry, whose plantation lay just downriver from Lartigue's, had been granted a "double depth" of 80 arpents, and it stretched for that distance down the eastern side of Bayou des Familles.[38]

The owners of land on Bayou Barataria at the confluence of Bayou des Familles also claimed the depth of their backlands on Bayou des Familles. In 1802, Jean-Baptiste Degruy was disputing Lartigue's claim on the basis of a title that Degruy traced back to Antoine Bernard Dauterive's nebulous ownership of a property that extended back to the "trembling prairies," or marshes.[39]

Therefore, lands on Bayou des Familles were utilized not only by owners of tracts on the bayou, but also by property owners on the Mississippi and Bayou Barataria. These remote residents exploited the lands on Bayou des Familles for timber, for the mining of shells, and for the grazing of livestock. They also hunted there. Such exploitation of land on Bayou des Familles continued until title disputes were resolved in the mid-nineteenth century.





Captain G. W. Hughes, *et. al.*, "Map of a Military Reconnaissance and Survey of the Approaches to New Orleans from the Gulf of Mexico," 1842, detail showing wooded tongue of high land along the upper Barataria-des Familles Distributary, RG 77, M69-1, National Archives, Washington, D. C.

CHAPTER V

TERRE HAUTE DE BARATARIA - THE EARLY AMERICAN PERIOD

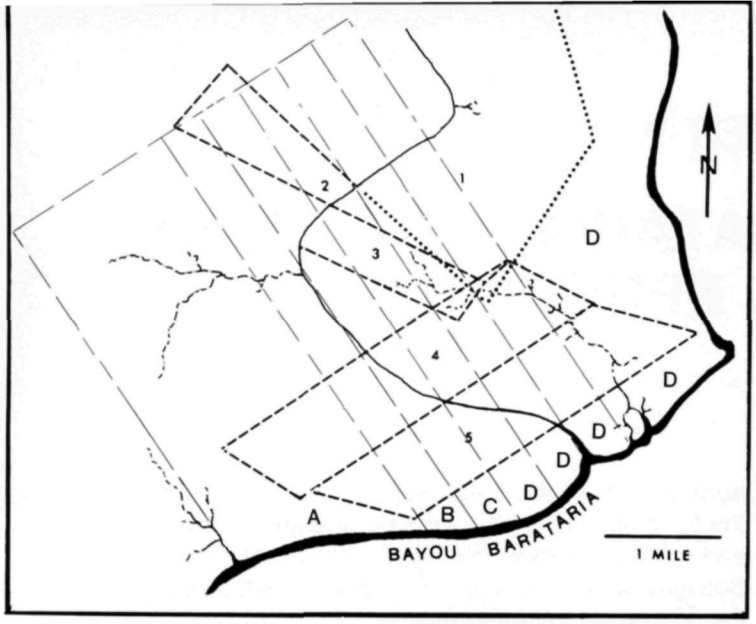
By the early nineteenth century, the tongue of land bordering Bayou des Familles was known by the name of Terre Haute de Barataria or Tierras Altas de Barataria (High Land[s] of Barataria). It received this name despite frequent flooding of the bayou which drove most settlers from the land. It was returning to wilderness, but a few farms and ranches were located on the bayou.[1]

Several of the Spanish land grantees discussed in the preceding chapter continued to reside on their lands during the early American Period. The family of Canary Islander Francisco Sánchez remained on the bayou, as did the twice-widowed María Olivares and her slaves. The location of the Sánchez grant has yet to be documented, but the property of María Olivares, which was the Pablo Suárez Ruiz grant, included Sections 3 and 38 in TI5S at the north end of the park.[2]

As previously noted, María Olivares willed her property to Luis Bouligny and his widowed mother, Marie Dauberville Bouligny in 1807. Luis acquired the east bank portion of the tract (Section 38) which adjoined the south side of a dairy farm he operated at the lower end of his brother Domingo's plantation. Madame Bouligny, wife of Francisco Bouligny (d. 1800), acquired the west bank tract (Section 3).

Luis Bouligny probably used the east bank parcel to enlarge his adjacent dairy farm. In 1813 or 1814, he sold this parcel to Léon Dauphin, a free-man-of-color. Dauphin sold the tract in 1815 to Pierre Foucher, who also acquired the west bank tract that had belonged to Marie Dauberville, Widow Bouligny, and had passed to her son Luis. However, the property that Foucher acquired did not entirely cover the same area as the Canary Islander tract. The lower Foucher property line conformed with the lower Suárez line, but the upper Foucher line closed at a point on the east bank and opened in a fan-shape on the west bank, as shown on a Lafon survey map of 1816. The Foucher tract included Sections 38, 3 and 37, in T15S R23E and Section 101 in T14S R23E. The change in the shape of the property





LAND OWNERSHIP AT THE BEGINNING OF THE AMERICAN PERIOD

1. **Domingo Bouligny and Luis Bouligny.**
2. **María Olivares, widow of both Pablo Suárez Ruiz and José Gálvez.**
3. **Noël Jourdan (according to a later land claim by John McDonogh).**
4. **Louis Pelteau.**
5. **Jean Joseph Jourdan.**

A. **Heirs of Jean Antoine Bernard Dauterive.**
B. **Antoine Marigny Dauterive.**
C. **Alexandre Guerbois.**
D. **Jean-Baptiste Degruy.**

resulted from the adjustment of the Bouligny-Suárez boundary line upon which the protection levee runs today.[3]

Pierre Foucher owned another larger tract of land further up Bayou des Familles on the west bank, and he also owned other properties. His principal plantation was located on the east bank of the Mississippi River, in what is now Audubon Park in uptown New Orleans. He did not live in Barataria but may have had his Barataria property under cultivation or put it to other use. Foucher's heirs sold the west bank tract to John McDonogh in 1835, and the east bank tract to John Hutchinson who purchased the property for John McDonogh in 1837. Records indicate that McDonogh did not use the land, although he could have leased it or had a caretaker there.[4]

Documentation also indicates that Louis Pelteau and his family were still living on their Spanish grant of 1794. The tract lay across the southern part of the study area. In about 1807 or 1809, Pelteau was working on the adjoining plantation of Jean-Baptiste Degruy, making fences, carting shells for making lime, and taking care of the cattle.[5]

According to John McDonogh, Pelteau lived on his land grant "for many years," and the frame of his house was still standing in 1830. Louis Pelteau's children, Bernard, Marie Phrosine (wife of Manuel Perrin), Jacques, and Charles, spelled their name Peltot, and only Bernard knew how to write. In 1829, they sold the tract



of land that they had inherited from their father to John McDonogh who held the land for decades without using it.[6]

Adjoining the south side of the Pelteau land grant and the present-day park boundary line, was the farm of Jean Joseph Jourdan. He had purchased the land in 1800 from Juan or Jean Normand who received the Spanish grant of 20 by 40 arpents on both sides of Bayou des Familles in 1794.[7]

Jean Joseph Jourdan was a Master Baker who lived in New Orleans. According to Luis Bouligny, who often stayed at Jourdan's cabin in Barataria when he visited his dairy in the early 1800s, Jourdan was a rich man "who liked the life of the woods and slept there often." Bouligny said he was "almost certain that Jourdan's wife never went to Barataria." Jourdan had "a cabin which had been built for some considerable time [in] a clearing which must have been made some time before" on the east bank of the bayou. He kept cattle on the land and had several Negroes there who cultivated corn and rice and raised poultry. Some years later, Jourdan had a man named Maurice living on the place, cultivating it and raising cattle.[8]

Jean Joseph Jourdan was also a receiver of the prizes of privateering ships that sailed under the same flag as that flown by Jean Lafitte, the flag of Cartagena. Jourdan's Barataria property may have been used for contraband operations. He sold the property to John McDonogh in 1829, by which time Jourdan had established a sugar plantation in St. James Parish.[9]

John McDonogh also purchased a tract of land in the study area owned by Jourdan's son, Noël, in 1833. The 12-by-40 arpent tract was said to be situated on the east bank of Bayou des Familles below the Suárez tract. Noël Jourdan is supposed to have acquired it from the Spanish land grantee Nicolas Daumé (also spelled Domé and Daumais) who received such a tract in 1794. However, most public records place the Daumé property on the north side of the Suárez tract adjoining the property of Antonio Vart. Nicolas Daumé's property was specified in legal records as lying on the south side of the 15-arpent tract which Governor Carondelet

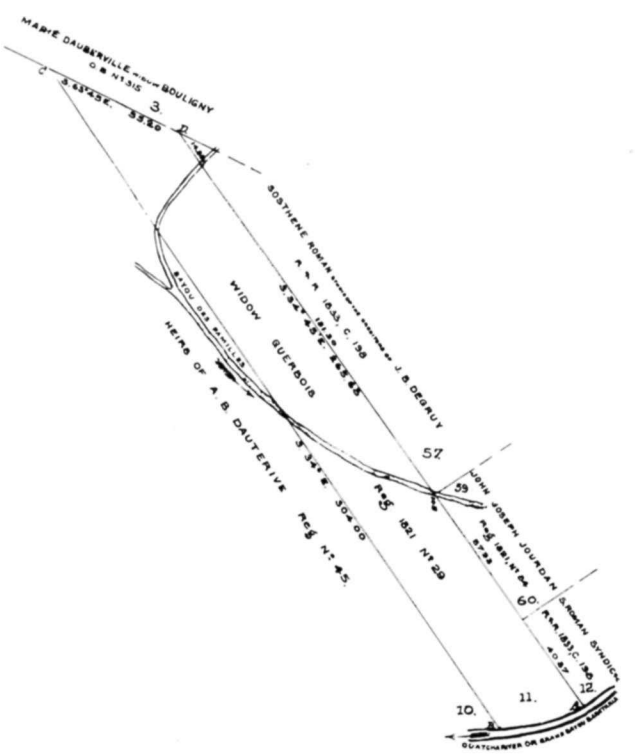
granted to Vart as a *vaqueria*, or cattle ranch, and farm in 1794. Thus, the Daumé tract lay immediately north of the park boundary at the protection levee. Barthélemy Lafon's 1806 copy of Carlos Trudeau's map of 1802, "Plano Figurativo de las tierras de Don Pedro Lartigue," shows that Nicolas Daumé and Antonio Vart together had 1670 superficial arpents on the north side of Madame Pablo Suárez, but that the Vart-Daumé property had been purchased by Pedro Lartigue at public auction.[10]

The actual location of the Daumé tract, Noël Jourdan's acquisition of the tract, and John McDonogh's land transaction with Noël Jourdan are, therefore, all questionable matters. John McDonogh apparently did not use the land, and although the property lines are still shown on some modern land title maps, the tract ceased to exist as a separate legal land holding soon after McDonogh's acquisition. Most of the tract was absorbed by other, crossing tracts acquired by McDonogh, and these were reassembled to form part of the sections shown as 57 and 51 on modern quadrangle maps. That portion of the tract near the bayou which crossed Section 11 was not certified to McDonogh by the federal government, because it was superseded by the earlier land claim of the Widow Guerbois.

In the early 1800s, Alexandre Guerbois and his wife Elizabeth Trepagnier lived on their 10-arpent strip of land facing Bayou Barataria which was one of the property divisions made by Jean Antoine Bernard Dauterive in 1768. As explained earlier, much of the 110-arpent depth of the Guerbois tract was repeatedly regranted during the Spanish Period as part of the crosswise tracts fronting Bayou des Familles. By 1808, Alexandre Guerbois had died, and his widow had inherited the property. By that time, she was living with her daughter Marie Elizabeth Eulalie Guerbois and her son-in-law Pierre Denis de la Ronde on their plantation on the Mississippi River below New Orleans. In that year, she employed Barthélemy Lafon to survey the Barataria property. According to the survey, most of the land was wooded, and none of it was still in cultivation.[11]

The widow Guerbois and her daughter and son-in-law attempted to sell the land for more than a quarter of a century. During that time, it was sold many times but was always returned to the original owners, probably because the title was clouded by crossing properties. The following sales transpired before the family was able to divest itself of the property:

May 5, 1808 - Pierre Denis de la Ronde, representing his wife, Eulalia Guerbois, to Joseph Soniat Dufossat, (Stephen de Quinones, notary, NONA).



Survey plat of the private land claim of Widow Guerbois, field survey of Maurice Hauké, 1855. Bureau of Land Management, Eastern States Office, Reston, Virginia.



A segment of the Chemin de Barataria/Camino Real de Barataria/Barataria Road follows the upper boundary line of Alexandre Guerbois' property, a 1768 subdivision of the Dauterive tract. Looking NW from the end of the Shell Road.

June 4, 1808 - Joseph Soniat Dufossat to Elizabeth Trepagnier, widow Guerbois, (Stephen de Quinones, notary, NONA).

October 13, 1809 - Widow Guerbois to Jean-Baptiste De Gruy, (Stephen de Quinones, notary, NONA).

October 11, 1813 - above sale cancelled as result of bankruptcy of De Gruy, (First Judicial District Court, Case No. 263).

October 20, 1821 - Widow Guerbois to Pierre Denis de la Ronde, (Christoval de Armas, notary, NONA).

July 30, 1835 - Pierre Denis de la Ronde to Allou d'Hémécourt, (Octave de Armas, notary, NONA).

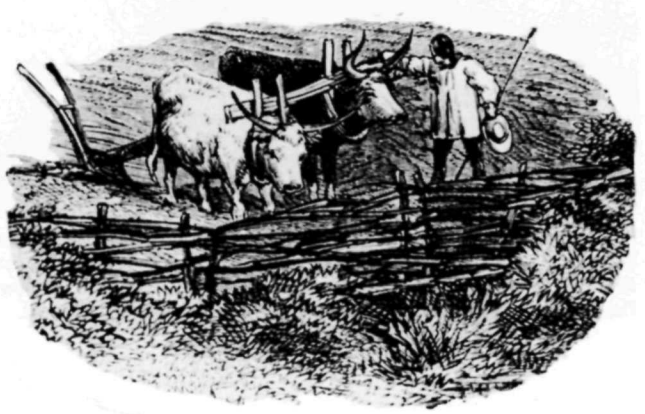
Allou d'Hémécourt, a surveyor who lived in New Orleans, had two months earlier acquired the 10-by-110 arpent tract adjoining the west side of the Guerbois tract. With d'Hémécourt's acquisitions in 1835, the two tracts became joined and remained so throughout subsequent title exchanges. D'Hémécourt sold the combined tracts to François Valcour Volant Labarre and his brother Joseph Nelson Volant Labarre in 1846.[12]

The Labarre brothers were pioneers in the development of the town of Gretna, which had been laid out on the west bank of the river opposite New Orleans in 1835 and 1838. They owned a large brickyard and a steam sawmill in the vicinity of the new village, and they exported lumber and brick to Gulf Coast cities. They may have used the Barataria property for its timber resources. The property had been acquired with right-of-way on the Gardere Canal, which joined the river near Gretna, and timber could be transported on the canal.[13]

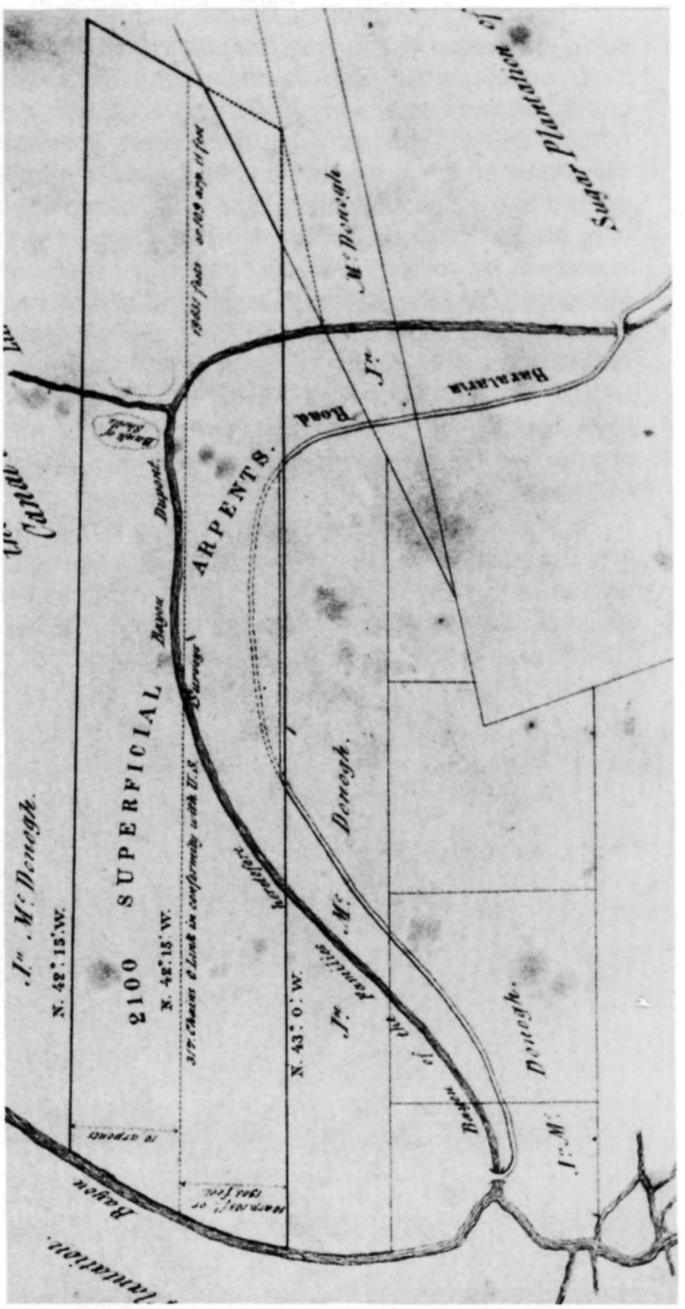
According to a court deposition made by Nelson Labarre and François Volant Labarre in 1848, the Barataria property contained "improvements" valued at $10,000. Most buildings and other improvements were probably located on the 20-arpent frontage facing Bayou Barataria.[14]

The title to the property was in litigation because of the claims of owners of crossing Spanish land grants. In 1854, the d'Hémécourt-Labarre sale was annulled. In 1860, Allou d'Hémécourt sold the tract to Valerie Vicknair.[15]

Vicknair lived on the property, cultivated a small crop, and cut firewood for sale. He probably farmed the Bayou Barataria frontage but may have logged much of the tract. According to a mortgage agreement of 1865, Vicknair had 800 cords of wood stacked on







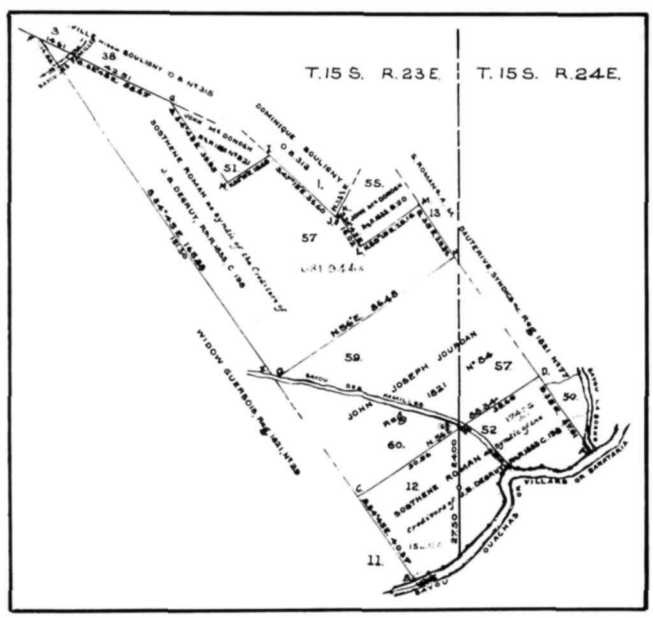
Allou d'Hémécourt's tract of "2100 Superficial Arpents" and the adjoining properties of John McDonogh shown on "Plan of a Valuable Tract of land situated in the Parish of Jefferson, District of Barataria at 12 miles from the City of New Orleans and containing 2100 Superficial Arpents of which 1500 are high land, 500 swamp and 100 of prairie, this land has a right of free passage in Mr. Gardere's Canal to the Mississippi River," unsigned and undated (about 1850), lithograph by Tolti & Carnahan, New Orleans. LC/TUL.

the property. In that year, he sold the property to Marie Julie Gabrielle Lemoine, widow of Pierre Rochefort. As discussed in the following chapter, Mrs. Rochefort subdivided the property and sold that part of the tract that lies within the park to Pierre Ernest Beauvais and Rufus King Cutler who established upon it the Christmas Plantation.[16]

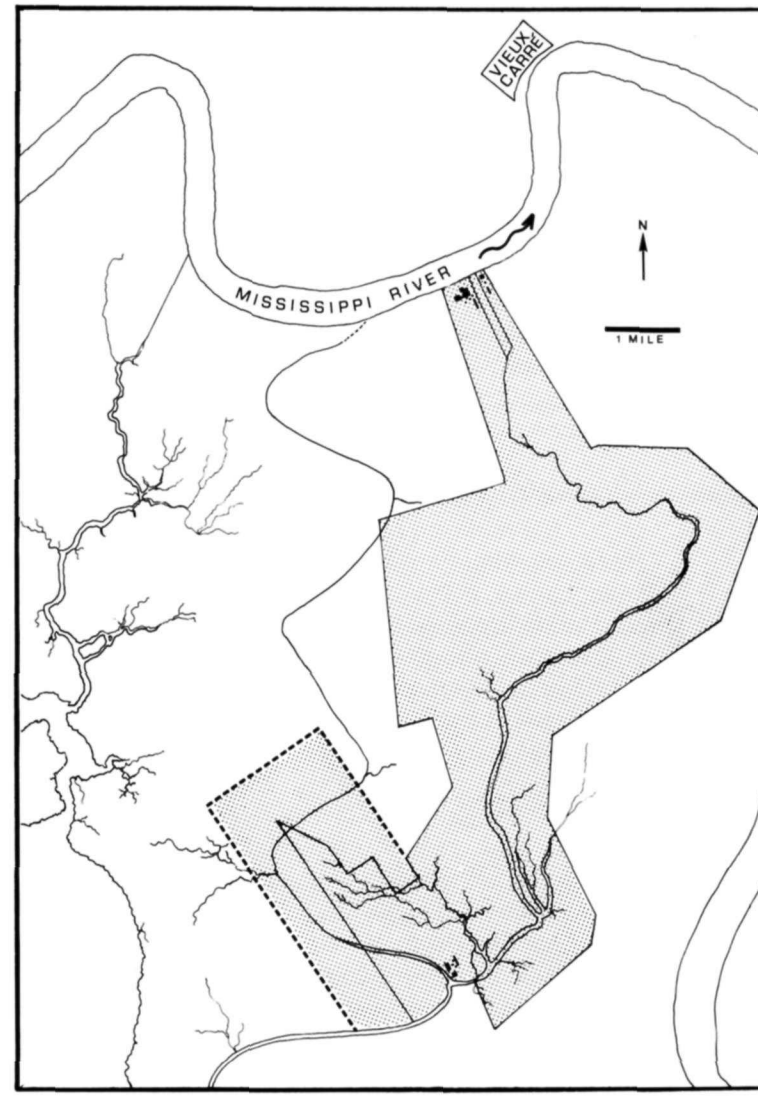
Parts of the three eastern 10-by-110 arpent strips divided by Bernard Dauterive in 1768 were acquired in the late Spanish Period by Jean-Baptiste Degruy (variously spelled De Gruys, De Gruy, Degruise, Degruis; he signed his name Degruy). In 1800, he purchased the 10-arpent strip acquired in 1774 by Antoine Boudousquié by an act of partition with Alexandre Guerbois. The property was sold with a depth of 100 arpents rather than 110, so as to exclude the Spanish grant to Pablo Suárez Ruiz which crossed the back end off the Boudousquié tract."[17]

Degruy claimed the two 10-arpent Dauterive strips that lay most easterly and straddled the mouth of Bayou des Familles as descending to him from two concessions, that of Bernard Dauterive and that of Francisco Bouligny. In 1792, Degruy, in partnership with François Mayronne, purchased from Bouligny a plantation situated on the west bank of the Mississippi River that had originally belonged to Claude Joseph Villars Dubreuil and upon which was Dubreuil's canal. In 1789, Bouligny had obtained from Spanish Governor Estevan Miro an "order of survey" granting him the lands behind his plantation that bordered the canal and Bayou Barataria for several leagues. The acquisition of the plantation by Degruy and Mayronne included all the lands and rights given to Bouligny.[18]

Francisco Bouligny was a notable figure of the Spanish Period. Archival documentation has yet to



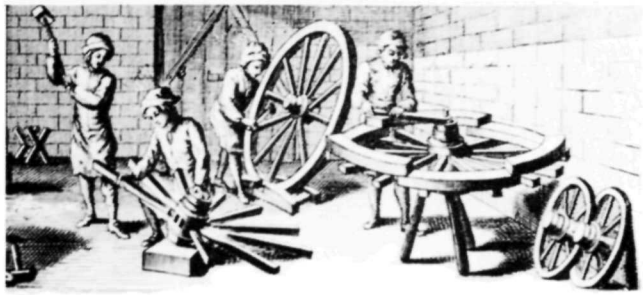
Survey plat of the private land claim of Sosthene Roman, syndic of the creditors of Jean-Baptiste Degruy, field survey by Maurice Hauké, 1855. Bureau of Land Management, Eastern States Office, Reston, Virginia.



LANDS OF JEAN-BAPTISTE DEGRUY

show any use to which he might have put the land at the confluence of Bayous Barataria and des Familles. It is documented that Degruy and Mayronne had a dairy or cattle ranch at this location by the early 1800s. In 1807, Degruy and Mayronne partitioned their plantation. Mayronne retained the 20-arpent-front by 80-arpent-deep plantation on the river. Degruy received a small portion of the river-front plantation and the lands extending down to Barataria. By 1810, Degruy had acquired the river-front plantation from Mayronne and sold it to Jean Jacques Bonne and Honoré Mourlot. By then, he had moved with his slaves to the property at the confluence of Bayous des Familles and Barataria to cultivate sugarcane. He retained a piece of land 100 feet wide bordering the canal at the river, as well as right-of-way on the canal.[19]

Bonne and Mourlot were unable to pay for the plantation, and they surrendered it back to Degruy. By 1812, Degruy was in bankruptcy, and he gave the river plantation to his creditors. The plantation had two "superb" sawmills, a "beautiful" brickyard with two brick kilns and three drying sheds, a master house of 15 rooms, an overseer's house, a kitchen, a hospital, and cabins for the 33 Negro slaves attached to the property. Most of the slaves were lumbermen, carpenters, loggers,

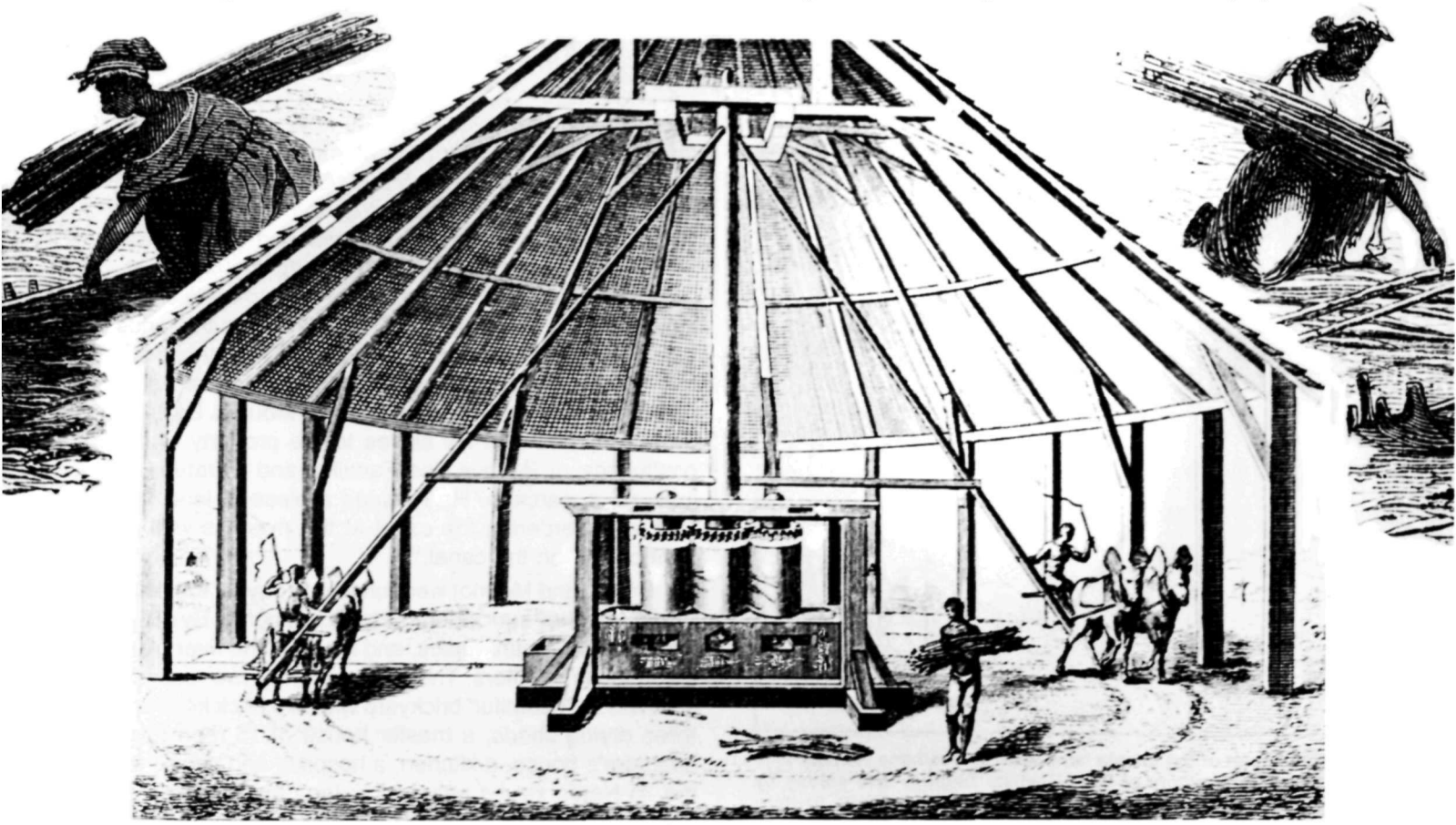


wheelwrights, and masons, and one was "one of the best forgers in the colony." Degruy was a Master Carpenter, or building contractor, as well as a sugar planter. The round sugarcane grinding mill on his river plantation was a famed architectural landmark of the period.[20]

In 1809, Jean-Baptiste Degruy established himself on his Barataria property with his family and slaves. His headquarters was on the site of Bernard Dauterive's headquarters, at the east side of the confluence of Bayous Barataria and des Familles. He probably used some of Dauterive's buildings. In 1812, the structures consisted of a five-room house, a blacksmith forge, a warehouse, a chickenhouse, a dovecote with a room underneath, and several Negro cabins. The land was described in his bankruptcy proceedings as "entirely cultivable in sugarcane." The slaves were named Jean-Baptiste, Noël, Alexis, Jean, Gregoirie, Jean Pierre, Antoine, Jacob, Joseph, Augustin, Malbroug, Antoine Treba, Coffee, Chicana, Magloire, Thelemaque, Scessand, Scypion, Scypion Jardinier (gardener), Nanette, Nina, Nicolle, Jean-Baptiste, Modette, Josephine, Jeanne and her nursing infant, Therese, Dhorotee, Salie, Magdelaine, Gennevieve, and Lindor.[21]

According to a later court testimony by Louis Bouligny, "in 1809, Degruy sold his plantation on the river [and] he came to this land with his Negroes and planted cane; all the left [east] bank of the Bayou des Familles was cleared sundry years before; the right [west] bank was cleared only when Degruy commenced planting canes." It is possible that both banks of Bayou des Familles were cultivated by the early French land grantees; however, the record that describes Degruy's sugarcane fields on both sides of the bayou documents an important change in land use in Barataria. It is the first record of the planting in Barataria of sugarcane which was to become the prosperous crop of nineteenth century Louisiana plantations. Some years later, the sugarcane fields of large plantations would stretch for miles along both banks of Bayou Barataria and Bayou des Familles. Until Degruy laid out his fields on both sides of Bayou des Familles, the Spanish land grantees had used one side of the bayou for cultivation and the other side for grazing animals.[22]

As stated above, Jean-Baptiste Degruy purchased the 10-arpent strip originally belonging to Alexandre Guerbois from Guerbois' widow in 1809, and the sale was cancelled in 1813 after Degruy's bankruptcy. Thus, for this time, Degruy possessed 40 arpents of frontage on Bayou Barataria of the former Dauterive property. The depth of the land bordered Bayou des Familles, however documentation indicates that Degruy did not plant sugarcane on the Guerbois tract nor within the study area. According to later court testimony by Louis



Bouligny and Zenon Trudeau, the Guerbois tract remained wooded; clearings made earlier had grown over. An exception would seem to have been the farm of Louis Pelteau whose tract crossed the Guerbois tract and who is documented as being on the bayou in the early 1800s.[23]

The depth and extent of Degruy's ownership of the land bordering Bayou Barataria, which derived from Francisco Bouligny's grant, were not clearly defined. In 1800, Degruy petitioned Spanish Governor Casa Calvo for confirmation of his ownership of the Boudousquié tract and other lands upstream along Bayou Barataria "to the depth of the flooded prairies [marshes]." He asked for a title and survey "obliging to leave the two families that inhabit this land to stay there, so that the families can possess their pieces." These two families may have been those of Juan or Jean Normand, Louis Pelteau, Francisco Sánchez, Juan Bautista Seisan, Nicolas Daumé, Pablo Suárez Ruiz, or others known to have been dwelling at unspecified locations along the bayou.[24]

However, Degruy later attempted to claim all the depth of his lands extending back along Bayou des Familles by virtue of the French title to Bernard Dauterive who had been the first husband of Degruy's wife, Elizabeth Sabine Joseph Monthault de Monberault. Degruy had married the Widow Dauterive in 1779 at the Parish Church of St. Landry des Opelousas, three years after the death of Bernard Dauterive. As recounted earlier, Dauterive had relocated his cattle ranch from Barataria to the prairies of southwest Louisiana in 1768, and he helped to establish the Acadians by supplying them with cattle.[25]

Bernard Dauterive had vast land grants in the Attakapas District, on the Vermilion Prairie, on Bayou Teche, and at the Bayougoulas on the Mississippi River, all stocked with cattle. After their marriage, Jean-Baptiste Degruy and the Widow Dauterive settled on the ranch at the Bayougoulas with the widow's three children: Antoine Bernard Dauterive, Louis Decomines Dauterive, and Antoine Marigny Dauterive, who were 14, 12, and 6 years old in 1779. A fourth child, Dubuclet, had died at a young age.[26]

In 1779, Madame Degruy donated a large part of the Bayougoulas property to the Spanish government for the settlement of Canary Islanders, and, in return, Degruy was contracted by the government to build 200 cabins for the settlers at $100 a cabin. However, when he had finished only 20 cabins, he was required as an officer in the militia to march with the troops of Governor Gálvez in the conquest of Baton Rouge, Mobile, and Pensacola. Upon his return, the government decided not to settle Isleños at the Bayougoulas but retained the land and distributed it to Acadians. Degruy was paid for only 20 cabins. A native of New Orleans, Degruy removed his family to the New Orleans area. Eventually, Madame Elizabeth de Monberault Degruy and her children were to return to the place where she and her first husband, Bernard Dauterive, made their home in Barataria.[27]

Degruy attempted to claim the entire 110-arpent depth of Bernard Dauterive's 10-arpent tracts when the occupants of the crossing Spanish grants vacated their properties. Even after Degruy's bankruptcy in 1812, his creditors continued the boundary dispute throughout the first half of the nineteenth century. As registered in the United States Surveyor General's Office, the claim made by Sosthene Roman, syndic of the creditors of Jean-Baptiste Degruy, was for 10 arpents with a depth of 103 arpents (the Boudousquié tract), 10 arpents with a depth of 60 arpents (adjoining to the east), and 20 arpents with a depth of 40 arpents (adjoining to the east). The claim to Degruy's land registered by John McDonogh was for 30 arpents fronting Bayou Barataria by 110 arpents in depth.[28]

At different times during his residency on Bayou Barataria, Degruy may have used unoccupied portions of his backlands along Bayou des Familles for various purposes. No agricultural features within the study area can be definitely attributed to the period of Degruy's ownership. He probably reused existing French and Spanish fields.



Degruy grazed about 300 head of cattle on the back lands of his Barataria plantation. He pastured a larger number on an "island" called "Isla Gracia" which was bounded by Barataria Bay and Bayou St. Denis, and which measured two leagues long by one league wide and about five or six leagues in circumference.

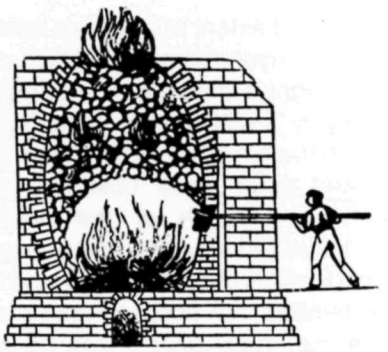


This land had been granted to Degruy in 1798 by Spanish governor Manuel Gayoso de Lemos.[29]

Degruy logged the Barataria plantation. He employed his slaves in making fence posts and pickets and in building carts. Several of his slaves were wheelwrights. In 1810, he was contracted by New Orleans Mayor James Mather to provide 28 oak butcher blocks for the new city slaughterhouse. The blocks were to be made of healthy live oak without any cracks, and they were to be between three and three-and-a-half feet long.[30]

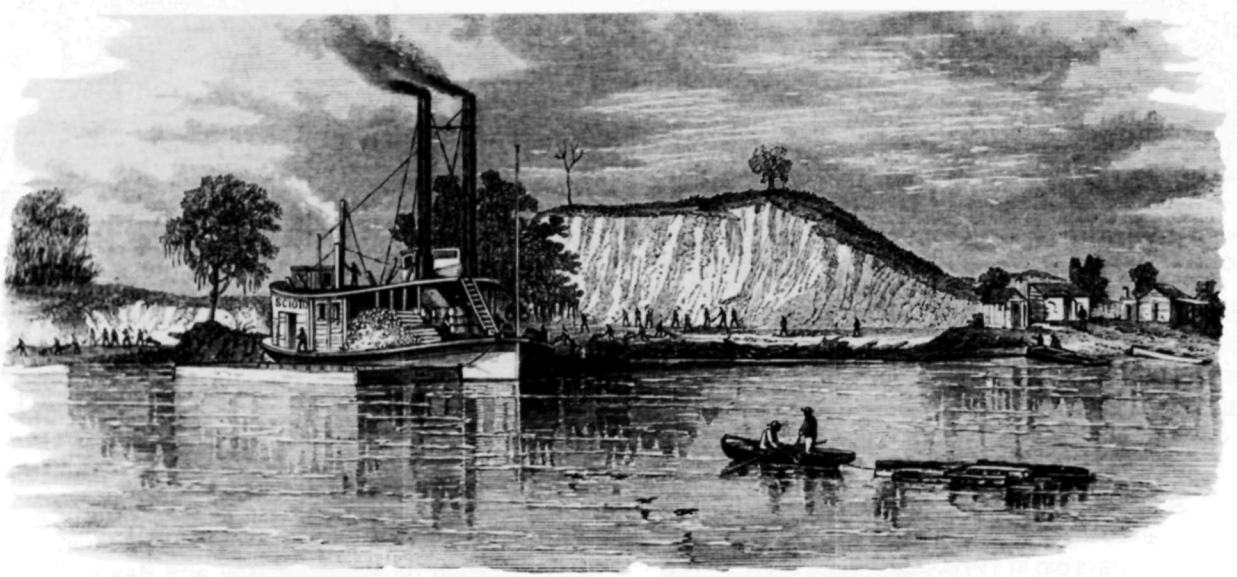
Degruy also had a lime-making industry on his Barataria Plantation. The lime was made from the clam shells collected from prehistoric Indian mounds and carted to the kilns. Degruy's stepson, Antoine Marigny Dauterive, supervised the lime-making operation.[31]

Historically, the simplest manner of making lime was to excavate a cone-shaped hole in a hillside, fill it with alternating layers of wood or coal and limestone or shell, cover the exposed exterior with sod, and set the fuel afire. When the fire had burned itself out and cooled, the contents were removed, and the process was repeated. In Barataria, such lime kilns might have been made in earth and shell Indian mounds which were located near other large shell mounds and middens. Burning the shells on the sites of their deposits would have eliminated the necessity of transporting the shells to the kiln. However, this was a tedious and uneconomical method of producing lime. Degruy may



have constructed lime kilns of brick on his Barataria plantation. Such kilns were sometimes cylindrical, but they were more often square on the exterior and egg-shaped on the interior. Small apertures near the bottom of the structure permitted the circulation of air necessary for the fire and also permitted the drawing out of the lime. By adding additional fuel and shells through a hole in the top of the kiln, the production of lime could be kept in continuous operation.[32]

As mentioned earlier, the buildings of Degruy's headquarters at the confluence of Bayous Barataria and des Familles were located on large prehistoric shell mounds which have almost entirely been removed. Degruy may have used the shells at this location for the making of lime, however, he may also have exploited numerous shell mounds and middens along the course of Bayou des Familles on the backlands of his plantation. Neighboring land owner Louis Pelteau worked for a time on Degruy's plantation carting shells for the making of lime.[33]



Mining clam shells from the Little Temple, an Indian mound rising "about fifty feet and covering several acres" at the south end of the Isle Barataria where Bayous Rigolettes and Perot join, used by Jean Lafitte as a contraband depot and now entirely gone. Sketched by James E. Taylor for *Frank Leslie's Illustrated Newspaper*, October 17, 1868. LC/TUL.

Jean-Baptiste Degruy and his stepson, Marigny Dauterive, were also engaged in the business of smuggling the contraband of privateers who sailed the Gulf of Mexico. They acted as sponsors and intermediary agents for the privateers, and Degruy's Barataria plantation may have served as a depot for stolen goods. The Barataria Road and the canal that he owned with Francisco Mayonne were routes by which smugglers could bring their goods to New Orleans. During the Spanish Period, Marigny Dauterive's father had engaged in the transport and sale of smuggled goods in Attakapas and on the Texas border.[34]

In 1819, the syndics of the creditors of Jean-Baptiste Degruy sold his plantation of 30 arpents fronting Bayou Barataria to Joseph Tricou and his sons and Dominique Bouligny. Before making payment, Tricou and Bouligny began logging the property and were sued by Jean Joseph Jourdan whose crossing tract was included in the sale. Tricou and Bouligny then refused to pay for the land because it did not have clear title, and the sale was nullified.[35]

The Dauterive heirs had received from the estate of Jean Antoine Bernard Dauterive the five 10-by-110 arpent tracts lying west of the four 10-arpent tracts that the elder Dauterive had sold in 1768. The tract adjoining the west side of the Guerbois tract was inherited by Antoine Marigny Dauterive. A small portion of this tract lies within the study area.[38]

Marigny Dauterive inhabited the property intermittently. He lived much of his life on his stepfather's plantations where he helped oversee the work of the slaves. According to Louis Bouligny, Marigny Dauterive built a house on his land in 1808 or 1809. When Bouligny "passed by there in 1826, Marigny Dauterive was then cultivating the land and had planted some arpents of cotton; Marigny Dauterive alone of the family occupied the 50 arpents of land; Marigny Dauterive had a guardian on the place when he did not reside there, named Antoine Bernard Dauterive, a nephew of his."[39]

When Antoine Marigny Dauterive died in 1827, he was living in a rented house at the corner of Tchoupitoulas and Market Streets in the New Orleans



In 1820, Thomas Durnford, to whom Degruy had mortgaged the plantation and slaves in 1809, petitioned for a seizure and sale of the property and acquired the land at the public sale. However, the heirs of Louis Pelteau objected to the seizure of their tract which also crossed the land claimed by Degruy. The syndics of the creditors of Degruy enjoined the Durnford sale, and Durnford was never given title to the land. Nonetheless, Durnford sold the property to John McDonogh, to whom he was indebted, in 1823. Title to the land was disputed in numerous court cases for several decades.[36]

Jean-Baptiste Degruy's first wife died, and he remarried late in life to Melanie Godin. He died in 1838 on a small plantation on the Mississippi River and left five children, Charles, Antoine Onezime, Melanie Augustin, Jean-Baptiste, and Julie Elodie. He had outlived his three Dauterive stepsons.[37]

suburb called Faubourg Annunciation. He lived with Catherine Dauphin, a free-woman-of-color, and eight slaves. Several of the slaves had belonged to Jean-Baptiste Degruy and were now elderly, blind, and infirm.[40]

The inventory of the estate of Marigny Dauterive described his Barataria property as having 25 superficial arpents of cleared and partly enclosed land with "a dwelling house thirty feet long by thirty-five in width, made of bad materials and two wooden cabins, the said buildings in a very bad condition, the whole valued at $2,000.00." These improvements were probably located at the front of the property on Bayou Barataria.[41]

Also on the property were two small anchors, two old ploughs, and "a lot of carpenter's tools in bad condition." The livestock were listed as twelve cows with their calves, twelve oxen, eight bulls of about two years,



Granite boundary marker and a crawfish "house" on the east side of the Barataria Road at the lower line of the Pablo Suárez Ruiz land grant and the upper line of the Nicolas Daumé land grant (as later claimed by John McDonogh).

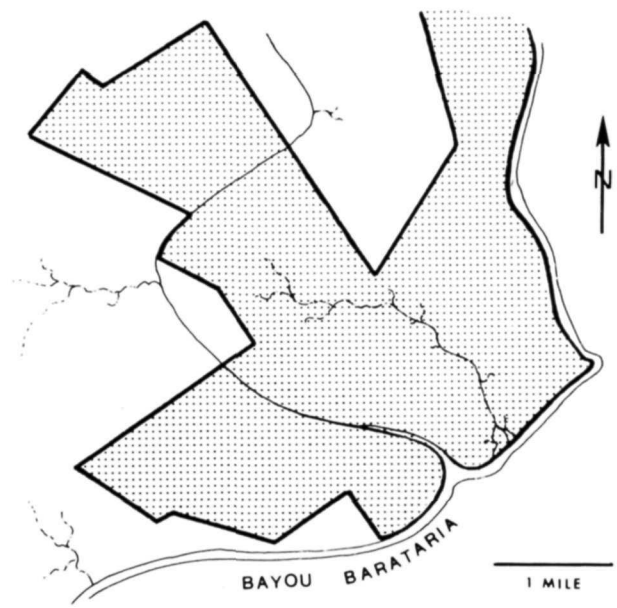
twenty-nine cows, seventeen heifers, three creole horses, and twenty-one sheep.[42]

A few months after Marigny Dauterive's death, his 10-arpent tract was sold at public auction "with the right of passage on the canal of Antoine Foucher, Jr." The property was purchased by Marigny's stepfather, Jean-Baptiste Degruy, and his wife, Melanie Godin. In 1835, Degruy and his wife exchanged this property and another 20-arpent tract of cypress swamp on the east bank of Bayou Barataria with New Orleans surveyor Jean Charles Allou d'Hémécourt for the two-arpent plantation on the west bank of the Mississippi River where Degruy died in 1838. The Barataria properties were exchanged to d'Hémécourt with all rights to exploit the wood and the shells. The large prehistoric shell mounds that once existed at the confluence of Bayous des Familles and Coquilles were located on the former Antoine Marigny Dauterive tract. Two months later, Allou d'Hémécourt acquired the adjacent Guerbois tract, and the two tracts became henceforth joined in their history, as recounted eariler in this chapter.[43]

Archival records show that the land along Bayou des Familles, including the present park and its environs, was largely wooded, uncultivated, and unoccupied in the mid-nineteenth century. The area continued to be known as "Terre Haute de Barataria." According to descriptions by surveyors of the 1840s and 1850s, the bayous were bordered by thick cane brakes and hardwood forests with some old clearings. Cypress swamp and grassy marshes lay back of the highlands.

The numerous crisscrossing colonial grants prevented the establishment of clear legal titles and discouraged land owners from making extensive improvements. Some owners used their lands for cattle grazing and for exploitation of natural resources. John McDonogh acquired a large number of the crossing tracts and held them for several decades, apparently without putting the land to any use. The properties were part of a fortune he amassed in real estate. When he died in 1850, he was known as the richest man and largest property owner in Louisiana. During his lifetime, he had a reputation as an eccentric recluse and miser, but upon his death, he left his wealth to the cities of New Orleans and Baltimore for educational purposes. McDonogh's properties became encumbered in legal proceedings following his death, and were finally auctioned in 1859 to benefit the schools of the two cities.[44]

As previously noted, McDonogh purchased the Spanish land grants crossing Bayou des Familles that had been made to Pablo Suárez Ruiz, Nicolas Daumé, Louis Pelteau, and Juan Normand. Meanwhile, McDonogh purchased the three perpendicular 10-ar-



COMPOSITE LAND CLAIMS OF JOHN McDONOGH

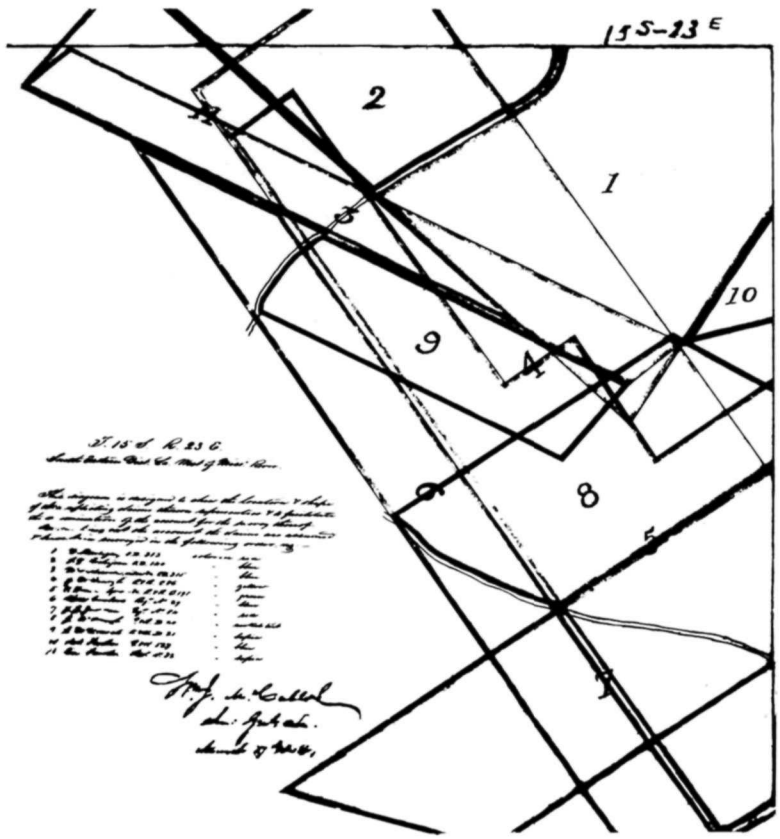
pents tracts that Thomas Durnford had acquired from the bankruptcy of Jean-Baptiste Degruy. Durnford never received title to the property, therefore McDonogh purchased the land once again from Sosthene Roman, syndic of the creditors of Degruy, in 1837. Upon this act of sale, McDonogh wrote the following memorandum.[45]

> This tract lays contiguous to and forms part of 9 other tracts owned by me, but as the different tracts clash and run in and cross each other, there is not the quantity of land which appears to be, as I purchased several of them for the purpose of settling adverse claims and avoiding suits at law.

McDonogh fenced the property he had purchased in Barataria, closed off the roads, and destroyed a bridge that crossed Bayou des Familles. To guard against trespassers and squatters, he kept at least one Negro slave on the property as a caretaker. The Negro lived in what remained of the buildings that had been Degruy's headquarters at the east side of the confluence of Bayous des Familles and Barataria. When the Police Jury of Jefferson Parish constructed a public

road along the west bank of Bayou des Familles in 1841, the landowners, McDonogh and d'Hémécourt, brought suit against the Police Jury and had the road closed (see full discussion about this road in Chapter VIII.)[46]

By the time conflicting land titles were quitted and litigation concerning John McDonogh's estate was settled, the Civil War precluded further agricultural development in Barataria. After the war, part of the study area was developed as a sugar plantation, but that part which had belonged to John McDonogh never received "improvements."

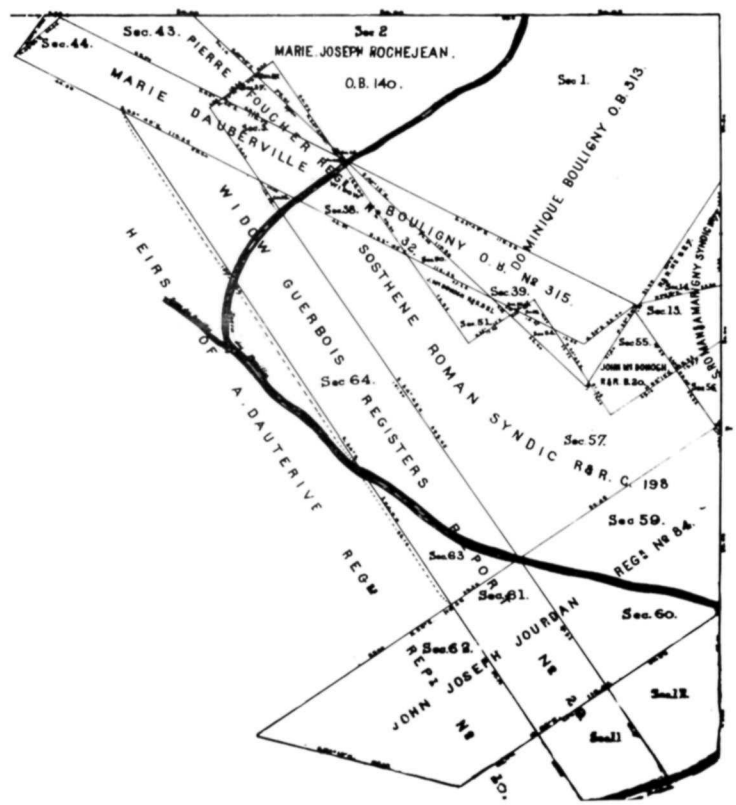


Township 15 South, Range 23 East, signed by William J. McCulloh, Surveyor, Louisiana, March 17, 1856. Bureau of Land Management, Eastern States Office, Reston, Virginia.

LEGEND:

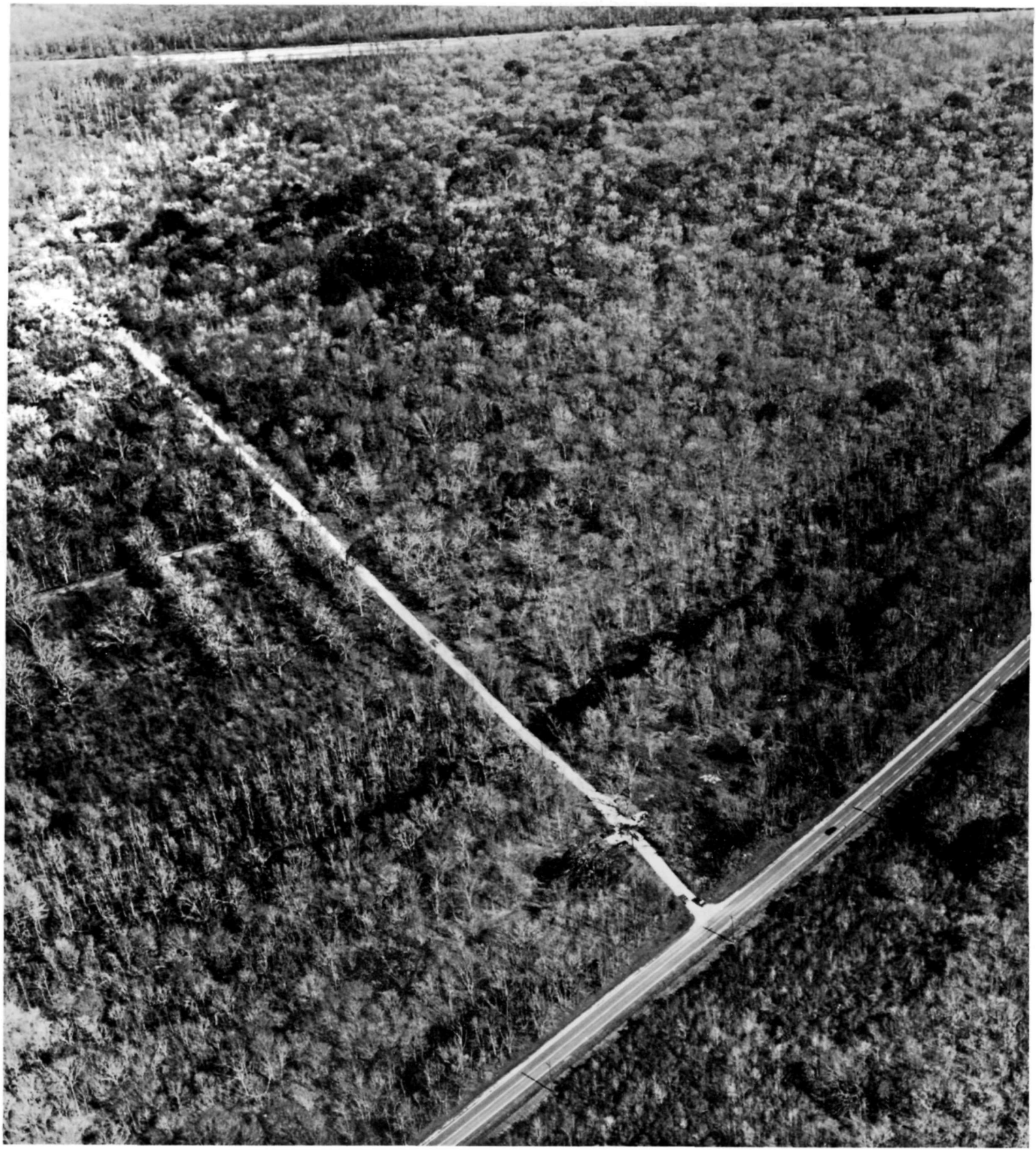
This diagram is designed to show the location and shape of the conflicting claims thereon represented and to facilitate the examination of the account for the survey thereof. In making out the account the claims are assumed to have been surveyed in the following order, viz:

1. **D. Bouligny**
2. **J. P. Rochejean**
3. **M. Dauberville, widow**
4. **J. McDonogh**
5. **S. Roman, Syndic**
6. **Widow Guerbois**
7. **J. J. Jourdan**
8. **J. McDonogh**
9. **J. McDonogh**
10. **Ant. Foucher**
11. **Pierre Foucher**



Cadastral Survey Map of Township 15 South, Range 23 East, Resurveyed by Maurice Hauké, Deputy Surveyor, in the second quarter of 1855, for the United States Surveyor General's Office. Bureau of Land Management, Eastern States Office, Reston, Virginia.





Christmas Plantation Headquarters area, looking SE.

CHAPTER VI

THE CHRISTMAS PLANTATION

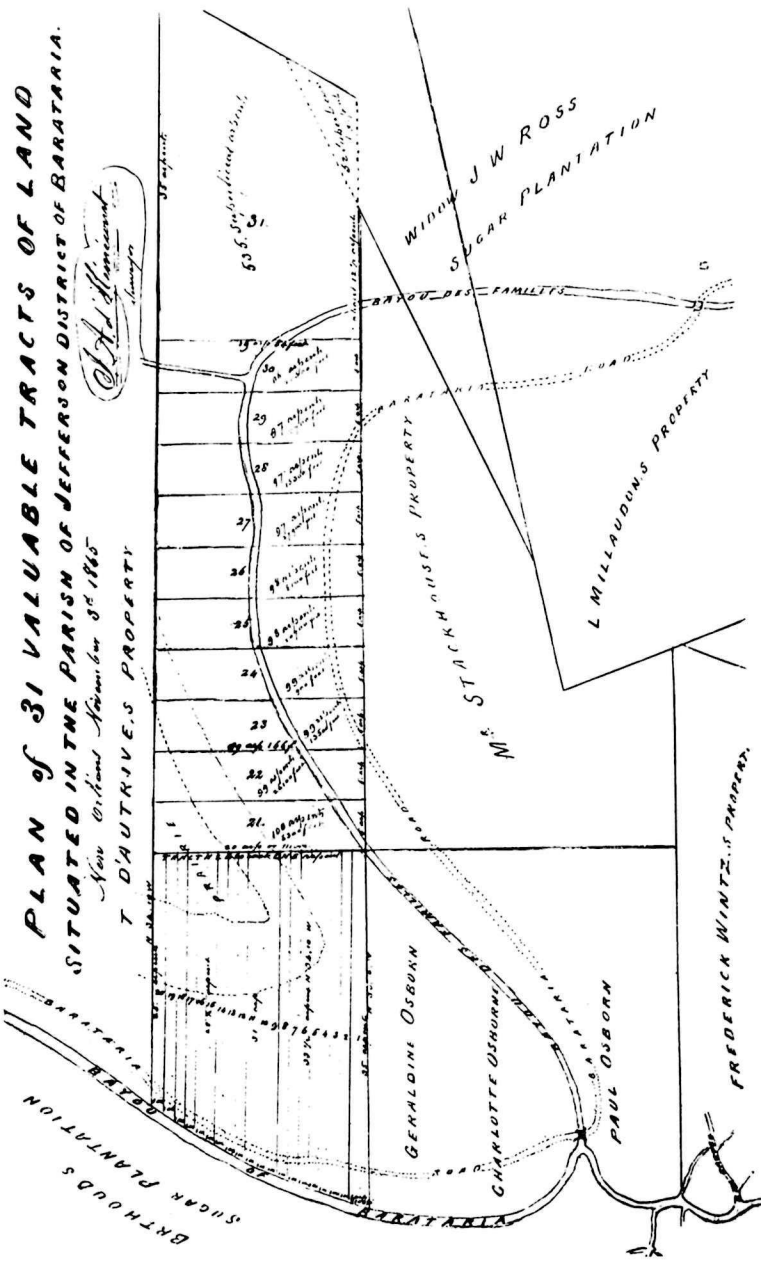
In 1865-66, when Rufus King Cutler and Pierre Ernest Beauvais purchased the original tracts of lands for the Christmas Plantation from Marie Julie Gabrielle Lemoine, widow of Pierre Rochefort, the land was probably entirely forested. It had not been cultivated for half a century, and the first task of the new owners was to clear the land.[1]

Cutler and Beauvais gave the plantation the name of "Christmas" because the act of sale by which they purchased the first tract was made on December 23, 1865. This sale was for a 20-by-40-arpent tract bordering both sides of Bayou des Familles and stretching southward from the bend of the bayou above its confluence with Bayou Coquilles. On July 27, 1866, they purchased another tract measuring 20 by 10 arpents adjoining the south end of the first tract. The plantation thus stretched for 50 arpents along the bayou. It occupied the center portions of the 10-arpent tracts originally belonging to Alexandre Guerbois and Antoine Marigny Dauterive. The southern limit lay upon the 1794 property line between the Spanish land grants of Louis Pelteau and John Normand. This property line is today marked by an electric powerline right-of-way which forms the boundary of the park and the study area.[2]

On November 3, 1865, this 50-arpent strip had been subdivided into ten 5-by-20-arpent tracts crossing Bayou des Familles by surveyor J. A. d'Hémécourt in order that the Widow Rochefort might offer the land for sale as small farm plots. The Civil War and slavery had both come to an end, and the sugar industry was almost non-existent in Louisiana. Many former plantations were being subdivided and sold to small farmers. D'Hémécourt's five-arpent tracts were reminiscent of the small tracts granted to the Canary Islanders on Bayou des Familles by Spanish Governor Gálvez in 1778. However, the 10 five-arpent tracts purchased by Cutler and Beauvais were for the establishment of a sugar plantation.[3]

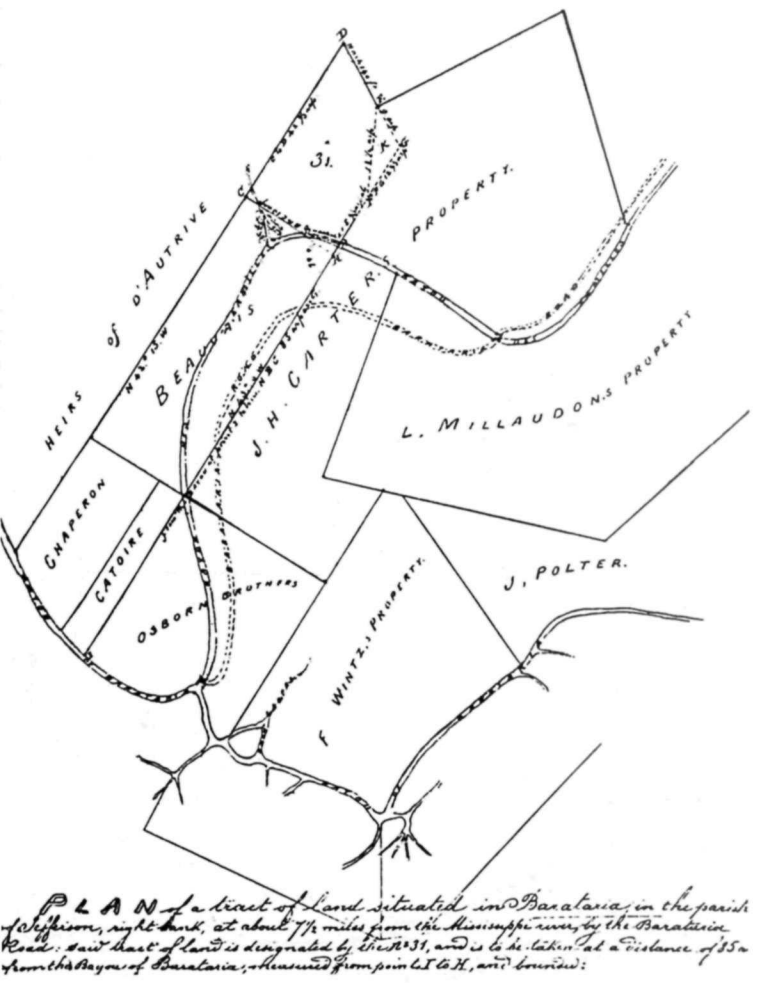
Rufus King Cutler was born in Virginia and had lived in Louisiana for 20 years. A New Orleanian, he played a prominent role in Reconstruction politics. He was a delegate to the Convention for the Revision and Amendment of the Constitution of Louisiana in 1864. In the same year, he was elected by the new state legislature to replace John Slidell in the United States Senate. However, Congress did not allow Cutler and other Louisiana senators to take their seats.[4]

Pierre Ernest Beauvais was born in 1829 on Bayou Lafourche and moved to New Orleans as a child. Rufus King Cutler's wife, Marie Palmyre Beauvais, was probably Pierre Ernest's sister. Cutler sold his undivided half of the plantation to Beauvais on November 5, 1866. Through bankruptcy and mortgages, Beauvais operated the plantation for 27 years.[5]



J. A. d'Hémécourt, "Plan of 31 Valuable Tracts of Land Situated in the Parish of Jefferson, District of Barataria," November 3, 1865. Annexed to act of sale of land from Marie Julie Gabrielle Lemoine, widow Pierre Rochefort, to Henry Chapron, November 11, 1865, E. J. Gottschalk, notary, NONA.





J. A. d'Hémécourt, "Plan of a tract of land situated in Barataria in the parish of Jefferson," February 11, 1867, annexed to act of sale of land from Marie Julie Gabrielle Lemoine, widow Pierre Rochefort, to John H. Carter, March 7, 1867, E. J. Gottschalk, notary, NONA.

Between 1869 and 1884, Beauvais' yearly sugar production on the Christmas Plantation ranged between 21 hogsheads and 350 hogsheads. However, he was never free of debt. He owed mortgages on the property, payments on loans for supplies and sugar-making equipment, and taxes. By 1876, Pierre Beauvais was bankrupt. The plantation was sold at public auction to the New Orleans National Banking Association for $6,700.00. The bank then leased the plantation to Pierre's son, William Coiler Beauvais, who was "a minor in the twenty-first year of his age, but duly emancipated under a judgement of the Honorable Parish Court of and for the Parish of Jefferson" to engage the lease. In 1879, the bank sold the plantation to the elder Beauvais for $15,000, with payments to be made by promissory notes.[6]

After the abolition of slavery, planters were forced to experiment with new ways to profitably cultivate sugarcane and manufacture sugar. Advances in technology reduced the need for hand labor, but sugar-making machinery was expensive, and the costs indebted many planters. New systems of labor were tried, including profit-sharing agreements or share cropping, leasing of the land, and tenant systems. White laborers were hired, and efforts were made to import Chinese and German laborers. However, most of the hired hands were freed Negro slaves.[7]

Most of the field hands on the Christmas Plantation were probably Negroes, but Pierre Beauvais sometimes leased portions of the cane fields to other planters to cultivate the cane. Beauvais divided the fields into one-arpent lots and, in 1874, leased four lots to Julius Madison Johnson and three lots to Augustin Daspit. The contracts are interesting examples of post-Civil War efforts to reorganize the plantation labor system. Beauvais' contract with Johnson is quoted below.

8th March 1874
Contract

P. E. Beauvais
with
J. M. Johnson

State of Louisiana
City of New Orleans

Be it known that this day before me Charles Stringer, a Notary Public in and for the City of New Orleans, Parish of Orleans and State of Louisiana aforesaid duly commissioned and qualified.

Personally appeared Peter E. Beauvais, and with him also appeared Julius Madison Johnson both of the Parish of Jefferson in this State.

Who declared that they have contracted and agreed mutually as follows to wit:

The said Beauvais has agreed to let unto said Johnson for one year commencing from the First of January A.D. 1874, a certain tract of land of said Beauvais Sugar Plantation situated in the district of Barataria, Parish of Jefferson, and known as Lots one, two, three and four, above the Sugar house on said plantation, said lots fronting on the Bayou des Familles and running to the Public road except Lot No. one, which runs as far as now planted with cane, and containing in all, about thirty-three arpents of land in superficial areas; twenty-two and a half of which is now in 1st year stubble and four and a half in 2nd year stubble and the balance unplanted.

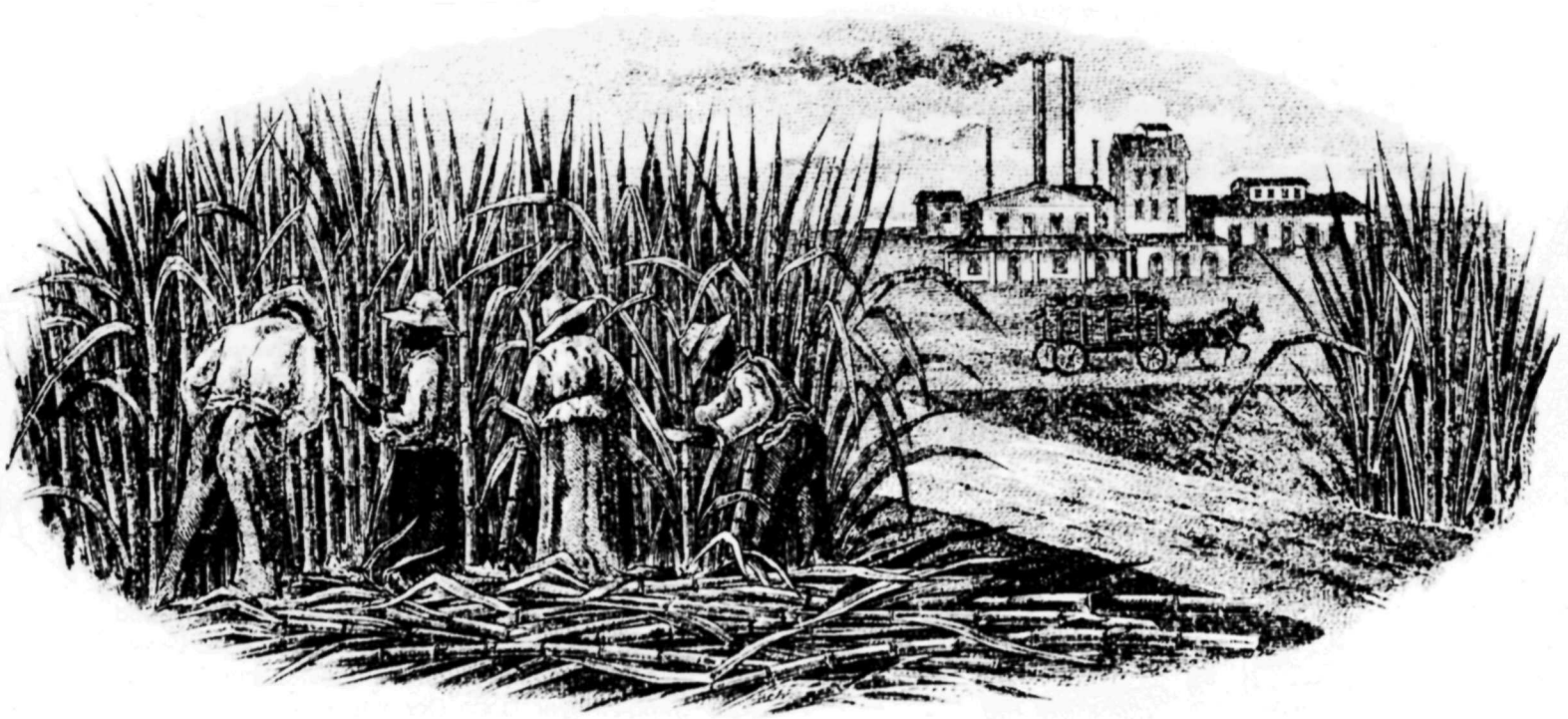
Said Beauvais in addition binds himself to furnish the necessary team and implements to cultivate said land, and advancing all seed cane necessary to plant said tract free of charges to said Johnson; also furnishing all necessary timber for fuel in the manufacture of sugar and molasses from said crop, without extra charges; also agreeing to furnish the sugar house in good repair at the proper time to be used in grinding and making said crop; also furnishing the necessary cabin or plantation house for the residence of said Johnson.

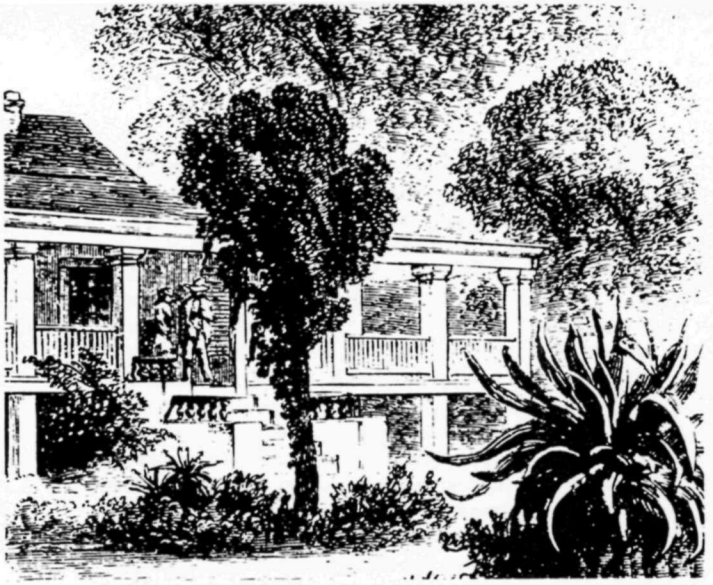
And the said Johnson on his part binds and obligates himself to truly and thoroughly ditch the above described land, line the 2nd year stubble with a good stand of sugar cane, plant the unplanted lands in a good stand of cane, with rows seven feet, two canes and lap, throughout each row, the whole of the ditching and planting to be completely finished by the 1st day of April 1874. Also binding himself to cultivate and drain during the growing season the whole of said tract of land to the satisfaction of said Beauvais: also to chop and haul to the sugar house in time to be fit for use, at least five cords for each arpent of cane cultivated; Also to pay all expenses that may accrue in the raising and manipulating said crop and putting it in a marketable shape of sugar and molasses in the sugar house, and then to deliver to said Beauvais one full third 1/3 as his share of the crop for which a lien and privilege is hereby granted to said Beauvais for said share as well as for all advances the said Beauvais may make to said Johnson, in the raising of said crop. It is also understood that sufficient seed cane shall be retained out of the crop, free of charge to said Beauvais, to replace that furnished by him, for planting purposes as herein before mentioned. Any other crops raised on said land are to be governed by the same provisions as above.

The said Johnson also agreeing to keep in good repair and free from obstruction the main roads and bridges across said land for the use of the plantation.

The said Beauvais only furnishing team for crop purposes, and charging feed of team while so used.

The said Beauvais to have the management of the sugar house, hiring of extra hands, while rolling or grinding, and all hands working during grinding season, whether croppers or not, shall be paid alike, according to quality of hands and when grinding is over, the expenses of grinding so shall be paid by the croppers, in proportion to the amount of sugar they may have respectively made.[8]





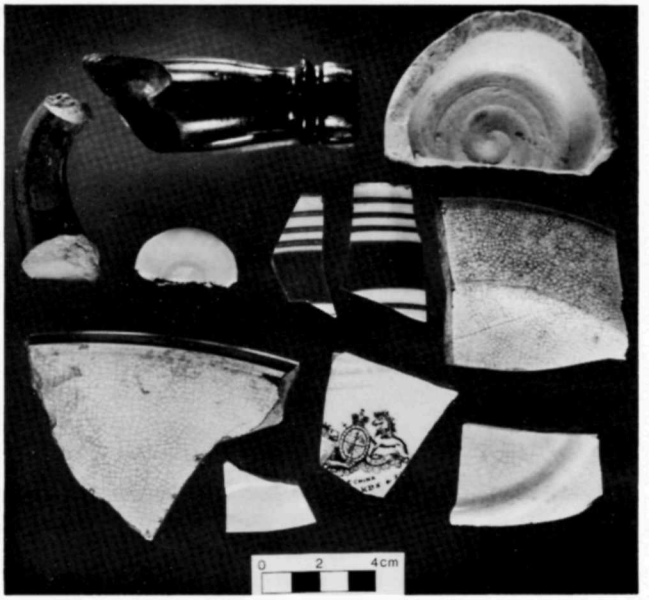
Unlike most pre-Civil War planters, Beauvais probably did manual labor on the plantation, and his family probably helped work in the fields, barnyard, and vegetable garden. Pierre Beauvais was married to Philomena Octavia Walker. In 1883, his brother, William St. James Beauvais, a widower, died "in destitute circumstances" and left four children, Francis W., aged 18; Joseph Rafael, aged 16, Rufus, aged 14; and Cecile, aged 7. Pierre Beauvais was named their tutor. He also had at least one son and one daughter.[9]

In 1880, Pierre Beauvais purchased more land adjoining the north end of the plantation from Joseph H. Oglesby for $1500, to be paid in promissory notes. The additional tract contained about 530 arpents and had been part of the adjoining Carter Plantation. Upon Carter's bankruptcy, it had been sold at public auction in 1875 to John A. Peel and Byron M. Pond. Oglesby acquired the property from Peel and Pond in 1877.[10]

The total measurements of the Christmas Plantation were then about three quarters of a mile wide and two and a half miles long. The whole property was not put in cultivation. Some areas were reserved for cutting timber and grazing cattle. By 1891, there were 150 head of cattle and 18 head of mules on the plantation.[11]

In 1885, the Christmas Plantation sugarhouse burned. Beauvais began cultivating rice, a crop that many neighboring Barataria planters were now growing. He mortgaged the plantation to Charles Joseph Brown in 1890 and, again, in 1891.[12]





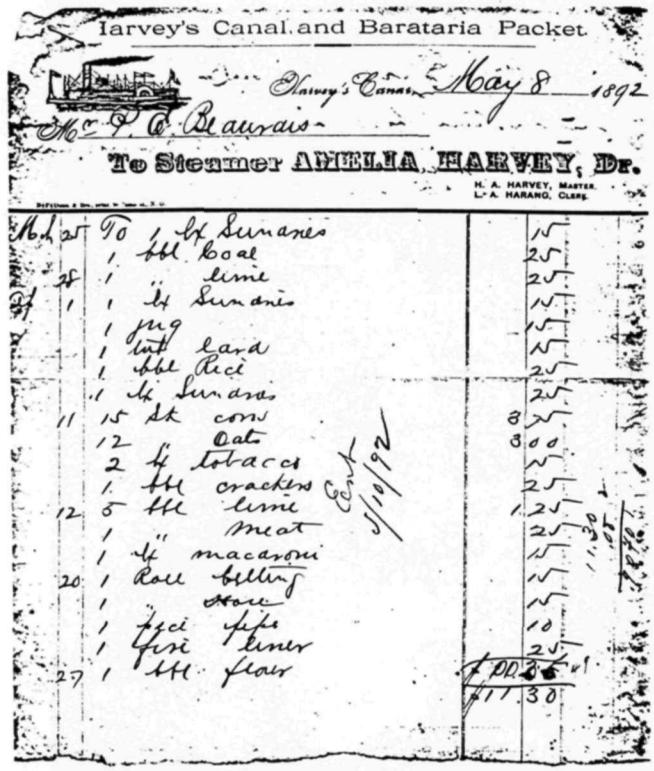
Artifacts on Christmas Plantation Site 12: red earthenware jug handle, amber-green glass liquor bottle neck, tan stoneware ginger ale bottle base, and whiteware and porcelain sherds, including an ironstone china (improved earthenware) sherd with the potter's mark of James Edwards & Son, Dalehall, Burslem, England, 1851-82.

Brown was born in New Orleans in 1850. His widowed mother opened a grocery in the town of Harvey in 1867. C. J., as he was called, worked on the tow-path of the Harvey Canal pulling barges, luggers, and skiffs. He became manager and, later, owner of the grocery store which was named Half Way House.[13]

Beauvais became deeply indebted to Brown through mortgages, loans, and credit purchases at Brown's store. Beauvais sent messages to Brown by boats passing up the Harvey Canal, and Brown sent provisions by packet steamers going down the canal. Among the items Beauvais ordered from Brown in the early 1890s were:

tobacco	starch	turnip seed
crackers	an umbrella	lettuce seed
macaroni	socks	cabbage seed
flour	black eye peas	ladies shoes
coal	lady peas	bolt cotton
lime	cow peas	stockings
lard	matches	calico
rice	baking powder	sauce pans
corn	white beans	bowls
oats	whiskey	rope
potatoes	mosquito bars	a broom
meat by the shoulder	butter	soap
onions	buckets	thread
red beans	grits	blueing
candles	lamp chimneys	oil
lamp wicks	blue jeans	washing soda
salt	cottonade shirts	cod fish[14]
coffee	garlic	

Beauvais would jot notes on his supply orders to Brown such as, "Mrs. Beauvais wishes 4 sacks of good corn for her chickens for Monday's trip of boat." Brown also paid the wages of some of Beauvais' hired hands, Billy Saddlemeyer, John Donaldson, Mack Connelly, and Leon Robichaux who labored on the rice crop and chopped wood.[15]



Harvey's Canal and Barataria Packet

Harvey's Canal, May 8 1892

Mr. P. E. Beauvais

To Steamer AMELIA HARVEY, Dr.

H. A. HARVEY, Master.
L. A. HARANG, Clerk.

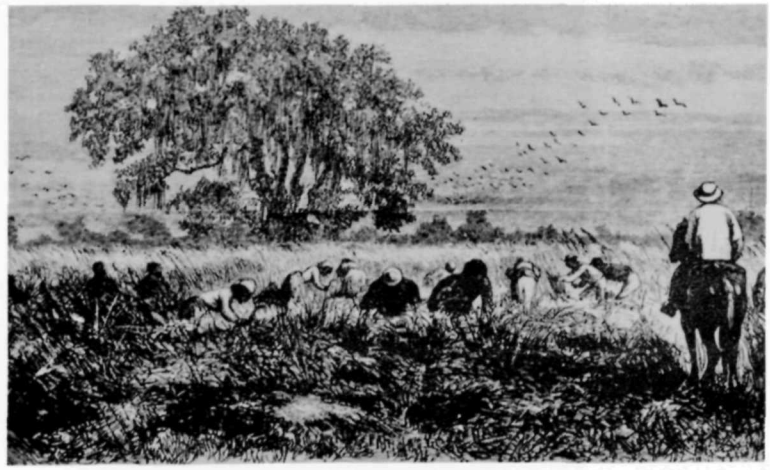
25	To 1 lt Sunanes		15
	1 bbl coal		25
28	1 " lime		25
27	1 1 lt Sunanes		15
	1 jug		15
	1 tub lard		25
	1 bbl Rice		25
	1 lt Sunanes		25
11	15 sk corn		8 25
	12 " Oats		3 00
	2 lf tobacco		25
	1 bbl crackers	Cash 5/10/92	25
12	5 bbl lime		1 25
	1 " meat		25
	1 lf " macaroni		15
20	1 Roll belting		15
	1 " hose		15
	1 pcl pipe		10
	1 pcl liner		25
27	1 bbl flour		4 00
			$11 30

Bill of lading on the Harvey Canal to P. E. Beauvais, May 8, 1892. Charles J. Brown *vs.* Pierre E. Beauvais, 21st Judicial District Court, Docket No. 251, January 14, 1895. Jefferson Parish Old Judicial Records, Gretna.

In 1891, Beauvais leased 230 arpents of the Christmas Plantation, "together with the use of certain buildings thereon, also the use of one boiler and engine" to Melancie Robicheaux and Gracien Rome to plant and cultivate rice. The lease was made "in consideration of one fifth of all the rice raised on the said tract of land and delivered in packs at the thresher."[16]

In 1892, Beauvais again planted the 230 arpents, which were leveed and dammed, in rice. He wrote to Brown "I have been pumping night and day for two weeks and elevating twice as much water as ever before and have not yet been able to saturate the whole field the drought is so severe."[17]

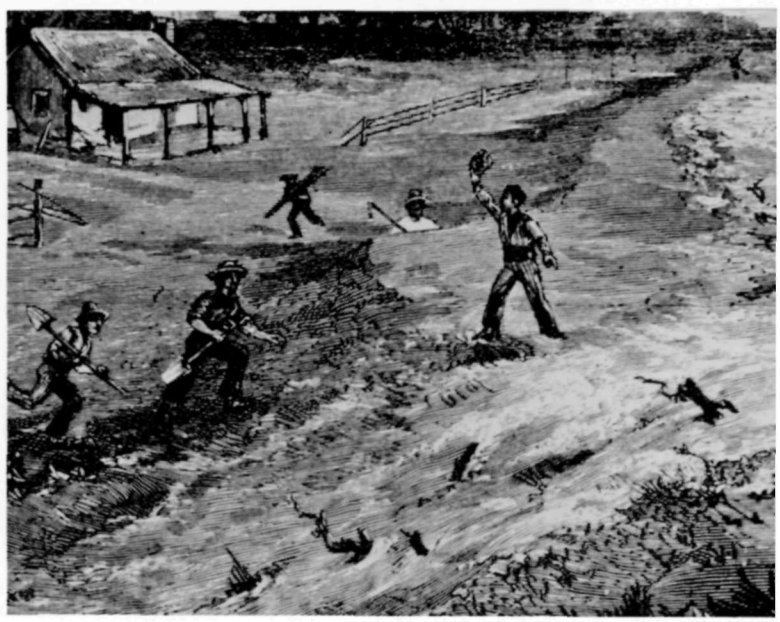


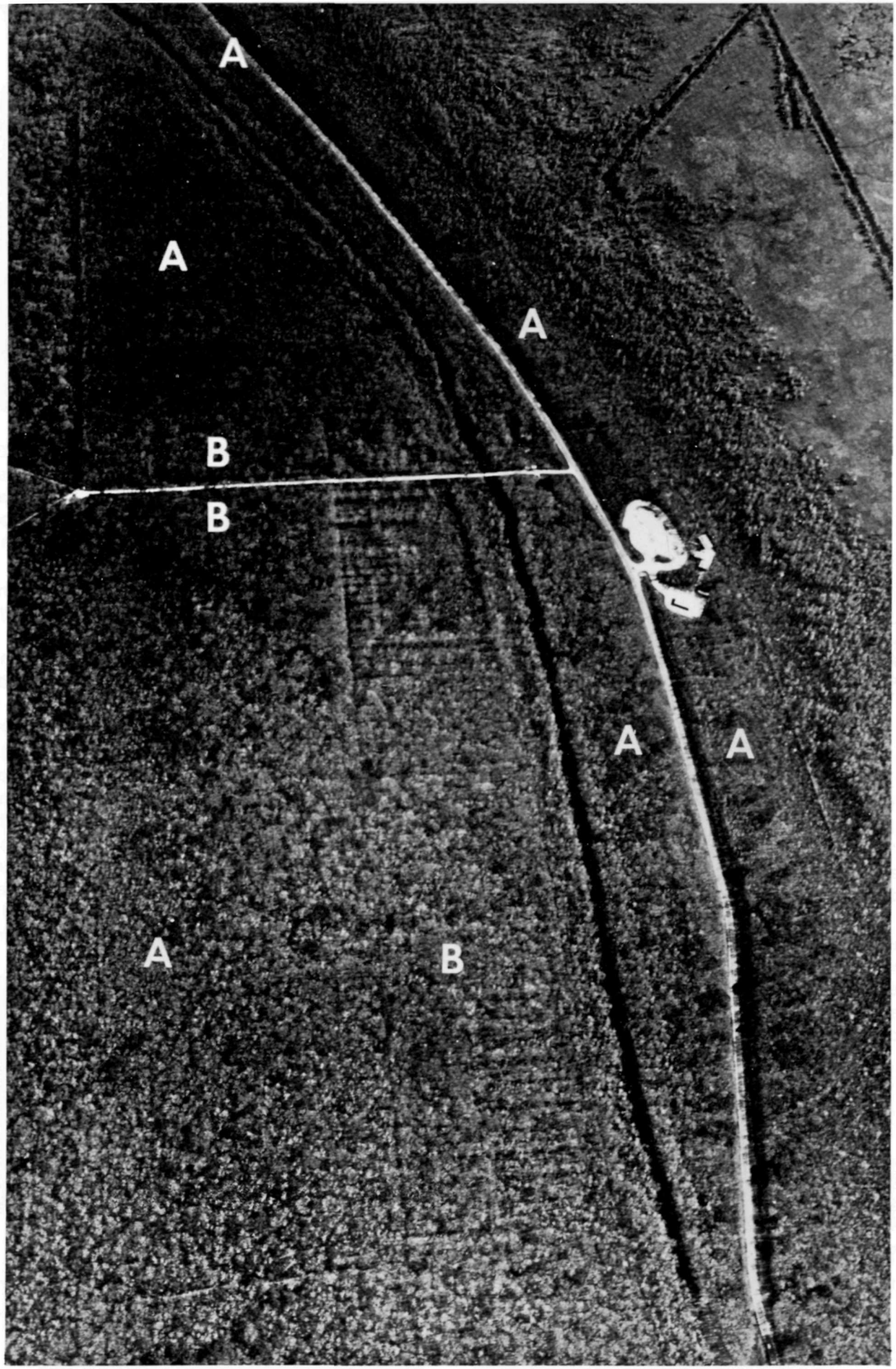


Beauvais sold the plantation to Brown in 1893 for $11,346.40 which was the sum of Beauvais' mortgages plus interest. Brown returned the Christmas Plantation to the cultivation of sugarcane. He and his wife, Louisa Meyers, apparently did not live on the plantation but rather remained in Harvey.[18]

C. J. Brown encountered financial problems similar to those experienced by Beauvais. He mortgaged the plantation several times. In 1899, he contracted with neighboring Southside Planatation to sell cane and to build a railroad to his cane field. Southside Plantation Company advanced Brown the money to build the railroad, and Brown mortgaged the railroad to Southside.[19]

According to Brown's grandson, Dr. Charles Odom, a river crevasse flood ruined Brown's sugarcane crop. He sold the plantation in 1903 to George H. T. Shaw. On the same day that the act of sale was passed, Shaw leased the plantation to Southside Plantation Company for the cultivation of sugarcane, together with mules, equipment, and buildings. The lease was to expire on January 1, 1904, and this date may have marked the end of the active years of the Christmas Plantation.[20]





Principal area of the Christmas Plantation sugarcane fields. A: Sugarcane fields. B: Sugarcane fields reused as pecan orchard. Oblique air view looking SE along old channel of the Barataria-des Familles Distributary.

CULTURAL FEATURES OF THE CHRISTMAS PLANTATION

Numerous cultural features dating from the period of the Christmas Plantation remain on the land. The field patterns are the most noticeable and widespread feature. Their reforested appearance is described in Chapter I.

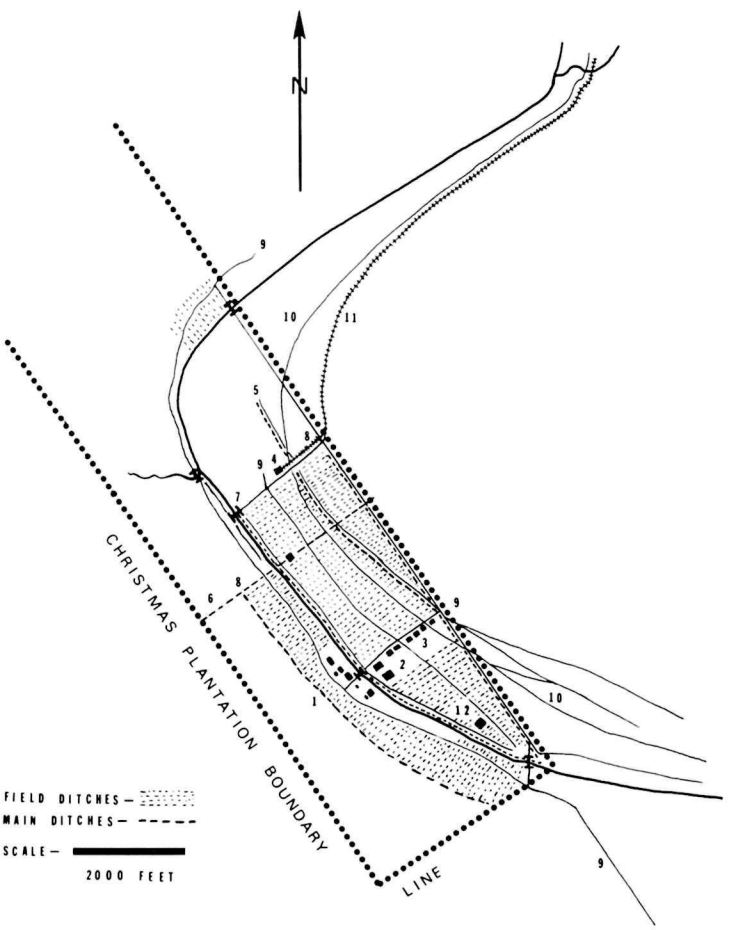
The field ditches are about six feet wide and are spaced about 100 feet apart. The beds and furrows of the old cane fields are about five feet apart. In the pecan orchard, only the ditches of the cane fields remain. The fields are fronted at the bayou by a levee and a large ditch. The main ditch passes through the fields, following the semi-circular crest of the east bank natural levee. The perpendicular main outfall ditch had a waterwheel or pump. These are the largest and deepest ditches on the plantation, being as much as eight feet wide and four feet deep. Old field roads about 15 feet wide can still be seen in the woods.

The principal plantation road bisected the field roads as it crossed the old river bed at the headquarters area in the center of the fields. It connected with the plantation road that followed the west bank natural levee and with the public servitude road on the east bank natural levee (the Old Barataria Road and its extensions along the plantation property line). The headquarters buildings were located adjacent to the headquarters road, which has been called the Christmas Road and the Shell Road. It now serves as a park road and trail.

The bridge crossing approaches of the headquarters road, as shown on the 1910 subdivision map, were located about 100 feet downstream from the present bridge on the Shell Road. Although the bridge approaches have subsided, they are visible as raised linear features 15 or 20 feet wide. Aerial photographs of 1945 show that the road leading northeast from the crossing slanted toward the Shell Road and joined it a few hundred feet from the bayou. The west bank bridge approach road shown on the 1910 map also appears in the 1945 aerials. The raised bed is visible today in several places as it curves toward Highway 45 where it joined the plantation road that ran along the west bank natural levee. In the slough that borders the highway, the position of the bridge approach road is marked by a cluster of willows and red maples, 100 feet southeast of the Shell Road.

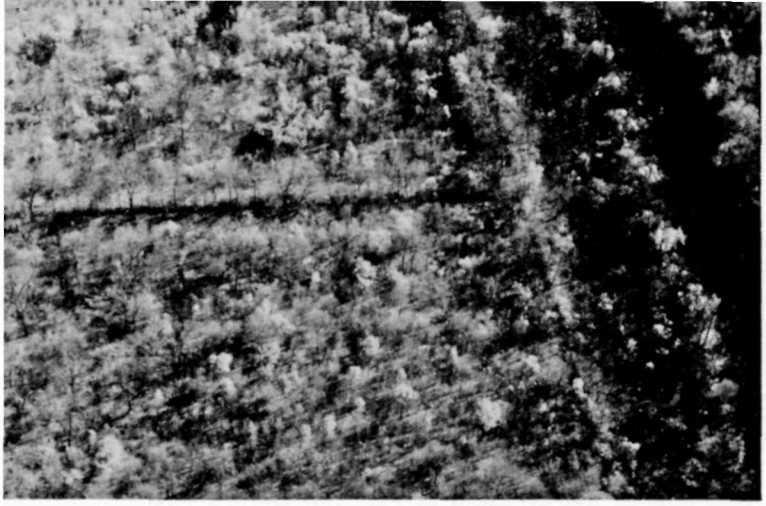
In June, 1867, Pierre Ernest Beauvais received permission from the Jefferson Parish Police Jury to build a float bridge on Bayou des Familles. The bridge crossing at the plantation headquarters area, shown on the 1910 map, may have been the one built by Beauvais in 1867. Such float bridges were constructed of cypress logs laid on the water across the bayou and held together by planks laid crosswise (see Chapter VIII).

Pronounced ground features of several Christmas Plantation bridge crossings of Bayou des Familles survive. These consist of earthern embankments or ramps which led to wooden bridges long since disintergrated. Partially disturbed embankments are located at the upstream crossing of the servitude road that follows the eastern boundary line of the plantation. There are earthern ramps at the downstream crossing of the servitude road and at the crossing of the "Old Derrick Road" which ran along the northern side of the cane field to the windlass derrick that loaded sugarcane into railroad cars. The shell bed of the railroad parallels part of the



BUILDING SITES AND CULTURAL FEATURES OF THE CHRISTMAS PLANTATION, 1865-1910

1. **Houses and barns.**
2. **Sugarhouse and/or main residence.**
3. **Tenant worker cabins.**
4. **Windlass cane derrick.**
5. **Main ditch.**
6. **Main outfall ditch with drainage machine.**
7. **Front ditch-levee-road.**
8. **Rear ditches and levees.**
9. **Plantation roads.**
10. **Barataria Public Road(s).**
11. **Plantation railroad.**
12. **House.**



Large outfall ditch of the Christmas Plantation located about 1000 feet NW of the Shell Road in the pecan orchard, with plantation front ditch and levee and Bayou des Familles at right. Oblique infra-red photo. Looking S.



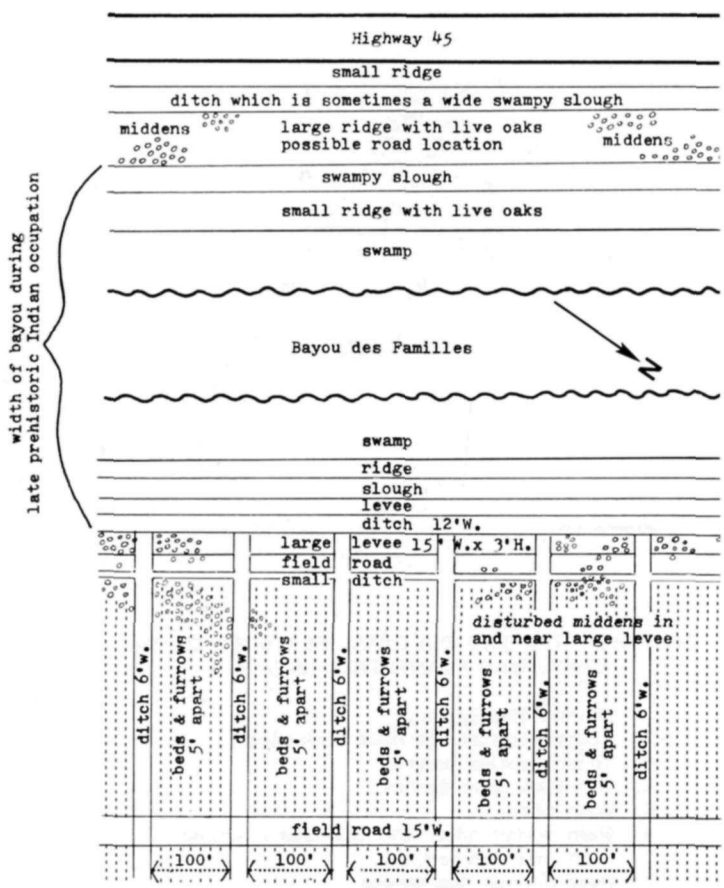
Christmas Plantation field ditch.

derrick road (see Chapter VIII).

The Christmas Plantation incorporated, reused, and preserved ground features of earlier property ownerships. The public servitude road followed a boundary division established in 1768 (see Chapter II). The derrick road was apparently built upon the double-ditch-and-levee of a Spanish grant of 1795 (see Chapter IV). The Christmas Plantation field system may also date back to the late Spanish Period, because it follows the direction of the grant lines which followed those of the French grants.

Remnants of a small double-ditch-and-levee which formed the original boundary line between the Christmas and Carter Plantations runs perpendicular to Highway 45, about 1500 feet upstream from the confluence of Bayous Coquilles and des Familles. A fence would have topped the levee which marked the uppermost of the ten 5-by-20 arpent tracts laid out in 1865 by Surveyor J. A. d'Hémécourt for sale by the Widow Rochefort.

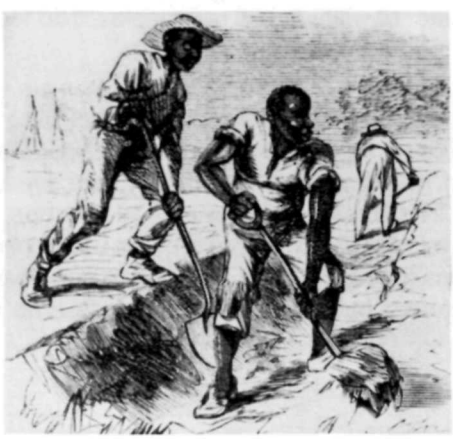
The following historic instructions for the cultivation of sugarcane and rice in south Louisiana are probably close descriptions of the methods used on the Chistmas Plantation that patterned the landscape of this part of the park.



Schematic of the Christmas Plantation sugarcane field system **and the ridge and slough bank topography of Bayou des Familles in the southern portion of the study area. Not to scale.**



The Christmas Plantation Headquarters Shell Road. Looking SW toward bayou, April, 1985.



INSTRUCTIONS FOR CULTIVATING A FALLOW LOUISIANA SUGARCANE PLANTATION OF THE POST-CIVIL WAR PERIOD

from L. Bouchereau, *Statement of the Sugar and Rice Crops, Made in Louisiana in 1870-71* (New Orleans: Young, Bright & Co., 1871), pp. x-xii.

To begin as it were from nothing, we suppose you buy a plantation that has been abandoned for a long time and is a mere "wild waste."

The first thing to be done, after clearing off weeds, briers and small timber, and burning them up, is to clean out all ditches and canals and to dig new ones. Remember that water is the greatest enemy of the cane, and that to insure a crop you must have a sufficiency of ditches to carry off rain water at once. No money spent in ditching is thrown away, the more ditches you have the better.

In breaking up the land, use four-horse plows and run them as deep as you can; in clay soils it is not unusual to see a plow drawn by three pairs of horses or three yoke of oxen. When all turned over, go over again with lighter plows and harrows and rest not satisfied till your land is mellow. If your land has thus been prepared in the fall of the year, you can plant cane on it in February, but if this first breaking up is done in January or February, it would be unprofitable to plant more cane than will suffice for seed the coming year. You should in this case plant corn, and when the corn is laid by plant peas through it, and in September when the corn has been housed, go over your field with a heavy four or six horse plow and plow in all the corn stalks and pea vines, thus securing the very best bed for planting cane.

As stated above, we presume that your land has been thoroughly broken up and pulverized in the fall - we will now prepare to plant the cane.

Lay off your rows six and a half feet apart, and open down deep with a subsoil plow to let the rain water filter through. (Take good care to have cross drains at least every forty yards where your leading ditches are two acres from each other; and when these are but one acre apart let your cross drains be not more than seventy yards apart.) After this bed up, or as we call it flush up, and open again twice, back and forth; then run a fluke plow just deep enough to allow your canes (when laid down in their place) to be on a level with the water furrow between the rows. In no case must the canes be more than two inches below the furrow, because "water is the greatest enemy of the cane."

February is the best month in which to plant cane, for then you need not cover the seed with more than two or three inches of earth, thereby saving one scraping, (which canes planted in the fall have now to undergo) and as the soil is now loose the spring heat easily penetrates to the cane and causes it to germinate at once.

Your furrows being all ready lay down your canes side by side, four inches apart, lapping them over about eight inches and laying the tops all down in the same direction, so that the lap will always show two tops and two butts, thus equalizing the number of sound "eyes" which are generally greater in the butts than the tops.

Having arrived at the first cross drain, leave the space necessary and begin again beyond it, and so on to the end of the row. A one horse plow, or a light two horse plow, comes behind and throws dirt over the cane, leaving a clean water furrow on each side of the row. The plow is followed by a hoe to break up small lumps and cover up what the plow may have left uncovered, and particularly to keep clear all the cross drains. This covering of the seed with earth is best done by the use of the hoe alone, without using the plow, but at the present price of labor this would be too expensive. The plow causes the canes to crowd together sometimes, which be avoided by the use of the hoe alone.

In dropping or dumping the cart loads of seed cane, the driver should commence at a distance from the leading ditch, say six rows, and continue on the seventh parallel row, and at short intervals, so that the planters can plant on each side of the load, saving therby some distance in carrying the seed. In the evening before retiring from the field, see that every drain is clear, so as to be always prepared for a rain.

Your cane being all planted, direct your attention to your other crops.

Towards the end of March you may scrape a little, that is remove some of the soil from on top the seed, taking care not to uncover too much before the 10th of April, for we sometimes have ice in the month of April, and if your cane is too much uncovered and the bud gets frozen below ground, your crop is irretrievably lost!

After the 10th of April you can repeat the operation of scraping, leaving only some two inches of earth. Stir up the ground between the rows with a light plow.



By the 20th of April every sprout should be out of the ground, and you are now to cultivate so as to make each sprout bring forth tenfold if possible. Remember that the closer the sprouts are to the surface, the sooner will they sucker, i.e. produce new sprouts. In new lands canes will sucker very fast, but in old lands they require a great deal of care and labor. If you find the young plants losing their color, a little more earth must be added; if growing too vigorously, bar off and draw away; if too dry, plow up and draw in; if too wet, do your best to keep clear of the grass.

Towards the end of April you will percieve little shoots coming up from each sprout; stir the earth back and forth around these, taking care to add but little earth to the sprouts until they have attained sufficient size to bear plowing to. If some are more forward in suckering than others, add a little earth to these.

When you think you have enough suckers, commence to add soil in earnest. Run a deep furrow off, next to your cane, then break up to your canes and finally, from the 15th of June to the middle of August (when the crop is laid by) keep busy with the hoe, filling in dirt well around the plants to protect the stubble against the coming winter's ices. And, in finally laying by your crop, be careful to open well all your furrows and cross drains and leaving them perfectly free to carry off water.

The cane crop being laid by, your next care is to prepare first for the coming grinding, and to house your hay and corn. This being done, plow in all corn stalks and pea vines, and after allowing them a few days, prepare your ground for planting, and commence planting, and keep at it till Oct. 5th, when you should begin to save your seed cane.

In fall planting follow the directions given for February planting, except that you must cover the cane deep to protect the sprouts from the colds of winter.



INSTRUCTIONS FOR DRAINAGE AND IRRIGATION OF LOUISIANA SUGARCANE PLANTATIONS IN THE LATE NINETEENTH CENTURY

from William C. Stubbs, *Sugar Cane, A Treatise on the History, Botany and Agriculture of Sugar Cane, and the Chemistry and Manufacture of its Juices into Sugar, and Other Products*, vol. 1 (Baton Rouge: Bureau of Agriculture and Immigration, 1897), pp. 42-47.

DRAINAGE

Nowhere on earth is drainage more essential than in the alluvial districts of Louisiana, and while many plantations may be considered well drained, the average planter has not yet fully appreciated the necessity for multiplying open ditches to the extent of forcing his soils to their fullest capacity. This is evidenced by a trip over the State and observing the varying distances between ditches which obtain in different plantations.

Only in very dry seasons can badly drained lands be made to yield large crops. Since these unfortunately occur only at long intervals, the average yields on such lands are far below their natural capacity. On badly drained lands neither fertilizer nor cultivation have their full effects, hence the discordant opinions which frequently prevail among our planters, from the use of the same fertilizer or the same method of cultivation. From the experience of the Station it is almost impossible to be "over-drained," provided the work of draining be intelligently performed. It is well for every planter to study his system of drainage, examine his ditches, see if they be deep enough, wide enough and sufficiently abundant to carry off our heaviest rainfalls and retain the "bottom or ground water" at a constant depth below the surface. Excellent results can be obtained with open ditches, provided they are numerous, deep and wide.

In the lower sugar district these ditches should be at least as close as 100 to 125 feet, and deep enough to hold the bottom water at least three feet below the surface.

The expense and attention annually required for the preservation of open ditches and the loss of land incident to them, together with many other disadvantages would force all of our planters sooner or later to adopt

Tile Drainage,

but for the great first cost, and to the absence of fall in the lands, by which the tiles can clean themselves. Tiles laid with great care on the Sugar Experiment Station, are gradually filling up with silt, and apprehension is felt that at an early day they will have to be abandoned and a return made to open ditches. . . .

IRRIGATION.

The Louisiana sugar planter of to-day is confronted with low prices and unreliable labor, depleted soils and reduced yields, reciprocity treaties and increased imports, monopolistic trusts and monied combinations, prolonged drouths and injurious rainfalls. He must therefore call to his aid every means which will remove the obstacles to maximum crop production. Next to drainage, irrigation is perhaps the most needed factor in the problem of annual large crops. A full crop is rarely obtained oftener than once in five years, and eighty per cent. of the failures are assignable directly to drouths. Irrigation, therefore, eliminates the great element of chance from our planting operations, and together with good drainage make the planter nearly independent of the freaks and idiosyncrasies of the weather.

From accurately kept meteorological records it is learned that maximum crops of sugar are made in Louisiana after a mild, dry winter, succeeded by a spring with moderate rains, well distributed; in their turn supplanted by abundant showers at close intervals during June, July and August, winding up with decreased rainfall in September, with the remainder of the fall dry and clear. We cannot control the dry and warm winters, but we can mitigate the effects of a wet, cold one by proper drainage, and we can give our crops abundant water in the summer months by irrigation. Whenever we realize that water is the most essential chemical ingredient supplied to our plants and is needed for the transportation of all the other ingredients through the plant, then will provision be made to supply it in needful quantities, when rain is withheld. The amount of water needed by cane plants has already been dwelt upon. The contents of the cells must be kept moist. The protoplasm of each active cell must retain its glutinous semi-liquid condition in order that its function may be properly performed. Decrease the moisture and with it diminish the vital activity of the plant.

A plant must be properly charged with moisture in order to grow freely. Hence, in wet seasons, with an abundance of fertilizers, the sugar-cane grows very rapidly, and if the moisture and other conditions favorable to growth be maintained till harvest, it comes to the sugar house low in sugar, since the sugar cells are gorged with a surplus of moisture. Interrupt the growth by dry weather and give the cane a period of repose, and its cells lose the excess of moisture, and the cane gives a juice high in sugar.

Irrigation is sometimes needed in Louisiana for other purposes than supplying the growing crop with water. Many a planter has lost his seed cane from dry rot when a slight irrigation of the soil in which it was windrowed would have saved it. Seed cane has frequently refused to germinate when planted in dry, cloddy soils, for its want of proper moisture, when irrigation would have furnished a superb seed-bed. In many a field, in spring, may be seen the plow and cultivator rolling the obdurate clods to and from the young plants in an honest but fruitless effort to pulverize them, when a mere saturation of them with irrigation water would have caused their disintegration.

There is scarcely a year that irrigation cannot be employed profitably on a plantation.

The Sugar Experiment Station established an irrigation plant in 1891, and since that time has used it successfully over twenty times. Crops in all stages of growth have been irrigated. Freshly fallowed lands have been flooded to bring them into a state of pulverization suitable for the planting of alfalfa and clovers.

Cane rows have been opened and irrigation water run down them, to prepare the soil for the reception of cane. . . .

The results from irrigation of cane have been uniformly successful and satisfactory, sufficiently so to justify the assertion that the profits of irrigation were very large in tonnage and with no sacrifice of the sugar content of the cane.

In establishing irrigation ditches, the reverse of drainage ditches must be observed. In the latter, the line of lowest level from the levee to the swamp, is found and followed, while in establishing the main ditch the backbone, or line of highest elevation, is carefully determined and pursued. This ditch transports the water through the plantation. From this ditch on both sides water may be drawn into the lateral or quarter-drains, following still the lines of highest elevation.

From these laterals, water may be drawn into the lowest parts of the field. Our plan in irrigating was to fill the middles of the row nearly full, permitting the water to remain all night and drawing it off in early morning through the drainage ditches. By accident, however, it was found that cane would stand a complete inundation for forty-eight hours, with the water at a temperature of 72 degrees, while the maximum temperature recorded in the station's weather bureau was 90 degrees F. No fears should be entertained of injuring the cane by too much water, for a reasonable time, say two days, in applying it, provided that when it is drained off, it is well and quickly done; in other words, the land is well drained.

Water can easily be drawn from the adjacent river, or bayou, by nearly every sugar planter in the State. The erection of a boiler, pump and syphon will be needed to lift it over the levees. Nowhere, possibly, can a systematic irrigation plant be established and maintained at a less cost than in Louisiana, and our very variable seasons demand it as an adjunct to every plantation that aims to make maximum crops every year.

A DESCRIPTION OF SUGARCANE CULTIVATION IN LOUISIANA IN THE EARLY TWENTIETH CENTURY

from F. S. Earle, *Southern Agriculture* (New York: The Macmillan Company, 1908), pp. 122-26.

The methods of cultivation on the best Louisiana plantations may be briefly summarized as follows. It must be remembered that here the two chief aims are to get rid of surplus water and to secure the early maturity of the crop. A three-year rotation is usually practiced, two years in cane and one year in corn and cowpeas. After the second crop of cane is harvested the land is plowed and is planted to corn very early in the spring. At the last cultivation of the corn, cowpeas are broadcasted at the rate of one to three bushels per acre. After the corn is gathered these produce an immense mass of vegetation which together with the corn stalks are plowed under with a disk plow during the latter part of summer. In about four weeks the vines will have rotted enough so that the land can be bedded. This is done with a large two-horse turning plow, and the beds or ridges are thrown up about six to seven feet apart. These beds are crossed by quarter drains at sufficiently frequent intervals, which lead into the larger ditches and these in turn into large drainage canals, so that any excessive rainfall is quickly carried away. Planting begins about the first of October or as soon as the seed cane is sufficiently mature to insure good germination. Planting furrows are opened in the top of the ridges with a double moldboard plow, but this furrow should not be quite as deep as the water furrow between the rows. Two rows of seed cane are laid in the bottom of this furrow, which is then filled in five or six inches deep by means of the disk cultivator. It is covered thus deeply to protect the seed cane from freezing during the winter. The cane is planted full length as it is found to keep better than when cut in short pieces. About four tons of seed cane are required per acre. Planting is usually interrupted at the beginning of the grinding season in November. On most plantations it is necessary to make spring plantings also. For this purpose seed cane must be carried over

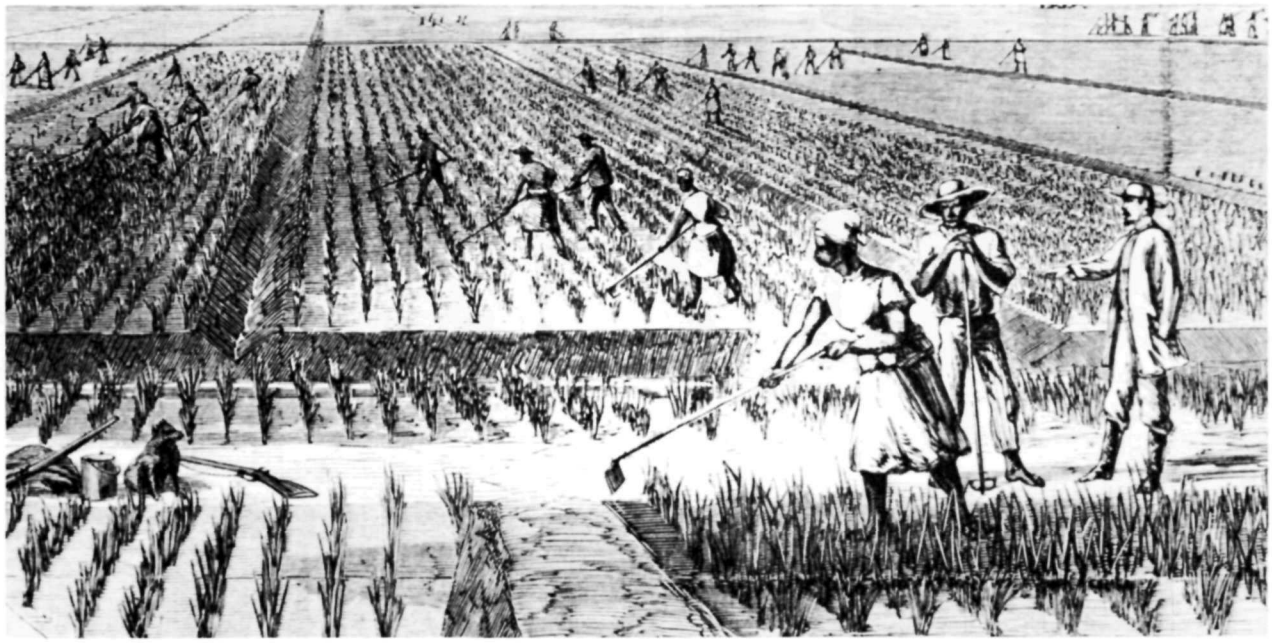
winter by the process known as windrowing. The cane cut from two rows is carefully piled in the water furrow between them in such a way that the stalks of one armful are completely covered by the tops of the next. When the windrow is completed, only a continuous row of tops and leaves is visible. Furrows are now thrown from either side with large plows and the work of completely covering with dirt is finished with hoes.

In severe winters the windrowed cane is sometimes damaged so that a larger quantity seed will be required to secure a stand. With the first warm days of spring the dirt is thrown from the sides of the beds with the plow and the greater part of the earth which covers the cane is scraped off with hoes. This lets in the warmth of the sun and promotes early germination. Fertilizer is now scattered in the side furrows and as soon as germination is completed the dirt is thrown back with a turning plow and the water furrows are cleaned out with the double moldboard plow. The subsequent cultivation is all done with disk cultivators, which throw still more dirt to the rows, and with the Magnolia or some other similar form of cultivator for the water furrows. No hoeing is needed after the first scraping of the dirt from the seed canes. In fact even this is sometimes done with a special implement devised for the purpose. When the cane tops begin to meet between the rows, it is "laid by," by again cleaning the water furrows with the double moldboard and opening up the quarter drains, which should be six inches deeper than the bottom of the water furrows. After the harvest the land is left covered with a great accumulation of trash, consisting of the cane tops and leaves. This is burned over at the first suitable opportunity in order to kill the cane borer, but more particularly in order to prevent it from clogging the drains and water furrows and thus keeping the land too wet and cold during the winter. This is recognized as a great waste of fertility since so much vegetable matter is destroyed that ought to be reincorporated with the soil. Under these special conditions, however, its advantages are found to considerably outweigh its very obvious disadvantages. It must be remembered that in this short rotation an abundant supply of vegetable matter is returned to the soil every three years with the corn stalks and pea vines. The burning, too, clears the ground for the subsequent cultivation of the stubble cane. In the early spring an implement known as a stubble digger is passed over the rows to loosen up the ground between the stubbles. If the upper buds of the stubble have been injured by the winter, another implement, known as the stubble shaver, may first be passed over the row to cut off these injured tops below the surface of the ground. As soon as the stubbles begin to sprout the rows are barred off, fertilized, rebedded, and cultivated exactly like the plant cane.

The fertilizers used in Louisiana for cane are largely the phosphates though nitrogenous manures are also employed. Potash does not seem to be needed. This is probably to be explained by the well-known fact that the phosphates tend to hasten maturity, a point so important for Louisiana, while potash has the contrary effect of prolonging the period of vigorous growth.

Most unfortunately for the sugar-cane industry the harvesting as yet has to be done by hand. This requires a much larger force of laborers than the cultivation, and at the present time constitutes the most difficult problem that confronts the cane grower. A successful mechanical harvester is a great desideratum. The great weight of the crop to be handled and the fact that it is usually badly tangled by storms are serious obstacles to be overcome, but the worst difficulty is that judgment has to be used as to the height at which to top the cane in order not to waste it on the one hand by cutting too low or by cutting too high to include immature tops which carry impurities that prevent the crystallization of the sugar. Whether these difficulties can ever be successfully solved remains for the future to decide. A successful machine for cutting cane already exists and it is sometimes employed in windrowing, but ordinarily it is not found to have much advantage over hand cutting. There are now several fairly successful devices for loading cane into carts or wagons, after it is thrown in piles by the cutters and others for transferring it from carts to railroad cars and from the cars to the conveyor at the mill. It is thus seen that cutting and stripping are practically the only hand work remaining in the Louisiana cane fields.





A DESCRIPTION OF RICE CULTIVATION IN ALLUVIAL PORTIONS OF LOUISIANA IN 1900

from William C. Stubbs, *Rice, Preparation, Cultivation, Flooding, Harvesting, and Noxious Weeds in the Rice Fields,* Bulletin of the Agricultural Experiment Station of the Louisiana State University and A. & M. College, Second Series, No. 61 (Baton Rouge: Board of Agriculture and Immigration, 1900), pp. 385-86.

CULTIVATION OF RICE

varies in different sections of the State and sometimes in different communities in the same section. The alluvial sections as a rule pursue an entirely different method from preparation of soil to the harvesting of the crop, to that followed by the planter upon prairies.

IN THE ALLUVIAL SECTIONS

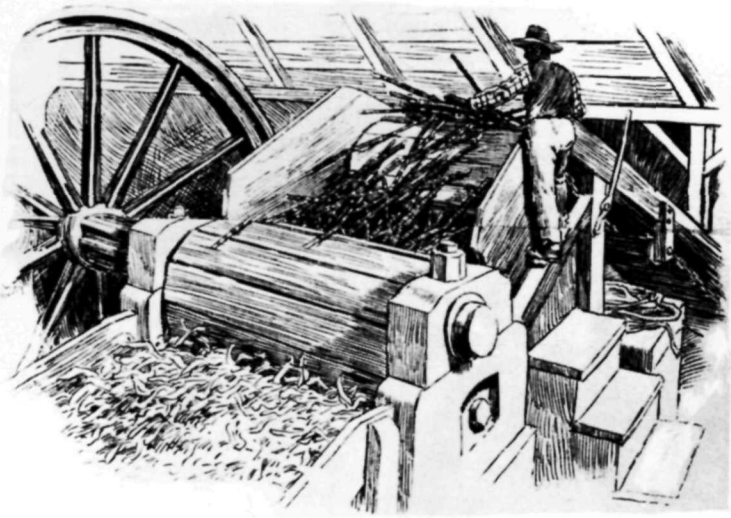
The ditches for drainage run from the levee to the rear at distances of from 100 to 200 feet apart. As before mentioned, the land slopes gradually from the levees to the swamps. This slope is nowhere precipitous, yet varies in different fields. Cross embankments at intervals to suit this slope, are thrown up with a plow and perfected with the hoe so as to hold back water enough to cover the plants in the upper part of the plat. These embankments cross the old ditches with either plank or earth dams. The size of the plats thus made by the ditches and cross embankments varies with slope of the land and distance between ditches. Usually they are too small to permit of the successful handling of improved machinery in harvesting the crop.

Two methods of preparing the soil are followed, known as the "dry" and the "wet". In the former the lands are plowed in the fall and winter and thoroughly harrowed and seed sown broadcast (or with drill) and harrowed in, similar to planting of oats or wheat. The seed is usually sown in the last days of March or early in April.

In wet culture the fields are flooded and plowed in water. The rice is sown and harrowed in the wet. The water is then withdrawn to permit the rice to germinate. The sowing made directly after plowing is usually done late in April or in May. Care must be exercised to prevent the young plants from scalding by the sun at this late period. This custom is practiced by those planters who cultivate black or buckshot clays, because after wetting the soil an ordinary pair of mules can break the land, whereas if dry it will require a four or six mule team for the same work. However, wet culture has many difficulties unless carefully and judiciously performed.

After the plants are up the ground is gradually moistened and the water kept just a little below the tops of the plant until the latter has obtained a good size, when the field is flooded from six to twelve inches deep and kept so until ready for harvest, unless some other disaster overtakes the crop. Should weeds and grass abound they are either pulled out by hand or they are scythed down with the rice, and by flooding, the former are checked or killed and the latter pushed into vigor. During growth a constant but imperceptible flow of water is kept going through the fields. When harvest approaches the water is withdrawn and pumps stopped. The water is now, by law, drawn over levees through syphons, which during high water work automatically, dispensing with expense of a pump.

Harvest usually takes place on the river in August. The rice is cut by hand with sickles, laid upon the stubble to cure and afterwards bound into sheaves and put into shocks, where they remain until hauled to the thresher. Improved implements for planting and harvesting the crop have been tried in the alluvial sections, but have not been generally adopted, due to reasons already assigned. The plowing is usually from four to six inches deep, and a sack of 162 pound of seed is planted on from two and half to three and a half acres.





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And we distinctly Guarantee as not to be Excelled.

ALL WORK DONE AT OUR ESTABLISHMENT.

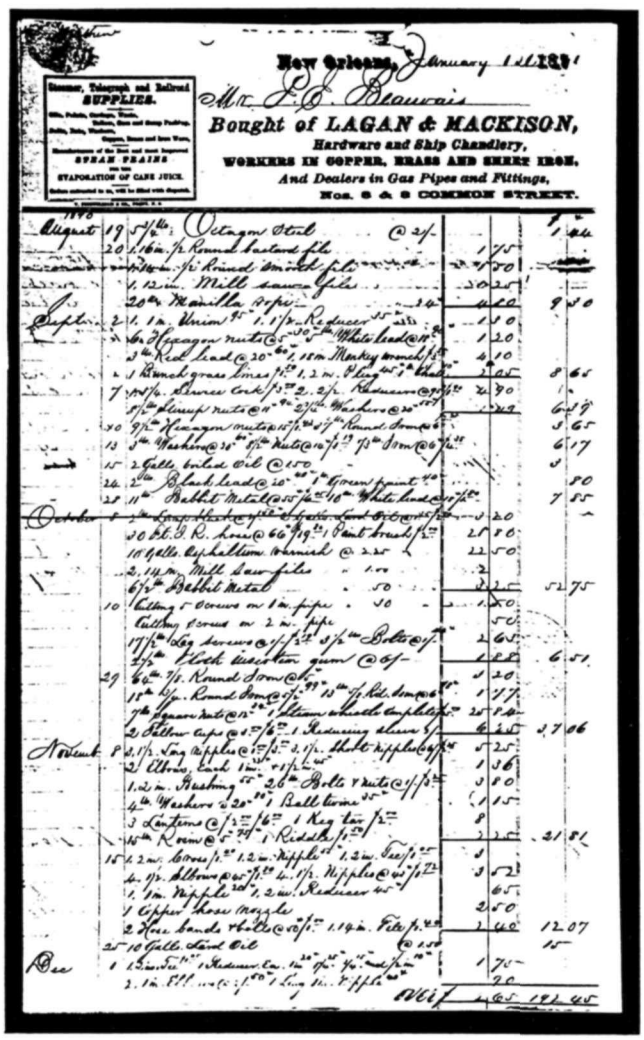
Advertisement, *Cohen's New Orleans Directory.* (Published by the New Orleans *Picayune*, 1855), p. T. LC/TUL.

Advertisement, L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana.* (New Orleans: Young, Bright & Co., 1881-2), p. xxiv. LC/TUL.

STRUCTURES OF THE CHRISTMAS PLANTATION

Excepting roads, buildings and improvements are not mentioned in the acts of sale by which Rufus King Cutler and Pierre Ernest Beauvais purchased the original property tracts in 1865 and 1866 from Marie Julie Gabrielle Lemoine, widow of Pierre Rochefort. A Jefferson Parish Mortgage Office certificate attached to the 1865 sale states that buildings were present on the 20-by-100 arpent "portion of ground or plantation" out of which the Christmas property was subdivided and sold by the Widow Rochefort. The buildings were likely to have been located along the frontage of the Rochefort property which faced Bayou Barataria.[21]

Buildings had apparently been erected on the Christmas Plantation by October, 1866, when Cutler sold his undivided half of the property to Beauvais with all the "singular improvements thereon, the rights, ways, servitudes and privileges thereto belonging, of all the machinery, instruments, mules, wagons, carts, cattle, boats, edged tools, fowls and all materials and things and farming apparatus belonging to said land known as the 'Christmas Plantation.'" Sugar production began on the plantation with a portable sugar mill in a wooden structure. Records do not specify the location of the mill. It may have been operated by mule power. From the cane crop of 1869-70, the portable mill produced 55 hogsheads of sugar weighing 83,000 pounds, and 5,800 gallons of molasses.[22]



New Orleans, January 1st 1870

Mr. P. E. Beauvais

Bought of LAGAN & MACKISON,

Hardware and Ship Chandlery,

WORKERS IN COPPER, BRASS AND SHEET IRON,

And Dealers in Gas Pipes and Fittings,

Nos. 6 & 8 COMMON STREET.

Steamer, Telegraph and Railroad SUPPLIES.

STEAM PLAINS for the EVAPORATION OF CANE JUICE.

Bill to P. E. Beauvais from Lagan and Mackison for labor and materials furnished in making repairs and fitting up machinery in the sugarhouse on the Beauvais Place, January 1, 1870. Lagan and Mackinson *vs.* P. E. Beauvais, Second Judicial District Court, Docket No. 3984, April 19, 1872, Jefferson Parish Old Judicial Records, Gretna.

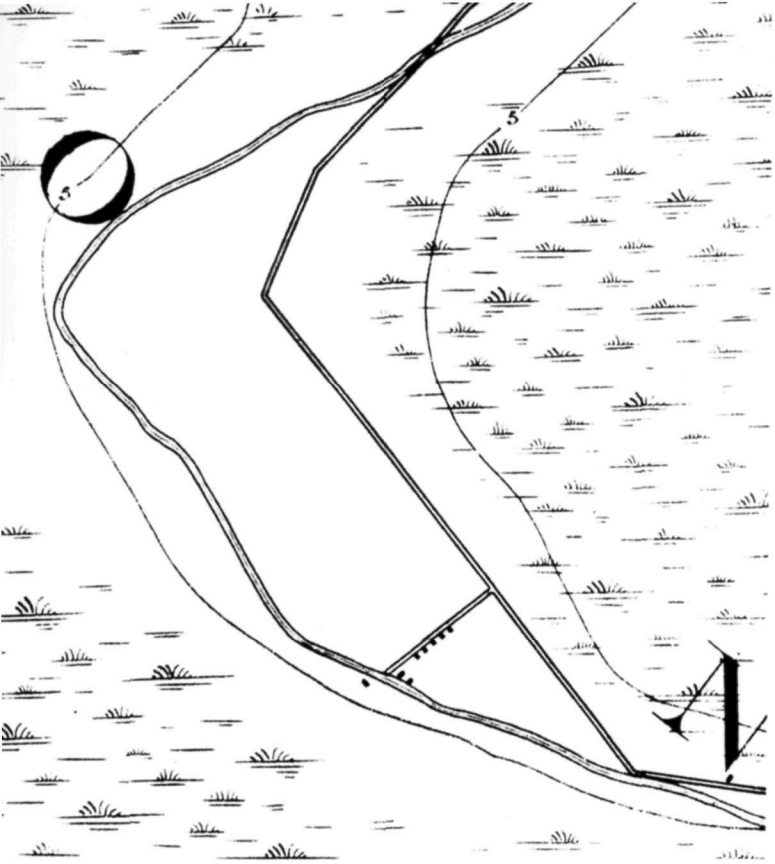
In 1869-70, the Christmas Plantation sugarhouse was installed with steam apparatus and open kettles by the New Orleans firm of Lagan and Mackison at a cost of $3,296.99. The machinery was made by the W. Golding Iron Foundry and the Leeds and Company Iron Foundry. In 1872, additional equipment for the sugarhouse was purchased from the iron foundry of Shakespeare, Smith and Company.[23]

The sugar-making equipment was mounted in a brick structure having a wood-burning furnace and a tall brick chimney. The sugarhouse that enclosed this assemblage was made of wood. The precise position of the sugarhouse is not documented, however, records show that it was located on the east side of Bayou des Familles. It was probably located in the vicinity of the present-day Shell Road, also known as the Old Road and the Christmas Road, where the plantation buildings are shown on later maps.[24]

A bankruptcy sale of 1876 described the improvements on the plantation as consisting of "one dwelling house, one sugarhouse and eight other buildings for quarters, stables, cane shed, one water cistern, etc. The sugarhouse and cane shed contain one steam engine, one sugar mill of six hogsheads a day capacity, two sets of steam boilers, ten steam clarifiers, four settling tubs, one iron evaporator, three syrup settling tubs, one copper strike pan, two centrifugals, one molasses cistern, one strike box car, fifteen coolers, draining floor for seventy hogsheads, all said apparatus being in complete running order and condition; also a circular saw attachment, a complete set of plows, harrows, cross cut saws, and all necessary agricultural implements, five carts with harnesses, five mules, a stack of hay, and a lot of sweet potatoes estimated at two hundred and fifty barrels."[25]

The sugarhouse burned in 1885. The plantation was then used to grow rice, and a rice thresher was installed on the property.[26]

In 1892, brick laying for a boiler and the installation of the boiler were done by Victor Lombard, a brick mason who lived in McDonoghville. The boiler may have been used to pump water to flood the fields. By the turn-of-the-century, sugarcane was again being



United States Geological Survey. "New Orleans, La.," 15 Minute Topographic Quadrangle, Edition of Nov. 1891, reprinted 1931, surveyed in 1890. Detail of study area.

grown, but the cane was being transported by railroad to a neighboring plantation to be milled.[27]

The "New Orleans, La." U. S. G. S. quadrangle map (scale 1:62,500, surveyed in 1890, edition of November 1891, reprinted in October 1898) shows the buildings of the Christmas Plantation clustered near the present-day Shell Road, on both sides of Bayou des Familles. Typically, U. S. G. S. quadrangle maps do not show all existing buildings, and a larger number of structures were probably actually present in the complex. Five buildings that were undoubtedly the laborers' quarters line the south side of the road. Two larger buildings are located at the southwest corner of the juncture of the road and the bayou. Apparently, one of these buildings was the main dwelling house. Earlier, this would have been the likely location for the sugarhouse. Another building is positioned on the opposite side of the bayou. This building was a stable. These buldings are described as being in these locations in an agreement by Charles J. Brown to deliver his property to the Southside Plantation Company to plant cane in 1901:

> The general direction of the Cane Field is Northwest to Southeast; the Barataria or Public Road running along the Northeasterly side of the field; about midway in the field and running in the same direction is the Bayou des Familles; the greater part of the Quarters is centrally located on the North side of the Bayou as is also the Plantation Residence; on the South side of the Bayou are the stable and a few cabins; the railroad track leading from the South Side Plantation to the Christmas Plantation enters the cane field of the latter property near the Northwesterly corner and extends in the Christmas Plantation about one thousand feet from where the track crosses the Public Road.[28]

Also on the property were twenty-two mules and several carts, as well as

> ....two Avery cultivators; two Avery stubble diggers; four Planet Jr. cultivators; three pea-vine cutters; one portable boiler and engine, Harrisburg Make; one thirty-six-inch Menge pump; ten assorted Avery plows; one cane derrick; one horse power hoist; all harnesses and parts of harnesses; all other property necessary for the proper cultivation of the crops including buildings, fences, etc.[29]

The Menge pump may have been situated in the vicinity of brick masonry work on the main outfall ditch about 2350 feet upstream from the Shell Road. The brick remains are located 135 feet from the front ditch that borders the bayou swamp. Records show that a pump was used in the 1890s to flood the rice fields, and this was probably the Menge pump described above.[30]



Cast-iron grate bar from the furnace of a plantation sugar refinery, used as a boundary marker at the lower front corner of the east bank Pablo Suárez Ruiz tract.



ADVERTISEMENTS. S

WOOD & EVANS' GRATE BAR.

Office, No. 2 Canal Street,

NEW ORLEANS, LA.

STATIONARY BAR.

Patented May 27th, 1890.

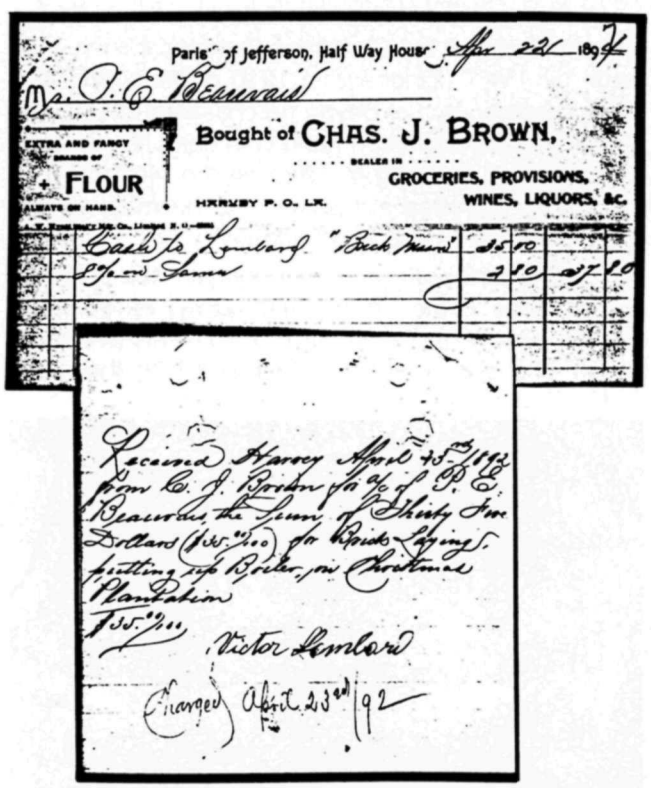
This Bar will burn Slack, Nut and all kinds of coal with a saving of from 10 to 20 per cent. Recommeded to Sugar Planters as well as all Steam Boats, especially for burning Slack and Nut Coal.

TO STEAM USERS IN GENERAL.

Advertisement, L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana.* (New Orleans: Young, Bright & Co., 1889-92), p. S. LC/TUL.

"Menge's Patent Drainage and Irrigating Machines" were advertised in the 1880s and 1890s as having "a capacity of from Fifty Thousand to Ten Million Gallons an hour." The working parts were made of iron and the frame and walls were of wood. The pumps had the appearance of rectangular boxes and were installed in the water. A vertical shaft turned a horizontal wheel which was located in the bottom of the box below the water line. Water thrown up into the box by the wheel was discharged through a flume. The vertical shaft was connected by a pulley to a steam engine situated on land nearby. Frequently, a portable steam engine on wheels was used to power the pump. For protection against weather, the engines were sometimes enclosed in a small wooden building with a metal smokestack. The masonry on the main outfall ditch may have served as the foundation and floor of a building to contain the Harrisburg portable boiler and engine that is described above.[31]

Archaeological investigations carried out by Jill-Karen Yakubik and Herschel A. Franks in 1988 determined that the brickwork represents the partial remains of a foundation measuring approximately five meters by two meters. The remains consist of three continuous brick supports, each four courses deep. The two upper courses consist of an interior row of headers and an exterior row of stretchers. Two rows of stretchers line the interior of the two bottom courses. The lowest course of bricks is set in a sloppily applied mortar bed.


Paris of Jefferson, Half Way House, Apr 22 1892

Mr. P. E. Beauvais

Bought of CHAS. J. BROWN,

DEALER IN

EXTRA AND FANCY

FLOUR

GROCERIES, PROVISIONS, WINES, LIQUORS, &c.

HARRIBY P. O. LA.

Cash to Lombard "Brick Mason" 25 10

2 50 27 10

Received Harvey April 25th 1892 from C. J. Brown on a/c of P. E. Beauvais the Sum of Thirty Five Dollars ($35.00) for Brick Laying & putting up Boiler on Christmas Plantation

$35.00 Victor Lombard

Charged April 23rd 92

Payment of C. J. Brown c/o P. E. Beauvais to Victor Lombard, Brick Mason, for putting up boiler on the Christmas Plantation, April 22, 1892. Charles J. Brown *vs.* Pierre E. Beauvais, 21st Judicial District Court, Docket No. 251, January 14, 1895, Jefferson Parish Old Judicial Records, Gretna.


MENGE'S

Patent Drainage and Irrigating Machines.

Two kinds made for low lift up to 8 feet wooden frame box, as shown in cut; for high lift up to 30 feet, made of all iron with suction and discharge pipe.

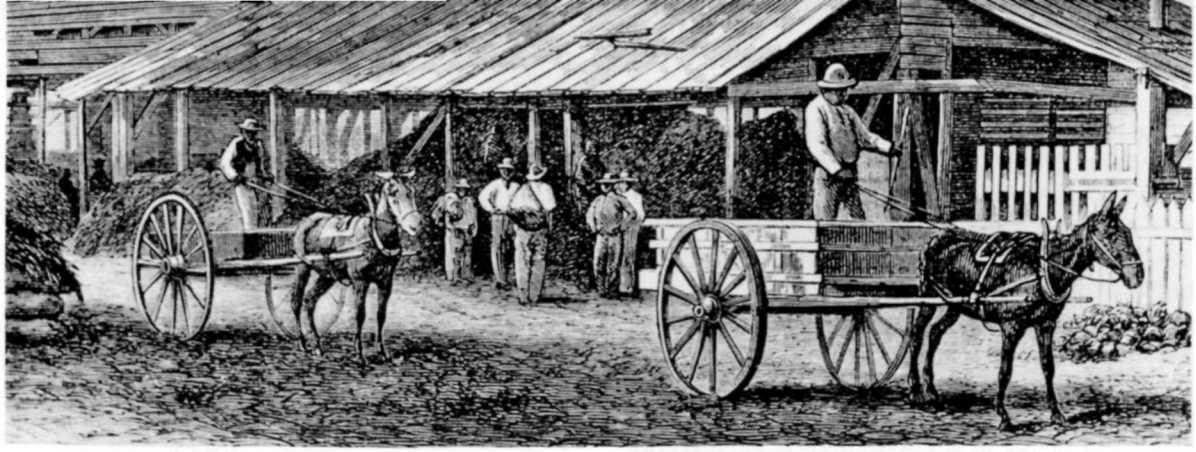
Advertisement, L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana.* (New Orleans: Young, Bright & Co., 1885-6), p. xxi. LC/TUL.

The courses are stepped for the purpose of bearing the weight of a superstructure.[32]

The foundation is surrounded by a brick scatter which extends from the structure 3.8 meters northeast, 4.6 meters southwest, and 3.9 meters southeast. One square-cut, late nineteenth century nail was recovered while cleaning and clearing the structure.[33]

Bricks utilized in the structure appear to be manufactured rather than hand-made. The bricks measured 9 to 9.5 centimeters in width, 21 to 21.5 centimeters in length, and 6 to 6.5 centimeters in thickness. Some fragments of very soft, light reddish brown and red bricks were noted during cleaning; these may be remains of older, reused bricks.[34]


Brick foundation on the south bank of the Christmas Plantation main outfall ditch. Looking NW (site 6).



When the Christmas Plantation was sold by Brown to Shaw in 1903, it was sold with the buildings and "eighteen head of mules, thirteen plows, two cultivators, two stubble diggers, five mule carts, one 3 ft. Menge Pump, one 12 Horse Power Engine, one Dump Cart and one Windlass Derrick." The windlass derrick had been used to load cane into the railroad cars for transportation to the mill of neighboring Estelle Plantation. The derrick was located near what is called the "Old Derrick Road." The probable location of the cane derrick is a raised area about 150 feet square which is scattered with *Rangia* shell and brick fragments. An iron spike was also found on this site. The site is located at the termination of a 15-foot-wide shell road bed which is raised nearly a foot in height and runs for 950 feet southwest of the Old Barataria Public Road.[35] It could have been the railroad bed.

According to Frank Ehret and Louis Ehret, large pieces of rusted sheet metal were lying near this site prior to World War II when they were collected for metal drives. One brick fragment on this site was noted to be imprinted with the letter "H." Whole bricks bearing the letter "H" are found in the plantation headquarters area. These bricks were probably produced by the Harvey's Canal Brick Manufactory which had been established by Joseph Hale Harvey in 1848 and which was later operated by his wife Louise Destrehan Harvey. An advertisement for the bricks announced that they were delivered in barges to plantations. The ad further stated that

> These bricks are manufactured from the clay excavated from the Harvey Canal, and are much stronger than those made from the annual Mississippi deposit, as they will not disintegrate from damp or saline atmosphere.[36]

The bricks imprinted with an "H" and the plain bricks located on Christmas Plantation building sites are hard in consistency and deep red in color. The same "H" imprinted bricks can be found in the Berthoud Cemetery on Bayou Barataria. An example of the sale of Harvey bricks is a contract in the Jefferson Parish Courthouse by which Louise Destrehan Harvey sold Jonathan Davis 300,000 bricks for the sugarhouse on his Barataria plantation in 1862. The bricks were priced at $8.00 per 1,000.[37]

A final source of documentation on the buildings and structures of the Christmas Plantation is the map made by J.W.T. Stephens in 1910 of the subdivision of the property east of Bayou des Familles into streets and lots for the Jefferson Land Company. The plantation buildings standing in 1910 on the west bank of Bayou des Familles are shown on the map, as are some plantation roads and bridges.[38]

Based on the above documentation, the probable building sites located during field survey of the headquarters area of the Christmas Plantation are described below. The site numbers correspond with the maps

BRICKS, BRICKS.

HARVEY'S

CANAL BRICK

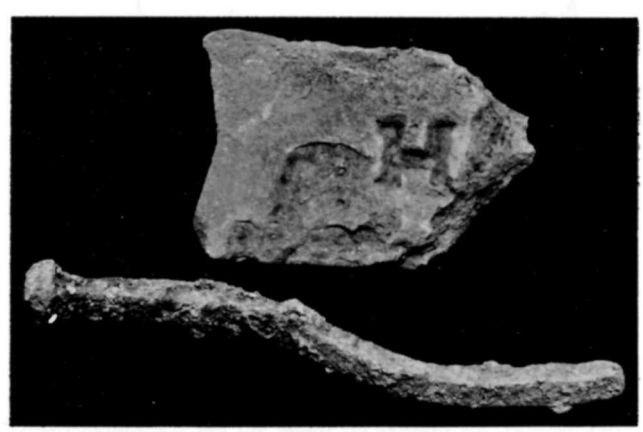
Manufactory.

(Established by J. H. HARVEY in 1848.)

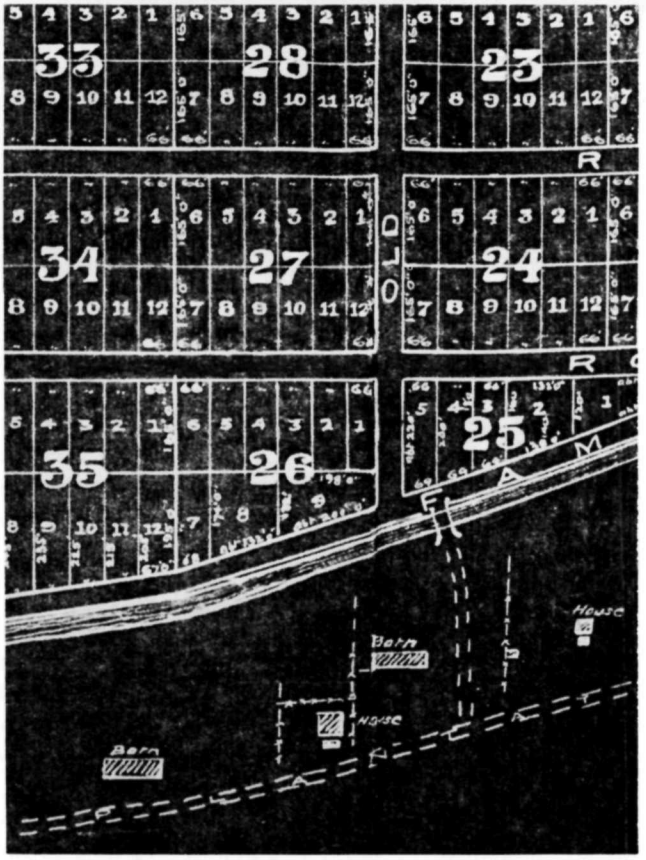
Bricks delivered in quantities to suit by New Orleans Pacific or Morgan's Louisiana and Texas R. R.; also in barges to plantations. Address only ***Mrs. Louise Harvy***, 55 Prytania St., or box 30, Mechanics', Dealers' & Lumbermen's Exchange.

These bricks are manufactured from the clay excavated from the Harvey Canal, and are much stronger than those made from the annual Mississippi deposit, as they will not disintegrate from damp or saline atmosphere.

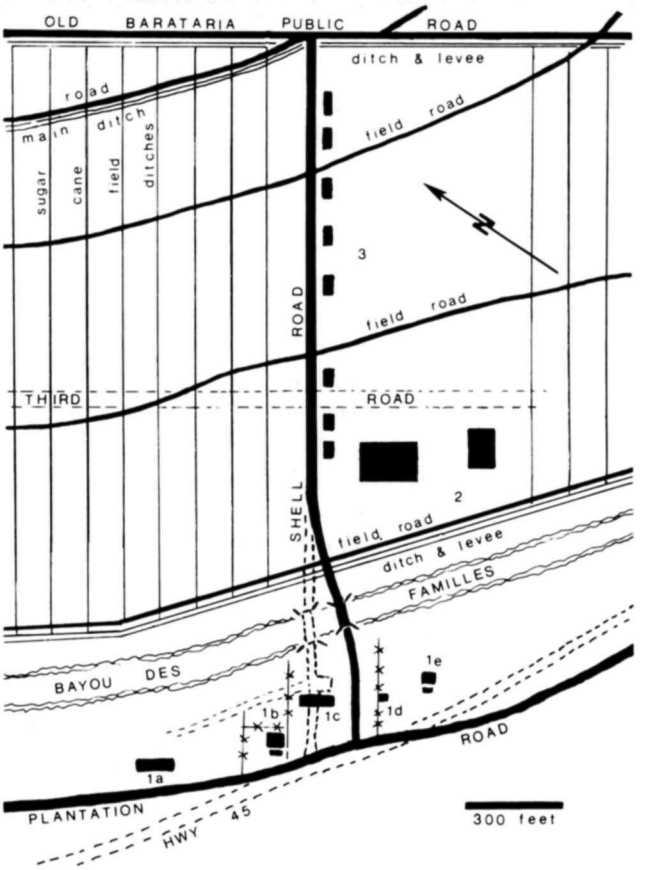
Advertisement, L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana.* (New Orleans: Young, Bright & Co., 1881-2), p. xiv. LC/TUL.



Iron spike and piece of "H" imprinted brick from probable site of the Christmas Plantation windlass cane derrick (4, map of Cultural Features of the Christmas Plantation).



J.W.T. Stephens, "Map of Property of the Jefferson Land Company," March, 1910. Detail showing buildings of the Christmas Plantation and the plantation roads and bridge over Bayou des Familles. Annexed to act of Alexis Brian, notary, February 10, 1911, NONA.



Christmas Plantation Headquarters area. Positions of east bank buildings are approximate. Dashed lines represent post-plantation features.

which show the cultural features of the plantation. Archaeological investigation is needed to attempt to actually determine the identity and location of the structures. Other Christmas Plantation structures may have also existed in the area.

1a. Barn site

The site is located between 400 and 500 feet northwest of the junction of the Shell Road and Highway 45, and about 150 feet northeast of the highway. The barn is shown in this position on the 1910 subdivision map and is shown as being about 100 feet long by about 40 feet wide.

Among the surface artifacts are brick and board fragments, barbed wire and mesh wire fencing, *Rangia* shell, an old axle, and other rusted metal items. A fallen tree which has split open holds a horseshoe which became embedded in the tree when it was growing. A notable feature of the site is a hole in the ground measuring about ten feet in diameter and about two feet deep. In the hole are rotten wood beams which are partially covered with tin.

Another scattering of brick and board fragments is located about 335 feet NW of the Shell Road, near two large live oak trees. A shell road that runs through this area appears on 1945 aerial photographs and may date back to the plantation period. Aerials from 1945 through the 1970s show other buildings located near the barn site. Some artifact scatter and some of the ground features may have been associated with these buildings. Later buildings on the site could have reused materials from buildings of the plantation period.

The 1910 subdivision map shows that the "Plantation Road" on the west bank of Bayou des Familles ran on the west side of the barn. In this approximate position, near the highway, is a raised linear feature about 20 feet wide with ditches on both sides. This could be the old Plantation Road bed.

1b. House site

The site is located about 75 feet northwest of the junction of the Shell Road and Highway 45, and about 60 feet northeast of the highway. A house is shown on the 1910 subdivision map as being located in this position, facing the bayou with a separate kitchen building in the rear. Together, the two buildings are shown on the map as covering an area measuring about 75 by 50 feet. The house is shown as square in plan, and it was probably a Creole cottage type. The kitchen is shown as rectangular in plan. The map shows that the buildings were partially enclosed by a fence. Near the bayou, a wire mesh fence is located in the position of one fence line shown on the map.

Surface artifacts on the site include brick and board fragments, and *Rangia* shell, most of which are located at the base of a large live oak tree that once shaded the house. An aerial photograph of 1945 shows a house located on the northwest side of the oak tree. This house was destroyed in the 1950s.[39]

1c. Barn site

The 1910 subdivision map shows that a barn measuring about 35 feet by about 100 feet was positioned across the present route of the Shell Road, about 150 feet from Highway 45. Soon after the laying out of the subdivision, the Shell Road was extended directly across the bayou to connect with the road on the west bank of the bayou. Probably at that time, the barn was demolished. The laying of the shell bed of the road eliminated surface evidence of the barn.

NPS construction workers uncovered a brick floor on the site of the barn while removing the shells from the road in 1988. In 1989, the NPS cut trenches for utility lines along both sides of the road newly laid upon the course of the Shell Road. The trench on the north side of the road turned up broken brick from the edge of the floor at the northern end of the building. The trench on the south side of the road revealed evidence of architectural construction, as it cut through the brick floor in the approximate center of the building. The layer of brick appeared to be one or two bricks thick. The bricks were similar to those found on other building sites of the Christmas Plantation, and one exhumed brick was imprinted with the "H" typically found on bricks at other plantation building sites. The bricks were set in a coarse, sandy mortar. A layer of coal and charcoal was noted in association with the brick. Among the materials unearthed were roof slate, window glass, a length of iron chain, and lumps of iron slag, some of which had fused into conglomerates of *Rangia* shell and molten iron. The building apparently housed a forge, and it probably served as the plantation blacksmith shop as well as a stable.



1d. Small building site

The 1910 subdivision map shows a small unidentified building sided by a fence located 220 feet southeast of the present-day Shell Road and about 100 feet northeast of the highway.

The site contains scattered debris, much of which can be identified as recent. An old wooden shed stood on or near the site until recently demolished by the NPS. This shed may not have been the small building shown on the 1910 map. Part of a wire mesh fence is located in the position of the fence line shown on the map. The fence runs into the slough beside the highway.

1e. House site

The 1910 subdivision map shows a square house with rectangular kitchen at the rear located about 350 feet southeast of the present-day Shell Road. Measuring along Highway 45, the site is about 420 feet southeast of the junction of the Shell Road and the highway. The rear of the kitchen was located about 75 feet northeast of the highway, near a slough that runs beside the highway. The house faced the bayou.

The site has been disturbed by earth moving. Large pieces of brick masonry protrude at angles from the ground. The roots of trees grow over some of the masonry. Also present on the site are *Rangia* shell, broken fragments of rotten boards, broken bricks, and pieces of metal and wire. On the 1910 map, the two buildings cover an area measuring about 40 by 60 feet. However, the remains of the buildings appear to cover a larger area. (See discussion of the William Gomez House in Chapter IX.)

The 1901 description of the Christmas Plantation, quoted above, appears to locate the main dwelling house on the east side of Bayou des Familles. It may be speculated that the two houses on the west bank of the bayou were the original plantation homes built by the partners Rufus King Cutler and Pierre Ernest Beauvais in 1866.

The layout of pre-Civil War plantation building complexes usually followed a pattern that was developed as a result of the institution of slavery. Regimented rows of slave quarters were closely grouped for security, within view, but distant from the master house, and distant from the vegetable garden, chicken house, dovecotes, and storehouses. The slaves were housed near the fields and the sugarhouse so that they might quickly go to and from their work. The overseer's house was frequently located near the slave quarters so that he might closely watch the slaves. Slaves and barn animals were usually situated to the north of the master house to avoid unpleasant smells that might be carried on warm southern winds. The master house was set apart from the other buildings in an ornamental garden facing the river or bayou and main road.[40]

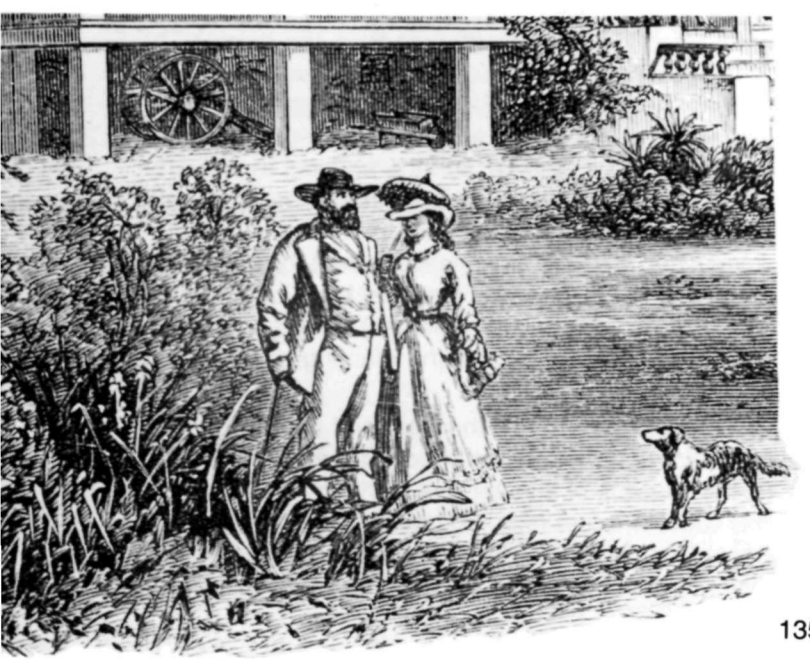


Brick structural remnant at the Christmas Plantation house site 1e.



Brick structural remnant in the roots of a tree, Christmas Plantation house site 1e.

After the Civil War, the status of the plantation owner and his relationships to his hired hands, whether white or black, changed. As a consequence, some changes were made in the arrangement of buildings on plantations. Archaeological investigation of the lay-out of buildings on the Christmas Plantation might add to the knowledge of both social and technological changes that occurred on post-Civil War plantations.



It may be conjectured that the houses on the west bank of Bayou des Familles were built as homes for the plantation owners because they were set apart from the fields, industry, and laborers' quarters on the east bank. By the turn-of-century, however, the main dwelling house appears to have shared the east side of the bayou with the hired hands' quarters.

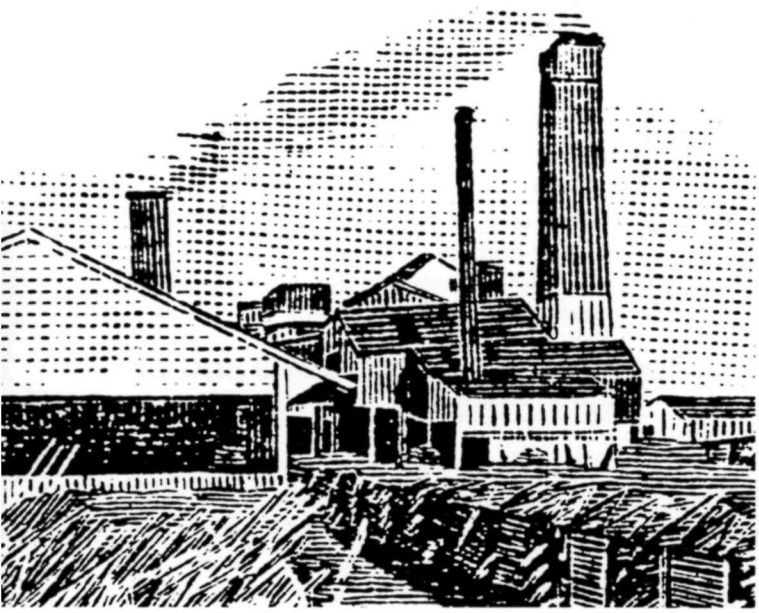
2. Possible sugarhouse site and/or main dwelling house site

This site encompasses an area measuring about 600 feet square at the southeast junction of the Shell Road and Bayou des Familles. As previously mentioned, the documentation suggests that the sugarhouse and cane shed may have been located in this area, at least from 1869 to 1885 when the sugarhouse burned. The U. S. G. S. "New Orleans, La." quadrangle map, which was made from an 1890 survey, shows two large buildings located here. The 1901 description of the plantation, quoted above, seems to indicate that the main dwelling house was, at that time, located on the east side of the bayou.



The ground in this area is artificially raised, shows signs of disturbance by earth-moving, and is littered with debris. Much trash, including building materials, was removed from this area by the NPS during clean-up operations. All of the rubbish observed being removed during field work for this study appeared to be of recent date. However, park personnel believe that some earlier remains of buildings, furnishings, and farming equipment were also removed. Because the area near the Shell Road crossing of Bayou des Familles was used as a dump in recent years, it is difficult to attribute the origin of surface materials to buildings that once existed on the site.

Nevertheless, much debris also lies under the ground. During field survey, holes dug one or two feet deep by wild animals were observed to contain brick fragments, *Rangia* shell, wire, iron hinges, pieces of sheet metal, and other metal objects. Such materials were also scattered on the surface. A number of whole



bricks were strewn about. The bricks were hard in consistency, deep red in color, and many were imprinted with the letter "H". Some of these bricks had been collected and stacked in a pile. Some brick rubble was located in the field ditches to the south of the site. None of the bricks observed appeared to date from the Colonial Period. Archaeological testing by the NPS in this area in 1987 exhumed brick and other cultural materials. The NPS constructed a picnic ground on part of the site in 1988.[41]



Debris from the headquarters buildings of the Christmas Plantation in the picnic ground, including a wrought-iron strap hinge, crockery and whiteware sherds, and brick imprinted with the letter "H."

Aerial photographs of 1945 show that this entire area was planted as pecan orchard. Aerials of the 1960s and 1970s show two small buildings facing the Shell Road on the south side of the road and near Bayou des Familles. A third building was located 200 or 300 feet farther to the south, behind the buildings facing the road. Aerials show that this last building was demolished in the early 1970s. Much of the debris in this area probably derived from the demolition of these structures. It is possible that recent structures reused bricks and other materials remaining from constructions of the plantation period.

3. Laborers' quarters site

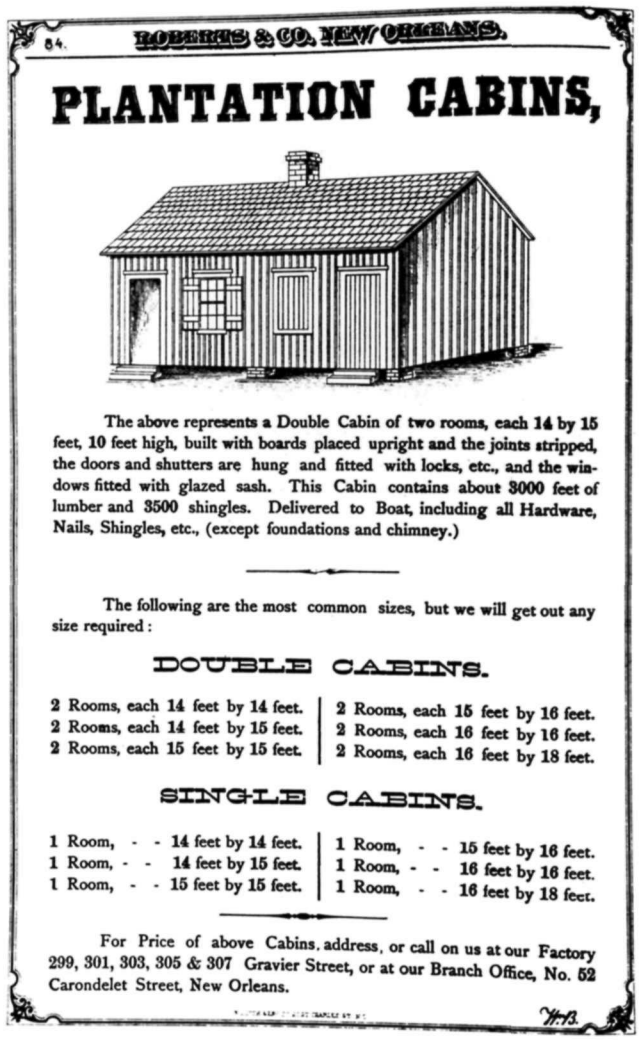
The U. S. G. S. "New Orleans, La." quadrangle map, surveyed in 1890, shows five small buildings facing the south side of the Shell Road which was the Christmas Plantation headquarters road. These small buildings were undoubtedly the laborers' cabins, and there may have been more than five buildings in the row. The 1901 description of the plantation, quoted above, appears to place the laborers' quarters on the east side of Bayou des Familles.

The cabins probably resembled the type of quarters building most often found on late nineteenth century Louisiana plantations. Typically, these were rectangular cabins with gabled ends and a central brick chimney that served a double fireplace. This type of cabin usually contained two rooms and was raised on low brick piers. The front facade usually contained two doors and two windows fitted with glazed sash and board-and-batten shutters. These may have been the only openings in the building. The wood-frame structure was sided with vertical or horizontal weather boards and was roofed with wooden shingles or sheet metal.[42]

By the last quarter of the nineteenth century, prefabricated cabins of this design could be mail ordered from lumber companies in New Orleans. The simple building form originated as a slave quarter type and examples survive in the country, in towns and villages, and on the streets of New Orleans' older neighborhoods.[43]

Small Creole cottage types were also popular for laborers' quarters, as they had been for slave quarters before the Civil War. It is assumed, however, that the simpler quarters type described above was the kind that housed hired hands on the Christmas Plantation, because such cabins remained on the property until the mid-twentieth century. According to Louis Ehret, who frequented the area between 1912 and 1930, a row of these cabins was located on the west bank of Bayou des Familles, northwest of the crossing to the Shell Road and about 100 feet from the bayou. The buildings faced the bayou and were occupied by moss pickers. Aerial photographs of 1945 appear to show that one of these cabins was still standing at that time. Broken bricks and other surface artifacts in this area remain from the demolition of these cabins. The buildings may have been the laborers' quarters that originally stood along the plantation headquarters road, and they may have been moved to the west bank of the bayou after 1910 in order to clear the east bank for the laying out of the subdivision and the planting of the pecan orchard.[44]

The original site of the laborers' quarters on the south side of the plantation headquarters road (the Shell Road) consists of a linear rise in the ground, about 20 feet wide, two feet high, and about 700 feet long. It is located south of the drainage ditch that borders the road. It was constructed as a bed for one of the pecan



84. ROBERTS & CO. NEW ORLEANS.

PLANTATION CABINS,

The above represents a Double Cabin of two rooms, each 14 by 15 feet, 10 feet high, built with boards placed upright and the joints stripped, the doors and shutters are hung and fitted with locks, etc., and the windows fitted with glazed sash. This Cabin contains about 3000 feet of lumber and 3500 shingles. Delivered to Boat, including all Hardware, Nails, Shingles, etc., (except foundations and chimney.)

The following are the most common sizes, but we will get out any size required:

DOUBLE CABINS.

2 Rooms, each 14 feet by 14 feet.	2 Rooms, each 15 feet by 16 feet.
2 Rooms, each 14 feet by 15 feet.	2 Rooms, each 16 feet by 16 feet.
2 Rooms, each 15 feet by 15 feet.	2 Rooms, each 16 feet by 18 feet.

SINGLE CABINS.

1 Room, - - 14 feet by 14 feet.	1 Room, - - 15 feet by 16 feet.
1 Room, - - 14 feet by 15 feet.	1 Room, - - 16 feet by 16 feet.
1 Room, - - 15 feet by 15 feet.	1 Room, - - 16 feet by 18 feet.

For Price of above Cabins, address, or call on us at our Factory 299, 301, 303, 305 & 307 Gravier Street, or at our Branch Office, No. 52 Carondelet Street, New Orleans.

William C. Bell, comp., *Roberts and Company Illustrated Catalogue of Mouldings, Architectural and Ornamental Woodwork,* New Orleans, 1880. SCD/TUL.

orchard rows, but it contains debris from the laborers' quarters.

A metal detector was used along much of the length of the raised linear feature. Metal artifacts found barely under the surface of the soil included a typical nineteenth century wrought-iron strap hinge measuring about 12 inches long and 1½ inches wide, and part of a cast-iron stove front. Also scattered along the linear rise are broken bricks having the same color and consistency as those found on other sites associated with the Christmas Plantation, broken glass, and thin, white ceramic sherds. One of these sherds appears to be the lip of a cup and bears a scalloped pattern. Scattered bricks are also located about 100 feet southeast of the linear rise and about 1000 feet southwest of the eastern Christmas Plantation property line.

The linear rise is also scattered with occasional clam and oyster shells; large, round, bent nails; wire; and soft drink cans. Being adjacent to the road, trash has undoubtedly been thrown on the site for many years. Archaeological investigation is necessary to attempt to determine the extent of the site and the actual positions of the laborers' quarters. The row of cabins may have extended along the plantation road to the Barataria Public Road on the eastern property line of the Christmas Plantation. This area has been disturbed by oil exploration and, if the linear rise extended to the Public Road, it has been obliterated. However, the base of an old wine bottle and a crockery sherd were noted at the mouth of an armadillo hole in this area which was occupied by a Spanish house site (see Chapter III).

4. Windlass cane derrick site

The probable location of the machine that hoisted cane into railroad cars was at the termination of the shell railroad bed at the northern end of the fields. At this point, there is a raised area about 150 feet square scattered with *Rangia* shell and brick fragments. One fragment bears the characteristic "H" of the plantation bricks. In the woods nearby are pieces of terneplate roofing. A building was apparently also located on this site.

6. Brick foundation on the main outfall ditch

The brickwork, which apparently supported a wooden superstructure for a steam engine that operated a drainage and irrigating pump, is more fully described in the text above.

12. House site

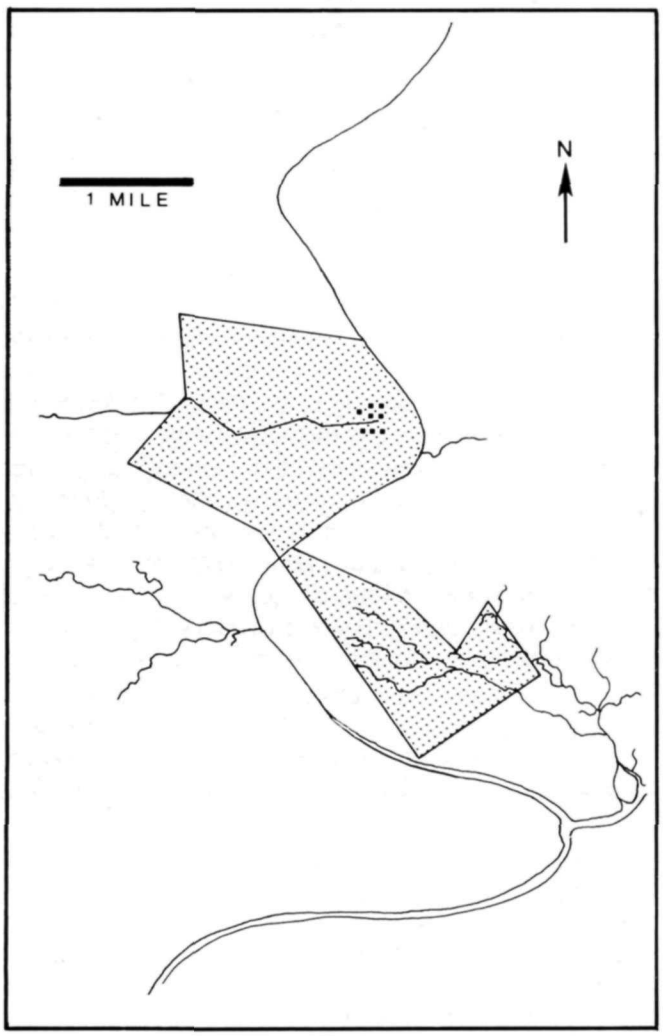
Artifact scatter in the sugarcane fields near the southern boundary of the plantation and the park marks the site of a dwelling of the plantation period that was demolished for expansion of the fields. The location is about 100 feet from the plantation levee that borders the swamp at the edge of the bayou, on a wide, elevated alluvial ridge with numerous Indian shell middens. The ridge borders the bayou from the lower boundary line to the headquarters area, about 3500 feet upstream. The house site is situated about 2500 feet downstream from the headquarters buildings and lies on the western side of the field road that now serves as a park trail.

The artifacts are scattered over the cane field beds and furrows for more than 50 feet, and some were observed in an armadillo hole. Bricks typical of the plantation building sites are present, as well as lumps of *bousillage*, and oyster shells.

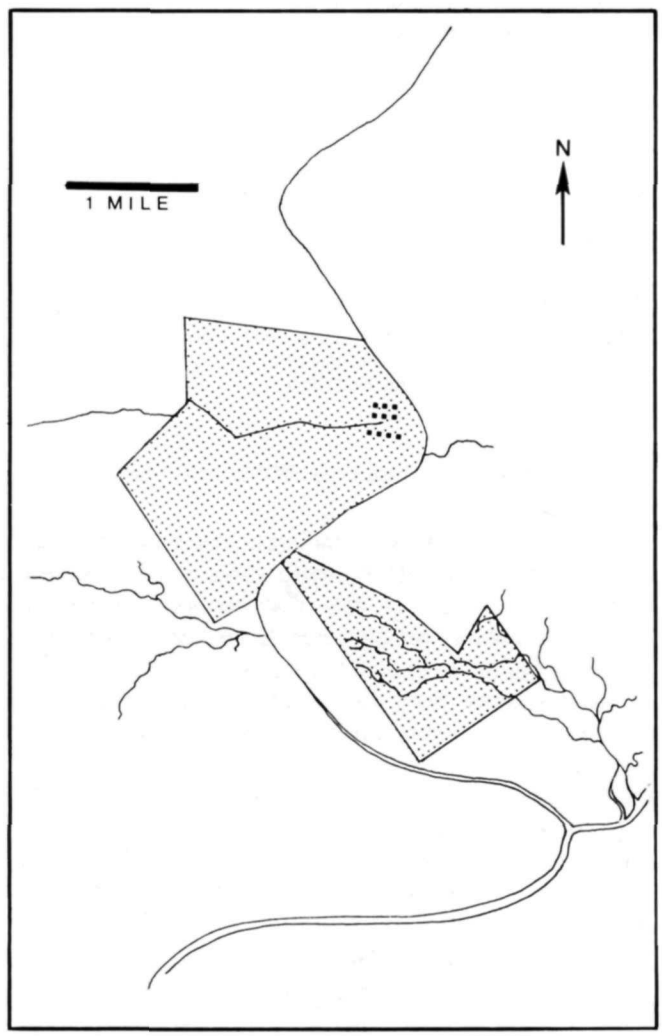
Archaeologist Charles E. Pearson identified the domestic artifacts as dating from the second half of the nineteenth century. They include whiteware and porcelain, glass buttons, the neck and base of a dark amber-green liquor bottle, the base of a tan stoneware ginger ale bottle, and a lettered fragment of an aqua mineral water bottle.

Future archaeological investigations should keep in mind that the house of late Spanish Period land grantee Louis Pelteau could have been located on this ridge of high land.





JACOB U. PAYNE PLANTATION



JOHN H. CARTER PLANTATION

CHAPTER VII

PLANTATION BACKLANDS

That area of the park that lies east of the former Christmas Plantation consists largely of cypress swamp and the wooded backslope of the natural levee of the old river distributary. The natural levee and the Barataria Road pass through the upper and lower corners of this triangular piece of the park.

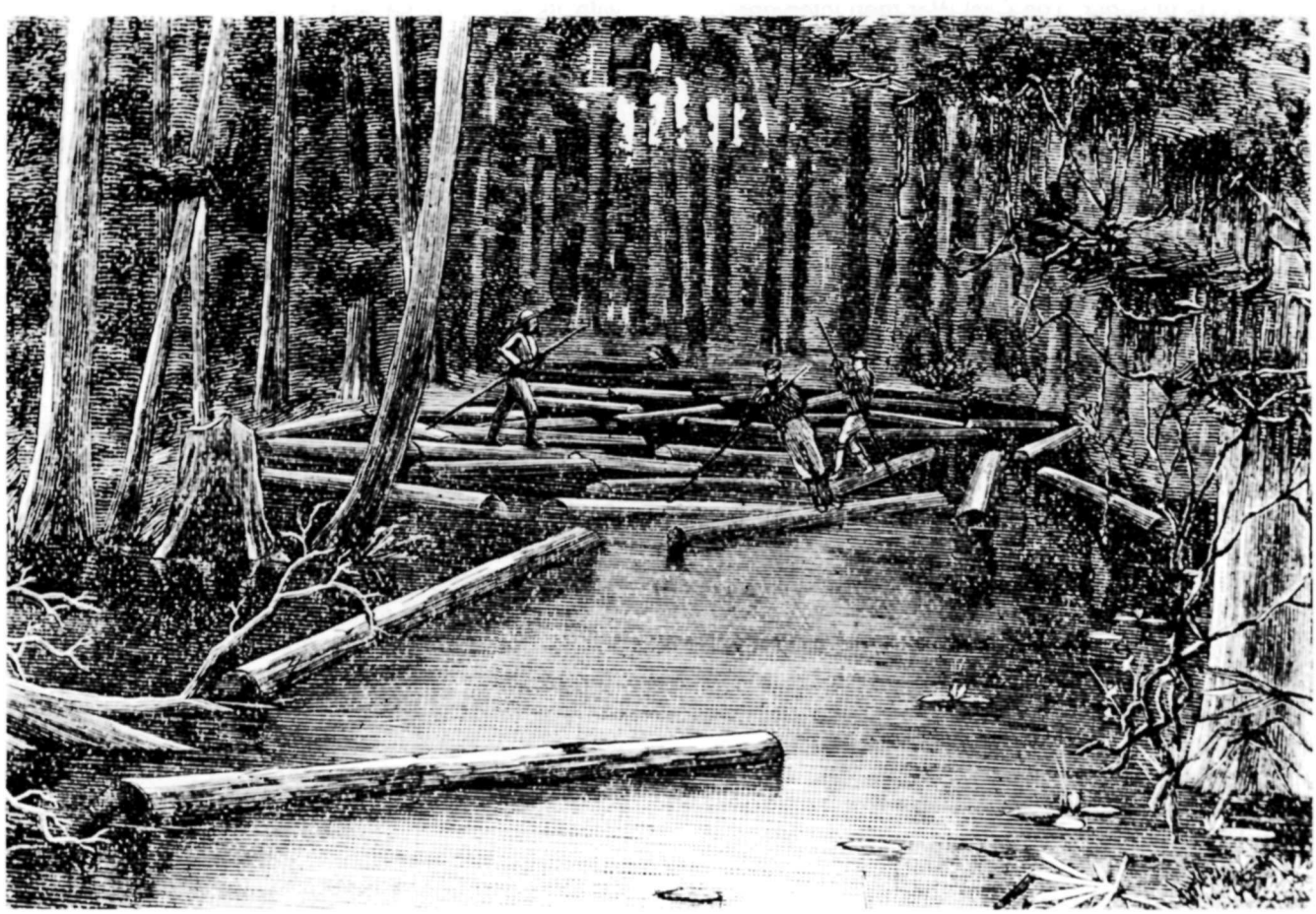
At the auction sales of the estate of John McDonogh in 1859-60, the several land tracts that this part of the park partially contains were purchased by owners of large sugar plantations lying immediately upstream on Bayou des Familles. The lands then became the backlands or lower parts of these plantations. Because there was little arable land in these tracts, and because they were remote from the sugarhouses and headquarters, the tracts were reserved for logging and livestock grazing. They received little or no cultivation. They remained part of the large plantation properties until the twentieth century, and they continued to be used for logging and grazing until recent years.

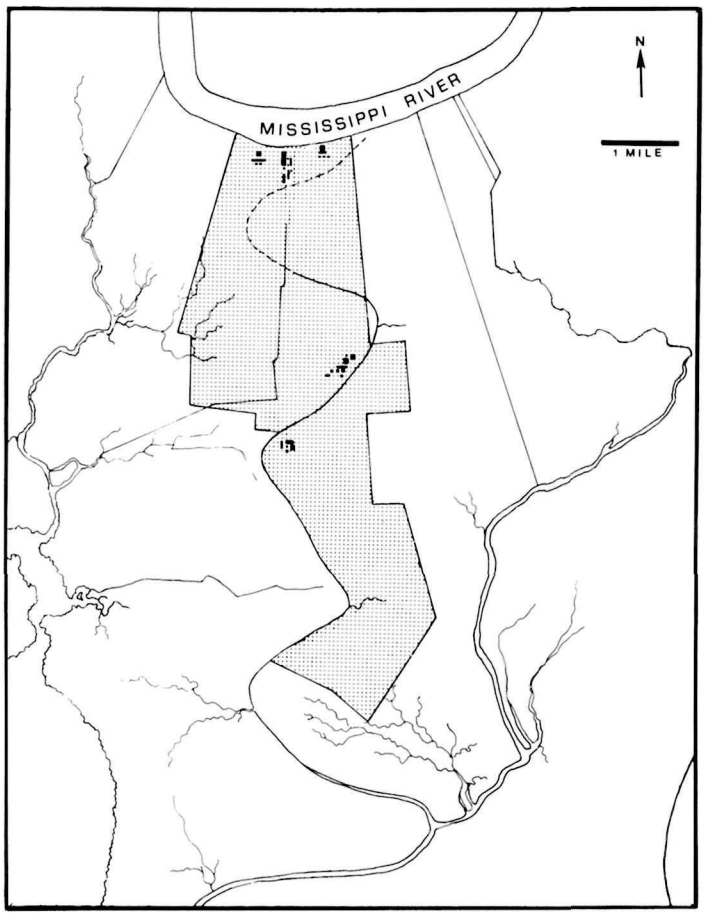
The planters who purchased the tracts were Jacob U. Payne and Laurent Millaudon. Of the township sections shown on modern quadrangle maps that are bounded or partially bounded by this area, Sections 3, 37, 51 and 57 were acquired by Payne, and Section 38 was purchased by Millaudon.[1]

Payne was a native of Kentucky and a member of the New Orleans cotton factor firm of Payne and Harrison. He also owned a large cotton plantation on the Red River in northern Louisiana. He lived in the New Orleans suburb today known as the Garden District. It was in the Greek Revival Style house that he built at 1134 First Street that Jefferson Davis, President of the Confederacy, died in 1889.[2]

In 1857, Payne had purchased the sugar plantation of Jesse Ross on Bayou des Familles from Ross' widow. It stretched for 45 arpents along the west side of the bayou and adjoined the lands Payne purchased from the McDonogh estate. Included in the sale were 30 mules, 2 horses, 36 draught oxen, about 40 head of cattle, and 72 slaves. All together, the Payne Plantation formed an irregularly shaped but connected land holding that stretched for about four miles.[3]

Payne did not long have the plantation in significant production. The Bell Crevasse of 1858 entirely de-





LAURENT MILLAUDON PLANTATION

stroyed his crop for that season. In the following year, his crop produced only 38 hogsheads. In the seasons of 1860-61 and 1861-62 he produced 245 and 304 hogsheads of sugar. The Civil War then intervened.[4]

After the war, in 1866, Payne sold this plantation to William Stackhouse, who sold it to John H. Carter in the following year. On the same day that Carter purchased the Stackhouse property, on March 7, 1867, he signed another act of sale for the purchase of an adjoining piece of land that lay on the bend of Bayou des Familles above the Christmas Plantation, from Marie Julie Gabrielle Lemoine, widow of Pierre Rochefort of New Orleans.[5]

Carter attempted to revive the plantation without the use of slave labor. Between 1869 and 1873, his production ranged between 38 and 190 hogsheads. He also grew corn. Carter was unable to pay his promissory notes to Stackhouse, who petitioned for writ of sheriff's seizure and sale in 1872. The property was purchased at sheriff's sale in 1873 by the Citizen's Bank of Louisiana. Carter sold the adjoining tract he had bought from the widow Rochefort to John A. Peel in 1875.[6]

The plantation remained unoccupied for 12 years. During that time it was advertised in *Lands and Plantations Belonging to the Citizen's Bank of Louisiana Offered For Sale or Rent on Favorable Terms,* 1881 and 1882 editions, with the following description:

> A fine Sugar Plantation, situated in the Parish of Jefferson, twelve miles from the City of New Orleans, on the west side of the Mississippi River, on Barataria Ridge, containing about 3000 arpents of land, 800 under new fence, balance fine cypress timber and wood, one dwelling and outhouse complete, with orange and fig trees surrounding the house; fifteen double frame cabins, one large corn house and stable, one hay house, one overseer's house, one medium-sized sugar house, with walking beam engine in order, one set open kettles, with cooler, tankage, etc., in good order; one new fuel boiler, with tools and implements complete. This is a first class stock farm, being so near the city for marketing, etc. Formerly owned by J. H. Carter.[7]

The plantation property, as put together by Jacob Payne in 1860, totaling 2519 acres and described in the above advertisement, was finally purchased in 1885 by Hugo Mehnert for the sum of $10,000. Mehnert used the former plantation as a cattle ranch and for logging the timber. In 1892, he sold the property to his father-in-law, William Rebentisch, who used the land for the same purposes. The property continued to be used for grazing cattle and occasional logging until acquisition by the National Park Service.[8]

Laurent Millaudon's Section 38 was part of the east bank tract of the Spanish land grant to Pablo Suárez Ruiz. The west bank Suárez tract, Section 3, had been acquired by Payne. When Millaudon purchased the triangular Section 38, it became part of the largest sugar plantation in Louisiana. The plantation had formerly belonged to Domingo Bouligny, and it had two sugarhouses in operation. The 28 arpents of frontage on the Mississippi River, with its sugarhouse and other buildings, was called the Millaudon Front Plantation and, later, the Southside Plantation. The rear portion of the plantation, extending down Bayou des Familles, with its sugarhouse and other buildings, was called Estelle Plantation. The east bank tract of the former-Suárez property thus became the rear extremity of Estelle Plantation.[9]

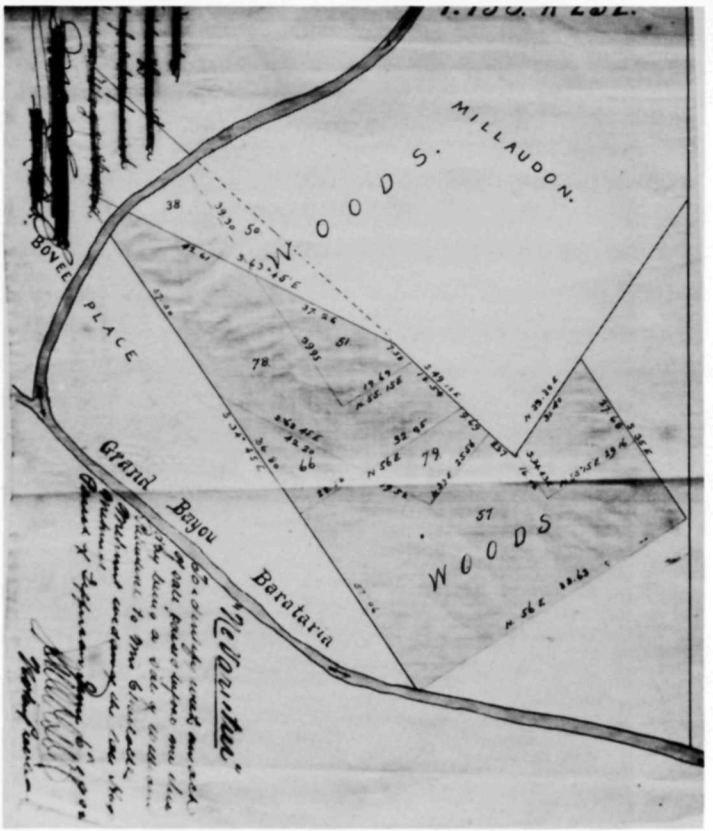
Millaudon was one of the wealthiest men in Louisiana. He was born in France in 1786, and came to Louisiana in 1802. His real estate investments and business ventures helped to develop the City of New Orleans. Among these were the laying out of the upriver suburb of Carrollton, and the construction of the New Orleans and Carrollton Railroad. On his plantation, he employed the latest inventions in sugar machinery, as well as hundreds of slaves.[10]

Since there are no pronounced signs of cultivation in Section 38 which Millaudon added to his plantation, it is apparent that the tract never became part of the sugarcane fields but was used for pasture and logging. Laurent Millaudon sold his plantation to Henry C. Millaudon in 1869, and he sold it to Amos B. Merrill in 1870. Merrill failed to operate the plantation with imported Chinese labor and sold the property two years later to Oakes Angier Ames and Frank M. Ames.[11]

The Ames family successfully operated the plantation for several decades. By the 1890s, the sugarhouses were producting from 60,000 to 70,000 pounds of sugar a day, or about 5,000,000 pounds

during each sugar-making season. *King's Handbook of the United States,* published in 1891, states that the Ameses were "among the first to introduce the modern methods and appliances for the cultivation and harvesting of the crop, and the equipment is among the best and most efficient in the state. They have six miles of permanent and portable railroad tracts; and introduced the car for handling sugar cane, which has come into general use in all sugar-raising countries, and has been of great benefit to planters."[12]

Laurent Millaudon had a railroad on his plantation, as shown on Zimpel's map of New Orleans in 1834. Millaudon was one of the corporate developers of the New Orleans and Carrollton Railroad. This railroad, which was chartered in 1833 and was operating with steam engines on St. Charles Avenue by 1836, is said to have been the third railroad for general transportation built in the United States. Millaudon's plantation railroad was built prior to the construction of the Carrollton Railroad. Several other planters had, by this early date, laid tracks into their fields and used mules to pull the cars. Whether Millaudon used a steam engine or mules to pull his cars, he was among the first to use a railroad



Tracts purchased at the auction of the estate of John McDonogh by Jacob U. Payne (shaded sections) and Laurent Millaudon (Sections 38 and 50), attached to act of sale of the tract comprising the shaded sections by William Rebentisch to Charlotte Rebentisch, June 6, 1902, J. C. Tillotson, notary, JPCH. The tracts are shown in "woods." "Grand Bayou Barataria" is Bayou des Familles; "Bovee Place" is the former Beauvais Plantation or Christmas Plantation.



Hand-cut railroad tie (left), probably from the Christmas Plantation Railroad, reused on a dismantled barbed wire fence along the west side of Third Road.

in the history of sugar production. In fact, his railroad was among the first constructed in the world. The Ames family enlarged Millaudon's railroad.[13]

Locomotives did not come into general use on sugar plantations until the late nineteenth century. The Ames Plantation made extensive use of the engines. Oakes Angier Ames and Frank M. Ames had come to Louisiana from Massachusetts. They were descendants of Oakes and Oliver Ames of that State who were largely responsible for the financing and construction of the nation's first transcontinental railroad, the Union Pacific.[14]

In 1895, the Ames Plantation was sold to South Side Plantation Company, incorporated in the State of Maine and administered by Frank A. Ames as treasurer. In 1899, Frank Ames made a contract with Charles J. Brown, owner of the Christmas Plantation downstream on Bayou des Familles, to extend the railroad from the Estelle sugarhouse to the Christmas Plantation and to buy Brown's cane.[15]

The Christmas Plantation Railroad is described in Chapter VIII, "Roads of the Eighteenth and Nineteenth Centuries." The railroad entered Section 38, which had been annexed by Millaudon, on the east side of the Barataria Road. En route to the Christmas Plantation, it cut across the property owned by William Rebentisch in Section 57.





Route of the Christmas Plantation Railroad, looking SW.

CHAPTER VIII

ROADS OF THE EIGHTEENTH AND NINETEENTH CENTURIES

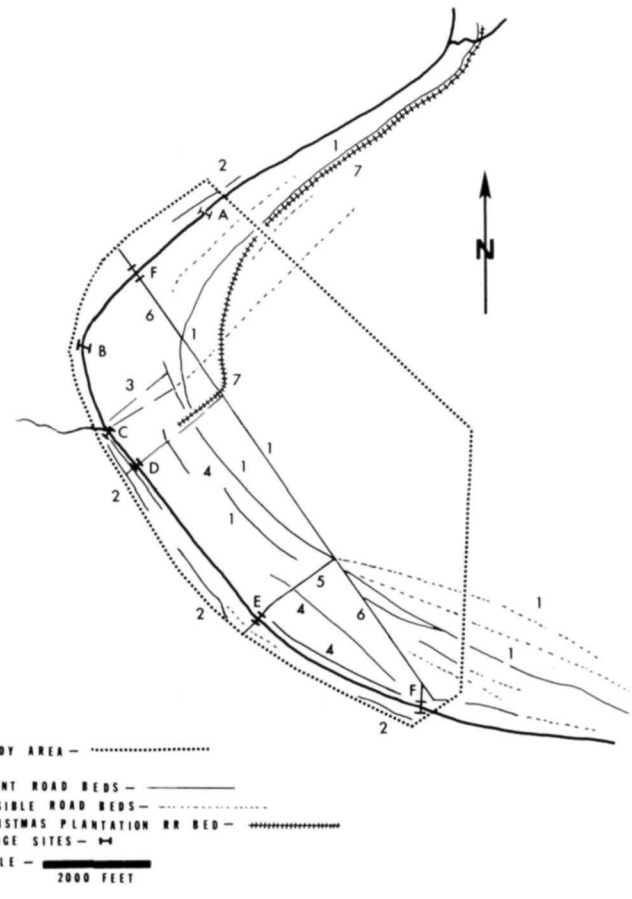
Old maps show that many roads passed through the park in the eighteenth and nineteenth centuries. Segments of old road beds have been located in the forest, and others may yet be found.

The character of the road beds differs. Some are low and wheel-rutted; others are raised a foot or more above the level of the ground. The raised beds probably represent roads that were shut off to further use while still in a good state of maintenance. The drainage ditches that lined some road beds are sometimes visible as shallow linear depressions. Some trails may be the remains of bordering ditches that were kept free of plant growth by intermittent standing water and subsequent treading of humans and animals. Cattle undoubtedly used old roads as cow paths and probably made paths of their own.

Some road beds follow natural ridges created during the abandonment of the old river distributary, and these roads curve with the meander bend of the river. Old maps suggest that roads may have existed in areas that have now subsided and become swamp.

The roads were largely constructed of earth, usually thrown up from the ditches on either side. Some may have been built of planks, especially those which approached bridges and those in low, wet areas. Other roads were surfaced with clam shells removed from Indian mounds in the area. Occasional shells can be seen on some trails today. Heavy traffic crushed and churned the shells deep into the soil. Crawfish frequently exhume the buried shells and put them in the walls of their "houses."

The original trails in the area were probably Indian and buffalo traces, and these were probably used by the early settlers until roads were built. Some historic roads were 25 to 80 feet wide, as described in the Jefferson Parish Police Jury ordinances, first published in 1825.



Extant road beds, possible road beds, and bridge sites located by field survey, dating from the 18th and 19th centuries.





REGULATIONS,

To fix the manner in which the Levees, Ways, and Bridges, are to be made and repaired, as well as for the construction of Fences, the police of cattle, and other objects of police, within the Parish of Jefferson.

The Judge of the Parish of Jefferson, by and with the advice of the inhabitants composing the Police Jury of said Parish, convened according to law, hath ordained and doth ordain as follows:

Art. 1. The breadth of the highways on both banks of the river, and throughout the whole extent of the Parish, without exception, shall be at least twenty-five feet; they shall have a swell towards the centre, sufficient to facilitate the running off of the waters, and be lined on each side by a draining ditch, two feet wide and one foot deep.

Art. 2. The length of the bridges throughout the whole Parish shall not be less than the breadth of the roads, and their breadth shall be at least three feet. They shall be made of cypress plank of a length equal to the breadth of the road, and two inches in thickness, which planks shall be supported by joists placed at four feet distance from each other, four inches below the level of the road, so that the bridges be two inches below said level. Those bridges which are not constructed according to these proportions, shall be made anew and in conformity thereto.

The bridges on the canals of sawmills and others, shall be solidly constructed of planks twenty feet long and two inches thick; they shall be secured with rails, and the ascent to them shall be easy and commodious.

Art. 3 The ways on the levees shall be, as all others, twenty-five feet in breadth.

Art. 4. If there be any trees, hedges, ditches, or other objects, which in any manner obstruct the passage on the land reserved for public ways, all such obstructions shall be immediately removed, on penalty of a fine of Ten Dollars against the person or persons whose duty it is to make and clear the way so obstructed, and the said fine may be exacted for every time that the said person or persons, being thereto required by the syndic or syndics of the district, shall have failed to comply.

In this disposition are not comprised such trees as are planted on the side of ways to form alleys, and not obstructing the passage.

REGULATION,

Concerning the Barataria Road.

Art. 46. The Barataria road shall pass on the right side of the bayou called Families' Bayou; and the syndic is authorized to cause all the necessary work to be done; in conformity to the following article.

Art. 47. The road shall be cleared for the width of eighty feet through its whole length, and the branches and bodies, and shoots of trees cut away. The inhabitants shall not be bound to make ditches on each side of the road, except in the places that shall have been cleared seven years; but as soon as seven years shall have elapsed since the spot shall have been cleared, the syndic shall order the ditches to be made.

In every part where there shall be not ditches on both sides of the road; as many traverse ditches shall be made as shall be necessary to drain the low grounds, and the said ditches shall be covered by bridges.[1]

The state and federal governments did not begin systematic programs of highway construction until the automobile came into popular use in the early twentieth century. In 1899, Gilbert D. Harris, geologist in charge of the State Geological Survey, published a special report on road-making. He suggested that road beds be improved, maintained, and fixed in permanent positions, and he recommended the use of shell or gravel, where possible, as ballast. Harris' description of road conditions probably applied to Barataria.

No surveys yet made. - The vast majority of Louisiana roads seem never to have been properly located. They represent enlarged trails. They are, within certain broad limits, wherever each season the traveling public sees fit to go. Observe the broad band of land on either side of most any old or well recognized road and count the different road beds of tens or scores of years ago now recognizable as narrow long ditches and frequently overgrown by forest trees. Look again at the several lines of log roads ("causeways") that can be seen running along parallel to each other across marshy stretches.

Is there any real incentive to do thorough and lasting work on a stretch of road that may soon be paralleled by a new one, simply because the old one somewhere had one impassable spot?[2]



ROADS IDENTIFIED BY FIELD SURVEY

1. Chemin de Barataria
Camino Real de Barataria
Barataria Road

The earliest road in Barataria probably followed the meander of the east bank natural levee of Bayou des Familles, from the Mississippi River to Bayou Barataria. A road following this course may have been constructed by the earliest settlers, Jean-Baptiste Massy, Jean-Baptiste Bourbeau, and Charles Frederig de Merveilleux, who received a French grant in 1726 to log and cultivate the land.

The Spanish government built a road along the bayou when it laid out farm plots and built houses for Canary Islander families who were settled on Bayou des Familles in 1779. A series of the house sites parallel the Camino Real de Barataria as it runs through the park. The earliest map to show the road is a Spanish map of about 1778 which indicates that a road followed both banks of Bayou des Familles between the river and Bayou Barataria.[3]

In a court case of the early 1840s, the oldest men living who could recall the appearance of the Camino Real, testified that it ran along the east side of the bayou, was a royal road, and a good road upon which carriages traveled. Some remembered the road as being, at times, in poor condition. It had been built before the memory of the witnesses.[4]

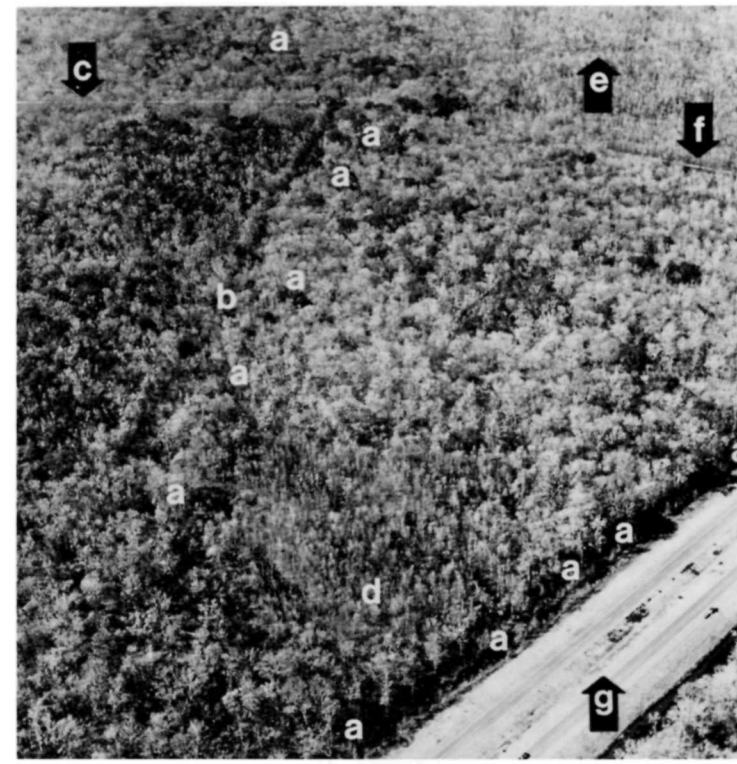
According to the testimony of Judge Henry Dugué Livaudais, the road followed the east side of Bayou des Familles from the river to Bayou Barataria and the traveler could return to the river "in a long circuit" by ascending Bayou Barataria and the canal on the Foucher Plantation. This canal had been constructed in the late 1730s by Claude Joseph Villars Dubreuil.[5]

Dugué Livaudais said that the road seemed to have been "forced by the public, in some places trees had been felled and in others they had not been cut down." It bridged Bayou des Familles at the Deléry Plantation and again at the confluence of Bayou Barataria. The area of the confluence was called Coquilles because of the large prehistoric shell mounds located there. After crossing Bayou des Familles at this point, the road ran westward along Bayou Barataria. Dugué Livaudais had known the road since 1829 or 1830. He said the "public crossed at Coquilles with a great deal of difficulty, each traveller being obliged to construct a new bridge, the one then made being constantly destroyed." He said that he once "came near being drowned in endeavoring to cross the bayou."[6]

By the 1840s, Laurent Millaudon said the road on the east side of Bayou des Familles was a "mere pathway" used by hunters. However, Louis Bringier, Surveyor General of Louisiana, who surveyed these lands in 1830, said that from the point called Coquilles to Deléry's bridge was "a fine, wide road good for carriages." He saw carts passing on it at that time.[7]

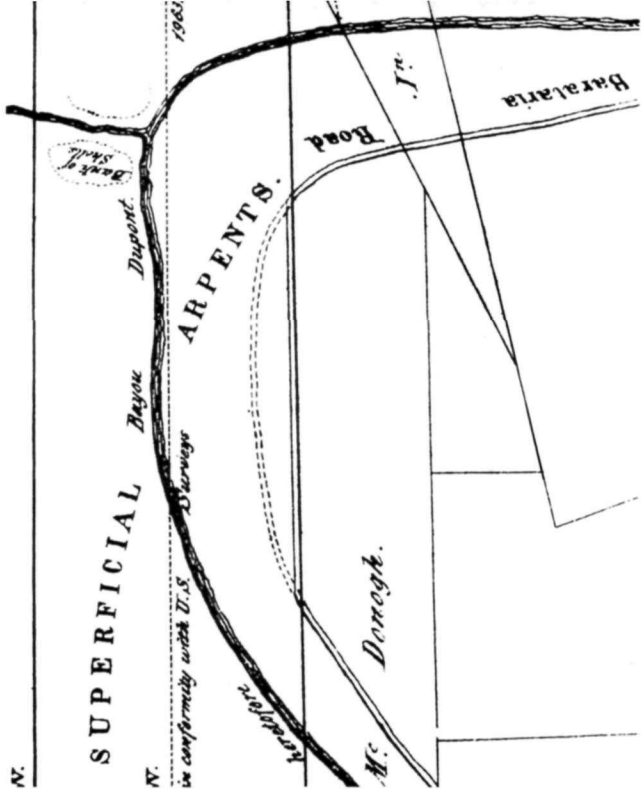
Louis Bouligny, who frequented the area from 1803 to 1812, said that the road, which ran through the woods, was good when dry but bad in wet weather. Jean-Baptiste Dubreuil Villars testified that the road was distant from the bayou, low, covered with water, and not kept in repair. But James Volant Labarre said that in 1838 he "readily traveled the road in a gig."[8]

The road is shown on all detailed nineteenth century maps of the area. Although these maps may not have been drafted with precise accuracy, the route of the road appears to have shifted slightly through the years. Aerial photographs and features on the ground suggest that the road may have taken several parallel, semi-circular courses at different time periods.



Oblique view looking NW from S end of park, showing (a) several routes of the Chemin de Barataria/Camino Real de Barataria following semi-circular natural levee; (b) Old Barataria Public Road servitude on the Christmas Plantation; and (c) the Christmas Plantation Headquarters Road, later called Old Road and the Shell Road. Also shown: (d) oil drill site No. 8; (e) and (f) oil drill site access roads; (g) Lafitte-Larose Highway.

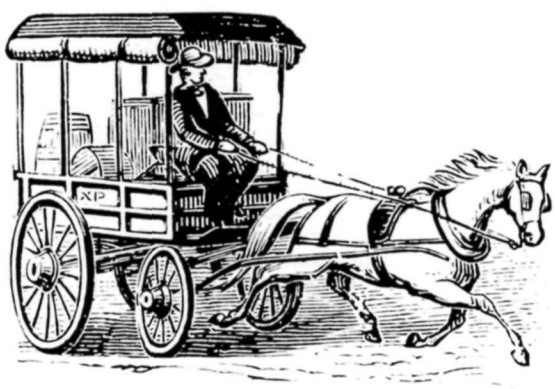


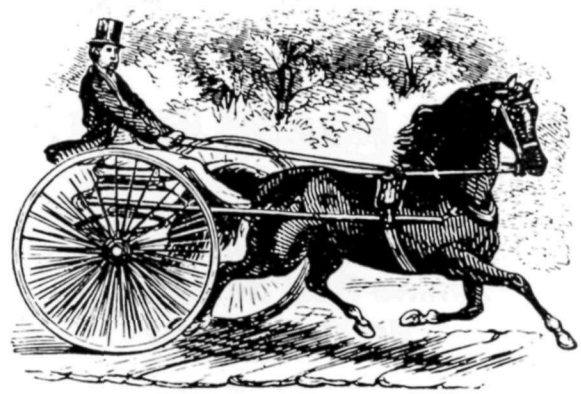


Chemin de Barataria/Camino Real de Barataria/Barataria Road passing through land tracts in present park, showing cut-off along 1768 property division and old semi-circular route following natural levee. Bayou des Familles is labeled "heretofore Bayou Dupont." Detail of map of about 1850, lithograph by Tolti and Carnahan, New Orleans. LC/TUL.

A map of 1835 by surveyor Allou d'Hémécourt shows that a shortcut had been made in the semi-circular course of the road, following the Guerbois-Boudousquié property division of 1768. The road ran just inside the Guerbois property and could have been made at any time after 1768. However, the semi-circular route which followed the higher natural levee also remained in use, perhaps especially in wet weather. According to d'Hémécourt's map, the shortcut left the semi-circular road approximately where the Shell Road was later terminated.[9]

In the early 1840s, the Jefferson Parish Police Jury constructed a new road on the west side of Bayou de Familles to replace the old colonial road on the east side. However, the new road was immediately closed by a legal suit. On November 7, 1842, the Police Jury received a letter from Laurent Millaudon, owner of a large plantation that fronted on the Mississippi River and extended back along Bayou des Familles, offering "to change the Barataria Road, and make the same at





his lower limit." The old colonial road passed through Millaudon's land, which had formerly been the plantation of Domingo Bouligny. When Bouligny and Francisco Dutillet bought the plantation in 1803 from Pedro Lartigue, the act of sale mentioned that Lartigue maintained on his property "a Camino Real which connected with the Port of Barataria." Millaudon's offer was to improve the colonial road.[10]

The Police Jury therefore passed an ordinance relocating the Barataria Public Road to the old colonial route on the east bank, from the bridge at Deléry's Plantation to Bayou Barataria. Above Deléry's bridge, the Public Road was to follow the west bank of Bayou des Familles. By 1865, the Barataria Road was in very bad condition. The Police Jury resolved that its construction should be improved. The ditches on both sides of the road were to be three feet wide and two feet



Camino Real de Barataria in the southern part of the park, looking SE.



Courses of the Barataria Road(s) along Bayou des Familles, detail of Major D. C. Houston, "Military Approaches to New Orleans," 1863, RG77, M106, National Archives, Washington D.C.

deep, instead of two feet wide and one foot deep as had formerly been required by parish ordinance. It was further resolved that the "road be cleared of all incumbrances of twenty-five feet in width on each side of said road." The existing parish ordinance stipulated that the road itself be 25 feet wide, but the total width of the clearing for the road was to be 75 feet wide.[11]

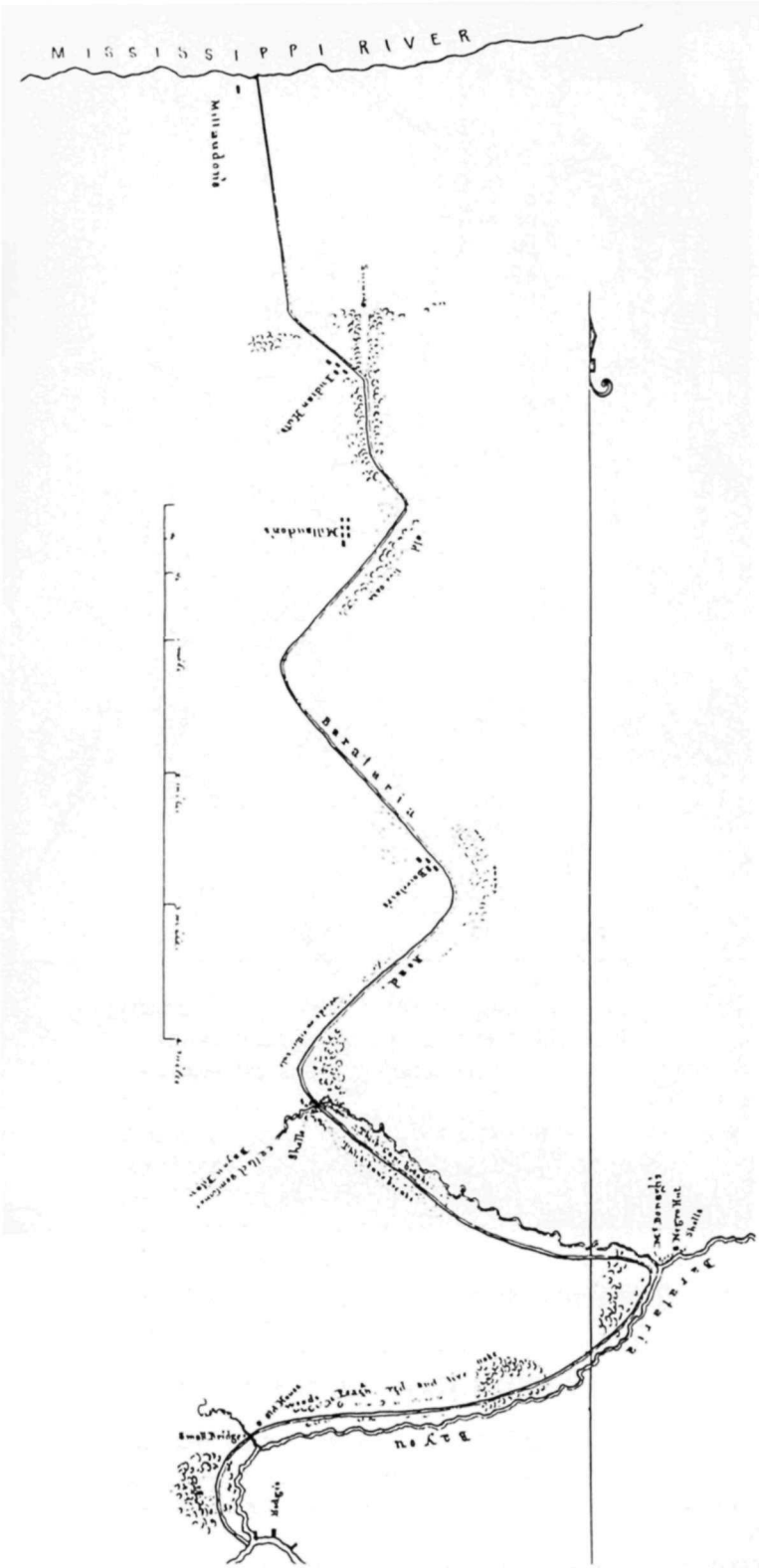
Many nineteenth century property surveys specified the position of the Chemin de Barataria/ Camino Real de Barataria/Barataria Road. These survey records were used to carefully plot the route of the road on the map of "Terre Haute de Barataria" at the beginning of this book. Portions of the old road are now part of the park trail system.



2. Chemin des Coquilles and the roads on the west bank of Bayou des Familles

In colonial times, a shell (*coquille*) road passed along the natural levee on the west side of Bayou des Familles. The shells of the road bed had been removed from the large Indian mounds that then existed at the confluence of Bayou des Familles and Bayou Coquilles. The road was called Chemin des Coquilles. It was allowed to grow over and had become nearly impassable by the early nineteenth century. In 1817, a group of Barataria planters signed an agreement to build a road on the west side of Bayou des Familles from the Mississippi River to Bayou Barataria. The land on the west side of the bayou was said to be a more desirable location for the road than the east bank because it was higher and dryer. Work was begun on this road in the 1820s in the vicinity of the present park, but it was not completed, and trees grew over it again.[12]

In 1825, the Jefferson Parish Police Jury passed



Survey of the Barataria Road on the west bank of Bayou des Familles in 1842 by J. J. Williams, Assistant Civil Engineer, part of "Survey of the Military Approaches to New Orleans, West of the Mississippi" under the direction of Captain George W. Hughes, Corps of Topographical Engineers, U. S. Army. RG 77, Series 161, Cupboard 13, Shelf 1, No. 14 and 15, Box 125, Book 1, p. 70, National Archives, Washington, D. C.





an ordinance that the Barataria Public Road should be relocated from the old colonial route on the left (east) side of Bayou des Familles to the right (west) side of the bayou. The new road on the west bank had not yet been constructed by the late 1830s. On November 5, 1838, the Police Jury resolved once again that the road should be built, and passed an ordinance that it was to be 40 feet wide. Of this width, only 25 feet was to "be more particularly cleared and prepared for the public road from the property of Messrs. L. C. Deléry & Co." to the end of Boutté's Island (the confluence of Bayou Perot and Bayou Rigolettes).[13]

In 1841, the Police Jury contracted with Louis Chauvin Deléry de Boisclair, principal owner of a sugar plantation on the west bank or Bayou des Familles, to build the road. The route of the road from the river to Bayou Barataria was laid out in 1834 by Jefferson Parish Surveyor Benjamin Buisson. It is shown on a military survey map of 1842 by J. J. Williams, which



The west bank natural levee of Bayou des Familles at intersection of Hwy. 45 and Shell Road, oblique infra-red air view looking SE.



Crawfish "house" with *Rangia* shell exhumed from a road bed in "walls."

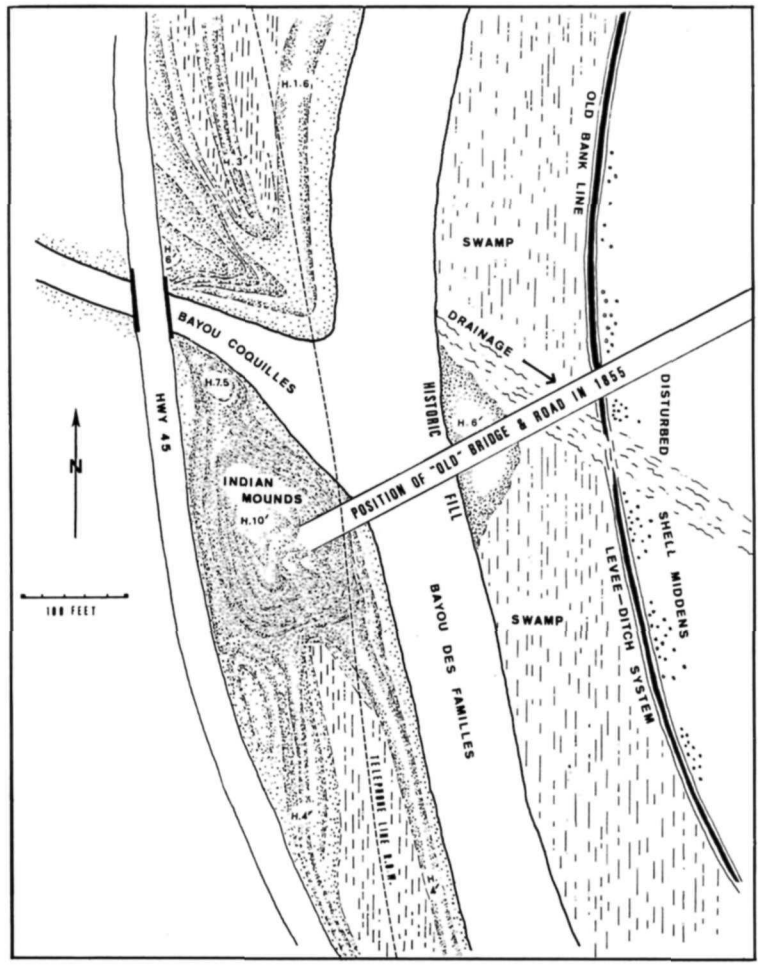
notes that the road passing through the location of the park was bordered by "woods on either side."[14]

The Jefferson Parish Police Jury demanded that payment for construction of the road be made by the two property owners over whose lands the road passed. The owners, John McDonogh and Allou d'Hémécourt, were absentee land owners. They objected that they did not use the lands, did not want the road, and should further be indemnified for damages caused by trespassing and cutting trees on their properties. In an ensuing court case in 1842-4, the judge ruled that the Jefferson Parish Police Jury had acted in "perversion of the laws" by attempting to force two individuals to pay for a public utility and in expropriating private lands for a public servitude without indemnification.[15]

At that time, much of the present park was part of John McDonogh's Barataria lands. McDonogh had purchased his Barataria property as an investment and did not use the lands. As a consequence of the legal proceedings, the road built in 1841 on the west bank was closed, and the road on the east bank remained in use as the public road.[16]

The position of the road on the west bank built by Louis Deléry for the Police Jury in 1841 is undoubtedly that noted by U. S. Deputy Surveyor Maurice Hauké in 1855 as an "old road" bordered by a fence at the end of a field, near the upper bayou corner of the former Suárez tract. According to Hauké's field notes, the fence at the edge of the road would have been located at 404.58 feet from the stone marker on the opposite side of the bayou, measuring along the Suárez property line. The road noted by the surveyor ran along the levee/ditch system bordering the old field that is visible today. The road bed lies between the levee and the swamp edging the bayou. It crossed the lower Suárez property line at 237.6 feet from the bayou.[17]

Continuing segments of the parish road built in



1841 may exist and may be discovered by future field surveys. Other old road bed segments have been located on the west bank of the bayou. Some are surfaced with shell. South of Bayou Coquilles, there are two raised linear features located between the bayou and the highway and running parallel to both. They have an elevation of three or four feet and are about fifteen or twenty feet wide. All these possible road beds could date from any road construction efforts of the eighteenth and nineteenth centuries. Some undoubtedly date from the period of the post-Civil War Christmas Plantation. The route of the plantation road, as it existed at the end of the plantation period, is shown on a 1910 survey map by J. W. T. Stephens. The present highway may have been built upon portions of the routes of many old roads. Other old road beds may be beneath the soil and may be discovered by future archaeological investigations.[18]

3. Roads to the bridge crossing of Bayou des Familles at Bayou Coquilles

In 1855, Surveyor Hauké recorded in his field notes the position of a road leading to an "old" bridge crossing over Bayou des Familles at Bayou Coquilles. Hauké was measuring the western property line of the old Guerbois tract, or Section 11 as shown on modern topographical maps. At a point on this line opposite Bayou Coquilles, the road to the old bridge ran S61W

(241 degrees) 4.9 chains (328.4 feet). A small levee and ditch at this location remain from this road bed. A linear tree line marks the route of the road on aerial photographs. Ground investigation of the tree line located the raised road bed and bordering ditch crossing the river bed and ascending to the natural levee, following the surveyor's compass direction. A second road bed and ditch was also found leading to the bridge crossing at 229 degrees.[19]

4. Field roads of the Christmas Plantation sugarcane fields

Several extant segments of the Christmas Plantation field roads have been located. The conjectured continuations of these road segments are shown on the map of cultural features of the Christmas Plantation. The road beds do not survive in most of the pecan orchard. They are built of earth and are about 15 feet wide and about one foot high. Large trees grow upon the roads.

In contrast to the straight, geometric pattern of the field ditches, furrows, and beds, the field roads follow the curve of the old river meander bend. It is unusual for field roads not to conform to a geometric pattern. All old maps that are detailed enough to show field roads on plantations on the Mississippi River show that the roads were laid out in grid patterns. This arrangement was most convenient for tending the fields. Field roads in the study area follow the curving natural ridges formed during the abandonment of the old river distributary. The positions of the field roads suggest that some may be old routes of the Chemin de Barataria/ Camino Real de Barataria/Barataria Road reused as field roads.



Christmas Plantation field road following a route of the Chemin de Barataria (left). Michael Comardelle demonstrates depth of drainage ditch bordering east side of road. Location is 650 feet NW of the Shell Road and 640 feet from the Old Barataria Road, looking NW.



5. The Christmas Plantation Headquarters Road

The headquarters road of the Christmas Plantation later called the Shell Road, Christmas Road, and Old Road, has been rebuilt to serve as a park road and trail. The earliest map to show the road is the "New Orleans, La." U.S.G.S. Quadrangle Map of 1891, reprinted 1898. It is discussed in detail in the plantation and subdivision chapters.[20]



Shell Road/Old Road/Christmas Plantation Headquarters Road ascending filled river bed to natural levee crest, viewed from east bank of Bayou des Familles, October 1987.

6. The servitude extension of the Barataria Road along the eastern boundary line of the Christmas Plantation

The straight segment of the Barataria Road that follows the old Guerbois-Boudousquié property line of 1768 was extended southward and northward from the original cutoff points on the semi-circular Barataria Road at the time of the establishment of the Christmas Plantation. When the Widow Pierre Rochefort sold the property to Rufus King Cutler and Pierre Ernest Beauvais in 1865 and 1866, the acts of sale were made

with "the express condition that they the said purchasers shall reserve out of the land presently sold an alley or passage of thirty feet in width on the whole length of the portion presently acquired by them, and on the upper line of said property adjoining the property marked on said sketch as belonging to Mr. Stackhouse, said alley or passage to remain for the use and benefit of them the present purchasers and all the present or future owners . . ."[21]

The servitude was necessary for access to a portion of Rochefort's property that lay above the tract purchased by Cutler and Beauvais, above Bayou Coquilles and on the west side of Bayou des Familles. This tract did not become part of the Christmas Plantation until a later date.[22]



Aerial photographs clearly show a linear demarkation in tree crown cover along the entire length of the boundary line to both bends of Bayou des Familles. Bridge crossings were located at these places.

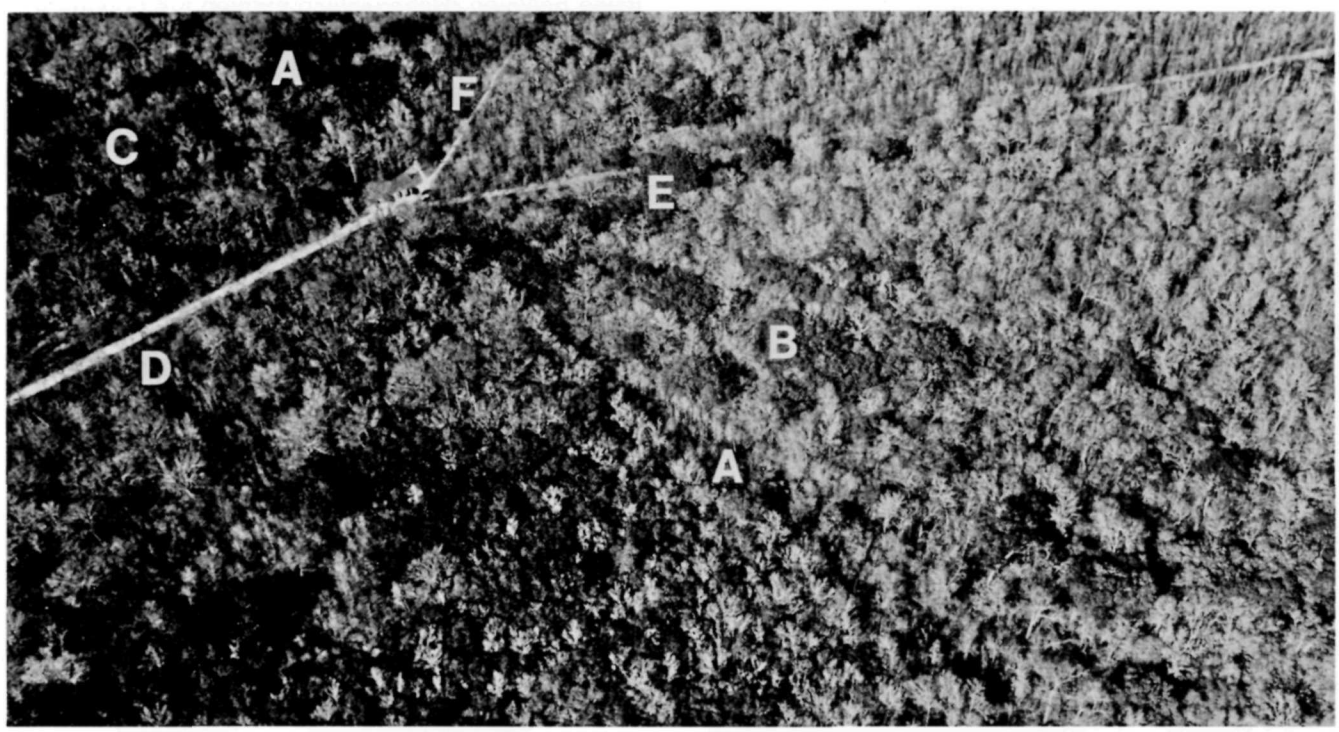
The servitude road that follows the southern part of the Christmas boundary line became a route of the Barataria Road and was long in use. It passes through several natural, wet sloughs and was not a good location for a road. Upon reaching the bayou at the southern



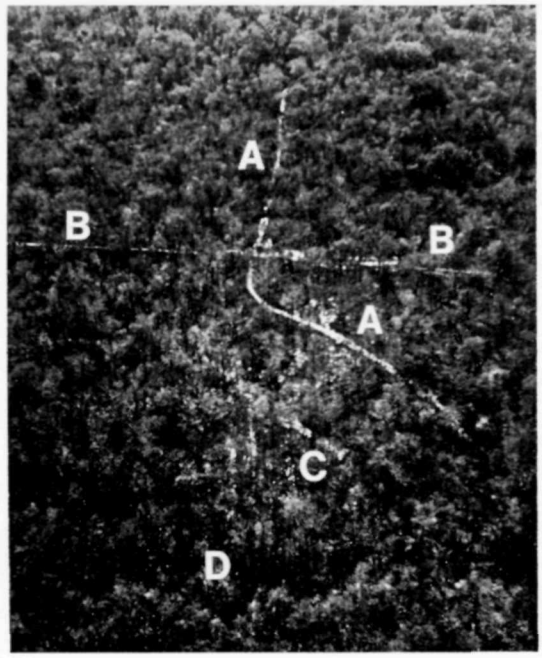
Southern servitude extension of the Barataria Road, looking SE.

end of the Christmas property, the road turned eastward and closely followed the bayou. The route is shown on the "New Orleans, La." U.S.G.S. quadrangle map of 1891, reprinted 1898. The road also bridged the bayou at this point to join the continuation of the servitude to Bayou Barataria which is discussed below in item F.

Traces of the road bed at the northern end of the servitude may be seen on both sides of Bayou des Familles. An oil pipeline crossing has disturbed the earthern embankments and ditches of the bridge approaches. The roadway extends to Highway 45.



Oblique air view of crossroads at end of the Shell Road, looking N. A: Old Barataria Public Road at boundary of Christmas Plantation property (originally drawn in 1768 as the Guerbois-Boudousquié boundary line). B: Several courses of the Chemin de Barataria/Camino Real de Barataria. C: Main ditch of the Christmas Plantation, a possible route of the Chemin de Barataria. D: Shell Road/Old Road/Christmas Plantation Headquarters Road. E: Oil drill site No. 7 access road. F: Oil drill site No. 6 access road.



Sunlight reflects features with standing water in oblique air view at the intersection of the Old Derrick Road/Christmas Plantation Railroad bed (A) and the Old Barataria Public Road (B). Also showing Texas Company oil and gas pipeline right-of-way of 1935 (C), and 1968 pipeline right-of-way (D). Looking SW.

7. The Christmas Plantation Railroad bed

In 1899, Charles J. Brown, owner of the Christmas Plantation, contracted with Frank A. Ames, Treasurer of the Southside Plantation Company, to build a railroad and sell sugarcane. Under the conditions of the contract, Southside Plantation Company was to buy Brown's cane which he would deliver to the Southside Plantation on a railroad that Brown would build with money loaned by Southside Plantation Company. The company would take one half of the profits of the sale of Brown's cane for three years to repay the loan to build the railroad. Meanwhile, Brown mortgaged the railroad to Southside.[23]

The contract specified that the railroad would run for 5.45 miles from a point on the Christmas Plantation to the cane derrick belonging to R. Pritchard Lesassier on Southside Plantation Company's Estelle Plantation. The gauge of the track was to conform with the gauge of the railroad existing on Southside Plantation. The ties were to be "laid three feet between centres," four spikes were to be driven into each tie, or two to each rail on each tie, and the ties were to extend two feet beyond the rails. The sizes of all ties were to be six by eight inches and five feet long. The bed was to be graded and well tamped. There was to be a main track and switch tracks. Brown had the right to cut ties from timber along the part of the route that passed through Southside Plantation, and these were to be made from "heart cypress." The rails were to be purchased from the Illinois Steel Company.[24]

A raised linear feature built of earth, about three feet high, fifteen feet wide at the base, and about a half-mile long, known as the Old Derrick Road, may have been used to transport cane to the railroad terminus on the Christmas Plantation property. A windlass cane derrick, which was located nearby loaded cane into railway cars. An adjacent shell bed was laid with railroad tracks and led to the cane derrick. The raised feature bridged Bayou des Familles. It originated as a levee between ditches which marked the boundary of a Spanish grant (see Chapter IV), and it was later enlarged.

The railroad bed northward of the Christmas property was also made of shell, most of which was apparently removed. The route of the railroad is today a wet trail. Some shells can still be seen on it.[25]

The railroad was used for several years, and then the rails and cross ties were removed.



The "Old Derrick Road," looking SW. The shell bed of the plantation railroad runs parallel in the trees at right.



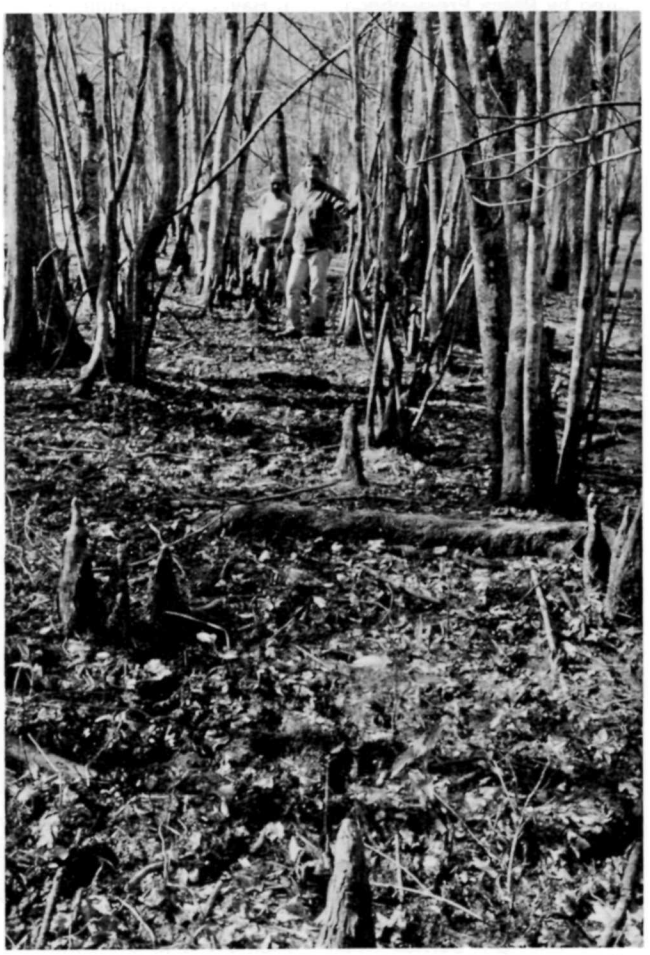
BRIDGE SITES IDENTIFIED BY FIELD SURVEY

A. Bridge crossing on the Suárez tract

This bridge crossing was noted by Surveyor Hauké in his 1855 survey of the former Suárez tract as located 356 feet downstream from the upper corner of the east bank of the tract. The survey was in slight error because the bridge site was found to be a few feet upstream from this position.[26]

At the end of a spit of mushy ground that projects into the bayou, a probe located a brick bridge support submerged about one foot under the muck at the edge of the water. The foundation appears to measure about four feet by fifteen feet.

An examination of the site by archaeologist Jill-Karen Yakubik determined that the foundation is composed of soft, red, handmade bricks. Two fragmentary bricks were recovered. Both had a thickness of 2.58 inches and a hardness of less than 2.5. Their Munsell color value was 2.5YR 58 (red). The thickness, hardness, and color of the bricks are consistent with local traditions of brick-making. The thickness is slightly greater than that which has been established for Anglo-American Country Brick, ca. 1810-1830.[27]



Bridge crossing on the Suárez tract, spit of land projecting into bayou from east bank.

Another spit of ground protrudes from the opposite bank. Cypress trees grow on the spits which align with the compass directions of the Suárez property lines. The bridge may have dated from the latter part of the period of Suárez occupation.

Yet another bridge crossing and road apparently once existed immediately above the upper Suárez property line. The road was built in 1815 by Dominique (or Domingo) Bouligny to save his sugar crop from the flood waters of a crevasse. Because the Barataria Road on the east bank of Bayou des Familles was covered with water, he built a road on the west bank where the land was higher and dryer. The road ran down to the upper Suárez property line, and there it crossed Bayou des Familles to join the old Barataria Road on the east bank. At that time, Louis Bouligny owned the former Suárez property and would not permit his brother Dominique to cut a road through the west bank tract because that tract was unimproved. Apparently, a bridge crossing once existed approximately where the protection levee today crosses the bayou, and a road would have followed the upper side of Section 38.[28]

B. The Pole Bridge

The Pole Bridge was so named because, after it began to fall apart, it was necessary to support one's self with a pole when crossing it to maintain balance. This bridge crossing is described in Chapter IX on the Paper Subdivision, however, it is likely that the bridge pre-dated this period, because it was dilapidated in the early twentieth century. It was a float bridge constructed of cypress logs laid side-by-side across the bayou and held together by planks laid cross-wise on the logs. Logs from the bridge that were dredged out of the bayou lie along the shores.[29]



Remains of the Pole Bridge on Bayou des Familles. Frank Ehret, Jr. demonstrates the use of a pole which was required to maintain balance when crossing the dilapidated bridge in the 1920's. Looking SE.

C. Bridge crossing Bayou des Familles opposite Bayou Coquilles

The "old" bridge crossing noted by Surveyor Hauké in 1855 and mentioned in the above description of road #3, was apparently located immediately downstream from the mouth of Bayou Coquilles. A large Indian mound south of the confluence of Bayous des Familles and Coquilles and another earthwork on the opposite side of Bayou des Familles were apparently used as bridge supports.[30]

The earthwork on the east side of Bayou des Familles was thought to be prehistoric. However, it would have been located in the bayou in prehistoric times. The prehistoric shoreline is about 100 feet east of the mound. Archaeological testing by Richard C. Beavers and Associates reported that the mound consisted of "dredge spoil" and that metal was found at a depth of 1.1 meters.

UNO 44, 16 JE 47, not a site

UNO 44 is located on the east bank of Bayou des Familles directly across from its confluence with Bayou Coquilles. Its dimensions are approximately 40 m N-S by 20 m E-W. It was recognized by the presence of a grassy "mound" and associated plaza. A 1 m by 1 m test pit was excavated on the mound. This excavation revealed that the mound consisted of dredge spoil.[31]

Dredge spoil was undoubtedly deposited on the feature when the bayou was dredged in the 1930s, however, the "mound" and "associated plaza" could have been an approach to the bridge crossing that was said to have been "old" in 1855. Surveyor Hauké did not clearly state if the bridge of the crossing was still standing.



East bank earthwork approach of old bridge crossing of Bayou des Familles at Bayou Coquilles, view from west bank.



Cypress bridge plank with adze marks and wrought-iron nails, found by Percy Prestenbach, Jr. in Bayou des Familles at the mouth of Bayou Coquilles.

D. "The Old Derrick Road" Bridge

According to Louis Ehret, the bridge over Bayou des Familles at the "Old Derrick Road," a raised road bed, was gone by 1912. The earthwork approaches of the bridge crossing protrude slightly into the water.[32]



West bank bridge approach of the Bayou des Familles crossing of the "Old Derrick Road," originally a levee marking a Spanish grant boundary line, examined by (L. to R.) Louis Ehret, Frank Ehret, and NPS Historian Michael Strock.

E. The Christmas Plantation Headquarters Bridge

As noted in Chapter IV on the Christmas Plantation, the Stephens map of 1910 shows that the plantation headquarters bridge was located about 100 feet downstream from the present bridge crossing of the Shell Road. This was the probable position of a cypress log float bridge constructed by the plantation owner, Pierre Ernest Beauvais, after he was given permission to build the bridge by the Jefferson Parish Police Jury in 1867. The bridge approaches are slightly raised areas that support dead trees on the swampy shores.[33]

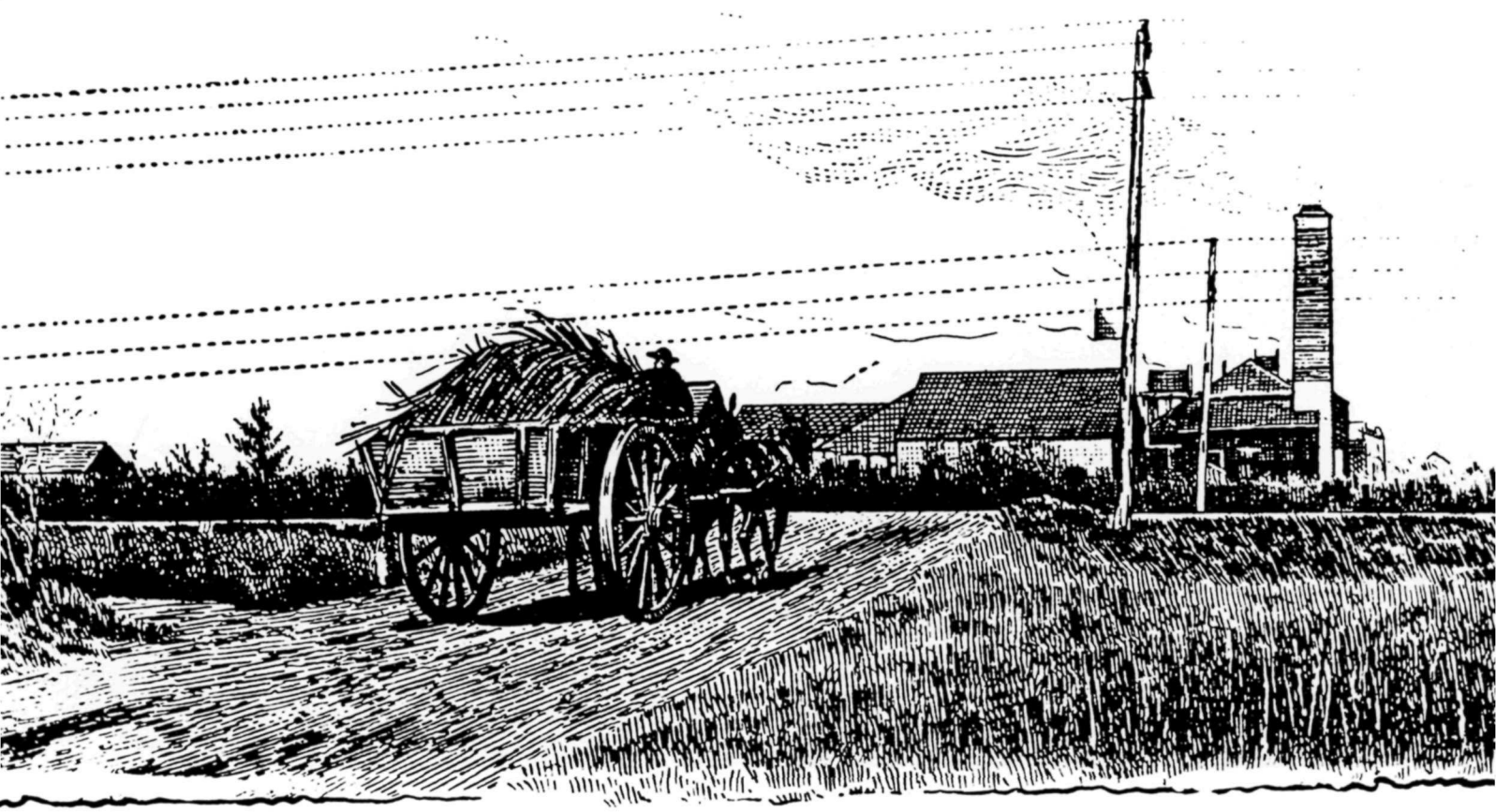
F. The Christmas Plantation servitude road bridge crossings

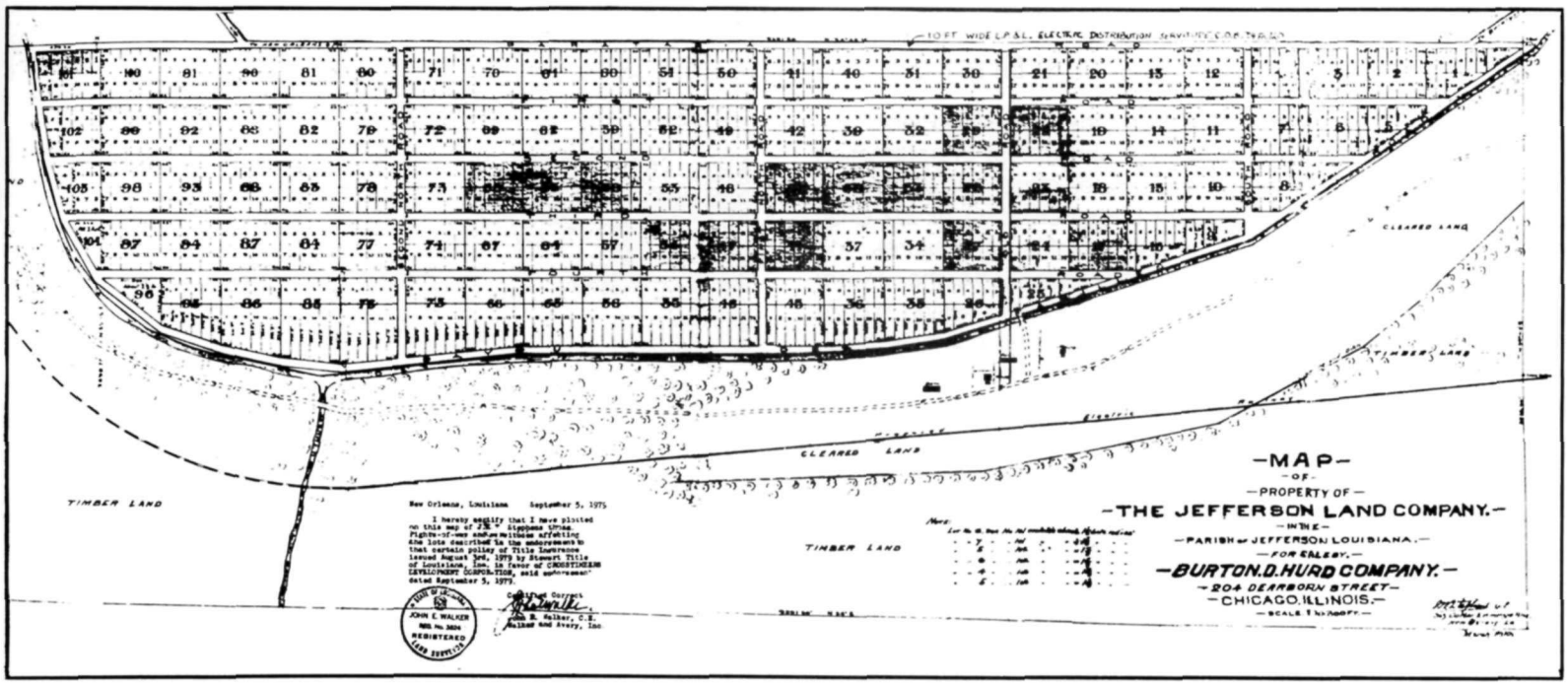
Remains of embanked bridge approaches survive at the Christmas Plantation servitude road crossings of Bayou des Familles. On the east bank of the southern crossing, a large earthern ramp about 15 feet wide rises to a height of about 6 feet over the swamp at the edge of the bayou. Smaller embankments on both shores of the northern crossing have been partially disturbed by an oil pipeline. A float bridge may have been located at the latter crossing.

The servitude to Bayou Barataria reserved for the Christmas property was a 30-foot-wide road or passage that ran nearby along the upper boundary line of Section 11 for 35 arpents from the bayou to the Christmas Plantation. It was important for owners of interior properties to have access to a navigable waterway in order to ship their produce and obtain supplies. Title to the properties in the study area was held with right-of-way on the Gardere (Dubreuil's) Canal. When the Widow Rochefort subdivided her property in 1865, she reserved the "common alley or passageway" for future owners of rear properties.[34]

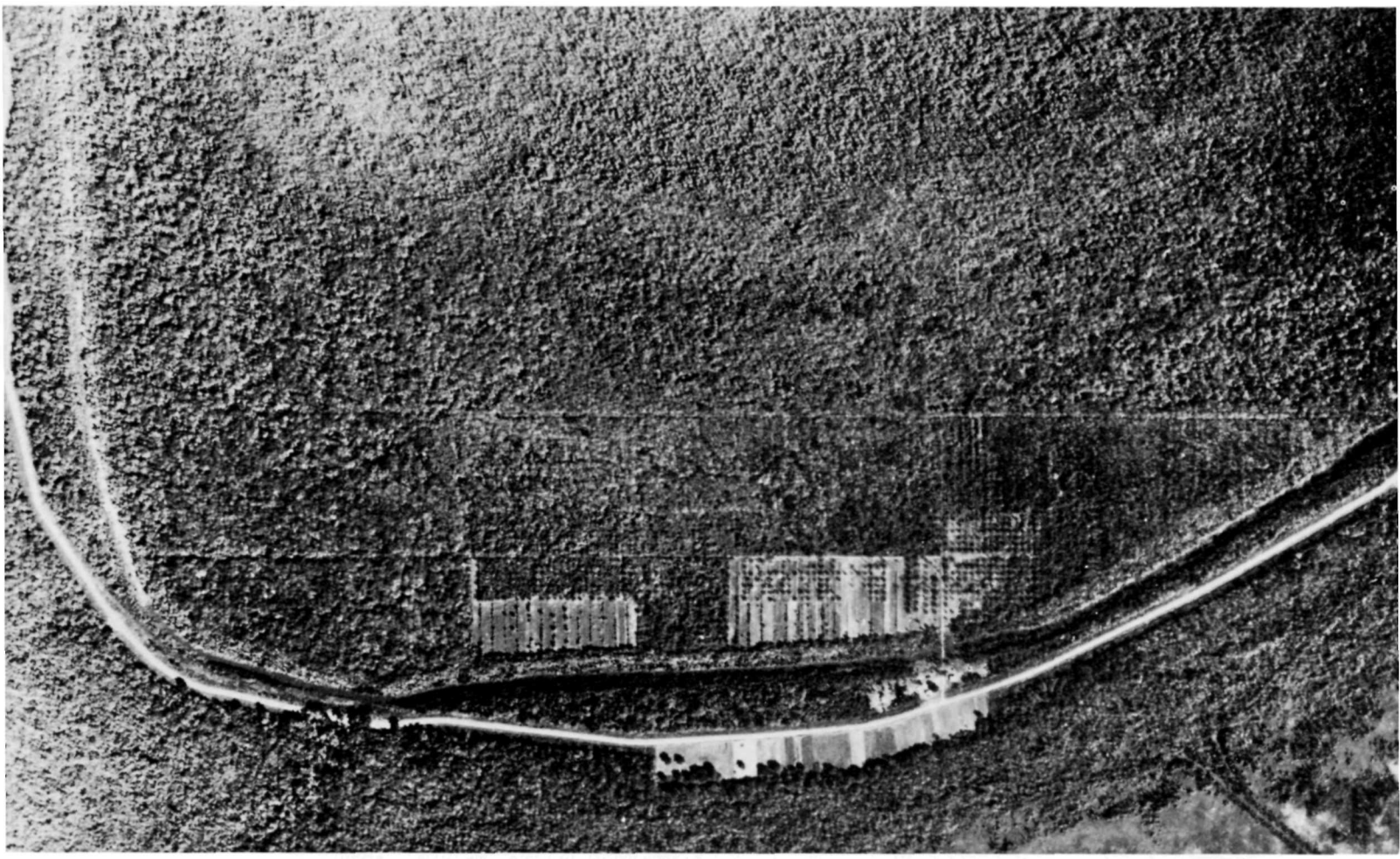


Earthern ramp bridge approach at the southern end of the Christmas Plantation servitude road, looking NE.





J.W.T. Stephens, "Map of Property of the Jefferson Land Company in the Parish of Jefferson, Louisiana, for sale by Burton D. Hurd Company, 204 Dearborn Street, Chicago, Illinois," New Orleans, March, 1910, annexed to act of Alexis Brian, notary, February 10, 1911, NONA.



The reforested residential subdivision, pecan orchard, and sugarcane fields at the end of World War II. Air photo of November 4, 1945, R-76-37-126, USA/CE, New Orleans.

CHAPTER IX

THE PAPER SUBDIVISION

After being cultivated in sugarcane for nearly half a century, that portion of the Christmas Plantation lying to the east of Bayou des Familles was laid out in streets and lots for development as a residential subdivision. It remained a "paper subdivision" for nearly three quarters of a century until acquired by the National Park Service. Although most of the streets were cut when the subdivision was laid out in 1910, few lots were sold, and residential development never occurred. The subdivision existed only in legal land title, that is, "on paper."

Metropolitan New Orleans evolved and grew from the original Vieux Carré to the present tri-parish megalopolis by the ever-expanding process of subdividing plantations into streets and lots for residential and commercial use. By the early 1800s, plantations in what was to become Jefferson Parish were being subdivided. The first residential development on the west bank of the Mississippi River in present-day Jefferson Parish was McDonoghville, divided into lots by John McDonogh in 1815. By the 1830s, many plantations on both sides of the river in Jefferson Parish were being surveyed for the drawing up of subdivision plans. Most of these real estate ventures did not actually develop for more than a hundred years. Their streets and lots were a reality only in courthouse records, and the land remained in cultivation or in woodland, swamp, or marsh. The few lots that were sold were frequently inaccessible because streets were seldom cut. Jefferson Parish was noted for what, in more recent years, became known as "helicopter lots."[1]

In areas more remote from New Orleans, such as Barataria, large land holdings were increasingly subdivided into smaller farm plots to supply the New Orleans market with vegetables, fruit, and dairy products. The residential subdivision of a portion of the Christmas Plantation was an unusual real estate venture for the area, and it failed. Urbanization was to be many more years in coming to Barataria.[2]

The subdivision was laid out by northern business interests. The Jefferson Land Company was incorporated on January 27, 1908, in Augusta, Maine, with S. L. Shaw as president and J. E. Hartenbower as vice-president. However, the Board of Directors met in Tonica, Illinois, and lots were offered for sale by the Burton D. Hurd Company in Chicago. New Orleans attorney Gervais Lombard was authorized to serve as agent in the execution of the acts of sale which were to be made through the Bank of Jefferson in Gretna.[3]

The Christmas Plantation had been acquired by parties of the corporation several years earlier. George H. T. Shaw of Dixon, Illinois, purchased the plantation from Charles J. Brown in 1903. Shaw also bought two other large plantations on Bayou des Familles, the Pecan Grove and Carter Plantations. By a private act of sale in Illinois, Shaw sold the Christmas Plantation to Hartenbower in 1904. Hartenbower transferred the property to a corporation entitled the Old Plantation Company, Limited, for which he served as president. Then, in 1909, the Old Plantation Company sold the Christmas property to the Jefferson Land Company for $19,500. At the same time, G. H. T. Shaw sold the plantations he had acquired to the Old Plantation Company which sold them to the Jefferson Land Company.[4]



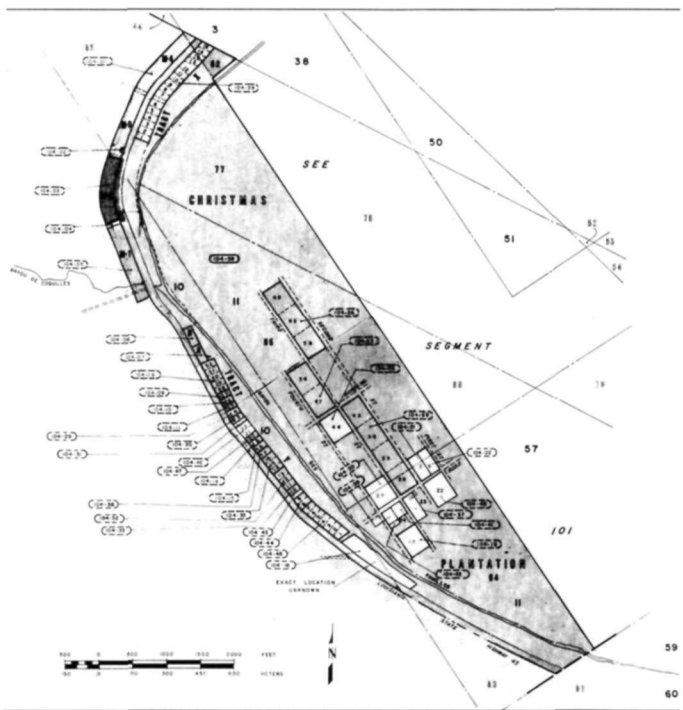
The survey plan for the residential subdivision was drafted by New Orleans Civil Engineer J. W. T. Stephens in March, 1910. The subdivision was laid out in the bend of Bayou des Familles and was bounded on the east by the Old Barataria Road. It was given four principal streets and four cross streets. A road was to border the bayou. The streets were 50 feet wide, and most of them were cut.[5]

The subdivision contained 104 blocks or squares.

Those which faced the bayou were irregular in shape. The rest measured 330 by 396 feet. Each of the standard squares contained 12 lots, and each lot measured 66 feet in frontage by 165 feet in depth.[6]

The subdivision stretched for nearly two miles. Young pecan trees were planted in a mile-long area in the center of the subdivision to enhance the value of the lots and to induce sales. An electric railway proposed for the west bank of Bayou des Familles would have presumably carried commuters to and from the remote suburb. The railway was never built.[7]

In all, only 16 squares and portions of squares were sold during the seven decades that passed between the time when the subdivision was laid out and recent acquisition by the National Park Service. These squares were numbers 17, 22, 23, 24, 27, 28, 29, 33, 38, 43, 44, 47, 54, 58, 63, and 68. They were located in the midst of the pecan orchard. Their residential development never occurred.[8]



National Park Service Land Acquisition map, 1979-83, showing subdivision tracts in separate ownerships.

When the land holdings of the bankrupt Jefferson Land Company were acquired in 1919 by Robert J. Perkins of New Orleans, the only subdivision squares which had been sold were:

Squares 54 and 47 to Mattias Schlingen, April 18, 1911.
Squares 33 and 38 to Mrs. Mary Helm, wife of D. Harvey Helm, January 12, 1912.
Squares 58, 63, and 68 to Octave Suares, December 1, 1910.
Square 29 to George J. Isenmann, April 18, 1911.
Square 27 to William A. Benton, March 26, 1914.
Square 44 to William Laferriere, April 18, 1911.
Square 43 to Mrs. Mary Helm, widow of D. Harvey Helm, March 1, 1913.
Square 17 to A. Vere Martin, April 15, 1913.[9]

In addition to these subdivision squares, the Jefferson Land Company sold five acres on the west bank of Bayou des Familles, south of Shell Road, to William Gomez on February 12, 1912. Gomez and his wife, Mary Eskine Gomez, lived on the tract in a house that had probably been built for the Christmas Plantation. In 1920, Gomez sold the property to Robert Logan Perkins.[10]

Perkins was probably a son of Robert J. Perkins and his wife, Mary Virginia Logan Perkins. The elder Perkins came to New Orleans from Lafourche Parish and graduated from Tulane University Law School in 1893. He began his law practice in Jefferson Parish and served for nine years as parish district attorney. He later relocated his practice to New Orleans.[11]

The lands that Robert J. Perkins acquired from the bankruptcy of the Jefferson Land Company stretched for six miles along Bayou des Familles. He apparently made no effort to develop the property but granted leases to the Delaware Louisiana Fur Trapping Company, Incorporated and the Kelly Land Company of Texas for oil and gas exploration. He probably also sold timber from the lands and grazed cattle. Perkins mortgaged the property to the Canal Bank and Trust Company of New Orleans. This company acquired the property following Perkins' bankruptcy in 1934.[12]

The Canal Bank and Trust Company continued to exploit the resources of the land, but apparently did not attempt to develop the residential subdivision nor to subdivide and sell other parts of the large property. The company let logging contracts and leases for live stock grazing and for some truck farming.[13]

Robert Logan Perkins retained the five-acre Gomez tract and subdivision Square 44 until 1939 when these properties were sold for unpaid taxes by the Jefferson Parish Sheriff. Louis L. Dauenhauer, Sr. purchased the properties at the sale for $41.30. The Dauenhauer family did not use the properties but retained them until they were acquired by the NPS in the early 1980s.[14]

Beginning in the late 1950s, the owners of many of the subdivision squares leased mineral rights to oil and gas exploration companies. Although some seismic exploration may have taken place in the late 1950s, aerial photographs show no changes in tree cover until the 1960s and 1970s when several lots were partially cleared for apparent oil exploration work.

In the late 1960s and early 1970s, State and Congressional legislative actions began to be made toward the establishment of a park in Barataria. Concurrently, real estate speculators accelerated the exchange of "paper" land sales, frequently escalating the market price of the properties beyond their true value. The many property exchanges had little actual effect on the land, therefore this account will not detail the numerous title transactions.[15]

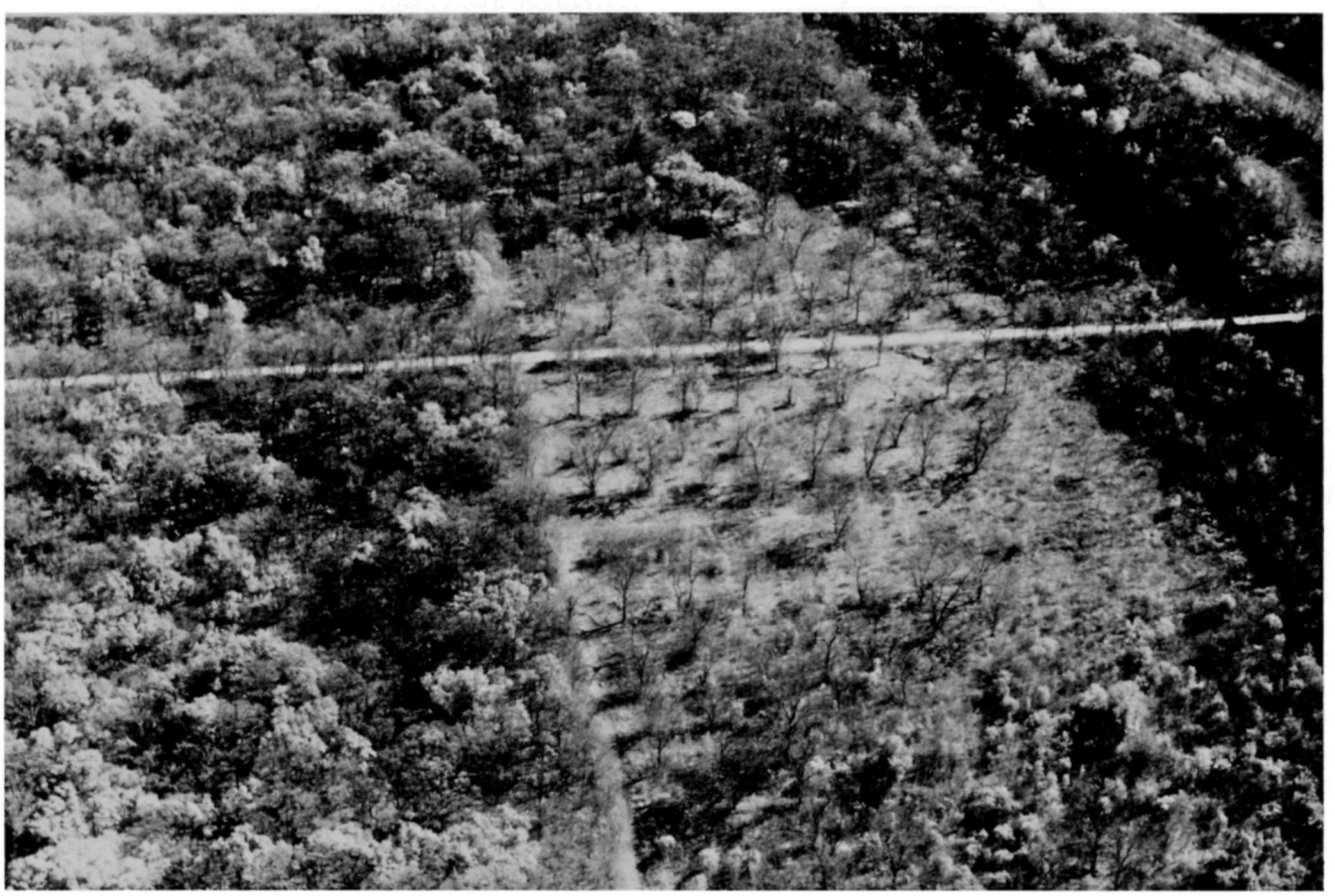
During the 1970s, the remaining unsold portions of the Christmas tract passed from Southdown, Incorpo-

rated to Zapata Norness, Incorporated to Zapata Development Corporation to Leo G. Rose to Christmas Lands to American General Investment Corporation to Cross Timbers Development Corporation. The National Park Service purchased the property from the last named corporation in 1980 for $4,225,000.00.[16]

In 1974, 48 small lots facing the east side of Highway 45 were surveyed and platted for Christmas Lands by Civil Engineer John E. Walker. Several larger tracts were also platted between the highway and the bayou. A number of these lots and tracts were sold, as were some of the yet-unsold lots in the original subdivision. New streets were dedicated by the Jefferson Parish Council to run between the new lots. The streets were not cut, and the "paper" sales had little or no effect on the land itself.[17]

An interesting description of the "paper subdivision" was given in an appraisal report in 1980, on the eve of the subdivision's incorporation into the new National Park.

> The subdivision contains 1191 lots plus streets for a gross area of 382.25 acres. This includes 1083 regular shaped lots 66' x 165' and 108 irregular shaped lots. Some of the lots had been sold off in years past and as of March 17, 1978 there were 927 regular shaped lots and 108 irregular lots plus the respective street areas that had not been individually sold. This comes to 337.25 acres. Recently there were 9 lots sold in two separate transactions. Therefore, it appears that Cross Timbers Development Corporation owns 918 regular shaped lots and 108 irregular shaped lots. The 9 lots represent about 2.25 acres plus 1/2 of the adjoining streets (25 x 594) which is 14,850 square feet or approximately 2.6 acres. The estimated Cross Timbers ownership of streets and lots comes to about 334.65 acres.
>
> Cross Timbers Development Corporation has registered the subdivision with the Department of Housing and Urban Development. The subdivision was of record prior to the time Jefferson Parish began to require the developer to physically install or financially guarantee streets and utilities. Jefferson was famous for its "paper" subdivisions and many a developer sold lots that had no frontage on a physical street. Later the owners shared in the cost of the bond lien programs where the parish installed streets and utilities. Because this subdivision does qualify as a "paper" subdivision, lots could be sold with no obligation on the developer to install streets and utilities.
>
> It would be unfortunate if this were to happen. This tract is one of the prettiest unimproved tracts south of Lake Pontchartrain. Pecan orchards on the site appear on a Gandolfo survey to cover an area equivalent to about 11 squares which is approximately 35 acres. The pecan trees look to be older than the Stephens survey or at least 75 years old.
>
> The remainder of the site needs to be cleared. Throughout this wooded remainder are beautiful oak trees that must be hundreds of years old. If the surrounding trees were not there, these oaks would have probably spread out like those in Audubon Park. This can partially be seen in the photographs included herein.
>
> In the wooded area there are palmettos growing through-



The pecan orchard at the Shell Road, crossed by Third Road. Bayou des Familles and Highway 45 at upper right, looking S. Oblique infra-red photo, 2/23/86. Location of visitor facilities constructed in 1987-88.

out. As a matter of fact they can be seen in one of the photos to be growing profusely in a beautiful grove of oak trees. The wooded areas are not cross ditched and the water can stand in there. In the pecan grove the land has been cross ditched and except for the ditches themselves it is basically dry.

There is another drawback to sale of this land as a paper subdivision. The layout is not good at all. There is a street on the entire perimeter. This means that cost of these streets must be amortized by the lots on only one side of the street, and there is too much street area because of this. On the Bayou des Familles side this is even worse. Instead of having high priced lots backing up to the bayou as on Park Island or Oak Park in New Orleans, these lots face the street on the bayou.

Additionally, the streets are in a straight grid pattern except for the perimeter. Winding streets offer a more attractive appearance and higher priced lots. The problem of the previous sales is a serious one, but if cooperation could not be obtained from these owners, a better layout could still be arranged incorporating their squares in the layout.

The subdivision is on the east side of Bayou des Familles. Cross Timbers Development Corporation owns other areas between the bayou and Barataria Road. Previous owners sold sections of the land fronting on Barataria. Some of these sales are of sites that extend all the way to the Bayou. Other sales are of sites that leave land between the bayou and the front site. . . .

This is certainly unusual. It is doubtful that there is any market for this land except for purchasers of the frontage. It would not be economically feasible to run streets there because there is not enough depth and at best you would only get one-sided use of the streets. . . .

To develop the subdivision, a new bridge over the bayou would have to be constructed. Using this as an exclusive entrance, the security angle could be emphasized in advertising. Undoubtedly, a smart developer would locate the bridge where he owned the Barataria Road frontage. At that point you would have a couple of commercial sites. . . .

The remainder of the Barataria Road frontage could be used for residential lots with road frontage and the bayou to the rear. This type of residential lot is in great demand. To see what can be done with sites like these one need only drive into Crown Point to see some of the lovely homes on Barataria Road.[18]

That part of the park that lies eastward of the Christmas Plantation property remained entirely forested and undeveloped until oil exploration began in the 1960s. Logging and cattle grazing had been the principal activities in the area. A few Negroes lived in cabins in the woods and hunted, fished, trapped, gathered Spanish moss, and cut railroad ties and fence posts.[19]

Sections 51, 55, and 57 of T15S-R23E were part of the Carter Plantation in the post-Civil War period. The park encompasses a portion of this 780 acre tract. As recounted earlier, the Carter Plantation was acquired by Hugo Mehnert in 1885, and he sold the property to William Rebentisch in 1892. They used the plantation as a cattle ranch. Rebentisch's daughter, Charlotte, was Mehnert's wife. She acquired the property from her father in 1902 and continued to use it to raise cattle. At least one Negro cowboy lived there and herded the cattle.[20]



Ferdinand Hugo Dietze and Charlotte Amy Dietze, grandchildren of Mrs. Charlotte Rebentisch Mehnert, inherited the property in 1927. At that time, the granddaughter was the wife of Burton M. Ashley. She later remarried Louis DeLimon. They retained the property and continued to put it to the same uses, with the addition of oil exploration, until 1970 when they sold the tract to Harold W. Adams.[21]

On the same day that Adams purchased the Dietze property, March 24, 1970, he sold it to Dr. Bernard A. Goldman and ten others for $431,200.00. In 1982, Goldman and Associates sold the part of the property which lies within the park, comprising 464 acres, to the NPS for $2,096,000.00.[22]

Section 38 of T15S-R23E, comprising 86 acres, was originally part of the Pablo Suárez Ruiz Spanish land grant. As previously detailed, the tract became in 1859 the rear part of the large Millaudon Plantation which fronted on the river. The rear Millaudon Plantation was called Estelle Plantation, and the rear of Estelle Plantation was called Lower Estelle. Section 38 was at the extreme lower limit of Lower Estelle. The area remained uncultivated and wooded through the plantation period. It was used for logging and cattle grazing.

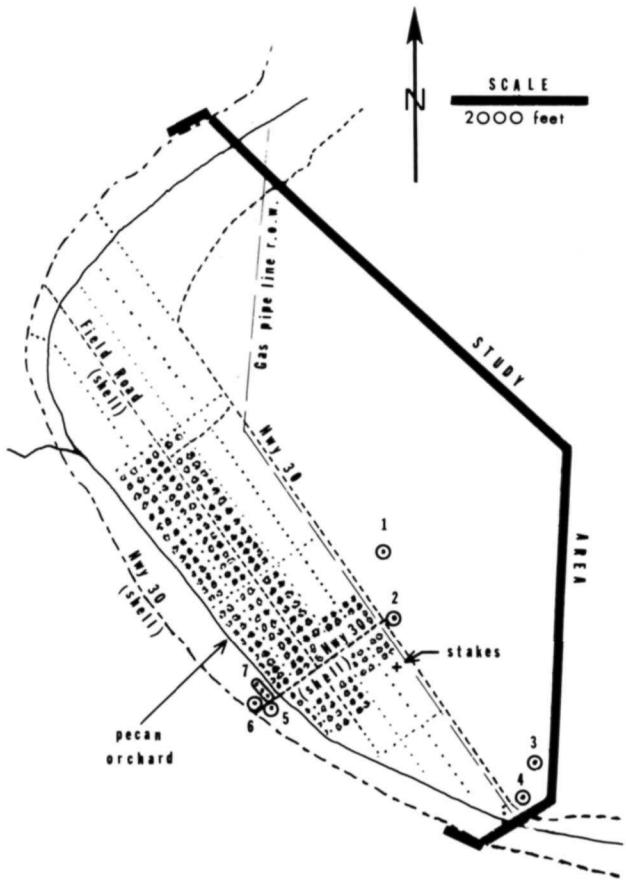
During the late nineteenth and early twentieth centuries, Estelle Plantation was owned by the Ames family's South Side Plantation Company. In 1918, this company sold its holdings to Ames Farm Land Company for the purpose of selling agricultural plots. In 1918, 1920, and 1930, Civil Engineer J. W. T. Stephens drafted maps dividing the plantation into small tracts. In 1935, the Crescent Bed Company of New Orleans purchased nine of the tracts, totaling 372 acres, including Section 38.[23]

The president of Crescent Bed Company was Peter Jung, Sr. It is interesting to note that, like the neighboring land owners Mehnert, Rebentisch, and Dietze, Jung was of German descent. He was born in New Orleans in 1858, and he went into the furniture business. In 1900, he started an iron bed company. He was also the proprietor of the Jung Hotel (now called the Clarion) in New Orleans.[24]

Although many of the Ames farms were purchased for truck farms and dairies, Jung did not develop Section 38. In 1949, the Crescent Bed Company conveyed the property to Jung, Incorporated. In 1959, Arthur L. Jung, Jr. received the property from the estate of Peter Jung. The National Park Service acquired the property from Arthur Jung, Jr.[25]

Although most land transactions postdating the plantation period were "paper sales," and little use was made of the land, there remain a number of cultural features and sites of the period.

CULTURAL FEATURES DATING FROM THE POST-PLANTATION PERIOD TO WORLD WAR II



Sites and features of the Post-Plantation Period to World War II. Dotted lines represent streets laid out for the Jefferson Land Company residential subdivision in 1910 which soon fell into disuse or were never completely cut. Dashed lines represent vehicle roads that remained in use during this period.

The pecan orchard

The most apparent cultural feature of the post-plantation period is the pecan orchard. It stretches for a mile in the old river bed on the east side of Bayou des Familles. A detailed description of the orchard is given in Chapter I.

The pecan trees were planted as a means of promoting the sale of lots when the Jefferson Land Company Subdivision was laid out in 1910. In the early twentieth century, the development of residential subdivisions as pecan or fruit orchards was a popular real estate marketing device in the environs of New Orleans. An example downriver from New Orleans, the Versailles Pecan Groves, was advertised in 1916 to "Make You Independent, Only a Few Minutes from Canal Street" and was touted to be an investment "for your children and your children's children for many generations to come."[26]



A number of profitable pecan orchards were located in Jefferson Parish in the early twentieth century. In 1912, one acre of a ten-year-old pecan orchard on the West Bank was offered for sale for $3,000. In addition to sale of the nuts, revenue was derived from the cultivation of corn, vegetables, or hay grown beneath the trees, and livestock which were grazed in the orchards. The Jefferson Land Company orchard was maintained in these ways, and the streets of the subdivision were used to service it. However, aerial photographs of 1945 show that, by that time, most of the orchard had been abandoned and was undergoing reforestation.[27]

The streets of the Jefferson Land Company Subdivision

The subdivision streets were laid out in 1910 according to a plan drafted by Civil Engineer J. W. T. Stephens of New Orleans. The principal streets run in a northwest-southeast direction. They parallel the Dauterive property divisions of 1768. That part of the Old Barataria Road that follows one of these property lines was incorporated into the subdivision street system. Moving from the Barataria Road toward the bayou, the streets were named First, Second, Third and Fourth Roads. Four perpendicular cross streets were named, from north to south, Second North, First North, Old, and South Roads. According to the plan, Bayou des Familles Road was to border the east bank of the bayou which was to be a "navigation canal." An electric railway was to run on the backslope of the west bank natural levee, but it was never built.[28]



Third Road, looking SE.

The road fronting the bayou was never constructed, but most, if not all, of the other streets were apparently cut in 1910. They are often visible on the ground and as tree lines in aerial photographs. The extant street beds are the 50-foot width shown on the subdivision plan, and they are sometimes bordered by shallow ditches.

Old Road, also called the Shell Road and the Christmas Road, was the plantation headquarters road which was incorporated into the subdivision. This road was apparently never widened to the 50-foot-width of the subdivision streets. It was only about 13 feet wide and was bordered by deep ditches until reconstructed by the NPS for visitor development in 1987-88. Soon after the laying out of the subdivision, the road was extended directly across Bayou des Familles to intersect the road on the west bank of the bayou.

A low wooden bridge which probably dated from the 1960s was replaced by the NPS with a concrete bridge in 1988. Many old bridge pilings that were located under the bridge were pulled up at this time. Some of these pilings dated from the original bridge erected after the subdivision was laid out. The old plantation road curved slightly as it neared the bayou, and it crossed about 100 feet downstream from the crossing of the subdivision Old Road. Archaeological testing by R. Christopher Goodwin and Associates revealed the crushed shell mixed with occasional small particles of brick that composed the bed of the plantation road near the bayou crossing on the east bank.[29]

Old Road and Third Road, which was also called the Pecan Orchard Road and the Old Field Road, remained in use after the other roads were allowed to revert to forest. The north end of Third Road bridged Bayou des Familles and connected with the public road on the west side of the bayou, as shown on a map of 1918. Some remains of the bridge crossing may exist. The map also shows that Third Road was shelled and that at least the portion of Old Road from the road on the west bank of the bayou to Third Road was surfaced with shell. The map labels Third Road "Shell Road" and notes that it is bordered with "Pecan Orchards."[30]

Shell was undoubtedly laid on the roads by the Jefferson Land Company to facilitate both the harvesting of pecans and the selling of lots. Occasional shells can be seen on Third Road. Old Road was apparently shelled when it was a plantation road, and it continued to be resurfaced with shell because it remained in use to present-day. According to Louis Ehret, who frequented the area between 1912 and 1930, the road looked the same as it did in 1912 until reconstructed by the NPS in 1987-88.[31]

Louisiana State Highway 30

Louisiana State Highway Commission maps of the 1920s and 1930s show that the Chemin de Barataria or Camino Real de Barataria, more recently known as the Old Barataria Public Road, was part of State Highway 30. According to Frank Ehret, Jr., who moved to Barataria with his family in 1918 when he was one year old, the road "was a wagon trail sparsely covered with clam shells in spots". The wheels of the Ehret Model-T Ford "would bog down in soft spots on the road" and "many times you had to travel off the road a distance to avoid the deep ruts." He recalls traveling the road as a child with his family by automobile in the 1920s and on horseback in the early 1930s.

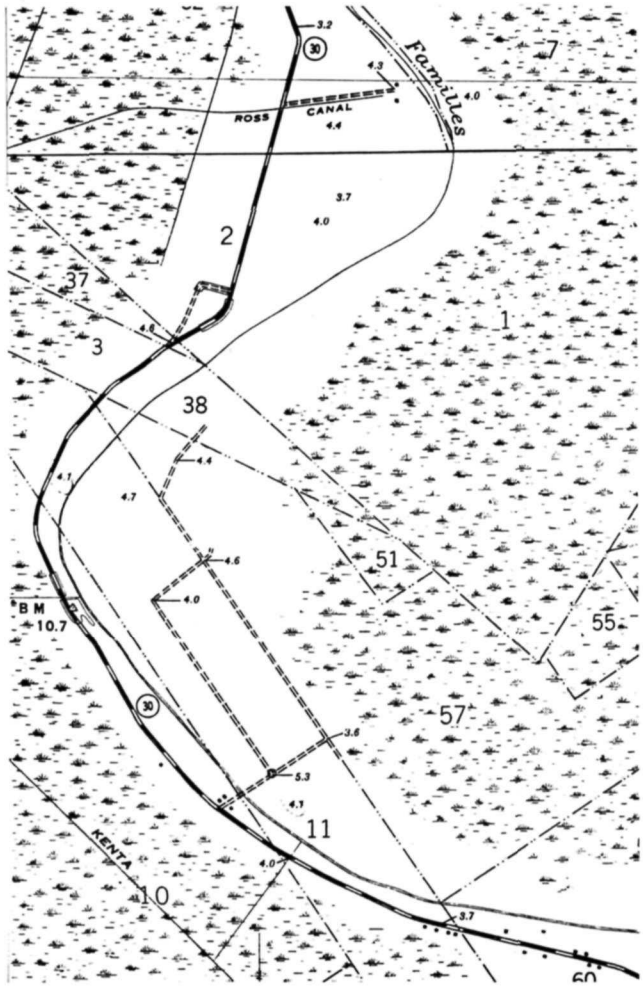
> In dry weather the road was passable but in rainy weather your chances of stalling were probable. In many places the car would circumvent the bad sections and then come back to the old road, making detour road beds all along the ridge.
>
> As I can remember there were several roads and bridges over Bayou des Familles that would connect the old public road to the new shelled road on the west side of the bayou. One crossing was at Ross Plantation. The next one going south was just beyond the present parking lot in the Jean Lafitte Park by the Twin Canals. Further south, before the turn approaching Coquilles, was another one. It was called the "pole bridge". It was a floating bridge of long cypress logs across the bayou four abreast and linked together by cross timbers. The logs are still there except they are scattered along each shore. The next bridge was at the house where Willie Gomez lived at the entrance of Brown's field.[32]

The bridge crossing below Twin Canals remembered by Mr. Ehret was probably that previously mentioned which connected Third Road to the west bank road. The "pole bridge" was located below Fourth Road. When the bayou was dredged in 1938, some of the large logs that formed the bridge were thrown on the swampy shores on both sides of the bayou. According to Mr. Ehret, the appellation of "pole bridge" was given because the bridge had become partially dismembered by the 1920s, and it was necessary to support one's self with a pole while walking across it in order to maintain one's balance.[33]

The approach to the bridge on the west bank is a 200-foot-wide area that includes what appears to be man-made fill in a slough. It is located about 1950 feet northward on Highway 45 from Bayou Coquilles. The bridge crossing probably pre-dated the twentieth







Detail of United States Geological Survey, "Bertrandville, La." topographic quadrangle map, 1940.

century.

The bridge at the Gomez house, mentioned by Mr. Ehret, was that of the subdivision Old Road which connected the Old Barataria Road-Highway 30 with the west bank road. Old highway maps indicate that Old Road was used as part of the highway system.

The Old Barataria Road-Highway 30, following the 1768 Guerbois-Boudousquié property line, crossed Bayou des Familles at the southern end of the park. An earth embarkment existing at this location served as a bridge approach.

Old highway maps also label the road on the west bank of Bayou des Familles as Highway 30. During the 1920s or 1930s, maintenance of the east bank highway was abandoned by the State in favor of the west bank road. Thereafter, the east bank road was used largely by hunters, trappers, loggers, and moss-pickers. It then became known as the "Old Barataria Road" while the west bank road appropriated the name of the "Barataria Road."[34]

The west bank road was surfaced with shells removed from the Indian burial mounds on Bayou Coquilles. According to Mr. Ehret, "it was a common sight to see bones and parts of skulls on the side of the road bed." The road bridged Bayou Coquilles, probably in



Highway 30 near the crossing of Bayou Coquilles, looking SE. Drawing by J. Zeph Capponi in the *Times-Picayune*, May 12, 1935.

the same location that it crosses the bayou today. Mr. Ehret recalls that

> Many people feared crossing this site at night, especially the Negroes. There were all sorts of tales and stories about ghosts and weird sounds. Some said Jean Lafitte's ghost still haunted the area of the oaks that he frequented during his life, while others said it was the ghosts of the Indians whose graves were desecrated by those hauling off the clam shells from the middens. Horses were said to have shied and thrown their riders.
>
> One of the fears here was real. During the days of prohibition, bootleggers came through Bayou Coquilles with luggers loaded with five gallon cans of liquor. At Coquilles they would unload onto trucks that would go to New Orleans. Hi-jackers who were tipped off about the boats coming in would be in wait and try to take the liquor. Many were killed in shoot-outs that ensued.[35]

Although the west bank road was designated by the State as part of Highway 30 in the 1920s, the road did not legally become part of the State highway system until 1930 when the State purchased the right-of-way from the land owner, Robert J. Perkins. Prior to that time, it was a private road which had served the plantations west of the bayou. The sale by Perkins was made for six miles of 100-foot-wide right-of-way for $3,000. The existing road was 30 feet wide and had numerous curves, therefore the State purchased the right-of-way with the privilege of relocating it to the most desirable locations.[36]

The plantation road on the west bank of the bayou approximated the route of the present highway and was used as a public road after the demise of the plantations. The road is shown on Stephens' subdivision map of 1910. Portions of the old road bed appear to exist adjacent to the present highway and other stretches seem to be under the highway.





The State improved the plantation road for public use in the 1920s and may have then relocated some portions of the road bed. Because the State did not own the right-of-way, Robert Perkins brought suit against the Louisiana Highway Commission and enjoined the Commission from further maintenance of the road. After the State purchased the right-of-way in 1930, the Highway Commission eliminated some of the curves. The shell road was asphalted during the 1930s. The State redesignated the road as Highway 45 in the 1950s.[37]

Public service right-of-ways and easements were granted parallel and adjacent to the highway, resulting in the clearing of a wide band through the forest. In 1926, Perkins granted a general permit to South Central Bell Telephone and Telegraph Company. Additional right-of-way permits were granted to the company by the subsequent land owner, the Canal Bank and Trust Company, in 1938 and 1941. The telephone right-of-way is 50 feet wide.[38]

In 1931, soon after selling the highway right-of-way to the State of Louisiana, Perkins granted an electricity right-of-way for the consideration of $1.00. Again, in 1938, Louisiana Power and Light Company was granted a 25-foot easement to construct, operate, and maintain electric lines near the highway. The cutting and mowing of the utility servitudes and the borders of the highway has created artificial plant communities along the highway.[39]

The Texas Pipe Line Company right-of-way

In 1935 and in 1937, the Texas Pipe Line Company purchased the right to lay and maintain a pipeline through what is now the park. The pipeline right-of-way enters the south end of the park along the west side of the Old Barataria Public Road that follows the 1768 Guerbois-Boudousquié property division. The right-of-way is about 20 feet wide and lies partially in the Old Barataria Road and partially in the following subdivision lots: Lots 1 through 7 of Block 1 and Lots 1 through 6 in each of Blocks 2, 3, 4, 12, 13, 20, 21, 30, 31, 40, 41, 50, 51, 60, 61, 70, and 71. The right-of-way north of the junction of the Shell Road is noticeable as a cleared strip now overgrown with young trees and saplings. South of the Shell Road, the position of the right-of-way is apparently indistinguishable from the road. Two parallel pipelines are laid in the right-of-way, an eight-inch oil pipeline and a six-inch gas pipeline.[40]

The pipeline right-of-way turns nearly due north at 3564 feet northwestward from the Shell Road, crosses under the Old Barataria Road, and proceeds in a straight line through the swampy woods on the backslope of the natural levee. Here, the right-of-way is thickly grown over with palmettos and some young trees. The pipeline right-of-way leaves the park when it crosses under the protection levee. The pipelines carried oil and gas from the many oil fields in the southern Barataria Basin to a terminus on the Texas and Pacific Railroad near the Mississippi River at Marrero.[41]

Plot of stakes with numbered copper plates

An unusual cultural feature that apparently dates from the early post-plantation period is a plot of small stakes having numbered copper plates. It is located southeast of the juncture of the Shell Road and the Old Barataria Road.

The plot measures about 15 feet by 22 feet. It appears to have been laid out to contain six rows of stakes with each row having ten stakes positioned about 18 inches apart. Only one stake remains in what appears to have been the sixth row.



Cypress stake with numbered copper plate.

The stakes are made from small cypress branches and measure about 37 cm in length. The copper plates are circular and measure 3.5 cm in diameter. They are stamped with numbers and have a hole through which copper wire is inserted. The wire was also inserted in a hole drilled at the top of the stake and tie-twisted.

The purpose of the numbered stakes is unknown. The location of the plot is in the reforested sugarcane fields. According to Louis Ehret, who hunted in the wood between 1912 and 1930, the numbered stakes "have always been there." They are a testimony to the durability of cypress wood.[42]



Unit Manager Oscar Rodriguez examines rows of cypress stakes with numbered copper plates. Looking N.

BUILDING SITES OF THE POST-PLANTATION PERIOD TO WORLD WAR II

Site 1. Cabin of a Negro named Hennison

According to Louis Ehret, the Hennison cabin site is located about 1000 feet north of the Ring Levee Trailhead, "at the edge of the swamp." Mr. Ehret remembers that, in about 1918 or 1920, a Negro hunter and trapper named Hennison lived at this site in a log slab cabin which he built for himself.[43]

A log slab is the outside piece cut from a log in squaring it. The slab is flat on one side and rounded on the other, and it often still bears its bark. Slabs could frequently be obtained at no cost from the refuse of sawmills. They have long been used to construct walls and roofs of rustic buildings. The flat side of the slabs are nailed either horizontally or vertically to the wooden frames of buildings.

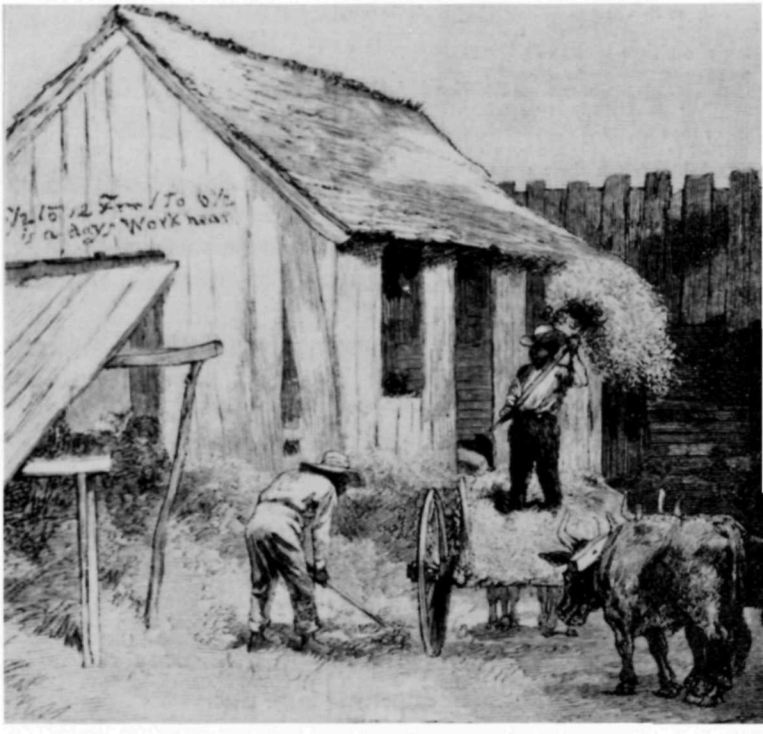
In the Barataria region, such makeshift dwellings were often called "camps" even though they served as the occupant's year-round home. They were perhaps so-called because of the temporary appearance of the construction, or because the inhabitants were frequently squatters.

Hennison is said to have been a squatter, and he lived alone. However, he and other apparent squatters may have been given permission to live on the land by the owners of the large wooded tract that included Sections 51, 55, and 57 in T15S-R23E, the Rebentsich-Mehnert-Dietze family.[44]

The location of the cabin, as described by Louis Ehret, would have been at the toe of the natural levee, in a wet area. A search was not made for possible remains of the cabin.

Site 2. Cabin of a Negro called "Dad"

The cabin site is located near the end of the Shell Road, across or near the oil field road which proceeds eastward. The cabin faced the Old Barataria Public Road. According to Louis Ehret, who visited the area between 1912 and 1930, an elderly Negro called "Dad" lived here. Both Louis Ehret and Frank Ehret frequently passed the cabin on the Old Barataria Road, and they remember the Negro as a squatter who lived alone. They say he was a moss-picker and trapper, and he "lived off the land" by hunting and fishing. He also cut and sold railroad cross-ties, and fence posts and pickets. He used a yoke of oxen to pull from the edge of the swamp the cypress logs that he cut into cross-ties and fence posts. The Negro felled the logs in the swamp and floated them out on "tie runs," or channels made



by dragging logs through the swamp. He also used the oxen to pull a wooden slide or sleigh constructed of eight-foot-long boards which he loaded with moss that he picked in the swamps and in the woods.[45]

Louis Ehret describes Dad's cabin as a small shack constructed of cypress slabs and having a dirt floor. A metal trash burner served as Dad's cooking stove. The cabin site was overlaid by the shell-over-planks oil road and, later, by additional fill deposited by the NPS for park development. The site may also have been disturbed by earth-moving during oil operations. A few pieces of brick and a piece of roof slate were observed nearby. Several hundred feet northeast of the approximate cabin site is a linear pile of mud about two feet high. Surface artifacts noted on this elevation may derive from the habitation of the Negro. These include brick fragments resembling the color and consistency of bricks located on the plantation building sites; white porcelain sherds; whiteware ceramic sherds; clam and oyster shells; and large, round, bent nails. These materials resemble those noted on the site of the Christmas Plantation laborers' quarters row on the south side of the Shell Road. It is possible that the old Negro was a former hired field hand who worked on the plantation and lived on its boundary.

Aerial photographs show a partial clearing about 300 feet in diameter at the point where the Shell Road meets the Old Barataria Road. It may have been made by the Negro as a work area. In more recent years, the

place was used as an unofficial dump. This trash deposit was largely removed by the NPS, although armadillos sometimes unearth trash that remains beneath fill overlaid by the NPS. The late Spanish Period dwelling of Louis Pelteau may have also been located in this vicinity.

Site 3. Cabin of a Negro cowboy named Dennis

According to Louis Ehret and Frank Ehret, the approximate site of the cabin is located near the crest of the east bank natural levee, near the southern boundary of the park. A large ring levee oil drill site is located in this area.[46]

Dennis worked for the land owners, the Rebentsich-Mehnert-Dietze family, "running cattle in the Big Woods." The Negro had a little red horse and some dogs that he used to herd the cattle. He also cut railroad cross-ties, hunted, fished, and trapped. He is said to have had "two wives, one with brown skin and the other with black skin," who lived together with him in the cabin.[47]

The cabin was about 25 or 30 feet long. It was constructed by Dennis of cypress that he cut himself. The roof was covered with metal. Large metal drums situated under the overhang of the roof collected rain water that drained from the roof for drinking water, for household use, and for the animals.[48]

Site 4. Cabin of a Negro named Wright

The cabin site is located near the east bank of the bayou, and near the southern park boundary at the powerline right-of-way. According to Louis Ehret and Frank Ehret, this was the site of the cabin occupied by a Negro tie cutter, trapper, and moss-picker named Wright and his wife. The hand-cut cypress and metal-roofed cabin resembled Dennis' cabin, described above, and it was about the same size.[49]



Artifacts at cabin site 4.



Mound at cabin site 4, looking E.



Leveed pit at cabin site 4.

The cabin site consists of an earth mound about 50 feet in diameter and several feet high. Artifacts remaining on the surface include brick fragments, pieces of an old cast-iron bedstead, the glass base of an oil lamp, a smashed copper cup, parts of a cast-iron stove, a broken cast-iron pot with legs, and lumps of *bousillage*, a mixture of mud and moss traditionally used in Louisiana for wall insulation and chimney construction. Nearby are two small, round ponds ringed by small levees less than a foot high. These ponds are obviously man-made. The house mound with associated ponds or pits resembles those of the Canary Islander village laid out in 1778 (see Chapter III).

The Wrights are thought to have been squatters. However, they and the other Negroes who lived on the Rebentsich-Mehnert-Dietze property may have dwelled there by agreement with the owners. They may have helped to watch the owners' cattle and protect the property from interlopers.

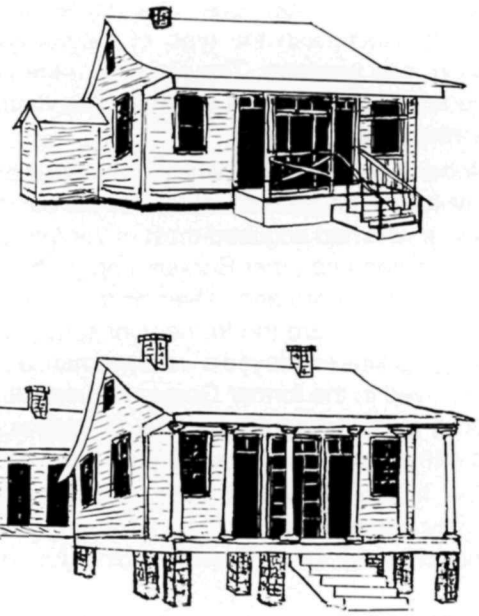


Site 5. The William Gomez House

The house site is located on the south side of the Shell Road, northeast of the junction of the road and Highway 45.

In 1912, William Gomez purchased five acres planted in pecan trees on the west bank of Bayou des Familles, south of the present route of the Shell Road and between the bayou and present-day Highway 45, from the Jefferson Land Company for $1,000. His acquisition included the location of one of the houses of the Christmas Plantation, and the house was probably extant at the time of purchase. (See No. 1e on map of the Christmas Plantation Headquarters area.)[50]

William Gomez and his wife, Mary Eskine Gomez, are known to have lived in a house that faced the Shell Road. They resided there until they sold the property to Robert Logan Perkins in 1920 for $800.00. The plantation house was located farther downstream. It may be speculated that the Gomez House was the plantation house, moved to the new site on the Shell Road and perhaps somewhat remodeled. Stylistically, the Gomez House could have dated from the establishment of the Christmas Plantation in 1866. Oral tradition has long identified the house as the "Christmas Plantation Overseer's House," even though no house was located on the site of the Gomez House during the late plantation period.[51]



The William Gomez House. Above: shortly before destroyed by fire in 1983, drawn from photographs made by Talluto Real Estate Appraiser, filed with Tract No. 104-18, Land Acquisition Office, NPS, Southwest Regional Office, Santa Fe. Below: conjectured restoration as a galleried, villa-style, center-hall cottage with detached kitchen on the Christmas Plantation before removal to a new site by Gomez in 1912.



Brick chimney base of the Gomez House, looking NE.

Photographs made in 1983 show that the Gomez House was a small villa style cottage, an American modification of the Creole cottage type. The villa, or raised, center-hall house, was popular in Louisiana in the mid-19th century. Such dwellings were a manifestation of the Greek Revival Style brought to Louisiana from the Eastern United States. Many pretentious raised villas were erected as plantation houses. However, modest cottages in urban and rural areas also incorporated the center hall and the symmetrical facade of the fashionable style. Such cottages combined Louisiana colonial and American building traditions.[52]

Stylistically, the Gomez House would have appeared more appropriate if raised a half-story on brick piers. The remains of brick piers can be seen in the ground at the former location of the plantation house. Gomez apparently removed the house from its piers, moved it to a new location, and placed it on the ground.

As it appeared in 1983, the frame house was rectangular in plan and had small wings at the side and rear. The gabled roof, which had a slight double pitch characteristic of eighteenth and nineteenth century buildings in south Louisiana, was covered with corrugated metal. A gallery was inset across the front facade which contained symmetrical fenestration consisting of a central door flanked by a window and a door on each side. In the Greek Revival tradition, the central door had a transom and sidelights, and it apparently opened

to a central hall. Photographs of the house are not clear enough to distinguish the type of mouldings around the doors and windows. The windows were fitted with double-hung sash. A brick chimney was located near the northeast gabled end.

Robert Logan Perkins, who purchased the property upon which the house is situated, was the son of Robert J. Perkins who had acquired most of the former Christmas Plantation and other Barataria properties. Neither Perkins lived in Barataria. They were prominent New Orleanians. To guard the former Christmas Plantation property, Perkins employed a watchwoman, a Miss Harris, who lived in the former Gomez House. Miss Harris carried a gun, punctured the tires of trespassers' vehicles with an ice pick, and put sugar in their gas tanks.[53]

The house burned in 1983, and the NPS subsequently removed the remains, including the base of the brick chimney, and the concrete block foundation.[54]

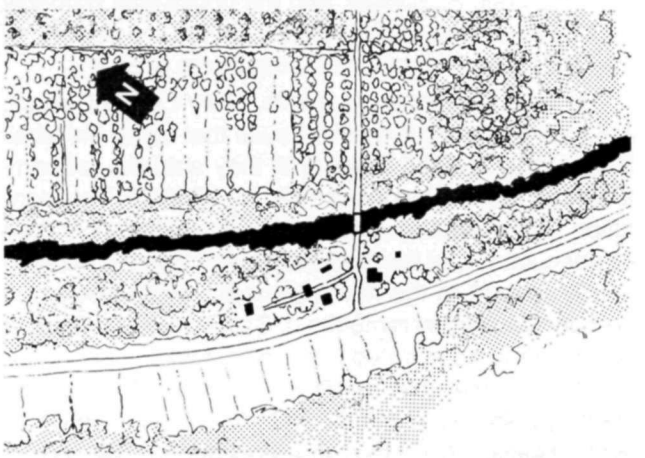
Site 6. A plantation house

The house site is located at the northeast corner of the intersection of the Shell Road and Highway 45. The house is described in Chapter VI. It was demolished in 1953 and was probably the same cottage that stood on the site during the plantation years.[55]

The cottage was occupied in the post-plantation period by a Negro family, and other Negro families lived in nearby cabins. Frank Ehret remembers that the Mitchells and the Dorseys lived in these dwellings in the 1920s. They were moss pickers.[56]

Site 7. A row of cabins

A row of cabins was located on the west bank of Bayou des Familles, northwest of the crossing of the Shell Road and about 100 feet from the bayou. According to Louis Ehret and Frank Ehret, the cabins were occupied by Negro moss pickers in the post-plantation period. These buildings may have been some of the plantation laborers' quarters that were originally located on the opposite side of the bayou, as described in Chapter VI.[57]



Buildings in study area in 1945: facing south side of Shell Road, Gomez House; northwest corner of junction of Shell Road and highway, plantation period cottage; northside of Shell Road near bayou, plantation quarters building; other structures unidentified. From aerial photograph flown 5-17-45 by the National Ocean Survey, C&GS 20 La.1250 29 90 C2790, National Archives, Washington, D.C.



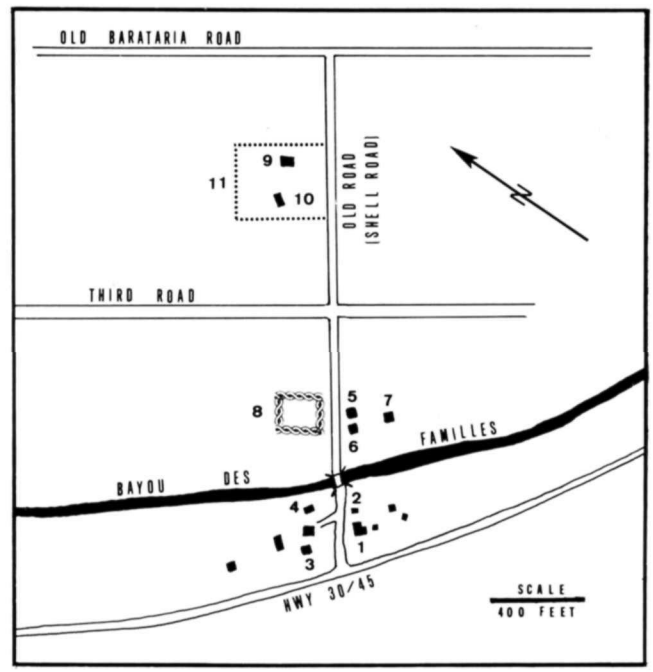
BUILDING SITES AND FEATURES POST-DATING WORLD WAR II

Most of the former Christmas Plantation property had reforested by the time of World War II. Aerial photographs of 1945 show only about 25 acres remaining in cultivated truck gardens and pecan orchards. The entire environs were densely forested, with faint linear traces of logging operations the only sign of human activity in the woods. However, the forests were also being used for grazing livestock, hunting, trapping, and the gathering of Spanish moss.



The aerials show six buildings clustered at the intersection of the Shell Road and Highway 45 (then Highway 30), between the highway and the bayou. Several of these buildings have been described earlier as two cottages and a quarters cabin probably remaining from the Christmas Plantation. The other structures have not been identified, and later aerials show other unidentified structures which may have been sheds, barns, garages, or house trailers.

The old Gomez House was still being used as the house of the caretaker employed by the Canal Bank



STRUCTURES DATING FROM WORLD WAR II TO 1985

1. **Caretaker's house, formerly the Gomez house and a Christmas Plantation house.**
2. **Garage and shed.**
3. **A Christmas Plantation house.**
4. **A Christmas Plantation laborer's quarters. (Other west bank structures are unidentified.)**
5. **Sawmill.**
6. **Sawmill operator's house.**
7. **Possible house.**
8. **Mule corral.**
9. **Marrero Rod and Gun Club cabin.**
10. **House trailer.**
11. **"Gun Club Lot."**

and Trust Company, owner of the former Christmas lands. Jake Trupiano was the caretaker in the years following World War II. He cultivated vegetables in portions of the pecan orchard. This helped to maintain parts of the orchard. His farm plots were located to the northwest of the Shell Road and Third Road and across the highway where the Visitor Center is located today. He planted potatoes, beans, cabbage, beets, turnips, green onions, corn, lettuce, carrots, blackeye peas, and peppers. Deer from the surrounding woods would frequently raid the gardens. Trupiano sold the vegetables and pecans at the French Market in New Orleans. After the crops were harvested, cattle were put on the land to help keep the orchards clear.[58]

Trupiano also collected fees from moss pickers who paid to gather truckloads of Spanish moss from trees on the property and from hunters who wished to hunt there. Trupiano is said to have killed the last black bear known to have lived in the Barataria Region when it



entered the gallery of his house in the late 1960s.[59]

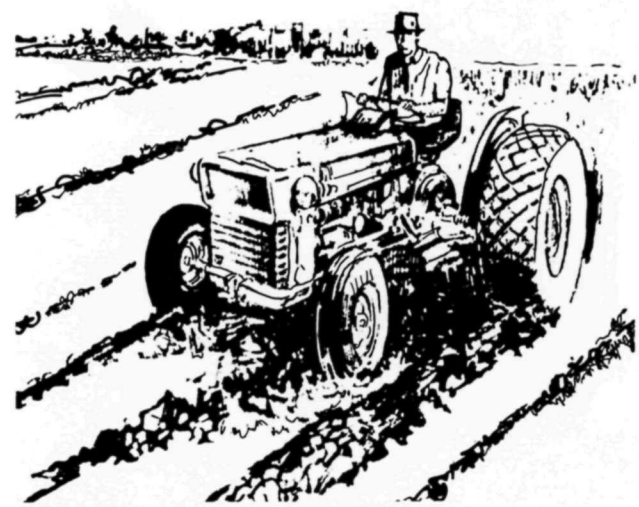
In the late 1970s, the caretaker's cottage stood abandoned and vacant for some time. According to Mrs. Mary Dauenhauer Erlinger, who owned the property, the house was then occupied by squatters. Two couples and at least one child lived in the house. As many as 100 rabbits, which they raised, hopped about the premises. They cooked the rabbits on an iron rack in the fireplace of the house. They kept a boat in front of the house and probably used it to fish in the nearby lakes. A big goose attacked all strangers who ventured onto the property.[60]

At the rear of the house, the squatters farmed a small plot enclosed with a tall fence of sheet metal supported by wooden posts and cast-iron pipes. The metal enclosure kept wild animals and the rabbits from raiding the garden. The furrows of the garden are visible on the ground. Between the farm plot and the highway was an old wood and metal tool shed and another, smaller metal enclosure which served as a pig pen.[61]

The house was destroyed by fire on Halloween night, 1983, soon after the squatters had been evicted by the Sheriff of Jefferson Parish. The brick chimney remained standing. It was later knocked down by the NPS, and the debris was cleared from the property.[62]

Aerial photographs of the 1960s show several buildings located at the southwest corner of the Shell Road and the Fourth Road, near the bayou. These structures were not situated on subdivision lots that had ever been sold. They were associated with a sawmill operation which was undoubtedly under contract to the owner of the subdivision, Canal Assets, Incorporated, a company formed in liquidation of the Canal Bank and Trust Company.

According to A. J. Smith, who used to live in the Barataria area, the building at the corner of the Shell Road and Fourth Road was a sawmill operated by a gasoline engine. It faced the Shell Road. The sawmill operator's house was situated at the bayou side of the mill, also facing the Shell Road. A third structure was



located about 200 feet to the southeast of these buildings. Debris in this area, including children's toys, suggests that this building was a dwelling. Aerial photographs show that it had been demolished by the early 1970s. The other two buildings remained standing a few more years. Their cement and wooden beam foundations still exist, along with scattered refuse. The NPS recently cleared most of the trash from this area.[63]

Aerials of the 1970s show that the last area of the pecan orchard to be kept open by cultivation under the trees was a small plot at the northeast corner of the Shell Road and the bayou. The sawmill operator may have farmed this patch. In the orchard, near the Shell Road and across the road from the sawmill, was a mule corral. Some large corral posts that remained standing were removed by the NPS when a parking lot was constructed on the site in 1987. According to Mr. Smith, the sawmill operator used the mules to help haul timber out of the woods, but he also kept them "just because



he liked them."[64]

Two blocks up the Shell Road, other structures were erected by a hunting club in the 1970s. The "Gun Club Lot" faced the north side of the Shell Road between First and Second Roads and occupied the whole of Block or Square 29 of the subdivision. The Marrero Rod and Gun Club, Incorporated, purchased the eastern half of the square in 1973. The western half of the square was purchased in the same year by Slattery P. Henry of Marrero and was apparently also used by the gun club.[65]

The improvements on Henry's portion of the square consisted of an old, deteriorated house trailer and a small shed. Those on the gun club's half of the square consisted of a 32 by 24 foot frame cabin, an 8 x 12 foot frame shed with a dirt floor, and a galvanized iron privy.[66]

The cabin was raised on concrete blocks and had a corrugated metal roof with gabled ends. The exterior walls were covered with horizontal boards. The interior was divided into two rooms, a bedroom and a kitchen. The floors were made of plywood laid on joists.[67]

The only utility service available to the people who lived along the Shell Road was electricity. In 1970, Louisiana Power and Light Company installed an electricity line on wooden poles along the south side of the Shell Road and along the Old Barataria Road bordering Squares 30 and 31.[68]

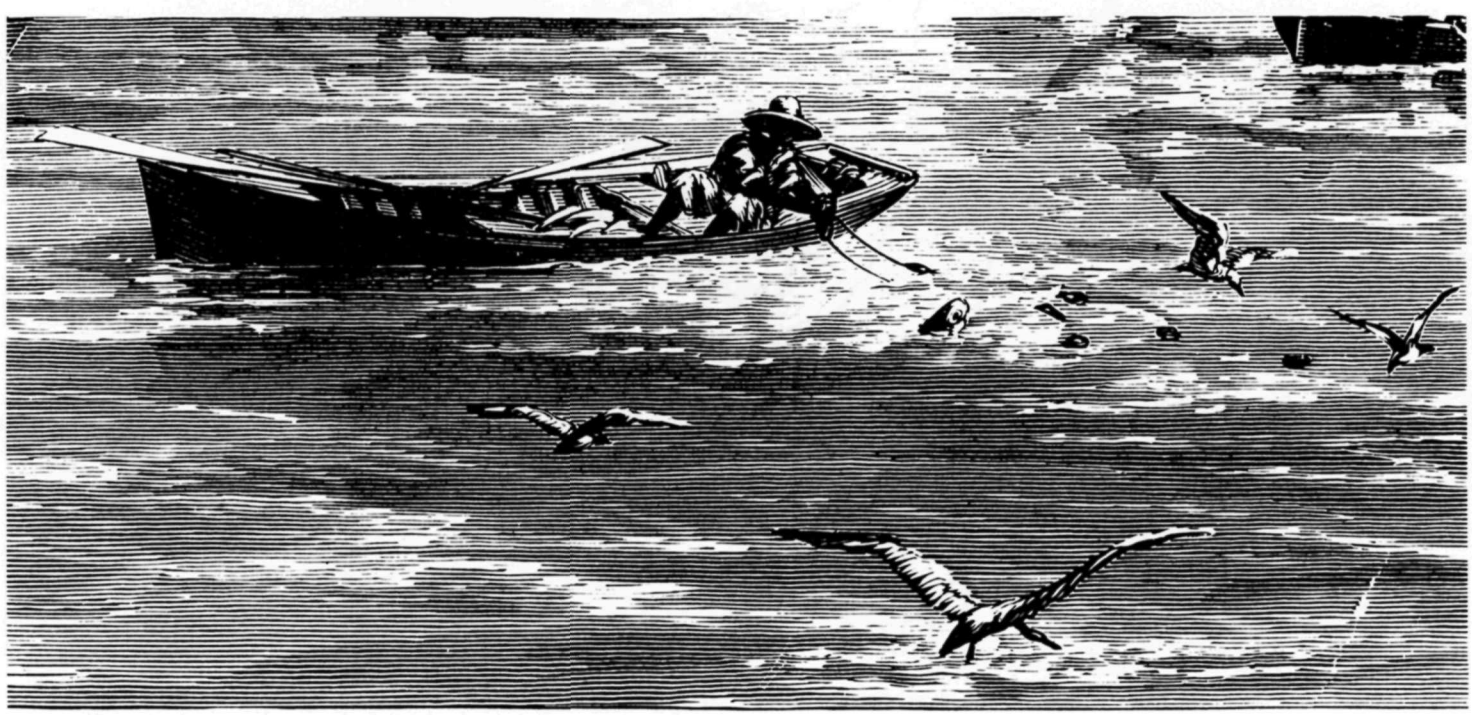
Water was carried in and collected in cisterns. On the gun club lot, water for washing dishes and cleaning game, but not for drinking, was collected in two 55-gallon iron drums which were elevated on a platform under the eaves of the roof. Rain water runoff from the roof collected in the drums which were covered with screens to keep out insects and debris.[69]

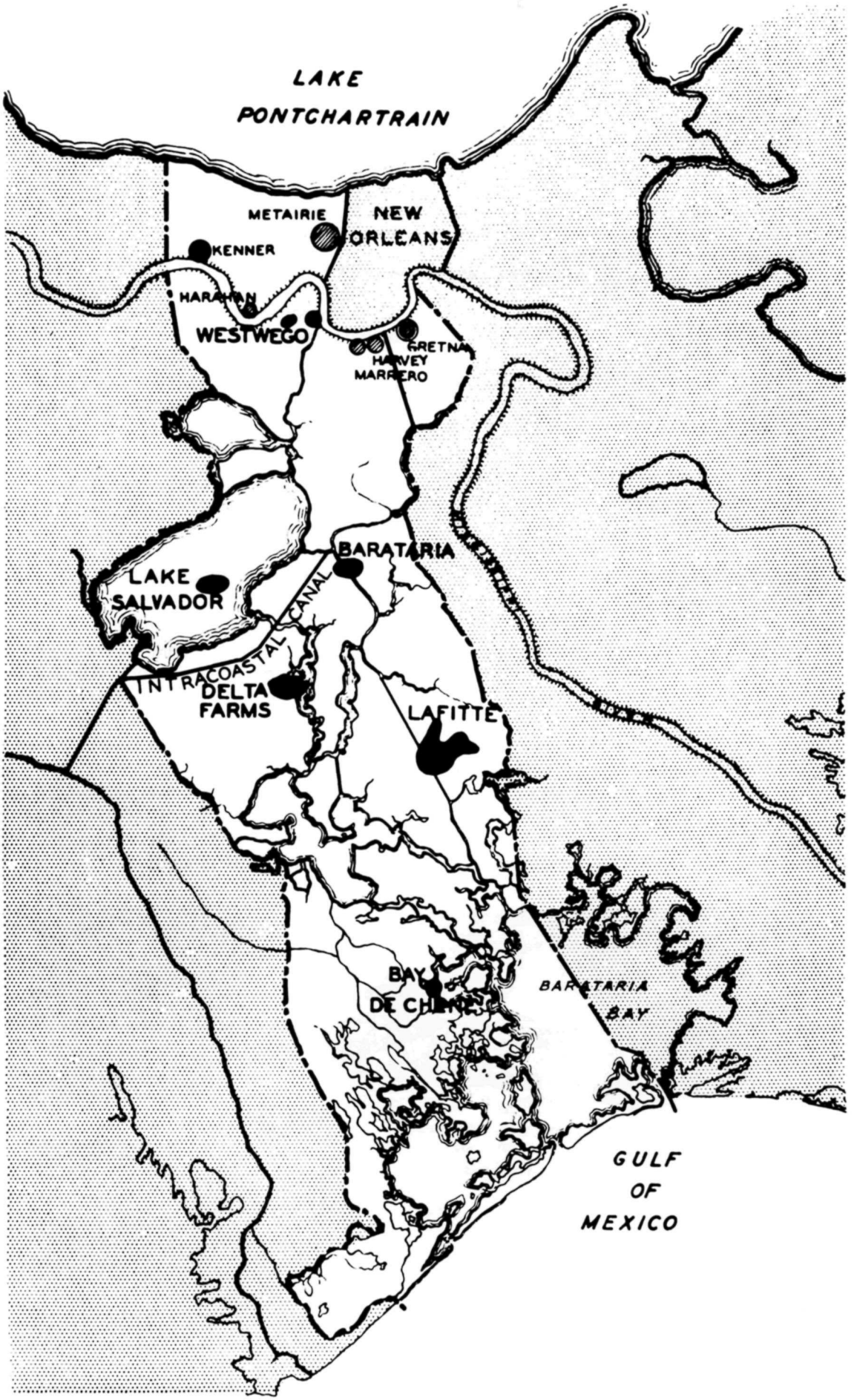
The NPS removed all the structures from the Gun Club Lot. The lot had been partially cutover and is in the process of regrowth. During the years that the NPS was in the process of acquiring the lands that were to constitute the park unit, the gun club members were able to hunt on the new public lands. Spent bullet shells are plentiful in the area.

Recent cultural features that border the study area and form the park boundaries should be mentioned. A 120-foot-wide electric powerline right-of-way forms the boundary of the park to the south. The right-of-way was granted in 1965 by Canal Assets, Incorporated, to Louisiana Power and Light Company. It follows the property line drawn in 1794 between the Spanish land grants of Louis Pelteau and Jean Normand. It is cleared of trees.[70]

The Lafitte-Larose Highway (State Highway 3134) borders the east side of the park. It is a four-lane asphalt highway. The right-of-way in this location was purchased by the State in 1974. A public water line runs along the west side of the highway, just inside the park property.[71]

The northeast side of the park is bordered by a levee and a canal. The park boundary line lies on the south side of the levee. The boundary line, levee, and canal follow the 1794 property line of a Spanish land grant to Nicolas Daumé. The canal was dug as a pipeline canal for oil exploration work in the 1960s. The 50-foot-wide levee that was built along the south side of the canal is called the Lower Estelle Protection Levee or the Hurricane Protection Levee. It has also been called the V-Shaped Levee because it follows the v-shape of the 1794 property line.[72]





Oil fields in Jefferson Parish in production during World War II, *Jefferson Parish Yearly Review*, 1944.

CHAPTER X

THE CROWN POINT OIL FIELD

Oil was discovered in Louisiana in 1901, but it was not until 1935 that the first oil well in Jefferson Parish "came in." The well was drilled by the Texas Company (later renamed Texaco, Incorporated) in the Barataria marshes near Bayou Dupont. At 9,572 feet, it was the deepest well yet drilled in the nation, and it produced 1,000 barrels a day. Named Lafitte No. 1, this was the discovery well of the Lafitte Oil Field which, by 1943, had 61 producing wells and had attained a total production of 3,634,000 barrels. In 1935, the Texas Company began construction of oil and gas pipelines to their terminal, or tank farm, 26 miles northward on the Mississippi River at Marrero. From this terminal, crude oil could be loaded onto ships and railroad tank cars. The Texas Company pipeline right-of-way passes through the park and is described in detail in the previous chapter.[1]

The Texas Company had acquired drilling rights in Barataria in 1927, and a company geophysical crew had been exploring for oil with seismographic equipment since 1928. In 1933, the crew located the hard sub-surface upheaval, or anti-cline, of a salt dome. Salt domes are often found within a hundred miles of the Gulf of Mexico in south Louisiana. The domes are hollow and trap pools of oil. Hydrocarbons, or crude oil and natural gas, are formed from accumulations of organic matter in ancient seas and as a result of geological forces to which the matter is subjected through countless millennia. Being lighter than water, petroleum and gas seep upwards through layers of sediment and porous rock until they are trapped by impermeable strata. Oil and gas in the salt dome formations are mixed in layers of sand, limestone, shale, and saltwater.

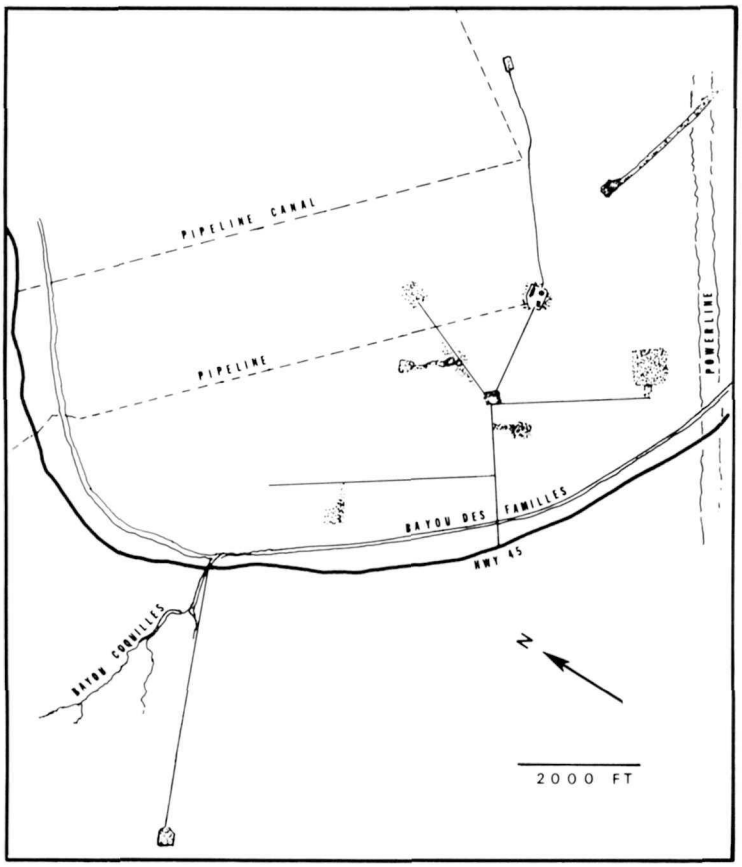
By 1955, nearly 200 million barrels of oil had been produced by the Lafitte Field. Meanwhile, other oil fields were opened nereby. In 1939, the California Company established the Barataria Field near the community of Barataria. By 1943, this field had 21 wells that had produced 1,123,000 barrels of oil. In 1940, two more fields were "brought in," Delta Farms and Lake Salvador. In 1941, oil was discovered at Bay de Chene and at Westwego. Other oil fields developed during the 1940s and 1950s were Bayou de Fleur, Bayou Perot, Manila Village, and Little Lake. Pipelines emanating from most of these fields were joined with the Texas Company oil and gas pipelines that pass through the park. [2]

In 1947, Humble Oil and Refining Company began the first offshore drilling operation in Jefferson Parish with the platform rig named Grand Isle No. 1, located in 50 feet of water seven miles out from Grand Isle. Within a few years, Humble had drilled 35 offshore wells nearby.

The oil and gas industry brought progress and prosperity to Jefferson Parish as well as to the whole metropolitan New Orleans area. Hundreds of oil-and-gas-related businesses followed the oil companies to Jefferson Parish. Many of these concerns established themselves along the banks of the Harvey Canal, which by the early twentieth century had become the principal water route to Barataria. The oil industry also brought modern development and many changes to the rustic fishing and farming communities of Barataria. By 1959, Jefferson Parish had 20 inland oil fields with 292 wells producing 27,304 barrels a day. Monthly production averaged about two and a half million dollars worth of crude oil. In addition, the oil fields produced about 46,800 cubic feet of natural gas a day.

Oil and gas were not discovered within the boundaries of the present park until about 1960. At that time, the Crown Point Oil Field was opened. It partially encompasses the park. Its name was taken from the nearby community of Crown Point which is located on the point of land west of the confluence of Bayous des Familles and Barataria that was crossed by the lower property line of the original tract obtained by the King of Spain to establish the Canary Islander settlement in 1779 (see Chapter III, "La Población de Barataria").[3]

As noted in the preceding chapter, Robert J. Perkins, whose holdings included the study area, signed an oil exploration lease with the Kelly Land Company of Houston, Texas, in 1928. It is possible that some seismic exploration took place in the study area at that early date. The earlier methods used by exploration crews of geologists, geophysicists, and engineers consisted of exploding dynamite buried in shallow holes dug for the purpose, and recording on a seismograph the sound waves of the vibrations produced within the earth by the explosion. By performing a number of these tests over a large area, the geophysicist was able to determine the shape, location, and depth of subsurface stratum. The testing method more recently used on accessible terrain involves the use of a vibrator mounted under a truck. This device sends out low-frequency sound waves as the vibrator is pressed against the ground. The sonic reflections produced are picked up by sensitive instruments called geophones, and another instrument records the reflections.[4]



Tracing of oil drill sites, roads, and pipelines in the study area and its environs, from aerial photos of August 7, 1972, Roll 71-44, Photos 46-47, USA/CE, New Orleans District. Shaded areas represent abandoned and overgrown sites.

Early oil exploration crews frequently left open the holes made by their dynamite explosions. Some of the numerous holes, which are usually water-filled, that are located in the park could have been caused by this method of oil exploration. Disturbance to the landscape caused by seismic exploration with a truck-mounted vibrator consists of clearing passages for the truck. Some partial clearings that first appear in aerial photographs of the 1960s and 1970s may have been made for this purpose.[5]

The earliest specific record of the search for oil in the study area is a 1956 mineral lease for Square 29 of the Jefferson Land Company, or Christmas Subdivision. This square became known more recently as the "Gun Club Lot," and it is described in the preceding chapter. In 1956, Edna Seymour, wife of Peter Walsh, leased the square to the Anderson-Pritchard Oil Company. Seismic tests may have been done on the square, but aerial photographs show no disturbances or clearings made in the study area until the 1960s.[6]

In 1960, Ferdinand H. Dietze and his sister, Charlotte Amy Dietze De Limon, who were owners of Sections 51, 55, and 57 in T15S-R23E, leased this large tract to the Pan American Petroleum Corporation of Texas. In 1961 and 1962, the same oil company also leased most of the squares in the Christmas Subdivision that had been purchased by various individuals.[7]

After two years of seismic exploration, the Pan American Petroleum Corporation, together with the Westland Oil Development Corporation, also of Texas, drilled a "wildcat" well on the Dietze property. A wildcat is an exploration or test well drilled in unproved territory where no oil or gas production exists. The first Dietze wildcat was located at the end of the park's "Ring Levee Trail." It may have been the discovery well of the Dietze field, but aerial photographs show that by the mid-1960s it was abandoned and overgrown with vegetation. The well which first reveals the presence of a petroleum-bearing reservoir is called a "discovery well." One of two other wells located on the western side of the Ring Levee Trail may also have been the discovery well which records show was drilled in 1962 and was named the "Westland No. 1 F. H. Dietze Well." The two other drill holes are shown on the "Bertrandville, La." quadrangle map of 1966 which was drafted from aerial photographs made in 1964.[8]

After a discovery or exploration well determines the presence of hydrocarbons, it is usually necessary to drill several development wells to efficiently produce oil and gas from a subsurface formation. Development wells are spread out over an oil field in order to complete a pattern of production that would most fully exploit the reservoir of hydrocarbons. Such wells are also called exploitation wells, and several of these had been drilled in the study area by the mid-1960s. Production wells appear to have been located on the Dietze property, while two disturbed areas on the Christmas Subdivision property appear to represent unproductive drill sites.



In 1964 and 1965, the Southern Crude Oil Company leased some of the subdivison squares. In 1971 and 1972, Pelto Oil Company was granted mineral rights to all the unsold subdivision squares by Southdown Lands, Incorporated. However, oil exploration activity on the Christmas Subdivision property was limited while a number of wells were drilled on the Dietze property.[9]

In 1964, T. Harry Kaplan obtained a mineral lease for the Dietze property. The development wells were

drilled under this lease and under a lease to the Estate of William G. Helis, A Partnership, and the Sea Drilling Corporation. In 1968, a pipeline right-of-way was granted on the Dietze property and over a small corner of the Christmas property, to the two last-named oil companies. The right-of-way runs in a northwest-southeast direction through the center of the study area, and it parallels the northern boundary line of the park at the Protection Levee. It is 20 feet wide and contains a buried two-and-one-half-inch pipe laid "for the transportation of gas, gas condensate and other liquid hydrocarbons" from a well in the center of the oil field to a trunk pipeline west of Highway 45.[10]

In 1970 and 1971, J. A. Seglund, Incorporated and P. J. Klentos acquired mineral leases to the Dietze property. Aerial photographs show that drilling operations ceased in the study area during the mid-1970s. Rigs, equipment, buildings, and most reusable materials, including some road beds, were removed from the field. Some drill sites were partially bulldozed and leveled, and most refuse was removed, buried, or burned. However, many ground features and artifacts remain from oil activities.[11]

The following descriptions of cultural features associated with oil operations are based largely upon the explanations of Petroleum Engineer Gerald L. Schroeder, Jr., Principal Engineer of Boeing Petroleum Services, Incorporated, of Metairie, who volunteered to tour the study area and provide information.[12]

Oil field road beds are a pronounced feature of oil operations in the park. Oil companies frequently use existing roads in exploration and production work. Aerial photographs show that a new layer of shell was laid on the Shell Road, or Christmas Plantation Headquarters Road. A new wooden bridge was erected at the Bayou des Familles crossing of the road, probably in the early 1960s. Aerial photographs also show that trees bordering the road were trimmed of overhanging branches so that oil equipment could pass on the road. Some trees adjacent to the road may have been felled.

The subdivision Third Road was partially trimmed to open it for the use of oil exploration vehicles. That part of the Old Barataria Public Road which runs south of its juncture with the Shell Road was cleared of trees for a width of about 50 feet to provide access to a drill site at the south boundary of the park. This road passes through several wet sloughs, and a bed of shells and boards may have been laid upon it and later removed. Both this road and Third Road have begun to grow over again with saplings and brush.

Board-and-shell construction were formerly visible on the drill pad at the end of the Shell Road. Frequently, shells are not used, and boards, alone, are laid lengthwise on mud roads. In wetlands, oil field roads are constructed by laying a lattice work of boards covered with river sand and shells. Sometimes borrow pits are excavated nearby for road fill, and many of the small holes near the drill site areas may have been dug for this purpose. The two drill site roads that depart in a "V" shape from the end of the Shell Road were constructed in these ways.

Oil exploration roads are temporary roads, laid down with the idea that they can be taken up. Road beds are not removed if the well produces, but are maintained to provide access to the well. Sometimes roads are left even if the wells are dry. As roads in wetland areas compact and subside, they begin to sink below water levels. Much of the road that is followed by the Ring Levee Trail seems to have been removed, apparently because the well was dry. The other road led to a producing well, therefore this road was retained.

Six drill sites have been identified on the Dietze property, and their ground features survive in various conditions. In the preparation of a drill site, the first job of the drilling contractor is to clear and level the site and to build one or more access roads and a turnaround. In wetland areas, the drill site is frequently "mucked out." The first five or ten feet of moist, organic soil is removed, and river sand is hauled in to serve as a bed for the drill pad. Sometimes, the drill pad, which measures about 200 feet square, is constructed of a lattice work of boards laid in the marsh or swamp and covered with river sand and shell. The pads are raised



Bridge of the Shell Road/Old Road/Christmas Plantation Headquarters Road, looking NE from west bank of Bayou des Familles. March, 1986.



Shell access road to oil drill site 7, looking E from drill site 3.



Barataria Oil Field. Ring levees, separator tanks, flow lines.



Barataria Oil Field. Ring levee, oil storage tanks, and walkways.

three or four feet as a precaution against floods. Levees are built to ring a wide area around the drill pad so that they might contain any spill from the well.

Adjacent to the drill pad, the drilling contractor excavates and levees a large pit, called a reserve pit, to be used for disposal of drilling mud and other wastes. Today, these pits are lined with plastic to prevent pollution of the soil. Other pits are also excavated. One is used to deposit the small shale and rock cuttings brought up from the bottom of the drill hole. Another pit is used to prepare the mixture of clay, water, and chemicals called drilling mud that is circulated through the wellbore to cool the cutting bit and drill stem. A water well drilled on the site provides drilling fluid and also drinking and washing water for the work crew.

The drill hole is begun by digging a rectangular pit called a "cellar" and a shallow hole lined with conductor pipe in the middle of the cellar. The drilling rig is moved in and placed over the hole. Derrick rigs must be assembled on the site. The mast, or portable derrick, can be raised over the site as a unit.

Auxiliary structures and equipment are placed on the drill site, including mud pumps to circulate the drilling fluid, diesel engines for power, electric generators, storage racks and bins, and quarters for the drilling crew. If the well produces, storage tanks are needed for the hydrocarbons. When production is limited, trucks collect the stored hydrocarbons and transport them from the field. When production is great, buried pipelines called flow lines are connected to distant tank farms. In the oil field, flow lines are laid on low rails near the surface of the ground.



Before being piped into storage tanks, the oil, gas and water that emerge from the well are processed in separators which sit on concrete pads. Salt water, or brine, is deposited in pits in order that it might evaporate.

After the drilling rig of a producing well is removed, the remaining wellhead, with numerous control valves, pressure gauges, and chokes, is called a "Christmas tree." Most of the drilling pad is usually removed. A portion of the pad surrounding the Christmas tree, measuring about 40 feet by 20 feet, is retained, as is the road to the wellhead.



Bayou Segnette. A Christmas tree, composed of the control valves, pressure gages, and chokes assembled at the top of a well to control the flow of oil and gas after the well has been drilled and completed.

If the hole that is drilled is dry, or if the well ceases to produce, it is plugged with cement. Attempts are made, more or less thoroughly, to clear and level the drill site and to remove or bury wastes. Drill sites in the park were not well-cleared and leveled, and they exhibit many features and much refuse of the oil operations.

As the forest closes over the drill sites, it is difficult to imagine the heavy equipment, towering derricks, huge metal tanks, and bustling activity that were once part of these locations. As described in Chapter I, reforestation of the drill sites is taking place in ways that are dissimilar to the surrounding forest because the sites are man-altered.

DRILL SITE AREAS

Drill site 1

This apparent drill site is located near Bayou des Familles, 2450 feet northwest of the Shell Road. It consists of a clearing in the pecan orchard with some sapling growth. The clearing is edged by small levees and is approached by a 30-foot-wide access road from Third Road. Brick fill is located in Third Road at the turn-off point of the access road. Aerial photographs show that the clearing, measuring about 50 feet wide by about 200 feet long, was made in the late 1960s. This was apparently not an oil production site.

Drill site 2

This large, leveled drill site is located at the southeast corner of the intersection of the Shell Road and the Barataria Road. The site appears to cover an area measuring about 400 feet square. Aerial photographs show that the clearing of this area was done in the late 1960s and early 1970s. There is in this area a bulldozed earth mound about five feet high with felled tree limbs in and around it. Metal debris and chunks of baked drilling mud are scattered on the ground. When subjected to intense heat, the bentonite clay used as drilling mud becomes hard-baked as brick. Some five-gallon cans lying on the ground retain parts of their labels that read "Baroid Division, National Lead Company, Houston, For all water base . . . increasing drilling rate . . . improves bit performance . . . improves pumpability . . . reduces hole friction . . . reduces formation of solids . . . . " Numerous saplings grow in the area.

Drill site 3

A drill site was apparently located at the end of the Shell Road. Aerial photographs show that the location was cleared by the mid-1960s. At 125 feet southeast of the site is a L-shaped mound of earth about two feet high that appears to have been bulldozed into this position. Scattered in and around the mound are chunks of baked drilling mud, charred wood, clam and oyster shells, and a few pieces of metal and glass. About 50 feet to the north, northeast, and northwest of the site is another linear rise in the ground about two feet high. Scattered on this linear feature are brick fragments; white ceramic and porcelain sherds; clam and oyster shells; and large, round, bent nails. Some cultural materials in this area may derive from an early twentieth century Negro squatter's cabin and from the dwelling of Spanish land grantee Louis Pelteau.

Also at this location is part of a rotting dragline skid constructed of squared timbers bound together with metal cables and tie-rods. Draglines, or excavating machines, are used to build drill pads and roads by scooping up soil from nearby borrow pits. Skids are used to help support the heavy weight of the dragline. Holes in the nearby swamp could be borrow pits, although they could also be tree-falls. When a tree falls, it uproots much soil with its roots and leaves a hole in the ground which frequently remains long after the tree has rotted away. A small, round, leveed pit at the beginning of the Ring Levee Trail, on the west side of the trail, may be a test pit used to sample and burn off flow while a well was being drilled.



Reforested oil exploration sites in the study area during the early phase of park development. Air photo of December 14, 1985, Project 58500, frame 1644, detail, National Cartographic Information Center, National Space Technology Laboratories, Mississippi.

Numbers are keyed to drill sites in text. Other oil exploration features:

A - Shell Road/Old Road/Christmas Plantation Headquarters Road.
B - Third Road.
C - Old Barataria Public Road.
D - Oil drill site access road.
E - Oil drill site access road/the "Ring Levee Trail."
F - Right-of-way of pipeline laid in 1968.
G - Canal dug for oil exploration work in 1960s.

Drill site 4

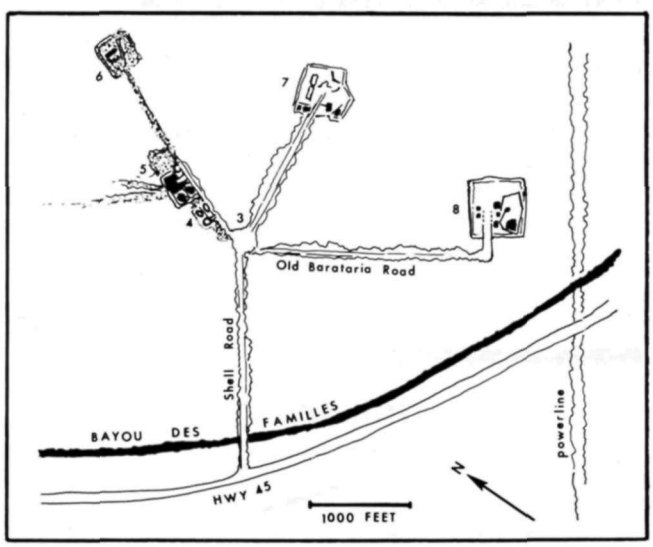
The first drill site on the Ring Levee Trail is located 313 feet from the beginning of the trail. At this point, ring levees are located on both sides of the trail. On the left (western) side of the trail, the ring levee surrounds a drill pad that measures about 150 feet long by 75 feet wide and is elevated about five feet above the encircling water-filled pit. The drill pad is composed



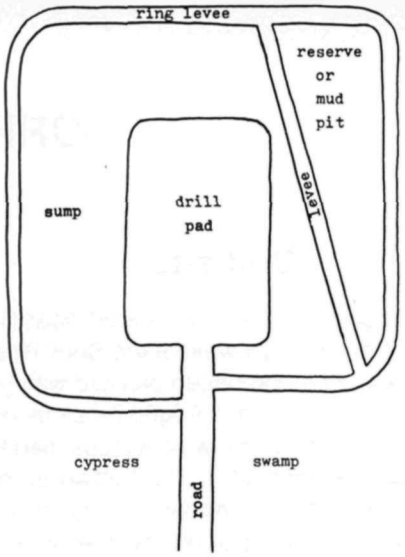
The drilling pad of site 4, which may also have been used to support an oil storage tank, is mounted by Petroleum Engineer Gerald L. Schroeder, Jr. and his son, Erik. Sump of ring levee in foreground and at left. Looking NE.

of earth and shells and is overgrown with young trees, saplings, and brush. The water in the pit is black, and the oily scum that floats on the surface indicates that the pit was used to test flow from the well, or that sediment from the bottom of a storage tank was dumped in the pit. After the drilling of the well and the removal of the drilling rig, one or more oil storage tanks would have been erected on the drill pad. The sediment that accumulates in the bottom of crude oil tanks is called "BS&W," or basic sediment and water. It consists of black, asphaltic residue, and it is necessary to periodically clean tanks of BS&W.

Near the western side of the Ring Levee Trail, at 480 feet from the beginning of the trail, is a four-foot-square concrete slab bearing a circular rust stain made by the base of a tank called a "separator." These are slender, vertical tanks containing mechanisms that separate the oil, gas, mud, and water that come from the well. Trash from the oil operations is strewn about the site. The U.S.G.S. "Bertrandville, La." quadrangle map of 1966, photorevised in 1972 and 1979, shows that the drill hole is located about 400 feet from the beginning of the trail.



Sketch map of oil drill sites and roads in the study area, drawn from aerial photos of November 4, 1966, Roll No. X-3, Photos 190-201, Memphis District, Book 35, USA/CE, New Orleans District. Numbers are keyed to sites in text. Shaded areas represent abandoned and overgrown sites.



Schematic of oil drill site 6. Looking northeast. Not to scale.

Drill site 5

Continuing along the Ring Levee Trail, a series of ring levees can be seen on the western side of the trail. These were associated with the next drill hole which the quadrangle map shows to be located about 900 feet from the beginning of the trail. The ring levees of this site stretch for more than 500 feet, and the first of these is encountered at 600 feet from the beginning of the trail. At 630 feet is another concrete slab measuring about seven-and-a-half feet square. The ground is covered with shell. A storage tank was probably located here. Westward of the ring levee is a circular, water-filled pit having a diameter of about 75 feet and ringed with a little levee. This could have been a brine evaporation pit.

At 700 feet is a pond measuring about 200 feet wide, enclosed by a high ring levee. Rusted flow line pipes remain on this drill site. Aerial photographs show a linear clearing extending westward through the swamp for about 1000 feet beyond this drill site. The photographs suggest that another drill hole may have been located at the end of the clearing. The remains of yet another ring levee are located at 1000 feet from the beginning of the trail.

Drill site 6

Continuing along the Ring Levee Trail to the last drill site, the trail crosses at 1450 feet the pipeline laid in 1968 by the Estate of William G. Helis and the Sea Drilling Corporation to transport hydrocarbons to the trunk pipeline on the west side of Highway 45. Here, there is deep cypress swamp. Trees were felled in the 20-foot-wide pipeline right-of-way, giving it the appearance of a stream passing through the swamp. At the left side of the trail is a cathodic protection electrical conduit, about two-and-one-half feet high. A slight electrical current which ran through the small galvanized-iron pipe attached to a wooden board helped to control corrosion of the pipeline.

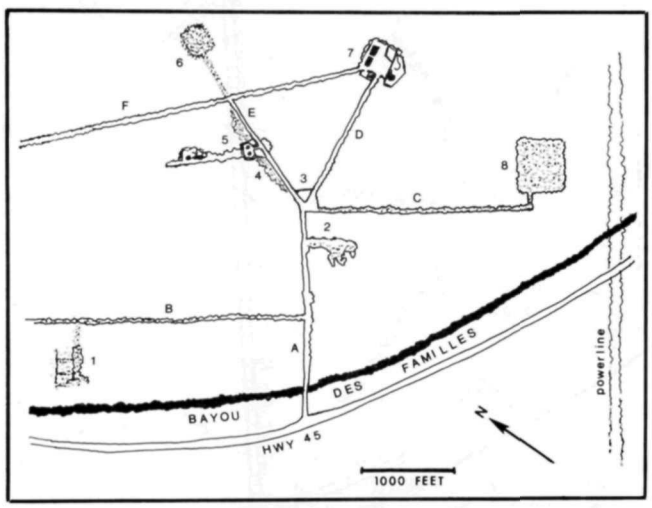


Oblique air view of the Ring Levee Trail boardwalk circling oil drill site 6, looking SSW.



Oblique air view of oil drill site 7, looking W.

Aerial photographs show that the drill site at the end of the trail was abandoned soon after it was drilled in 1962. The boardwalk trail circles the ring levee for a distance of more than 1000 feet. Some of the levee, drill pad, and road were probably taken up; the remaining raised areas are sinking beneath the water of the cypress swamp. However, the slightly elevated levees and drill pad support young red maples and tupelo gum. The drill pad is located in the center of the ring levee. Another levee divides a part of the ring levee to form a separate area which may have been used as the reserve pit for the disposal of drilling mud and other wastes.



Sketch map of oil drill sites, roads, and a pipeline, drawn from aerial photos of October 17, 1969, Roll 55, Photos 180-185 and 201-206, USA/CE, New Orleans District. Numbers are keyed to sites in text. Shaded areas represent abandoned and overgrown sites.

A - Shell Road/Old Road/Christmas Plantation Headquarters Road.
B - Third Road.
C - Old Barataria Public Road.
D - Oil drill site access road.
E - Oil drill site access road/the "Ring Levee Trail."
F - Right-of-way of pipeline laid in 1968.



Drill site 7

Aerial photographs show that this drill site and the access road to it from the Shell Road were constructed in 1966. The well was so productive that a pipeline was laid in 1968 by the Helis and Sea Drilling oil companies to carry the flow to a main trunk line. The center of the shell-covered drill pad has been used as a park maintenance area. The rest of the drill pad is overgrown with young trees. Several pits contain brine and hydrocarbon wastes. Spilled brine and other wastes have killed trees in an area north of the drill pad. Metal and wood debris from the oil operations remain on the site. In the early 1970s, a road was constructed from this drill site to another drill site 3500 feet to the northeast, outside of the park.

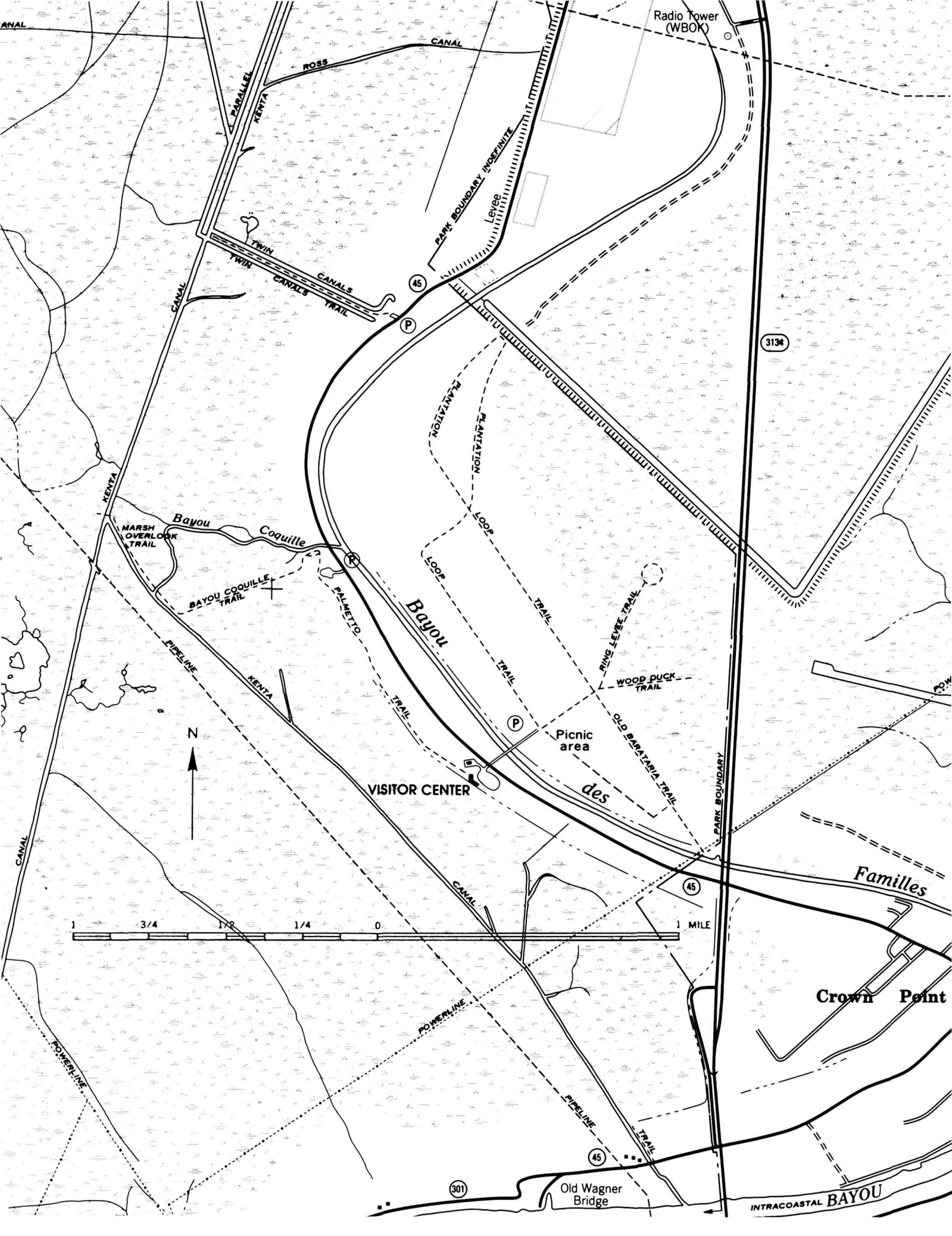
Drill site 8

Aerial photographs show that this large drill site was constructed in 1966 and was abandoned and overgrown by the late 1960s. The ring levee of the site measures about 500 feet square. The levees have been partially broken down, but the remaining segments are nearly three feet high. A linear elevation of three or four feet in height runs in a diagonal direction through the western part of the ring levee. This may have been part of the drill pad. It is situated upon a natural ridge elevation which was followed by one of the courses of the Chemin de Barataria, or the Camino Real de Barataria.

Debris scattered about the site includes chunks of baked drilling mud, charred wood, pieces of concrete and metal, parts of a Bakelite toothed pump drive gear, and glass oil sample jars. Lettering on the jars identifies the drilling contractor as Schlumberger Well Services of New Orleans.

The ring levee is situated on the natural levee of the old river where the land is dry. The interior of the ring levee was put in cultivation soon after it was abandoned by the oil companies. The furrows and ditches and the ring levee are overgrown with saplings and young trees.




Radio Tower (WBOK)
CANAL
ROSS
PARALLEL
KENTA
PARK BOUNDARY INDEFINITE
Levee
TWIN CANALS
TWIN CANALS TRAIL
CANAL
45
P
3134
PLANTATION
LOOP TRAIL
RING LEVEE TRAIL
WOOD DUCK TRAIL
OLD BARATARIA TRAIL
MARSH OVERLOOK TRAIL
Bayou Coquille
BAYOU COQUILLE TRAIL
PALMETTO TRAIL
Bayou des Familles
PIPELINE
KENTA
CANAL
N
VISITOR CENTER
Picnic area
PARK BOUNDARY
1 3/4 1/2 1/4 0 1 MILE
POWERLINE
PIPELINE
TRAIL
45
301
Old Wagner Bridge
INTRACOASTAL BAYOU
Crown Point

ÉPILOGUE

BECOMING A NATIONAL PARK

When established as a park and preserve by the United States Congress in 1978, the woodlands and wetlands of the Barataria Unit of the Jean Lafitte National Historical Park began a new period of human use. The results of planning and development for visitor enjoyment of the park are becoming apparent in both the visual landscape and the ecological environment. NPS conservation measures are encouraging regeneration of the natural setting, even while extensive man-made additions to the landscape are being installed to accomodate the rapidly increasing number of visitors.

Park beautification and development began concomitantly with land acquisition. Existing trails through the woods were cleared of fallen trees. Working with park maintenance crews, local high school students serving in the Youth Conservation Corps laid boardwalk trails on sunken oil roads in the swamps. Temporary parking lots were also provided.

Except for the fishing camps that border Lake Salvador, all buildings in the park were demolished. The park's one remaining historic building, a plantation house, was burned by vandals in 1983, and its charred ruins were removed (see Chapters VI and IX). Numberous junk vehicles and house trailers, great mounds of trash and garbage, and many pieces of oil field debris were hauled away, as were almost all moveable remains of human occupation. Barbed wire livestock fences in the woods were cut down.

A reduction was made in pollution of the park's waters caused by illegal sewage disposal at nearby sewage treatment plants. Controls were placed on hunting and trapping in the park, and, despite poaching, wildlife began to make a comeback. Fishing, crawfishing, and wild food collecting are also strictly controlled.

Meanwhile, NPS plans were drafted for visitor facilities. In 1984-6, a Visitor Center and a Maintenance Complex with a large, raised parking area were built on the backslope of the natural levee on the west side of Highway 45. At the same time, another large, raised parking lot was built at the site of the prehistoric Indian village on Bayou Coquilles.

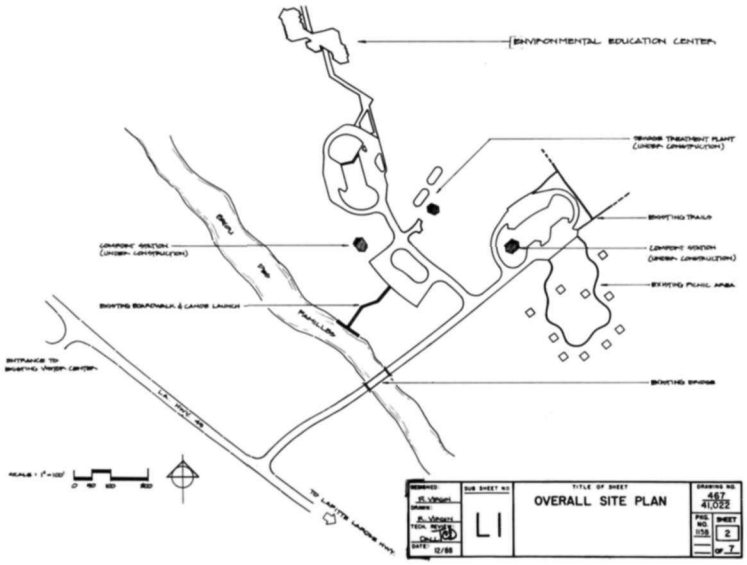
Construction of visitor facilities on the east side of Highway 45 began in 1987. These include a new access road, new bridge over Bayou des Familles, comfort stations, a canoe/pirogue launch, picnic grounds, parking lots, and trailhead exhibits. Projected plans for this area include an environmental education center with a multi-purpose room, library, laboratory, amphitheatre, and kitchen.



NPS development. Left: visitor center, right: parking lots for ecological education center, trail heads, and picnic ground. Infra-red air photo flown November 3, 1989, NAPP, 1402-122, National Cartographic Information Center, National Space Technology Laboratories, Mississippi.

These installations are being laid out in the reforested pecan orchard in the bottom land near Bayou des Familles, on both sides of the Christmas Plantation Headquarters Road (see Chapters I, VI, VIII, and IX). Prior to construction, large embankments were raised in the old river bed to a height of about six feet with limestone rock and river sand fill. On these embankments, three asphalt parking lots were constructed around low islands of the reforested orchard in the river bottom. As a result of the clearings made for the parking lots, thick vegetation has sprung up along the disturbed edges of the forest that rings the lots. Drainage of the impounded islands and of the downslope of the old river bed behind the embankment is provided for by drain pipes laid in the rock-filled ditches and furrows of the pecan orchard.

The shell bed of the Christmas Plantation Head-



quarters Road was scraped from the surface of the road and used for fill in the parking lots. Part of the road was widened and asphalted after a bed of crushed limestone had been laid upon it to elevate it to a height consistant with that of the parking lots. It serves as the access road from the highway to the new facilities. A new, concrete, steel, and wood, two-lane bridge was built over the bayou to replace the one-lane, wooden bridge which was in poor condition (see Chapters IX and X).

The asphalt road was terminated at the beginning of hiking trails, where trailheads were laid out at the edge of the parking lots. From this point, the Christmas Plantation Road was rebuilt as a trail. The shell surface was likewise removed and replaced with a raised bed of crushed limestone. *Rangia* shells were taken from one of the oil drill sites in the park and laid along both sides of the walkway in order to recall the former appearance of the Christmas Plantation Shell Road.

The segment of the road that serves as a trail retains the former width of the road and its bordering ditches. Like the rest of the road and the embanked visitor facilities, the trail's heightened elevation is about equal to the height of the natural levees on both sides of the old river channel. The road/trail now crosses the old river bed like a raised causeway, and its elevation permits greater depth of view into the bordering forest. At the termination of the trail at the Barataria Road, a temporary parking lot constructed by the NPS on an oil drill pad was obliterated, and several trailheads were laid out (see Chapter X).

Most of the visitor facilities are being developed in the area of the embankments on the north side of the road. A wooden ramp runs from the border of one of the parking lots, through the swamp at the edge of the bayou, to a dock for launching canoes and pirogues. Near the parking lots, two comfort stations and a sewage treatment facility were constructed. The exteriors of the structures have wooden side boards, concrete bases, and tin roofs. They are connected to the parking lots by concrete walkways.

Development on the south side of the road, where



Picnic ground in the pecan orchard, with artifacts of the Christmas Plantation at the base of a young live oak tree.

many of the Christmas Plantation Headquarters buildings were formerly located, has been limited to a picnic ground. Most of the trees in this location were retained. Ten separate, small clearings were made for picnic areas. These were leveled and elevated slightly with crushed limestone and river sand. In each picnic area, a wooden table, a barbeque grill, and a trash receptacle were each mounted on metal pedestals embedded in underground concrete footings. Pathways surfaced with crushed limestone and river sand interconnect the picnic areas and the parking lot. In the woods beside the paths lie cultural materials of the Christmas Plantation, including bricks, ceramic and glass sherds, rusted iron artifacts, pieces of slate and tin roofing, and *Rangia* and oyster shells. When the plantation was active during the second half of the nineteenth century, some of the tenant workers' cabins and probably the sugarhouse were located on the site of the picnic ground (see Chapter VI).

All hiking trails on the east side of Bayou des Familles are accessable from the visitor complex in the old river bed. The trails are old roads, some of which were first traveled hundreds of years ago. The Plantation Trail departs from two trailheads near the parking lots. It forms a double loop and follows Third Road of the Jefferson Land Company residential subdivision, the Old Derrick Road, the Chemin de Barataria/Camino Real de Barataria, the Christmas Plantation Railroad bed, the Old Barataria Road, and the Christmas Plantation Headquarters Road/Old Road/the Shell Road (see Chapter VIII). The Plantation Trail joins with the Ring Levee Trail and the Wood Duck Trail, both old oil roads, where the Old Barataria Road crosses the end of the Christmas Plantation Headquarters Road. Another trail leaves the picnic grounds and follows an old field road through the reforested sugarcane fields in the bottomland, then joins the Old Barataria Road at the south end of the park.

The visitor hiking these trails may explore the various ecological zones of the old river bed, the natural levee and its backslope, and the swamp forest beyond, with all their diverse flora and fauna. At the same time, the park's long human heritage can be observed in the many man-made ground features and the influences that they have had on the park's vegetation.

ENDNOTES

CHAPTER I
THE WILDERNESS REAPPORTIONED BY MAN

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7. Charles R. Kolb and Jack R. Van Lopik, "Depositional Environments of the Mississippi River Deltaic Plain - Southeastern Louisiana," in Martha Lou Shirley and James A. Ragsdale, eds., *Deltas In Their Geologic Framework*, Houston Geological Society (Houston: D. H. White & Co., 1966), p. 27; Richard J. Russell, *River Plains and Sea Coasts* (Berkeley and Los Angeles: University of California Press, 1967), p. 63, pp. 72-74).
8. For a discussion of the differing interpretations of the geomorphic sequence of the Barataria Basin, see Richard C. Beavers, "Archaeological Site Inventory, Barataria Basin Marsh Unit, Core Area, Jean Lafitte National Historical Park, Jefferson Parish, Louisiana," photocopy, Archaeological Research Program, University of New Orleans, 1982, p. 8-23; see also Kolb and Van Lopik, "Depositional Environments," p. 21.
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CHAPTER II
FRENCH EXPLORATION AND SETTLEMENT

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4. Ibid.; Inventory of the community property between Claude Joseph Villars Dubreuil and Marie Payen, his deceased wife, October 14, 1754, Doc. No. 274, Box 30, Louisiana State Museum Historical Center, New Orleans; Antoine Simon Le Page Du Pratz, *Histoire de la Louisiane,* vol. 1 (Paris: de Blure, La Veuve Delaguette, Lambert, 1758), p. 299.
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7. Inventory of the Succession of Jean-Baptiste Massy, March 20, 1735, French Superior Council Records, No. 2313, 59/19, Oversize storage box no. 3, 1735032002, Louisiana State Museum Historical Center; *"Plano de las Concessiones desde la Ciudad de Nueva Orleans hasta Bayu San Juan, la Metairy, Chapitoulas y Barataria,"* about 1778, Archivo General de Indias, Seville, Papeles de Cuba, Legajo 2358, 84-23-L, Microfilm copy, HNOC; Sieur Villars Dubreuil's request for a Concession, June 27, 1761, SCD/TUL.
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46. Sale of land by Guemboy and Boudousquié to Bonne; d'Hémécourt maps; Plan Book 107, folio 22 and Plan Book 66, folio 18; D. C. McMurtrie, *Early Printing in New Orleans* (New Orleans: Searcy & Pfaff, 1929), p. 53.
47. Ibid.; Sale of land from the estate of Alexander Guerbois to Joseph Soniat Dufossat, May 5, 1808, Stephen de Quinones, notary, NONA. See "Plano de las Concessiones . . .," of about 1778, which shows Guerbois' property as a small tract on the western side of Bayou des Familles. Although this map is inaccurately drawn and places the Guerbois tract too far to the west, it probably correctly represents the idea that Guerbois utilized only his lands fronting Bayou Ouachas (Barataria).
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CHAPTER III
LA POBLACIÓN DE BARATARIA

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3. Ibid., pp. 222-24.
4. Gilbert C. Din, "A History of the Isleños in Southern Louisiana to 1945," typescript deposited with the Jean Lafitte National Historical Park, 1985, pp. 8-16.
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13. Jack D. L. Holmes, *The 1779 "Marcha de Gálvez": Louisiana's Giant Step Forward in the American Revolution* (Baton Rouge: Baton Rouge Bicentennial Corporation, 1976).
14. Works Progress Administration of Louisiana, "Despatches of the Spanish Governors of Louisiana," Book 2, vol 9, "Messages of Don Bernardo de Gálvez," pp. 59-64.
15. Gilbert C. Din, *The Canary Islanders of Louisiana* (Baton Rouge: Louisiana State University Press, 1988), p. 48, p. 50; James Julian Coleman, Jr., *Gilbert Antoine de St. Maxent, The Spanish-Frenchman of New Orleans* (New Orleans: Pelican Publishing House, 1968), p. 66. The 57 households, totaling about 250 people, which are listed in the "Libro Maestro" represent those families who were established in Barataria by July 20, 1779, the date of the first entries for each household, and still residing there in 1782, before large numbers left in late 1782-early 1783; inhabitants who departed before 1782 are not recorded in this string-bound book which appears to be a recompilation of 1782 containing only current folios. Laura L. Porteous, "Index to Spanish Records of Louisiana," Succession of Andrès Juen, September 14, 1784, *Louisiana Historical Quarterly,* vol. 24, no. 4 (October 1941), p. 1270.
16. Gilbert C. Din, *"Cimarrones* and the San Malo Band in Spanish Louisiana," *Louisiana History,* vol. 21, no. 3 (Summer 1980), pp. 237-62; Laura L. Porteous, "Index to Spanish Judicial Records of Louisiana," *Louisiana Historical Quarterly,* vol. 16, no. 3 (July 1933), pp. 516-20, and vol. 20, no. 3 (July 1937), pp. 840-65.
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22. Din, "A History of the Isleños," p. 29; Molina Martínez, "La Participacion Canaria," p. 152, appendix pp. 186-90.

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24. Letter of Juan Ventura Morales to Martin Navarro, January 12, 1786, Archivo General de Indias, Seville, Papeles de Cuba, Luisiana 119, Legajo 606, folio 271; Porteous, Succession of Andrès Juen, p. 1270.

25. Coleman, *Gilbert Antoine de St. Maxent,* p. 62, p. 65-66; Porteous, Succession of Andrès Juen, pp. 1258-74; Roulhac Toledano and Mary Louise Christovich, *New Orleans Architecture, Vol. VI: Faubourg Tremé and the Bayou Road* (Gretna, Louisiana: Pelican Publishing Company, 1980), p. 54, p. 205; Mary Louise Christovich, Sally Kittredge Evans, and Roulhac Toledano, *New Orleans Architecture, Vol. V: The Esplanade Ridge* (Gretna, Louisiana: Pelican Publishing Company, 1977), p. 124, p. 127, p. 136.

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31. Din, "A History of the Isleños," pp. 33-52; Jones, "Local Government in the Spanish Colonies," pp. 68-69; Jacqueline K. Voorhies, "The Attakapas Post: The First Acadian Settlement," *Louisiana History,* vol. 27, no. 1 (Winter, 1976), pp. 91-96.

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38. Margaret Fisher Dalrymple, ed., *The Merchant of Manchac, The Letterbooks of John Fitzpatrick, 1768-1790* (Baton Rouge: Louisiana State University Press, 1978), pp. 1-33; Porteous, Succession of Andrès Juen; Toledano and Christovich, *New Orleans Architecture, vol. VI: Faubourg Tremé and the Bayou Road,* p. 54; Kniffen, *Louisiana, Its Land and People,* p. 120, p. 122; François-Xavier Martin, *The History of Louisiana* (New Orleans: James A. Gresham, 1882), pp. 216-217, p. 200; Daniel Henry Usner, Jr., "Frontier Exchange in the Lower Mississippi Valley: Race Relations and Economic Life in Colonial Louisiana, 1699-1785," Ph.D. dissertation, Duke University, 1981; Bernard Romans, "To the Marine Society of the City of New York," map, 1774, Latin American Library, TUL.

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42. Deposition of Felix Marrero.
43. Cobb and Maxwell, Cadastral survey map of T14S-R23E.
44. Police Jury of the Parish of Jefferon *v.* Allou D'Hémécourt and John McDonogh, Docket No. 5209; Will of María Olivares; McDonogh *v.* DeGruys, Docket No. 1007; Major Amos Stoddard, *Sketches, Historical and Descriptive, of Louisiana* (Philadelphia: Mathew Carey, 1812), p. 161; Din, "A History of the Isleños," p. 2, p. 8.
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50. Ibid.
51. Ibid.
52. See, for example, instructions for establishing a cemetery "approximately forty fathoms from the public square but beyond the village limits" in Voorhies, "The Attakapas Post," p. 93.
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64. Ibid,; see also Sally Kittredge Evans, Frederick Stielow, and Betsy Swanson, *Grand Isle on the Gulf - An Early History* (Metairie, Louisiana: Jefferson Parish Historical Commission, 1979), frontispiece, p. 25, p. 55, p. 59, pp. 62-66, pp. 68-69, and Swanson, *Historic Jefferson Parish,* p. 143, pp. 161-163, for descriptions and illustrations of later creole cottage types in the Barataria region.
65. Ibid.
66. Porteous, Succession of Andrès Juen, p. 1268; Toledano and Christovich, *New Orleans Architecture, Vol. VI: Faubourg Tremé and the Bayou Road,* pp. 12-13, p. 19, p. 22, p. 54, p. 93, p. 145; Christovich, Evans, and Toledano, *New Orleans Architecture, Vol. V: The Esplanade Ridge,* p. 124, p. 127.

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68. Herschel A. Franks and Jill-Karen Yakubik, "Archaeological Survey on 65 Acres of Land adjacent to Bayou des Familles, Barataria Unit, Jean Lafitte National Historical Park, Louisiana," submitted to the National Park Service, Southwest Regional Office, Santa Fe, 1988; Jill-Karen Yakubik, "Archaeological Investigations at Six Spanish Colonial Period Sites, Barataria Unit, Jean Lafitte National Historical Park," submitted to the National Park Service, Southwest Regional Office, Santa Fe, 1989.

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71. Unmortared, broken brick features of similar size set in the ground, probably footings, were found at the Bayou Matherne Site west of Lake Salvador, see Donald G. Hunter, Charles E. Pearson, and Sally K. Reeves, "An Archaeological Survey of Golden Ranch Plantation, Lafourche Parish, Louisiana," prepared for Division of Archaeology, Louisiana Department of Culture, Recreation, and Tourism, and the Gheens Foundation, Inc. by Coastal Environments, Inc., Baton Rouge, 1988. Unmortared, broken brick wall footings of a house were recently excavated on the Chalmette Battlefield, see Ted Birkedal, "The Search for the Lost Riverfront," draft report, NPS, Southwest Region, Southwest Cultural Resources Center, Santa Fe, New Mexico.

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CHAPTER IV
SETTLEMENT OF THE LATE SPANISH PERIOD

1. McDonogh *v.* De Gruys *et al.*, Docket No. 1007, June 2, 1845, LSCC/UNO.

2. Maurice Hauké, Cadastral survey map of T14S-R23E, March 17, 1856, Bureau of Land Management, Eastern States Office, Reston, Virginia; James Alexander Robertson, *Louisiana under the Rule of Spain, France, and the United States, 1785-1807*, vol. 1 (Cleveland, Ohio: The Arthur H. Clark Co., 1911), p. 327, p. 332.

3. Carlos Trudeau, "Plano Figurativo de las tierras de Don Pedro Lartigue," November 29, 1802, copy by Barthélemy Lafon, January 16, 1806, Plan Book 106, folio 28, NONA; Certification of property to Josef Montegut by Surveyor Carlos Trudeau, July 26, 1796, SCD/TUL; Certification of property to Jh Enoul Dugué Livaudais by Surveyor Trudeau, May 8, 1797, Special Collections, Hill Memorial Library, Louisiana State University, Baton Rouge; Certification of property to Carlos Juan Bautista Fleuriau by Surveyor Trudeau, May 11, 1797, Special Collections, Hill Memorial Library, Louisiana State University, Baton Rouge; Donald G. Hunter, Charles E. Pearson, and Sally K. Reeves, "An Archaeological Survey of Golden Ranch Plantation, Lafourche Parish, Louisiana," prepared for Division of Archaeology, Louisiana Department of Culture, Recreation, and Tourism, and The Gheens Foundation, Inc. by Coastal Environments, Inc., Baton Rouge, 1988.

4. Antonio Vart land grant from Governor Baron de Carondelet, October 13-15, 1794, SCD/TUL; Trudeau, "Plano Figurativo."

5. *American State Papers, Public Lands*, vol. 2, pp. 335-36; vol. 6, p. 675; Trudeau, "Plano Figurativo."

6. *American State Papers, Public Lands*, vol. 3, p. 512; vol. 6, p. 675.

7. Ibid., vol. 2, p. 332; vol. 3, p. 509; Trudeau, "Plano Figurativo."

8. McDonogh *v.* De Gruys, Docket No. 1007, pp. 108-09, pp. 111-12; Laura L. Porteous, "Index to Spanish Records of Louisiana," Succession of Andrès Juen, September 14, 1784, *Louisiana Historical Quarterly*, vol. 24, no. 4 (October 1941), p. 1267.

9. Remnants of other double-ditch boundaries exist in the park, see description of those of Bernard Dauterive's subdivisions in Chapter II.

10. McDonogh *v.* De Gruys, Docket No. 1007, pp. 108-09, pp. 111-12; Police Jury of the Parish of Jefferson *v.* Allou D'Hémécourt and John McDonogh, May 1844, Docket No. 5209, LSCC/UNO.

11. "Libro Maestro P. sentar el cargo del dano. de la Pob. Barataria," Archivo General de Indias, Seville, Papeles de Cuba, Legajo 548, 84-44-L, Reel 92, Microfilm copy, HNOC; Letter from Juan Ventura Morales to Diego de Guardoqui, number 48, October 26, 1796, Archivo General de Seville, Papeles de Santo Domingo, Legajo 2613, folio 575; testimony of Jean-Baptiste Dubreuil Villars, Police Jury of the Parish of Jefferson *v.* D'Hémécourt and McDonogh, Docket No. 5209, contains reference to the continuing occupation of the Francisco Sánchez family.

12. "Libro Maestro;" Morales to Guardoqui, October 26, 1796; Miguel Molina Martinez, "La Participacion Canaria en la Formacion y Reclutamiento del Batallon de Luisiana," in Francisco Morales Padron, ed., *IV Coloquio de Historia Canario-Americana (1980)*, Tomo II (Cabildo Insular de Gran Canaria: Ediciones del Excelentisimo, 1982:, p. 160, p. 165, p. 173.

13. *American State Papers. Public Lands*, vol. 6, p. 675; McDonogh *v.* De Gruys, Docket No. 1007, pp. 95-97; Letter to William H. Cobb from John McDonogh, July 3, 1830, John McDonogh Collection, Box 8, folder 5, SCD/TUL.

14. A copy of the Pelteau grant is attached to Thomas Durnford *vs.* Marigny D'Auterive and Sosthene Roman, Syndic of Jean-Baptiste Degruy, filed March 23, 1819, 1st Judicial District Court, Docket No. 2266, Jefferson Parish Old Judicial Records, Gretna.

15. Ibid.

16. Sale of land, Heirs of Louis Pelteau to John McDonogh, May 5, 1829, L. T. Caire, notary, NONA.

17. *American State Papers. Public Lands*, vol. 2, pp. 335-36; vol. 6, p. 675.

18. Ibid., vol. 2, pp. 335-36; Fern Ainsworth, *Private Land Claims, Louisiana* (Natchitoches, Louisiana: Privately printed, n. d.), p. 61, p. 63; Trudeau, "Plano Figurativo."
19. McDonogh *v.* DeGruys, Docket No. 1007, p. 66.
20. *American State Papers. Public Lands*, vol. 3, p. 509, and vol. 2, p. 333.
21. Molina Martinez, "La Participacion Canaria," p. 176; "Libro Maestro," folio 8.
22. Will of María Olivares, February 5, 1806, N. Broutin, notary, Book 12, NONA; Inventory of the Estate of María Olivares, May 11, 1807, Louisiana Court of Probate, Orleans Parish, Succession and probate records: 1805-1848, Louisiana Division, New Orleans Public Library; testimony of Louis Bouligny in McDonogh *v.* De Gruys, Docket No. 1007; Will of José Gálvez, November 4, 1802, N. Broutin, notary, NONA; Morales to Guardoqui, October 26, 1796.
23. Will of José Gálvez.
24. Will of María Olivares; Inventory of the estate of María Olivares.
25. Ibid.
26. Ibid.
27. Ibid.
28. Ibid; Trudeau, "Plano Figurativo;" *American State Papers, Public Lands*, Claim of Dominique Bouligny, vol. 2, pp. 335-36; vol. 3, p. 512; Maurice Hauké, Cadastral survey map of T15S-R23E, resurvey in the second quarter of 1855, Bureau of Land Management, Eastern States Office, Reston, Virginia.
29. McDonogh *v.* De Gruys, Docket No. 1007, testimony of Louis Bouligny.
30. Acknowledgement by Louis Bouligny of sale of land to Leon Dauphin, T. Seghers, notary, June 30, 1834, NONA.
31. Ibid., the Lafon survey map of 1816 is attached to this act.
32. Carlos Trudeau, Survey of Bayou des Familles, April 2-5, 1800, HNOC.
33. The field notes of Maurice Hauké, Deputy Surveyor, 1855, precisely identify the placement of the 1841 road bed, Private Land Claim of Marie Dauberville, widow Bouligny, Bureau of Land Management, Eastern States Office, Reston, Virginia.
34. Ibid.
35. Ibid.
36. Text on J. A. d'Hémécourt's Map of J. M. Bell's Crevasse, December 20, 1858, lithograph by J. Tolti, New Orleans, HNOC; Betsy Swanson, *Historic Jefferson Parish* (Gretna: Pelican Publishing Company, 1975), pp. 91-92.
37. McDonogh *v.* De Gruys, Docket No. 1007, p. 21, p. 92.
38. *American State Papers, Public Lands*, vol. 2, pp. 335-36; Sale of land, Pedro Lartigue to Francisco Dutillet and Domingo Bouligny, January 18, 1803, Pedro Pedesclaux, notary, NONA; Trudeau, "Plano Figurativo;" Carlos Trudeau, Survey of Concession of Francisco Deléry, February 24, 1796, Special Collections, Hill Memorial Library, Louisiana State University, Baton Rouge.
39. Trudeau, "Plano Figurativo;" *American State Papers, Public Lands*, vol. 8, pp. 370-71.

CHAPTER V
TERRE HAUTE DE BARATARIA - THE EARLY AMERICAN PERIOD

1. Testimony of Zenon Trudeau in McDonogh *v.* Degruys *et al.,* Docket No. 1007, June 2, 1845, LSCC/UNO.
2. Reference to the continuing occupation of the Francisco Sánchez family is found in the testimony of Jean-Baptiste Dubreuil Villars, Police Jury of the Parish of Jefferson *v.* Allou D'Hémécourt and John McDonogh, Docket No. 5209, May 1844, LSCC/UNO.
3. Acknowledgement by Louis Bouligny of sale of land to Léon Dauphin, T. Seghers, notary, June 30, 1834, NONA, the Barthélemy Lafon survey map is attached to this act; Sale of land by Louis Frederic Foucher and Madame Marie Antoine Foucher Delachaise to John Hutchinson, October 19, 1837, T. Seghers, notary, NONA; *American State Papers, Public Lands*, vol. 3, Claim of Pierre Foucher, p. 509.
4. *American State Papers, Public Lands*, vol. 3, Claim of Pierre Foucher, p. 509; Pierre Foucher's plantation on the site of Audubon Park is shown as inherited by his son Louis Frederic on Charles F. Zimpel's "Topographical Map of New Orleans and Its Vicinity," March, 1834, HNOC; Inventory of the estate of John McDonogh, November 1, 1850, A. Mazureau, NONA.
5. Roman *v.* Degruy *et al.*, Marigny d'Auterive *v.* Degruy, A. B. d'Auterive *et al. v.* Degruy, consolidated cases, Docket No. 740, February, 1823, LSCC/UNO, hereafter cited as Roman *v.* Degruy *et al.*
6. Letter to William H. Cobb from John McDonogh, July 3, 1830, John McDonogh Collection, Box 8, folder 5, SCD/TUL; Sale of land, Heirs of Louis Pelteau to John McDonogh, May 5, 1829, L. T. Caire, notary, NONA.
7. *American State Papers, Public Lands*, vol. 3, p. 512.
8. McDonogh *v.* De Gruys *et al.*, Docket No. 1007.
9. Registration of Documents by Juan Jourdan, August 4 and 6, 1800, Narcisco Broutin, notary, NONA; Letter to Cobb from McDonogh; Sale of land, John Joseph Jourdan to John McDonogh, September 18, 1829, J. P. Fabre, notary, St. James Parish Court House.
10. Sale of land, Noël Jourdan to John McDonogh, May 30, 1833, private act, St. James Parish; Antonio Vart land grant from Baron de Carondelet, October 13-15, 1794, SCD/TUL; Carlos Trudeau, "Plano Figurativo de las tierras de Don Pedro Lartigue," November 29, 1802, copy by Barthélemy Lafon, January 16, 1806, Plan Book 106, folio 28, NONA.

11. Sale of land, Pierre Denis de la Ronde, representing Eulalie Guerbois, his wife, to Joseph Soniat Dufossat, May 5, 1808, Stephen de Quinones, notary, NONA; Survey by Barthélemy Lafon, September 3, 1808, in McDonogh *v.* De Gruys *et al.*, Docket No. 1007.
12. Exchange of land between Allou d'Hémécourt and Jean-Baptiste De Gruy and his wife, Melanie Godin, May 12, 1835, F. J. E. Dugue Livaudais, notary, JPCH; Sale of land, Allou d'Hémécourt to François Valcour Volant Labarre and Joseph Nelson Volant Labarre, February 19, 1846, T. Guyol, notary, NONA.
13. William D. Reeves, *De La Barre, Life of a French Creole Family in Louisiana*, Jefferson Parish Historical Series Monograph IV (New Orleans: Polyanthos, 1980), pp. 104-12.
14. McDonogh *v.* De Gruys *et al.*, Docket No. 1007.
15. Ibid; Reeves, *De La Barre*, p. 104; Sale of land, Allou d'Hémécourt to Valerie Vicknair, February 28, 1860; J. Lisbony, notary, NONA.
16. Mortgage agreement between Valerie Vicknair and Allou d'Hémécourt, August 9, 1865, Adolphe Boudousquié, notary, NONA; Sale of land, Valerie Vicknair to Marie Julie Gabrielle Lemoine, widow of Pierre Rochefort, October 30, 1865, Edward G. Gottschalk, notary, NONA.
17. Sale of land, Antoine Boudousquié to Jean-Baptiste Degruy and Francisco Mayronne, April 4, 1800, Pedro Pedesclaux, notary, NONA.
18. Sale of land, Francisco Bouligny to Jean-Baptiste Degruy and Francisco Mayronne, March 8, 1792, Pedro Pedesclaux, notary, NONA.
19. McDonogh *v.* De Gruys *et al.*, Docket No. 1007, testimony of Louis Bouligny, p. 20; Act of partition between François Mayronne and Jean-Baptiste Degruy, April 9, 1807, Pierre Pedesclaux, notary, NONA; Sale of plantation, Jean-Baptiste Degruy and his wife to Jean Jacques Bonne and Honoré Mourlot, April 18, 1810, Pierre Pedesclaux, notary, NONA.
20. Bankruptcy of Jean-Baptiste Degruy, November 1, 1912, Pierre Pedesclaux, notary, NONA; Betsy Swanson, *Historic Jefferson Parish* (Gretna, Louisiana: Pelican Publishing Co., 1975), pp. 75-76; for examples of Degruy's building contracts see acts of notary Pierre Pedesclaux, May 7, 1789, and November 15, 1790.
21. McDonogh *v.* Degruys *et al.*, Docket No. 1007, testimony of Louis Bouligny, p. 20; Meeting of the creditors of Jean-Baptiste Degruy, November 5, 1812, Pierre Pedesclaux, notary, NONA.
22. McDonogh *v.* Degruys *et al.*, Docket No. 1007, testimony of Louis Bouligny, p. 20, and grant of land by Governor Baron de Carondelet to Juan Normand, March 20, 1794, p. 4.
23. McDonogh *v.* Degruys *et al.*, Docket No. 1007, testimony of Louis Bouligny, pp. 20-21, and testimony of Zenon Trudeau, p. 66.
24. McDonogh *v.* Degruys *et al.*, Docket No. 1007, Petition of Jean-Baptiste Degruy for a title and survey, September 15, 1800, p. 89, and grant of land to Juan Normand, March 20, 1794, p. 4.
25. Roman *v.* Degruy *et al.*, Docket No. 740, Marriage contract of Degruy with Madame de Monberault.
26. United States Senate, 25th Congress, 2nd Session, Document No. 196, "Report from the Secretary of the Treasury, Transmitting a report from the register and receiver of the land at Ouachita, with a statement of the claims presented to them, together with the opinion of the Commissioner of the General Land Office on the validity of the said claims," February 14, 1838 (Washington, D.C.: Blair and Rives, 1838), pp. 20-28; United States House of Representatives, 27th Congress, 3rd session, Document No. 21, Treasury Department, "Land Claims in Louisiana," December 17, 1842 (Washington, D.C.: Government Printing Office, 1842), pp. 126-50.
27. Ibid.
28. Allou d'Hémćourt, "Plan présentant les prétentions de Mr. Degruise," April 13, 1835, Plan Book 66, folio 18, NONA; *American State Papers, Public Lands*, vol. 6, p. 687 and p. 696, vol. 8, pp. 370-71 and pp. 376-77.
29. Roman *v.* Degruy *et al.*, Docket No. 740, testimony of Verloin Degruy, p. 69; Bankruptcy of Jean-Baptiste Degruy, June 9, 1837, T. Seghers, notary, NONA.
30. Ibid; Contract between Mayor James Mather, New Orleans, and Jean-Bapiste Degruy to provide wood blocks for the slaughterhouse, April 14, 1801, The Rosemonde E. and Emile Kuntz Collection, SCD/TUL.
31. Roman *v.* Degruy *et al.*, Docket No. 740, testimonies of Dubreuil Villars and Louis Pelteau, p. 69.
32. Abraham Rees, ed., *The Cyclopedia or Universal Dictionary of Arts, Sciences and Literature*, vol. 20, "Kiln" (London: A Strahan, Printer; Longman, Hurst, Reis, Orme and Brown, Publishers, 1819).
33. Roman *v.* Degruy *et al.*, Docket No. 740, testimony of Louis Pelteau, p. 69.
34. Stanley Faye, "Privateersmen of the Gulf and Their Prizes," *Louisiana Historical Quarterly*, vol. 22, no. 4 (October, 1939), pp. 1024-25.
35. Thomas Durnford *v.* the Syndics of Jean-Baptiste Degruy *et al.*, Docket No. 456, June, 1820, LSCC/UNO; Record of suit of Jean Joseph Jourdan *v.* Joseph Tricou and son, filed November 29, 1819, in McDonogh *v.* DeGruys *et al.*, Docket No. 1007.
36. John McDonogh *v.* Dominique Seghers, Docket No. 1504-2, 1828, LSCC/UNO; Durnford *v.* the Syndics of Jean-Baptiste Degruy *et al.*, Docket No. 456; Roman *v.* Degruy *et al.*, Docket No. 740; McDonogh *v.* Degruy *et al.*, Docket No. 1007; Thomas Durnford *v.* Marigny Dauterive and Sosthene Roman, Syndics of Jean-Baptiste Degruy, Docket No. 2266, March 1819, LSCC/UNO; Sosthene Roman, Syndic of the Creditors of Jean-Baptiste Degruy *v.* Alfred Hennen, Docket No. 22087, July 1831, LSCC-UNO.
37. Succession of Jean-Baptiste Degruy, Case No. 30, First Judicial District Court, Court of Probates, April 28, 1838, Jefferson Parish Old Judicial Records Building.
38. *American State Papers, Public Lands*, vol. 3, p. 510; Public auction sale of land, estate of Antoine Marigny Dauterive to Jean-Baptiste Degruy and his wife Melanie Godin, October 24, 1827, Felix de Armas, notary, NONA.
39. McDonogh *v.* Degruy *et al.*, Docket No. 1007, testimony of Louis Bouligny, p. 21.
40. Inventory of the estate of Antoine Marigny Dauterive, June 18-19, 1827, Old Inventories, Orleans Parish, vol. D, 1827-1833, New Orleans Public Library.
41. Ibid; Inventory of the estate of Antoine Marigny Dauterive, filed June 22, 1827, Jefferson Parish Court of Probates, Jefferson Parish Old Judicial Records, Gretna.

42. Ibid.

43. Public sale of land, estate of Antoine Marigny Dauterive to Jean-Baptiste Degruy and his wife, Melanie Godin; Promise of exchange between Jean-Baptiste Degruy and his wife, Melanie Godin, and Jean Charles Allou d'Hémécourt, May 12, 1835, F. J. E. Dugue Livaudais, notary, JPCH.

44. Inventory of the estate of John McDonogh, November 1, 1850, A. Mazureau, notary, NONA; Swanson, *Historic Jefferson Parish*, pp. 109-12; Sale of the estate of John McDonogh, March 28, 1859, in the Rotunda of the St. Louis Hotel, New Orleans, Edward Barnett, notary, April 5, 1859, NONA.

45. Sale of land, Sosthene Roman, Syndic of the Creditors of Jean-Baptiste Degruy to John Hutchinson, June 9, 1837, T. Seghers, notary, NONA; Sale of land, John Hutchinson to John McDonogh, August 17, 1837, W. Y. Lewis, notary, NONA; Inventory of the estate of John McDonogh, Novmber 1, 1850; see also the description of McDonogh's real estate purchases in Barataria in Barbara Holmes, *Historic Resources Study, The Barataria Unit of Jean Lafitte National Historical Park*, Southwest Cultural Resources Center, Professional Papers No. 5 (Sante Fe: Division of History, Southwest Region, National Park Service, Department of the Interior, 1986), p. 67-74.

46. Jefferson Parish Police Jury *v.* D'Hémécourt and McDonogh, Docket No. 5209; J. J. Williams, Field Survey Notes, 1842, RG77, Series 161, Cupboard 13, Shelf 1, No. 14 and 15, Box 125, Book 1, pp. 69-70, National Archives, Washington, D.C.

CHAPTER VI
THE CHRISTMAS PLANTATION

1. Sale of land, Widow Pierre Rochefort to Rufus King Cutler and Pierre Ernest Beauvais, December 23, 1865, Edward G. Gottschalk, notary, NONA; Sale of land, Widow Rochefort to Cutler and Beauvais, July 27, 1866, E. J. Gottschalk, notary, NONA.

2. Ibid.

3. J. A. d'Hémécourt, "Plan of 31 Valuable Tracts of Land Situated in the Parish of Jefferson, District of Barataria," November 3, 1865, Annexed to act of sale of land from Marie Julie Gabrielle Lemoine, Widow Pierre Rochefort, to Henry Chapron, November 11, 1865, E. J. Gottschalk, notary, NONA.

4. Joe Gray Taylor, *Louisiana Reconstructed, 1863-1877*(Baton Rouge: Louisiana State University Press, 1974), pp. 44-45, pp. 48-49, pp. 54-55; R. King Cutler, *Address* (New Orleans: Rea's Steam Job Printing Office, August, 1865).

5. *Daily Picayune*, February 22, 1904, p. 6, c. 5; Sale of one undivided half of plantation, R. K. Cutler to P. E. Beauvais, November 5, 1866, E. J. Gottschalk, notary, NONA.

6. L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana* (New Orleans: Young, Bright and Co., 1869-1884); Auction sale of property, Pierre E. Beauvais to the New Orleans National Banking Association, April 18, 1876, Andrew Hero, Jr., notary, NONA; Lease of plantation, New Orleans National Banking Association to William Coiler Beauvais, April 18, 1876, Andrew Hero, Jr., notary NONA; Sale of property, New Orleans National Banking Association to Pierre E. Beauvais, March 8, 1879, Andrew Hero, Jr., notary, NONA.

7. Allen Begnaud, "The Louisiana Sugar Cane Industry: An Overview," in *Green Fields: Two Hundred Years of Louisiana Sugar* (Lafayette: University of Southwestern Louisiana, The Center for Louisiana Studies, 1980), pp. 38-44.

8. P. E. Beauvais contracts with Augustin Daspit and Julius M. Johnson, February 4, 1874 and March 8, 1874, C. Stringer, notary, NONA.

9. *Daily Picayune*, February 22, 1904, p. 6, c. 5; Succession of William St. James Beauvais, 26th Judicial District Court, Docket No. 340, May 16, 1883, Jefferson Parish Old Judicial Records, Gretna.

10. Public sale of land, John H. Carter to John A. Peel, August 4, 1875, G. W. Christy, notary, NONA; Peel to Byron M. Pond, August 4, 1875, G. W. Christy, notary, NONA; Pond to Commercial Firm of Bayly and Pond, January 6, 1876, F. Grima, notary, NONA; Bayly and Pond to Joseph H. Oglesby, December 18, 1877, Andrew Hero, Jr., notary, NONA; Oglesby to P. E. Beauvais, March 8, 1880, Andrew Hero, Jr., notary, NONA.

11. Sale of plantation, P. E. Beauvais to W. C. Beauvais, February 24, 1891, John Baptiste Lyman, notary, JPCH.

12. Bouchereau, *Statement of the Sugar and Rice Crops*, 1884-5; Mortgages, P. E. Beauvais to Charles Joseph Brown, December 13, 1890 and July 8, 1891, John Baptiste Lyman, notary, JPCH.

14. Charles J. Brown, *vs.* Pierre E. Beauvais, 21st Judicial District Court, January 14, 1895, Docket No. 251, Jefferson Parish Old Judicial Records, Gretna.

15. Ibid.

16. Lease to plant and cultivate rice, P. E. Beauvais to M. Robicheaux and G. Rome, June 15, 1891, John Baptiste Lyman, notary, JPCH.

17. Brown *vs.* Beauvais, Docket No. 251.

18. Sale of plantation, P. E. Beauvais to C. J. Brown, June 22, 1893, John Charles Tillotson, notary, JPCH; Dr. Charles Odom, interview with Betsy Swanson, 1986.

19. Brown mortgages, April 3, 1895, M.O.B. 36, folio 639; April 8, 1895, M.O.B. 36, folio 643; and December 12, 1898, M.O.B. 37, folio 514, JPCH; Contract to sell cane and build a railroad, C. J. Brown to Southside Plantation Company, July 19, 1899, M.O.B. 37, folio 757, JPCH.

20. Dr. Charles Odom, interview with Betsy Swanson, 1986; Sale of plantation, Charles J. Brown to George H. T. Shaw, March 31, 1903, A. W. Cooper, notary, NONA; Lease of plantation, George H. T. Shaw to Southside Plantation Company, March 31, 1903, A. W. Cooper, notary, NONA.

21. Sale of land, Widow Pierre Rochefort to Rufus King Cutler and Pierre Ernest Beauvais, December 23, 1865, Edward G. Gottschalk, notary, NONA; Sale of land, Widow Rochefort to Cutler and Beauvais, July 27, 1866, E. G. Gottschalk, notary, NONA.

22. Sale of half of property, Rufus King Cutler to Pierre Ernest Beauvais, October 5, 1866, E. G. Gottschalk, notary, NONA; L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana in 1869-70* (New Orleans: Young, Bright & Co., 1870), p. 38.
23. Mather D. Lagan and James Mackinson *v.* Pierre Ernest Beauvais, Second Judicial District Court of Jefferson Parish, Case No. 3984, April 19, 1872, Jefferson Parish Old Judicial Records Building, Gretna; MOB 26, f. 618-19, JPCH.
24. L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana in 1870-71* (New Orleans: Young, Bright & Co., 1871), p. 29; Contract to plant, Augustin Daspit to Peter E. Beauvais, February 4, 1874, Charles Stringer, notary, NONA; Contract to plant, P. E. Beauvais with J. M. Johnson, March 8, 1874, Charles Stringer, notary, NONA.
25. Sale of property, Pierre E. Beauvais to New Orleans National Banking Association, April 1, 1876, Andrew Hero, notary, NONA.
26. Barbara Holmes, *Historic Resources Study, The Barataria Unit of Jean Lafitte National Historical Park*, Southwest Cultural Resources Center, Professional Papers No. 5 (Santa Fe: Division of History, Southwest Region, National Park Service, Department of the Interior, 1986), p. 80; P. E. Beauvais to Melancie Robicheaux and Gracien Rome, Lease to plant and cultivate rice, June 15, 1891, John Baptiste Lyman, notary, JPCH.
27. Charles J. Brown *v.* Pierre E. Beauvais, 21st Judicial District Court, Case No. 251, January 14, 1895, Jefferson Parish Old Judicial Records Building, Gretna; L. Soards, *Soards' New Orleans City Directory* (New Orleans: L. Soards, Publisher, 1892); Contracts between Southside Plantation Company and Charles J. Brown, July 15, 1899 and February 23, 1900, W. R. Ker, notary, NONA.
28. A copy of the 1891 edition, reprinted 1898, "New Orleans, La." quadrangle map, is housed in the LC/TUL; the same map was reprinted unchanged in 1912 and in 1931, and copies of these editions are also housed in the LC/TUL. Agreement by Charles J. Brown to deliver the Christmas Plantation to Southside Plantation Company to plant cane, February 5, 1901, B. T. Walshe, notary, NONA.
29. Brown to Southside Plantation Company, February 5, 1901.
30. Barbara Holmes, *Historic Resource Study, The Barataria Unit*, Appendix C, National Register of Historic Places Nomination Form, Item 7, p. 4; Charles J. Brown *v.* Pierre E. Beauvais, Case No. 251.
31. The firm of Joseph Menge, who patented the Menge pump, was located on Union Street and later on Tchoupitoulas Street in New Orleans; the Menge Pump and Machinery Company Inc. is today located on North Arnoult Road in Metairie; see *Menge Patent Pump*, estate of Joseph Menge, Patentees, J. W. Westerfield, Manager, 631 Tchoupitoulas St., New Orleans, copy in LC/TUL; and L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana, 1884-5*, p. xviii; *1885-6*, p. xxi; *1889-90*, p. Ia; *1890-92*, n.p.
32. Herschel A. Franks and Jill-Karen Yakubik, "Archaeological Survey on 65 Acres of Land Adjacent to Bayou des Familles, Barataria Unit, Jean Lafitte National Historical Park, Louisiana," draft report prepared for the NPS, Southwest Region, Santa Fe, 1988, pp. 37-41.
33. Ibid.
34. Ibid.
35. Sale of plantation, Charles J. Brown to George H. T. Shaw, March 31, 1903, A. W. Cooper notary, NONA.
36. Frank Ehret and Louis Ehret, interviews with Betsy Swanson, 1986; L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana in 1881-2*, p. xiv.
37. Contract for bricks between Mrs. Louise Destrehan, wife of Joseph Harvey, and Jonathon Davis, March 3, 1862, Edward Barnett, notary, JPCH.
38. J.W.T. Stephens, "Map of Property of the Jefferson Land Company in the Parish of Jefferson, Louisiana, for sale by Burton D. Hurd Co., 204 Dearborn Street, Chicago, Illinois," March, 1910, attached to act of February 10, 1911, Alexis Brian, notary, NONA.
39. According to Percy Prestenbach, Jr., the house was destroyed about 1953, interview with Betsy Swanson, 1986. The small rectangular buildings at the rear of the houses shown on the 1910 map are assumed to be kitchens, because kitchens were historically so located in Louisiana for fear of fire; kitchens were always built at the rear of houses, therefore the houses shown on the 1910 map faced the bayou.
40. Plans and descriptions of pre-Civil War plantations in the Barataria Region can be found in Sally Kittredge Evans, Frederick Stielow, and Betsy Swanson, *Grand Isle on the Gulf: An Early History* (Metairie, Louisiana: Jefferson Parish Historical Commission, 1979), pp. 34-49, and Betsy Swanson, *Historic Jefferson Parish* (Gretna, Louisiana: Pelican Publishing Company, 1975), pp. 152-53, p. 160.
41. R. Christopher Goodwin and Associates, Inc., "Level II Archaeological Survey, Big Woods Development Area, Environmental Educational Center-Phase I, Barataria Unit, Jean Lafitte National Historical Park, Jefferson Parish, Louisiana," draft report prepared for the NPS, Southwest Region, Santa Fe, August 6, 1987. Results of the shovel tests in this area were not recorded in the report.
42. William C. Bell, comp., *Roberts and Company Illustrated Catalogue of Mouldings, Architectural and Ornamental Woodwork* (New Orleans: New Orleans Lithography & Engraving Co., 1880), p. 84, SCD/TUL; L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana in 1880-81*, "W. W. Carre, Lumber Merchant, and Manufacturer of Plantation Cabins, Stores, etc.," n. p.; 1882-3, "W. W. Carre, Manufacturer of Cabins, Stores, Barns, etc.," p. xii.
43. Ibid.
44. Louis Ehret, interview with Betsy Swanson, 1986.

CHAPTER VII
PLANTATION BACKLANDS

1. Sale of the estate of John McDonogh, March 28, 1859, in the Rotunda of the St. Louis Hotel, New Orleans, Edward Barnett, notary, April 5, 1859, NONA; Sale of real estate, City of New Orleans to Jacob U. Payne, February 14, 1860, Charles E. Fortier, notary, NONA.

2. *Cohen's New Orleans Directory for 1855* (New Orleans: Printed at the offices of *The Picayune,* 1855), portrait and biography in frontmatter; N. Seawell v. Payne and Harrison, Docket No. 1394, April 25, 1849, LSCC/UNO; Leonard V. Huber, *Landmarks of New Orleans* (New Orleans: The Louisiana Landmarks Society and The Orleans Parish Landmarks Commission, 1984), p. 73.
3. Sale of land by succession of Jesse Ross to Jacob U. Payne, March 6, 1857, Joseph Lisbony, notary, March 6, 1857, NONA.
4. P. A. Champomier, *Statement of the Sugar Crop Made in Louisiana* (New Orleans: Cook & Young, Co., 1859, and Magne & Weisse, 1860-82).
5. Sale of property by Jacob U. Payne to William Stackhouse, May 25, 1866, William Shannon, notary, NONA; Sale of Property by William Stackhouse to John H. Carter, March 7, 1867, William Shannon, notary, NONA; Sale of land, Widow Pierre Rochefort to John H. Carter, March 7, 1867, E. Gottschalk, notary, NONA.
6. L. Bouchereau, *Statement of the Sugar and Rice Crops Made in Louisiana* (New Orleans: Young, Bright & Co., 1869-1873); Sheriff's Seizure and Sale, William Stackhouse v. John H. Carter, 2nd Judicial District Court, Jefferson Parish, No. 3961, February 1, 1872, Jefferson Parish Courthouse, Gretna; Sheriff's deed, John H. Carter to Citizens' Bank of Louisiana, March 7, 1874, Book M F687-688, Jefferson Parish Courthouse; Sale of land, John H. Carter to John A. Peel by public sale, August 4, 1875, G. W. Christy, notary, NONA.
7. *Lands and Plantations Belonging to the Citizens' Bank of Louisiana Offered For Sale and Rent on Favorable Terms,* 1881 and 1882 editions, Vertical File, Louisiana Collection, Tulane University Library.
8. Sale of property by Citizens' Bank to Hugo Mehnert, March 5, 1885, Joseph D. Taylor, notary, NONA; Sale of real estate by Hugo Mehnert to William Rebentisch, May 31, 1892, John C. Tillotson, notary, JPCH; Frank Ehret, interview with Betsy Swanson, 1986.
9. Sale of a plantation and appurtances by Amos B. Merrill to Oakes A. Ames and Frank M. Ames, March 1, 1872, James Fahey, notary, NONA; *Cohen's New Orleans Directory for 1853* (New Orleans: printed at the office of the *Daily Delta,* 1852), portrait and biography in frontmatter.
10. *Cohen's New Orleans Directory for 1853;* Betsy Swanson, *Historic Jefferson Parish* (Gretna: Pelican Publishing Co., 1975), p. 105; Monsignor Henry C. Bezou, *Metairie, A Tongue of Land to Pasture* (Gretna: Pelican Publishing Co., 1973), p. 72; Mary Louise Christovich, Roulhac Toledano, Betsy Swanson, Pat Holden, Samuel Wilson, Jr., and Bernard Lemann, *New Orleans Architecture Vol II: The American Sector* (Gretna: Pelican Publishing Co, 1972), p. 34, p. 67.
11. Sale of plantation by Laurent Millaudon to Henry Clement Millaudon, May 29, 1869, James D. Augustin, notary, NONA; Sale of plantation by Henry Clement Millaudon to Amos B. Merrill, January 4, 1870, Selim Magner, notary, NONA; Sale of Plantation by Amos B. Merrill to Oakes A. Ames and Frank M. Ames, March 1, 1872, James Fahey, notary; Swanson, *Historic Jefferson Parish,* pp. 96-97.
12. Swanson, *Historic Jefferson Parish,* p. 97; Moses King. ed., *King's Handbook of the United States* (Buffalo, N.Y.: Moses King Corporation, Publishers, 1891), p. 304.
13. Charles F. Zimpel, "Topographical Map of New Orleans," 1834, HNOC; Swanson, *Historic Jefferson Parish,* p. 98; W. E. Butler, *Down Among the Sugar Cane, The Story of Louisiana Sugar Plantations and Their Railroads* (Baton Rouge: Morgan Publishing Co., 1980), p. 21.
14. Butler, *Down Among the Sugar Cane,* p. 21; Pauline Ames Plimpton, ed., *Oakes Ames, Jottings of A Harvard Botanist, 1874-1950* (Cambridge, Mass.: Botanical Museum of Harvard University, 1979), p. 3, p. 43.
15. Sale of plantation by Oliver Ames and Oakes A. Ames to South Side Plantation Company, June 5, 1895, COB W f.788, Jefferson Parish Courthouse; Contracts between South Side Plantation Company and Charles J. Brown to buy cane and to build a railroad, July 15, 1899, W. R. Ker, notary, NONA; February 23, 1900, W. R. Ker, notary, NONA; and February 5, 1901, B. T. Walshe, Jr., notary, NONA.

CHAPTER VIII
ROADS OF THE EIGHTEENTH AND NINETEENTH CENTURIES

1. Police Jury of the Parish of Jefferson v. Allou d'Hémécourt and John McDonogh, Docket No. 5209, May 1844, LSCC/UNO, the *Regulations* of Jefferson Parish, printed in 1825, are attached to this case, see "Regulation, Concerning the Barataria Road."
2. Gilbert D. Harris and A. C. Veatch, *Geological Survey of Louisiana, Report for 1899. Part V. Geology and Agriculture, A Preliminary Report on the Geology of Louisiana* (Baton Rouge: State Experiment Station, 1899) pp. 326-30.
3. "Plano de las concessiones desde la ciudad de Nueva Orleans hasta Bayu San Juan, la Metairy, Chapitoulas y Barataria," unsigned, undated, found between documents dating from 1775 to 1778, Archivo General de Indias, Seville, Papeles de Cuba, Legajo 2358.
4. Jefferson Parish Police Jury *v.* DHémécourt and McDonogh, Docket No. 5209.
5. Ibid.
6. Ibid.
7. Ibid.
8. Ibid.
9. Allou d'Hémécourt, "Plan présentant les prétentions de Mr. Degruise," April 13, 1835, Plan Book 66, folio 18, NONA.
10. Jefferson Parish Police Jury *v.* D'Hémécourt and McDonogh, Docket No. 5209; Works Progress Administration, The Historical Records Survey, Division of Professional and Service Projects, *Transcriptions of Parish Records of Louisiana,* Vol 26, *Jefferson Parish (Gretna),* Series I, *Police Jury Minutes,* vol. 1 (New Orleans: June, 1939), p. 321, and vol. 3, p. 72; Sale of land by Pedro Lartigue to Francisco Dutillet and Domingo Bouligny, P. Pedesclax, notary, January 18, 1803, NONA.
11. *Jefferson Parish Police Jury Minutes* vol. 3, p. 333.
12. Jefferson Parish Police Jury *v.* D'Hémécourt and McDonogh, Docket No. 5209.

13. Ibid; *Jefferson Parish Police Jury Minutes*, vol. 1, p. 169.
14. *Jefferson Parish Police Jury Minutes*, vol. 1, pp. 245-46; Jefferson Parish Police Jury *v.* D'Hémécourt and McDonogh, Docket No. 5209; J. J. Williams military survey map, 1842, National Archives, Washington D.C.
15. Jefferson Parish Police Jury *v.* D'Hémécourt and McDonogh, Docket No. 5209.
16. Ibid.
17. Maurice Hauké, Deputy Surveyor, Field Notes for survey of the private land claim of Marie Dauberville, Widow Bouligny, Sections 3 and 38, T15S R23E, South Eastern District, Louisiana, 1855, Bureau of Land Management, Eastern States Office, Reston, Virginia.
18. J. W. T. Stephens, "Map of Property of the Jefferson Land Company in the Parish of Jefferson, for sale by Burton D. Hurd Company, 204 Dearborn Sreet, Chicago, Illinois," New Orleans, March, 1910, annexed to act of Alexis Brian, notary, February 10, 1911, NONA.
19. Maurice Hauké, Deputy Surveyor, Field Notes for survey of the private land claim of Widow Guerbois, Section 11, T155 R 23E, South Eastern District, Louisiana, 1855, Bureau of Land Management, Eastern States Office, Reston, Virginia.
20. "New Orleans, La.," U.S.G.S. Quadrangle Map of 1891, reprinted 1898, LC/TUL.
21. Sales of properties, Widow Pierre Rochefort to R. K. Cutler and P. E. Beauvais, December 23, 1865, and July 27, 1866, E. G. Gottschalk, notary, NONA.
22. See J. A. d'Hémécourt, "Plan of 31 Valuable Tracts of Land situated in the Parish of Jefferson, District of Barataria," November 3, 1865, annexed to sale of property, Widow Rochefort to Henry Chapron, November 11, 1865, E. G. Gottschalk, notary, NONA.
23. Contract to build a railroad and buy cane, between Southside Plantation Company and Charles J. Brown, July 15, 1899, William R. Ker, notary, JPCH.
24. Ibid.
25. Hunter Stewart, Civil Engineer, "Cypress Timber Survey, South Side Plantation Co., Jefferson Parish, La.," 1901, annexed to timber sale, March 25, 1902, A. W. Cooper, notary, NONA.
26. Hauké survey.
27. John R. Greene, "A Limited Examination of the Brick in the Great House at Elmwood Plantation," unpublished manuscript, n.d.
28. Jefferson Parish Police Jury *v.* D'Hémécourt and McDonogh, Docket No. 5209, testimony of Louis Bouligny, pp. 55-56.
29. Frank Ehret, interview with Betsy Swanson, 1986.
30. Hauké survey.
31. Richard C. Beavers, "Archaeological Site Inventory, Barataria Basin Marsh Unit, Core Area, Jean Lafitte National Historical Park, Jefferson Parish, Louisiana," photocopy, Archaeology Research Program, University of New Orleans, 1982, Appendix D.
32. Louis Ehret, interview with Betsy Swanson, 1986.
33. *Jefferson Parish Police Jury Minutes*, vol. 3, p. 430.
34. Sale of land, Widow Pierre Rochefort to Maximilian Catoire, December 20, 1865, E. Gottschalk, notary, NONA.

CHAPTER IX
THE PAPER SUBDIVISION

1. For histories of the development of subdivisions in Jefferson Parish see Betsy Swanson, *Historic Jefferson Parish* (Gretna, Louisiana: Pelican Publishing Company, 1975), pp. 100-26, pp. 130-31; and Henry C. Bezou, *Metairie, A Tongue of Land to Pasture* (Gretna, Louisiana: Pelican Publishing Company, 1973), pp. 64-86.
2. See the pattern of the legal divisions of land in the area of the Barataria Unit on Edgar Tobin Aerial Surveys, Map No. Y-3898, prepared for the NPS, 1964, Land Acquisition Office, Southwest Region Office, NPS, Santa Fe.
3. Deposit of Plan and Documents by the Jefferson Land Company of Maine, February 10, 1911, Alexis Brian, notary, NONA.
4. Sale of plantation, Charles J. Brown to George H.T. Shaw, March 31, 1903, A. Walker Cooper, notary, NONA; Sale of plantation, George H.T. Shaw to J.E. Hartenbower, May 28, 1904, C.O.B. 28, folio 239, JPCH; Sale of plantations, G.H.T. Shaw to Jefferson Land Company, September 23, 1909, C.O.B. 28, folio 722, JPCH; Sale of plantation, Old Plantation Company, Limited, to Jefferson Land Company, October 8, 1909, C.O.B. 28, folio 725 and C.O.B. 28, folio 728, JPCH.
5. J.W.T. Stephens, "Map of Property of The Jefferson Land Company in The Parish of Jefferson, Louisiana, for sale by Burton D. Hurd Company, 204 Dearborn Street, Chicago, Illinois," March, 1910, annexed to Act of Deposit, Alexis Brian, notary, NONA.
6. Ibid.
7. Ibid; the early acts of sale of lots mention "the planting of pecan trees," see, for example, sale of Block 44 by the Jefferson Land Company to William Laferriere, April 18, 1911, C.O.B. 33, folio 715, JPCH.
8. Map of Segment 104, Jean Lafitte National Historical Park and Preserve (Barataria Unit), Division of Land Acquisition, Southwest Region Office, NPS, Santa Fe.
9. Sale of land, Ottawa Banking and Trust Company, Ottawa, Illinois, Jefferson Land Company Bankruptcy to Robert J. Perkins, June 14, 1919, C.O.B. 45, folio 443, JPCH.
10. Sale of land, Jefferson Land Company to William Gomez, February 2, 1912, C.O.B. 33, folio 708, JPCH; Sale of land, William Gomez to Robert Logan Perkins, June 5, 1920, C.O.B. 48, folio 289, JPCH.

11. Alcée Fortier, *Louisiana*, vol. 3 (Chicago: Century Historical Association, 1914), pp. 352-53.
12. Lease, Robert J. Perkins to the Delaware Louisiana Fur Trapping Company Incorporated, November 12, 1925, C.O.B. 71, folio 670, JPCH; lease, Perkins to Kelly Land Company of Texas, June 28, 1928, C.O.B. 103, folio 525, JPCH; Sheriff's sale, Bankruptcy of Robert S. Perkins to Canal Bank and Trust Company, C.O.B. 28, folio 728, JPCH.
13. Percy Prestenbach, Sr., and Frank Ehret, interviews with Betsy Swanson, 1986.
14. Tax sale, Robert L. Perkins to Louis L. Dauenhauer, September 16, 1939, C.O.B. 154, folio 494; Mrs. Mary Dauenhauer Erlinger, interview with Betsy Swanson, 1986.
15. Mary C. Ehret, "The Jean Lafitte National Historical Park: Preserving Culture, History, Ethnicity and Wetlands of the Mississippi River Delta Region," photocopy, paper prepared for Urban Studies 4400, University of New Orleans, 1983.
16. Robert W. Merrick, Inc., Realtors and Consultants, Legal Description of Tract No. 104-39, Land Acquisition Office, NPS, Southwest Region, Santa Fe.
17. Roy M. Schwarz, Jr., "Appraisal of Portion of Brown or Christmas Plantation," prepared for Cross Timbers Development Corporation, April 11, 1980, filed with Tract 104-39, Land Acquisition Office, NPS, Southwest Region, Santa Fe.
18. Stephen L. Guice and Company, Incorporated, "Appraisal Report, Christmas Plantation," 1980, filed with Tract No. 104-39, Land Acquisition Office, NPS, Southwest Region, Santa Fe.
19. Louis Ehret and Frank Ehret, interviews with Betsy Swanson, 1986.
20. Ibid; Sale of land, William Rebentisch to Charlotte Rebentisch, widow of Hugo Mehnert, June 6, 1902, John C. Tillotson, notary, JPCH; Sale of land, Ferdinand H. Dietze, Sr. and Charlotte Amy Dietze to Harold W. Adams, March 24, 1970, John Moliason, notary, JPCH.
21. Dietze to Adams; Succession of Mrs. Charlotte Rebentisch, widow of Hugo Mehnert, filed April 14, 1927, Case No. 168272, Civil District Court, Parish of Orleans, registered in C.O.B. 84, folio 138, JPCH.
22. Assumption Sale of Property, Harold W. Adams to Dr. Bernard A. Goldman, et al., March 24, 1970, John J. Molaison, notary, JPCH; Sale of property, Goldman, et al to The United States of America, April 14, 1982, Diane M. Gravois, notary, JPCH.
23. Act of Transfer, Jung, Inc., to Arthur L. Jung, Jr., January 22, 1959, C.O.B. 467, folio 123, JPCH; Sale of land, Ames Farmland Company to Crescent Bed Company, December 9, 1935, C.O.B. 127, folio 44, JPCH; Sale of land, South Side Plantation Co., Inc. to Ames Farm Land Co., Inc., C.O.B. 43, folio 394, JPCH.
24. Louis Voss, *The History of the German Society of New Orleans* (New Orleans: Sendker Printing Service, Inc., 1927), p. 67.
25. Sale of land, Crescent Bed Company, Inc., to Jung, Inc., December 11, 1949, C.O.B. 248, folio 363, JPCH; Estate of Peter Jung, Inc. to Arthur L. Jung, Jr., January 22, 1959, C.O.B. 467, folio 123, JPCH.
26. Early acts of sale of lots mention "the planting of pecan trees," see, for example, Jefferson Land Company to Laferriere; *Versailles Pecan Groves Will Make You Independent Only a Few Minutes from Canal Street* (New Orleans, Gaidry Land Company, Inc., ca. 1916).
27. "Pecan Growing and Pecan Soil in Louisiana," *The Texas and Pacific Quarterly*, vol. 15, no. 1, January 1912; Louis Ehret and Frank Ehret, interviews with Betsy Swanson, 1986.
28. Stephens, "Map of Property of the Jefferson Land Company".
29. The position of the plantation road bridge crossing in relation to the subdivision Old Road is shown on Stephens' 1910 map. The archeological report erroneously imagines that the crushed-shell-and-brick plantation road bed represents recent "fill for the existing Christmas Road," see R. Christopher Goodwin and Associates, Inc., "Level II Archeological Survey, Big Woods Development Area, Environmental Educational Center-Phase I, Barataria Unit, Jean Lafitte National Historical Park, Jefferson Parish, Louisiana," August 6, 1987, Draft Report prepared for the NPS, Southwest Region, Santa Fe.
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32. Copies of old State Highway maps are housed in LC-TUL; Frank Ehret, "My Childhood Association with the Roads in the Brown Plantation and Surrounding Areas, Now the Barataria Unit of the Jean Lafitte National Historical Park," unpublished manuscript, 1986.
33. Frank Ehret, interview with Betsy Swanson, 1986.
34. Ibid.
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36. Resolution of the Louisiana Highway Commission, October 19, 1930, attached to act of sale of right-of-way, Robert J. Perkins to the State of Louisiana, October 29, 1930, C.O.B. 108, folio 682, JPCH.
37. Ibid; Frank Ehret, interview with Betsy Swanson, 1986.
38. South Central Bell right-of-way permits, C.O.B. 78, folio 220; C.O.B. 142, folio 535; C.O.B. 145, folio 173; C.O.B. 179, folio 651, JPCH.
39. Louisiana Power and Light right-of-way permits, C.O.B. 109, folio 247; and C.O.B. 142, folio 535, JPCH.
40. Texas Company right to lay and maintain pipelines, October 4, 1935, C.O.B. 126, folio 665; October 30, 1935, C.O.B. 126, folio 668; and February 26, 1937, C.O.B. 136, folio 60, JPCH; G.O. Coignet, Louisiana Geological Survey, "Oil and Gas Map of Louisiana," published by Louisiana Department of Conservation, October, 1947, Map Coll., UNO; Walker and Avery, Inc., "Memo to Mr. Allen Samuels regarding Christmas Plantation property," February 7, 1980, attached to Stephen L. Guice and Co. Inc., "Appraisal Report," filed with Jela L1425, Tract 104-39, Land Acquisition Office, Southwest Regional Office, NPS, Santa Fe.
41. Ibid.
42. Louis Ehret, interview with Betsy Swanson, 1986.

43. Ibid.
44. Ibid.
45. Ibid; Frank Ehret, interview with Betsy Swanson, 1986.
46. Ibid.
47. Ibid.
48. Ibid.
49. Ibid.
50. Sale of land, Jefferson Land Company to William Gomez, February 2, 1912, C.O.B. 33, folio 708, JPCH.
51. Louis Ehret, interview with Betsy Swanson, 1986; Sale of land, William Gomez to Robert Perkins, June 5, 1920, C.O.B. 48, folio 289, JPCH.
52. Photographs of the Gomez House, made in 1983, are attached to an Appraisal Review of Tract No. 104-18, on file in the Land Acquisition Office, Southwest Region, NPS, Santa Fe; for a description of villa and center-hall cottages see Roulhac Toledano and Mary Louise Christovich, *New Orleans Architecture, Vol. VI: Faubourg Tremé and the Bayou Road* (Gretna: Pelican Publishing Co., 1980), pp. 128-29.
53. See Sheriff's sale of land, Canal Bank and Trust Co., March 16, 1934, C.O.B. 120, folio 101, JPCH; Fortier, *Louisiana*, vol. 3, pp. 352-53; Louis Ehret, interview with Betsy Swanson, 1986.
54. The Gomez house burned Halloween night, 1983, Memorandum of Telephone Call, Assistant Superintendent to Kenneth Kasper, November 1, 1983, filed with Tract 104-18, Land Acquisition Office, Southwest Region, NPS, Santa Fe.
55. Percy Prestenbach, Jr., interview with Betsy Swanson, 1986.
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59. Ibid.
60. Ibid; Mrs. Mary Dauenhauer Erlinger, interview with Betsy Swanson, 1986.
61. Benjamin Gerow, Chief of Maintenance, Barataria Unit, Jean Lafitte National Historical Park, interview with Betsy Swanson, 1986.
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63. A.J. Smith, interview with Betsy Swanson, 1986.
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65. Sale of Land, Bruce A. North to Marrero Rod and Gun Club, Inc., May 8, 1983, C.O.B. 788, folio 964, JPCH; Sale of land, Bruce A. North to Slattery P. Henry, October 31, 1973, C.O.B. 803, folio 286, JPCH.
66. Peter J. Talluto, Appraisal Reports, September 29, 1980 and May 11, 1983 for Tract 104-22; and February 14, 1985 for Tract 104- 21; Land Acquisition Office, NPS, Southwest Regional Office, Santa Fe.
67. Talluto, Appraisal Report for Tract 104-22.
68. Louisiana Power and Light right-of-way Permit, November 11, 1970, C.O.B. 724, folio 720, JPCH.
69. Talluto, Appraisal Report for Tract 104-22.
70. Right-of-Way Permit, Canal Assets, Inc. to Louisiana Power and Light Company, October 7, 1965, C.O.B. 624, folio 57, JPCH; the grant line and the power line are shown on the Bertrandville, Louisiana U.S.G.S. quadrangle map, 1966, photorevised in 1972 and 1979; see also *American State Papers. Public Lands*, vol. 4, p. 675 and vol. 3, p. 512.
71. Sale of property, Bernard A. Goldman, M.D., et al. to the Louisiana State Department of Highways, November 27, 1974, C.O.B. 827, folio 406, JPCH.
72. The Daumé property line is shown on map by Carlos Trudeau, "Plano Figurativo de las tierras de Don Pedro Lartigue," November 29, 1802, copy by Barthélemy Lafon, January 16, 1806, Plan Book 106, folio 28, NONA.

CHAPTER X
THE CROWN POINT OIL FIELD

1. The brief background history of the oil industry in Jefferson Parish given in this chapter is derived from the following articles published in the *Jefferson Parish yearly Review*: J. A. Shaw, "Lafitte Oil Field (Part One)" (1936), pp. 49-53; R. C. Stewart, "Lafitte Oil Field (Part Two)" (1936), pp. 53-57; R. C. Stewart, "Lafitte Oil Field" (1937), pp. 37-39; Edgar Allen Poe, "Lafitte Oil Field (1937), pp. 89-93; O. S. Knisely, "Lafitte Oil Field (Part One): The Record Breaking Oil Pool in Jefferson Parish" (1938), pp. 79-82; R. C. Stewart, "Lafitte Oil Field (Part Two): Activities of the Texas Co. at Lafitte" (1938) p. 83; Thomas Ewing Dabney, "The Rising Tide of Black Gold" (1940), pp. 12-26; H. B. Blanton, "Oil" (1944), pp. 138-46; David M. Kleck, "Oil is Ammo" (1951), pp. 32-38; "Decades of Industrial Destiny" (1952), pp. 24-53; Ray M. Thompson, "Oil - The Biggest Little Word in the World" (1955), pp. 62-95; Harry X. Bay, "The Two Birthdays of Oil" (1959), pp. 53-59, pp. 206-13; and J. A. Shaw, "Louisiana Leads the World in Deep Drilling," *Louisiana Conservation Review* (Winter 1937-8) pp. 9-13, p. 59.

2. G. O. Coignet, "Oil and Gas Map of Louisiana," compiled by the Louisiana Geological Survey, published by the Department of Conservation, October 1947, Map Collection, University of New Orleans.
3. Locations and names of oil fields are given on maps of "Jefferson Parish, Louisiana," prepared by the Highway Department, 1958-61, and 1978-81, Map Collection, University of New Orleans.
4. Oil exploration lease, Robert J. Perkins to Kelly Land Company of Houston, Texas, June 28, 1928, C.O.B. 103, folio 525, JPCH; Dabney, "The Rising Tide of Black Gold," (1940), p. 14; Ron Baker, *A Primer of Oilwell Drilling*, 4th ed. (Austin: University of Texas at Austin, 1979), p. 16.
5. Descriptions of features in the study area associated with oil exploration are derived from those of Petroleum Engineer Gerald L. Schroeder, Jr., Principal Engineer of Boeing Petroleum Services, Inc., of Metairie, who volunteered to tour the study area and explain the original functions of remnants of oil activity for the purpose of this study.
6. Mineral lease, Edna Seymour, wife of Peter Walsh, to Anderson-Pritchad Oil Company, October 5, 1956, MLB 16, folio 593, JPCH.
7. Mineral lease, Ferdinand H. Dietze and Mrs. Charlotte Amy Dietze De Limon to Pan American Petroleum Corporation, September 12, 1960, MLB 20, folio 669, JPCH; Mineral leases by the Pan American Petroleum Corporation for Squares 28, 33, 38, 43, 58, 63, 68, 29, 47, 54, and 44 are located in MLB 22, f. 310, f. 344, f. 271, f. 343, f. 389, and f. 253, JPCH.
8. Baker, *A Primer of Oilwell Drilling*, p. 11, p. 84, p. 94; Amendment to lease between F. H. Dietze and Mrs. C. A. Dietze De Limon and Pan American Petroleum Corporation, of September 12, 1960, dated September 18, 1963, MLB 23, folio 999, JPCH.
9. Baker, *A Primer of Oilwell Drilling*, p. 11, p. 83, p. 85; the Southern Crude Oil mineral leases are located in MLB 25, f. 268, f. 269, f. 270, f. 253, f. 310, and f. 515, JPCH; the Pelto Oil Company leases from Southdown Lands, Inc. are located in MLB 29, f. 551, and MLB 30, f. 400, JPCH.
10. Mineral lease, Ferdinand H. Dietze and Amy Dietze De Limon, wife of Louis H. De Limon, to T. Harry Kaplan, September 23, 1964, MLB 24, f. 964, JPCH; Agreement between Sea Drilling Corporation and the Estate of William G. Helis, October 20, 1966, MLB 26, f. 553, JPCH; Right-of-way agreement between F. H. Dietze and A. Dietze De Limon and the Estate of W. G. Helis and Sea Drilling Corp., March 22, 1968, MLB 27, f. 330, JPCH; Right-of-way agreement between Canal Assets, Inc., and the Estate of W. G. Helis and Sea Drilling Corp., March 29, 1968, MLB 27, f. 328, JPCH.
11. Mineral leases, F. H. Dietze and A. Dietze De Limon to J. A. Seglund, Inc., and P. J. Klentos, October 20, 1970, and June 17, 1971, MLB 29, f. 311 and f. 564, JPCH.
12. Information contained in the following descriptions of parts of the study area affected by oil operations was obtained from the following aerial photographs housed in the New Orleans District of the U.S. Corps of Engineers: Roll No. 9-61, Photos 196-201, Book 31, Vicksburg District, November 9, 1961; Roll No. X-2, Photos 267-269, October 24, 1965; Roll No. X-3, Photos 190-201, Book 35, Memphis District, November 4, 1966; Roll No. 55, Photos 180-185 and 201-206, October 17, 1969; Roll 71-44, Photos 46-47, August 7, 1972.



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Mrs. Mary Dauenhauer Erlinger, Gretna, Louisiana.

Mr. Benjamin Gerow, Chief of Maintenance, Barataria Unit, Jean Lafitte National Historical Park.

Dr. Charles Odom, Metairie, Louisiana.

Mr. Percy Prestenbach, Jr., Marrero, Louisiana.

Mr. Percy Prestenbach, Sr., Crown Point, Louisiana.

Mr. Gerald L. Schroeder, Jr., Petroleum Engineer, Principal Engineer for Boeing Petroleum Services, Inc., Metairie, Louisiana.

Mr. A. J. Smith, Chalmette, Louisiana.

Mr. Tommy Wildey, Marrero, Louisiana.

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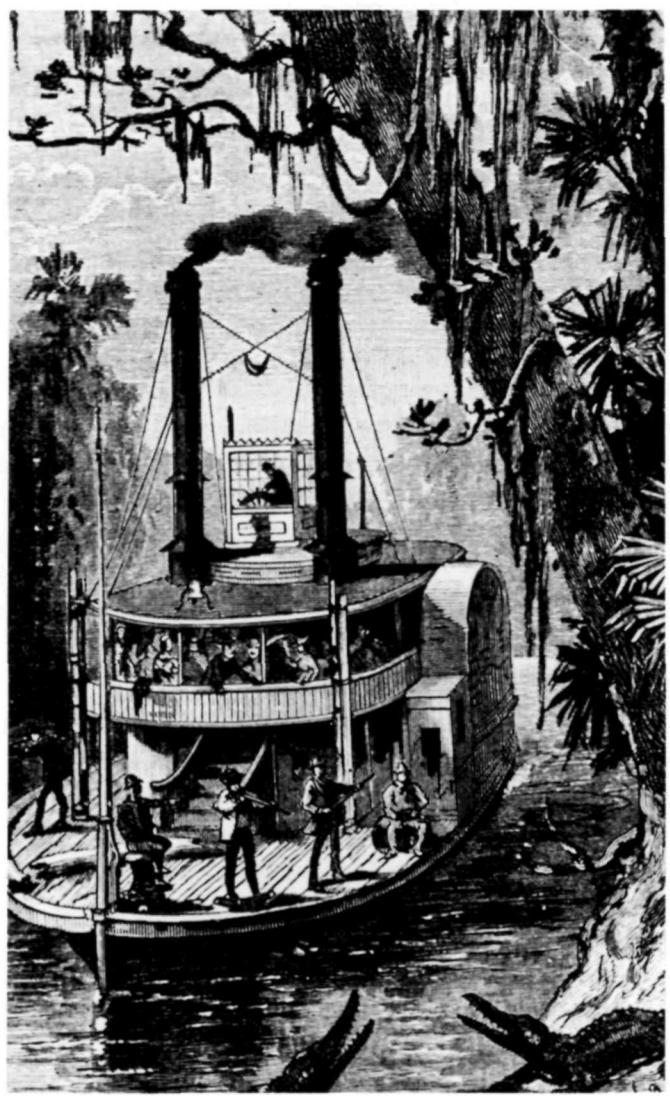
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HISTORIC LAND USE STUDY of a PORTION of the BARATARIA UNIT of the JEAN LAFITTE NATIONAL HISTORICAL PARK

study area

COLONIAL LAND TRANSACTIONS

with JEAN-BAPTISTE BOURBEAU
MERVEILLEUX – French grant by Company of the Indies, 6-14-1726, for 40 arpents each fronting both sides of Bayou Ouachas with depths to the marshes. (Massy succession, 3-20-1735; La. State Mus.; Villars Dubreuil's request for a concession, 6-27-1761, SCD/TUL; "Plano de las Concessiones...," ca. 1778, Archivo General de Indias, Sevilla, Papeles de Cuba, Legajo 2358.)

JEAN-BAPTISTE MASSY and **CHARLES FREDERIG DE**

GILLES AUGUSTIN PAYEN, CHEVALIER DE NOYAN, husband of Jeanne Faucon Dumanoir, widow Massy, 40-arpent Massy tract regranted by Gov. Bienville, 11-19-1736. (Chavoye's request for a concession, 7-3-1761, SCD/TUL.)

BENOIST PAYEN, CHEVALIER DE CHAVOYE, 23 arpents of the Massy-Noyan tract reconceded by Gov. Kerlérec

in July 1761 the remainder of the 120-arpent Massy-Bourbeau-Merveilleux grant reconceded to **SIEURS DEZILLEST, VERDUN, DUBOURG, DE TRANT,** and **DAUTERIVE**. (Requests for concessions, July 1761, SCD/TUL; Carlos Trudeau, Survey of Bayou des Familles, 4-2-1800, HNOC.)

JEAN ANTOINE BERNARD DAUTERIVE
90 arpents fronting west bank of Bayou Ouachas from Bayou Dauphine, by 110 arpents in depth. 20 arpents were granted to him in 1761, & the rest were acquired by him from his neighbors in 1762. (Requests for concessions, July 1761, SCD/TUL; Carlos Trudeau, Survey of Bayou des Familles, 4-2-1800, HNOC; Plan Book 9, folio1, Plan Book 66, folio18, Plan Book 107, folio 22, NONA; Am. State Papers, Pub. lands, vol. III, pp. 509-10; vol. VIII, pp. 370-71.)

PABLO SUAREZ RUIZ by Spanish Grant, Aug. 2, 1794 (Am. St. Papers, Pub. Lands, Vol. VII, p. 673.)

NICOLAS DOMÉ 12 arpents from Gov. Carondelet, Aug. 2, 1794 (erroneous position registered with U.S. government)

Grant April 2, 1800. (Am. St. Papers, Pub. Lands, vol. III, p. 509.)

Chemin de Barataria

Bayou des Familles

Bayou Coquilles

ALEXANDRE GUERBOIS, ANTOINE BOUDOUSQUIÉ & ELIE HUGUES – 40 arpents fronting Bayou Ouachas from Gabriel Hugues' plantation (Gabriel Hugues, N.P.) dissolved partnership by 1774. (Almonester, N.P.)

– 20 arpents fronting Bayou des Familles on both sides by 40 deep.

Bernard Dauterive to Boudousquié in 1772. Guerbois to Boudousquié, 10-10-1768, 11-10-1773 & 12-24-1774.)

Guerbois & Boudousquié to **PEDRO ALBERTO BONNE** – 20 arpents fronting Bayou Ouachas, 12-4-1774. (Almonester, N.P.)

LOUIS PELTEAU by Spanish Grant, Sept. 3, 1794 (Copy in Docket No. 2466, 1st Judicial Dist. Court, Jefferson Parish Old Judicial Records)

JOHN NORMAND by Spanish Grant March 20, 1794 to JOHN JOSEPH JOURDAN, Sept 9, 1809 (Am. St. Papers, Pub. Lands, 2 Vol. III p. 512.)
20 arpents fronting Bayou des Familles on both sides by 40 arpents deep.

Bonne to LUIS PELLERIN – 10 arp. front on Bayou Ouachas, 5-14-1779. (Almonester, N.P.)

Bonne to KING OF SPAIN for Canary Islander settlement, 10 arp. front on Bayou Ouachas, in force 5-14-1779. (Almonester, N.P.)

Pellerin to ANDRES JUNG, Commandant of Canary Islanders, 7-3-1779. (Almonester, N.P.)

Jung to KING OF SPAIN, 7-12-79. (Almonester, N.P.)

ANTOINE MARIGNY DAUTERIVE From 1776 succession of Bernard Dauterive (Am. St. Papers, Pub. Lands, Vol. III, p. 510.)

Alexandre Guerbois by partition of 1774.

Antoine Boudousquié by partition of 1774.

40 arpents claimed by (Pierre Pedesclaux, N.P.) Jean-Baptiste De Gruy (Am. St. Papers, Pub. Lands, Vol. VIII, p. 376-77.)

Boudousquié to JEAN-BAPTISTE DE GRUY, 4-4-1800. (Pedro Pedesclaux, N.P.)

Grant of FRANCISCO BOULIGNY

Bayou Coquilles

Bayou Dauphine

Bayou de Barataria

Bayou Villars

Rivière des Ouachas ou Bayou Villars

30 arpents

10 arpents

20 arpents

N

SCALE IN FEET

Base Map Largely Derived from 13 avril 1835

Atlas d'Hémécourt
Plan Book 66 Folio 18
New Orleans Notarial Archives

HISTORIC LAND USE STUDY of a PORTION of the BARATARIA UNIT of the JEAN LAFITTE NATIONAL HISTORICAL PARK — study area

NINETEENTH CENTURY LAND TRANSACTIONS

SUARES TRACT — CONTINUED:
(LEFT or EAST SIDE BAYOU des FAMILLES)

LEON DAUPHIN to PIERRE FOUCHER, 9-20-1815. T. Sayers, N.P., 10-19-1834.

SUCCESSION of PIERRE FOUCHER to LOUIS F. FOUCHER & MARIE A. FOUCHER DELACHAISE, T. Sayers, N.P., 10-19-1837.

L. F. FOUCHER & M.A. FOUCHER DELACHAISE to JOHN HUTCHINSON, 10-19-1837. T. Sayers, N.P.

HUTCHINSON to JOHN McDONOGH, 11-15-1837. L. T. Caire, N.P.

ESTATE OF JOHN McDONOGH to LAURENT MILLAUDON, 4-9-1859. Barnett, N.P. Balance Tract to "ESTELLE PLANTATION"

L. MILLAUDON to HENRY C. MILLAUDON, 5-20-1869. Augustin, N.P.

H. C. MILLAUDON to AMOS B. MERRILL, 1-4-1870. Magnan, N.P.

MERRILL to OAKES A. AMES & FRANK M. AMES, 3-1-1872. Fahey, N.P.

OLIVER AMES & OAKES A. AMES to SOUTHSIDE PLANTATION COMPANY, 6-5-1895. Jeff. Par. COB W F 778.

ANTOINE MARIGNY DAUTERIVE

"CHRISTMAS PLANTATION" continued:

"ESTELLE PLANTATION"

ALEXANDRE GUERBOIS

JOSEPH JOURDAN

JEAN-BAPTISTE DE GRUY

PABLO SUARES PUJOS

MARIA OLIVAREZ

LOUIS BOULIGNY

Bayou Coquilles

Bayou Barataria

Bayou Villars

Bayou Rigolets

Bayou de Familles

Bayou Chaland

Bayou de Barataria

Bayou Coquilles

Bayou des Familles

Bayou Rigolets

Bayou Villars

Bayou Chaland

Bayou de Barataria

SCALE IN FEET 1000 2000

N

Base Map largely Derived from
Bauvais 1835

Allen d'Hemecourt
Plan Book 66 Folio 18
New Orleans Notarial Archives



Back: Engraving from Father Louis Hennepin, *A New Discovery of A Vast Country in America*, vol. 1 (London: Printed for M. Bentley, J. Tonson, H. Bonwick, T. Goodwin, and S. Manship, 1698), SCD/TDL.
Front: "A Submerged Plantation," wood engraving from a sketch by Alfred R. Waud in *Every Saturday*, June 10, 1871, LC/TUL.