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Contract No. DACW29-88-D-0121
Delivery Order 007
COELMN/PD-90-01

US Army Corps
of Engineers
New Orleans District

AD-A225 276

CULTURAL RESOURCES INVESTIGATIONS OF THREE BORROW AREAS, NEW ORLEANS TO VENICE HURRICANE PROTECTION PROJECT, PLAQUEMINES PARISH, LOUISIANA

November 1989

FINAL REPORT

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R. Christopher Goodwin & Associates, Inc.
5824 Plauche Street
New Orleans, LA 70123

PREPARED FOR:

U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160

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SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified	1b. RESTRICTIVE MARKINGS Distribution is unlimited
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S) COELMN/PD-90-01
6a. NAME OF PERFORMING ORGANIZATION R. Christopher Goodwin & Associates, Inc. 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION U.S. Army Corps of Engineers New Orleans District
6c. ADDRESS (City, State, and ZIP Code) 5824 Plauche Street New Orleans, LA 70123	7b. ADDRESS (City, State, and ZIP Code) P.O. Box 60267 New Orleans, LA 70160-0267
8a. NAME OF FUNDING/SPONSORING ORGANIZATION U.S. COE New Orleans District 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER Contract No. DACW29-88-D-0121 Delivery Order 0007
8c. ADDRESS (City, State, and ZIP Code) P.O. Box 60267 New Orleans, LA 70160-0267	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. N/A; PROJECT NO. CIVIL; TASK NO. WORKS FUNDING; WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
CULTURAL RESOURCES INVESTIGATIONS OF THREE BORROW AREAS, NEW ORLEANS TO VENICE HURRICANE PROTECTION PROJECT, PLAQUEMINES PARISH, LOUISIANA

12. PERSONAL AUTHOR(S) R. Christopher Goodwin, William P. Athens, James M. Wojtala, Stephen Hinks, Jennifer A. Cohen, and William A. Morgan

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Final	FROM _____ TO _____	November 1989	66

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)			
FIELD	GROUP	SUB-GROUP	16PL151 (VH-1)	Chauvin	Mississippi River	Slater Site VH-1
			16PL152 (VH-2)	Historic Archeology	Plaquemines Parish	Slater Site VH-2
			Archeology	History	Prehistory	
			Borrow Areas	Louisiana	Slater	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

During June 1989, R. Christopher Goodwin & Associates, Inc. conducted archeological investigations at three proposed borrow pit areas near Port Sulphur, in Plaquemines Parish, Louisiana. This survey was performed for the U.S. Army Corps of Engineers, New Orleans District, pursuant to Delivery Order 07, Contract No. DACW29-88-D-0121. The survey was comprised of an intensive pedestrian survey augmented by systematically placed, screened shovel tests. Two archeological sites were identified and tested. The Slater Site VH-1 (16PL151) consisted of a scatter of late nineteenth and twentieth century domestic and architectural debris. Shovel and auger tests and two excavation units yielded a variety of artifacts; all were recovered from the plowzone. There was no evidence of in situ features or cultural deposits. The Slater Site VH-2 (16PL152) contained late nineteenth through late twentieth century debris mixed in the plowzone. The debris appeared to be the remains of a shotgun house razed in the 1970s. Both sites lacked archeological integrity and substantive research potential. No further work was recommended for these two sites or within the three borrow pit areas.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION
22a. NAME OF RESPONSIBLE INDIVIDUAL Van Tries Button	22b. TELEPHONE (Include Area Code) 504-862-1760 22c. OFFICE SYMBOL CELMN-PD-RA

DD Form 1473, JUN 86 *Previous editions are obsolete.* SECURITY CLASSIFICATION OF THIS PAGE

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT. CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

October 30, 1989

Planning Division
Environmental Analysis Branch

To The Reader:

The investigation reported in this volume was funded and guided by the U.S. Army Corps of Engineers, New Orleans District. The work was performed to provide information needed to assess cultural resource impacts which could result from construction of part of the New Orleans to Venice Hurricane Protection Project.

This report has been reviewed and accepted by the New Orleans District. We commend the Contractor's efforts and careful scholarship.

Van Tries Button
Technical Representative

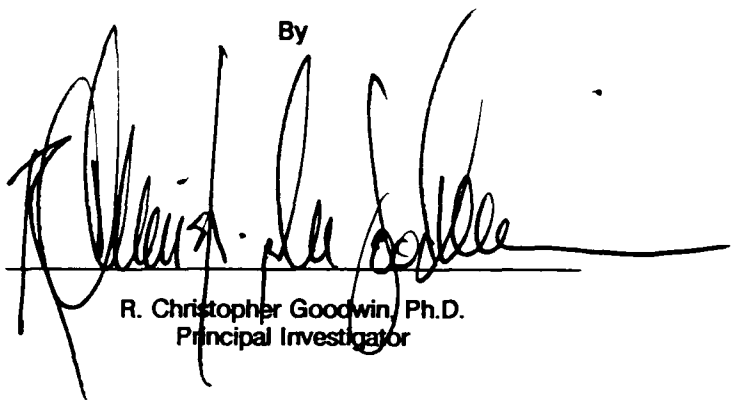
Carroll H. Kleinhans
Authorized Representative
of the Contracting Officer

R. H. Schroeder, Jr.
Chief, Planning Division

CULTURAL RESOURCES INVESTIGATIONS OF THREE BORROW AREAS, NEW ORLEANS TO VENICE HURRICANE PROTECTION PROJECT, PLAQUEMINES PARISH, LOUISIANA

FINAL REPORT

By



R. Christopher Goodwin, Ph.D.
Principal Investigator

With

William P. Athens, James M. Wojtala, Stephen Hinks,
Jennifer A. Cohen, and William A. Morgan

R. Christopher Goodwin & Associates, Inc.
5824 Plauche Street
New Orleans, LA 70123

November 1989

For

U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160

Contract No. DACW29-88-D-0121, Delivery Order 007

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CHAPTER I

INTRODUCTION

This report presents the results of Phase I cultural resources survey of three planned borrow areas located on the west (right descending) bank of the Mississippi River, in Plaquemines Parish, Louisiana. This survey was performed during June 1989, by R. Christopher Goodwin & Associates, Inc., for the U.S. Army Corps of Engineers, New Orleans District, pursuant to Contract DACW29-88-D-0121, Delivery Order 07.

The proposed raising of the Reach A Levee, New Orleans to Venice Hurricane Protection Project, will require a substantial amount of fill. The three borrow areas surveyed under this delivery order will provide the material for this project. Each borrow area is located in undeveloped, agricultural land (Figures 1 - 3). The two Slater properties (30 acres and 40 acres each) are located on the northern outskirts of the community of Port Sulphur, Louisiana. The Chauvin tract (22.2 acres) is located outside of Hesperides, Louisiana.

A cultural resources survey of the Reach A Levee area already had been completed (Davis et al. 1978). Therefore, this study examined only the three borrow areas. The survey was designed to identify and to inventory all archeological sites and historic standing structures located within the project corridor and to evaluate their significance. Archival research focused on the historic development of the area, and on specific land tenure history. These data were used in interpreting the identified archeological remains and in assessing their research potential.

Field work consisted of intensive pedestrian survey and systematic shovel testing of approximately 92.2 acres. During this survey, two historic sites [Slater Site VH-1 (16PL151) and Slater Site VH-2 (16PL152)] were identified. Additional shovel testing and excavation at these sites defined their horizontal and vertical extent, as well as the expected range of artifacts.

Organization of the Report

Chapter II discusses the geomorphological and environmental setting of the project area. Chapter III reviews previous investigations of the project area. Chapter IV contains an overview of the prehistory of the project area. The land tenure history is reviewed in Chapter V. Chapter VI examines the research design and field methodology used during this research effort. Chapter VII presents the results of field investigations. The results of the laboratory analyses are discussed in Chapter VIII. Finally, cultural resources management recommendations are presented in Chapter IX.

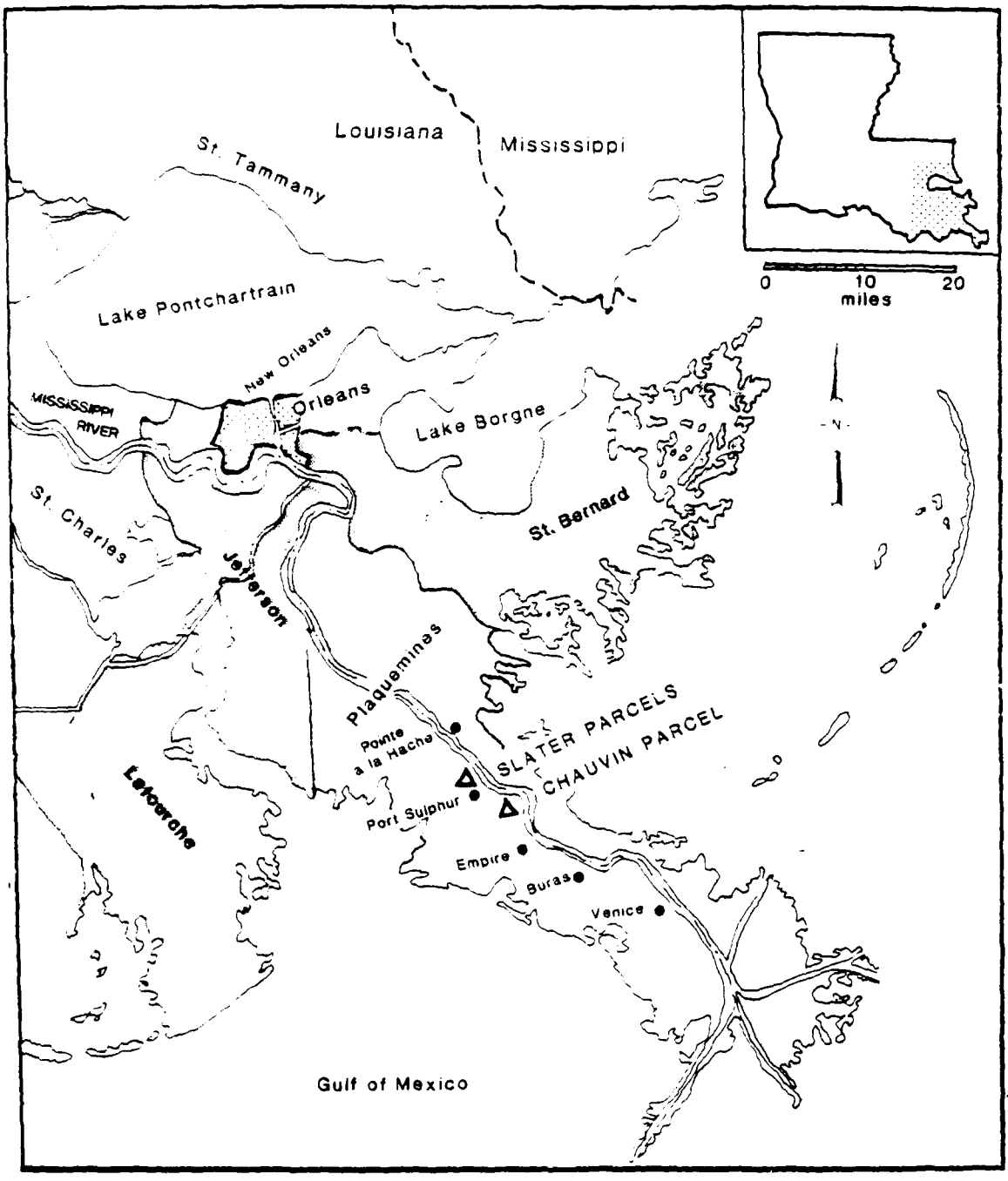


Figure 1. Map of the Plaquemines Parish region, showing the locations of the Slater and Chauvin project areas.

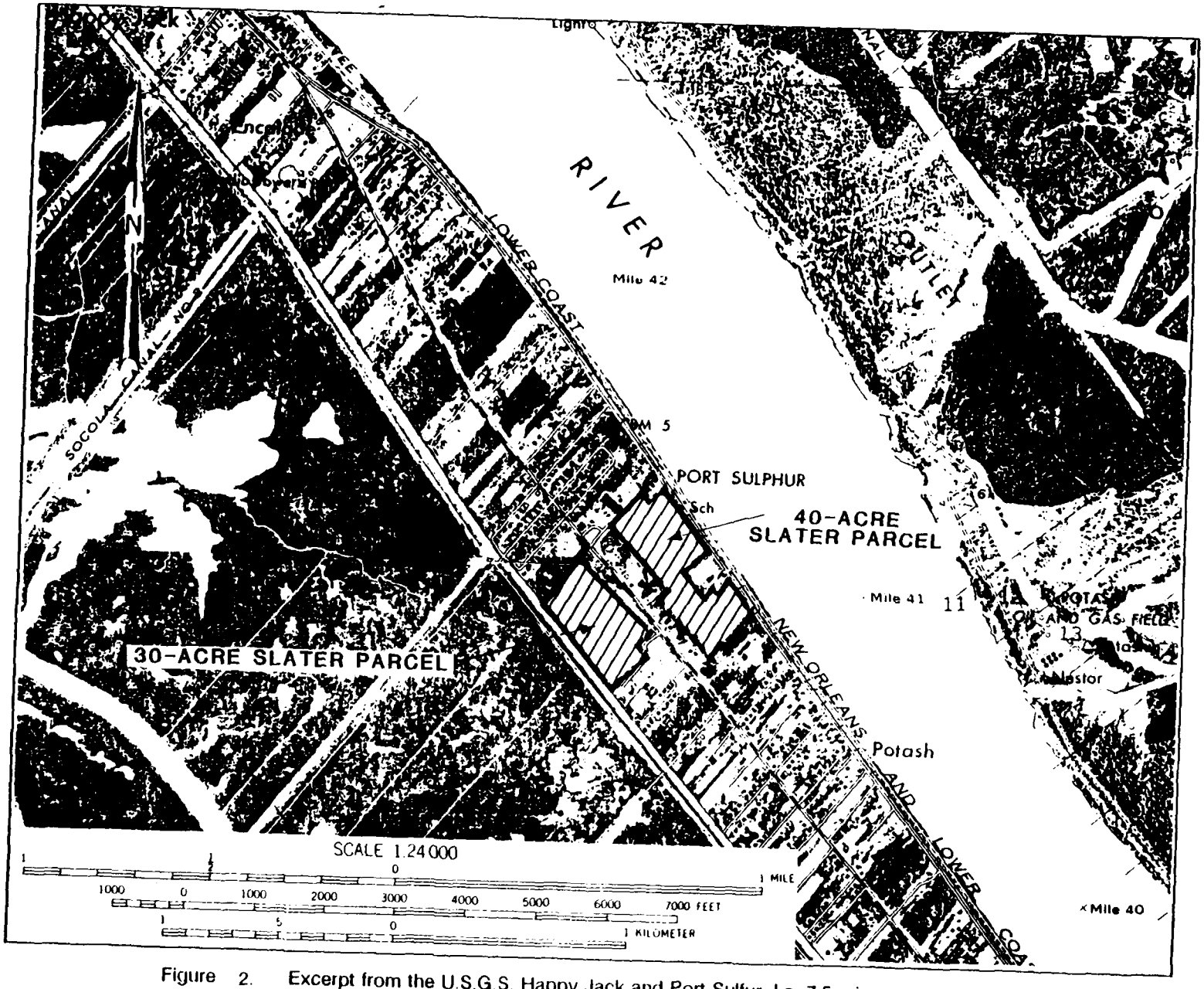


Figure 2. Excerpt from the U.S.G.S. Happy Jack and Port Sulfur, La. 7.5 minute quadrangles showing the location of the two Slater survey areas.

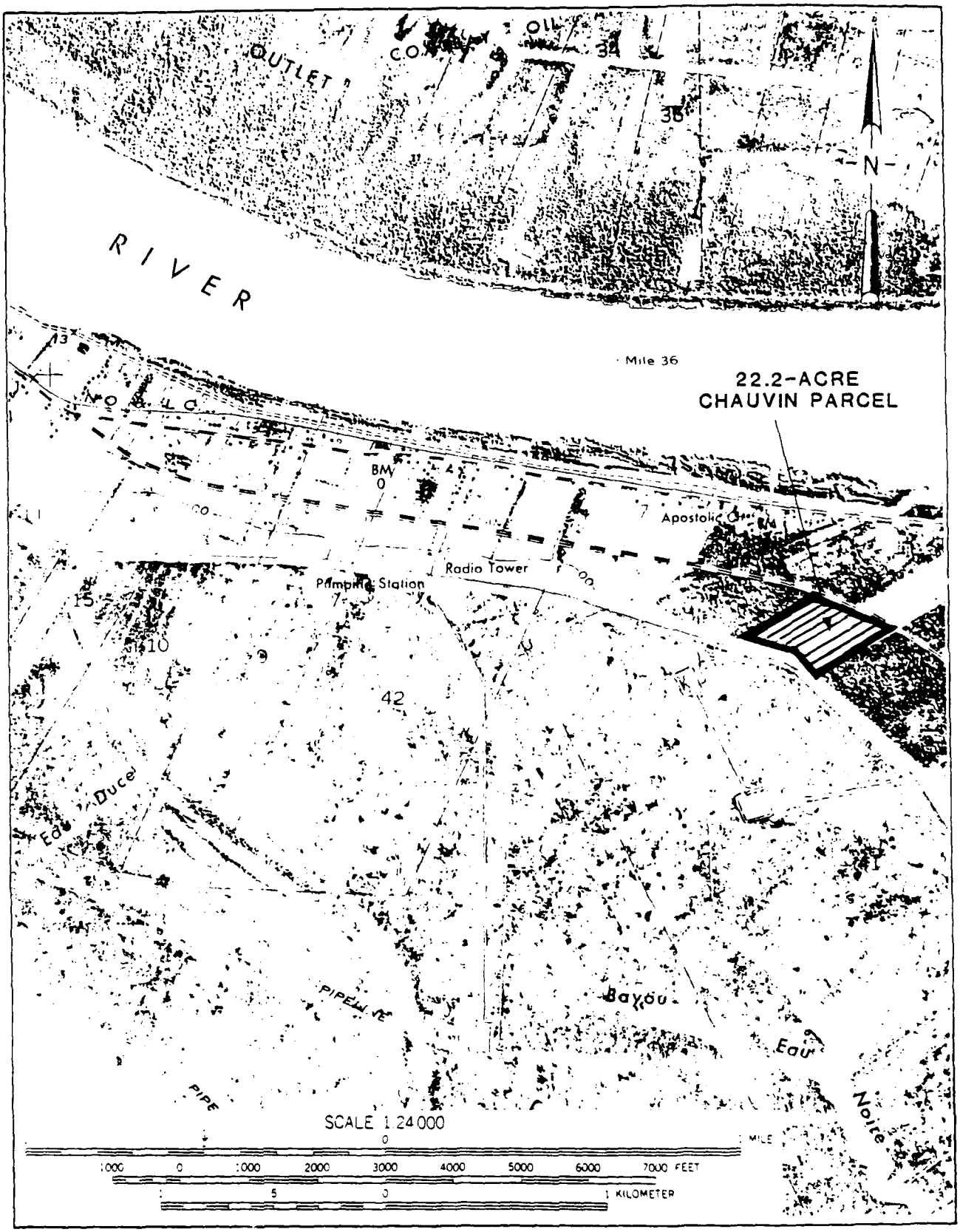


Figure 3. Excerpt from the U.S.G.S. Port Sulfur, La 7.5 minute quadrangle showing the location of the Chauvin survey area.

CHAPTER II

ENVIRONMENTAL SETTING

Introduction

The project area is located within the Mississippi River Deltaic Plain. Marshlands dominate this low-lying area, which barely exceeds sea level. The Mississippi River, its old distributaries, and artificial levees and canals, are highly visible landscape features in the delta. These landforms provide geographic evidence of events and processes which have occurred throughout the region; land subsidence is the primary process that alters these landforms, exemplifying the dynamics of the region. Goodwin, Jeter et al. (1986), Davis et al. (1978), and Montgomery (1988) have discussed the nature and evolution of the delta and consequences for location and preservation of human occupation sites.

Interaction among geological, hydrological, biological, and climatological processes impact the ecology of the Mississippi River Delta region. Characteristics of these processes and their influence on the area are discussed below.

Climate

The project area lies within the Humid Subtropical climatic zone. This region receives warm air-flow from high pressure systems which cross from the south and the southeast to give the region its humid climate. The climate varies little due to the area's low relief; generally, microclimates do not exist. At times, continental high pressure systems influence the area, and some years or portions of the year are drier.

The mean annual temperature at New Orleans, the nearest National Weather Service Station, is 68.0° Fahrenheit. July is the warmest month with a mean temperature of 82.1° Fahrenheit, while January is the coldest month with a mean temperature of 52.4° Fahrenheit. A high of 102° Fahrenheit was recorded August 22, 1980; a low of 7° Fahrenheit was recorded February 13, 1899. The first freezing temperatures tend to occur in early December; while final freezing temperatures usually occur in late February.

New Orleans receives, on the average, 59.74 inches (151.7 cm) of precipitation annually. July is the wettest month, with an average annual precipitation of 6.73 inches (17.1 cm); October is the driest month, with an average 2.66 inches (6.8 cm) of precipitation (Mr. Bedford Brown, National Weather Service, personal communication 1989). Occasionally, tropical storms and hurricanes deliver extreme amounts of precipitation; the seasonal pattern of tropical cyclones from 1875 - 1958 indicates that the month of September has the highest occurrence of hurricanes, tropical storms, and depressions (Newton 1987:22).

Climate has a direct influence on the agricultural productivity of the south Louisiana region. The length of the growing season (around 300 days on average [U.S. Department of Agriculture 1983:73]), the abundance of water, and the fertile soils make the region suitable for growing a variety of crops. Plaquemines Parish is one of the few places in the state where a productive citrus crop can be grown.

Geomorphology

The Mississippi River delta has been studied extensively by a variety of investigators. Both Goodwin et al. (1986:43) and Montgomery (1988:5) already have reviewed these studies. Frazier's (1967) study remains the most comprehensive effort published to date; however, Saucier's (1974) chronologies are more acceptable. Six successively younger Delta complexes are recognized for the Mississippi River Delta. They are the Maringouin, Teche, St. Bernard, Lafourche, Plaquemines-Modern, and Balize. Each lobe has gone through stages of subaqueous growth, rapid subaerial growth, and deterioration (Montgomery 1988:13-17).

The project area is situated on the Plaquemines-Modern Delta complex. This delta complex began forming 1000 years ago and is comprised of deltaic and coastal interdeltaic sediments (Saucier 1974). During its progradation, the river has extended southeast; the channel becomes progressively younger downstream, and meandering is less pronounced. South of English Turn, the dividing point between the St. Bernard and Plaquemines-Modern Deltas, the Mississippi River is largely free of meanders. Sixty Mile Point and the bend near Fort Jackson represent incipient meanders. Originally, "this delta's distal end was some 25 mi (40 km) north of the current southernmost part of the modern delta" (Montgomery 1988:34). The area near Buras, Louisiana, represents the interface between the Plaquemines-Modern and Balize Delta complexes.

Delta lobes of the Balize Delta complex represent the youngest portion of the Mississippi River Delta. These lobes began forming approximately 300 years ago. Several topographic features which formed within the Balize Delta complex are important for predicting prehistoric and historic site locations. These features include natural levees of the Mississippi River, natural levees on distributary streams away from the river, and locales near the mouths of active distributaries. Delta formation along the lower Mississippi River, and its probable affect on the archeological record, is discussed in the SELCRMP (Montgomery 1988).

The natural levee of the Mississippi River is the most pertinent topographic feature of the project area. These are linear vertical deposits that form when a river overflows its banks during flooding episodes. Sediments suspended in river flow are deposited immediately adjacent to the river channel, resulting in the formation of a low, wedge-shaped landform parallel to the river. Levees decrease in thickness away from the river (Smith et al. 1986:10). In the delta region they vary from less than 1.5 m to more than 7.6 m in height, and from several meters to several kilometers in width (May 1984).

Crevasses are important geomorphic features that form when channel water breaks through a levee during flood stage. Crevasse channels are ephemeral, usually only receiving flow during high discharge periods. Crevasses terminate distally in accumulations of coarse sediments known as splays, which are characterized by fan or semi-elliptical shapes radiating from the point closest to the river.

Crevasses also may develop into permanent channels which divert water from the main course of the river at all stages. When the flow becomes permanent, the channel is known as a distributary channel. Distributary channels generally terminate in a large body of open water and usually form acute angles from the main channel (Smith et al. 1986:14).

There is evidence that a crevasse developed near Homeplace, Louisiana, in the vicinity of the project area. A channel course was identified in the marsh between Bay de la Cheniere and the back levee during the cultural resources survey of Reach A (Davis et al. 1978). The U.S.G.S. 7.5' series Port Sulphur, La. topographic quadrangle shows that the channel forms an acute angle from the main course of the river and terminates in Adams Bay. The channel appears to have developed its own natural levees. This feature probably represents a relict distributary channel.

Natural levees occupy restricted areas on the lower deltaic plain which grade, sometimes imperceptibly, into interdistributary basins. These basins are large areas of marsh and swamp with numerous lakes, bays, and tidal streams (Gagliano, Weinstein, et al. 1978). The area immediately west of the project area, opposite the back levee, is marsh which, in effect, surrounds relict channels like Grand Bayou and Bayou Grand Cheniere, and interdistributary bays, like Bay de la Cheniere, Bay Chicot, and Adams Bay.

Soils and Drainage

Soils in the project areas are within the Commerce Mhoon-Sharkey association. These loamy and clayey alkaline soils are level to nearly level, and they are situated on natural levees of the Mississippi River and its distributaries (USDA SCS 1969). This association is confined to lands that now lie between the Mississippi River levee and the protective back levee. It is comprised of Commerce soils, Mhoon soils, Sharkey soils, Convent soils, Saltwater Marsh, and Swamp.

Commerce soils make up approximately 30 per cent of this association. These soils have dark grayish brown silt loam or silty clay loam surfaces and grayish brown silty clay loam subsoils with brown mottling. Wetness is slight to moderate, and permeability is slow. Commerce soils are highly fertile.

Mhoon soils make up 20 per cent of the association. These poorly drained soils are characterized by dark gray silty clay loam surfaces and gray silty clay loam subsoils. Mhoon soils exhibit slow permeability; they are susceptible to moderate to high shrink swell.

Sharkey soils make up 20 per cent of the association; they have dark gray silty clay loam or clay surfaces, and gray clay subsoil. Sharkey soils occur at the lowest elevations within this association. Convent soils, Saltwater Marsh, and Swamp make up most of the remaining 30 per cent of the Commerce Mhoon-Sharkey association (USDA SCS 1969).

During the period of historic occupation, these soils have been used for cropland, pastureland, industrial sites, and residential sites. Drainage improvements for agriculture are necessary, in varying degrees, for all soils in this association.

The natural drainage of all three project areas is away from the river, toward the marshes and bays. However, since the construction of the back levee, drainage has been diverted to the canal parallel to the back levee and to the two smaller survey parcels. Water entering the canal flows southwest into Bay Lanaux, and Adams Bay.

Flora and Fauna

The distribution of plant and animal species in the lower delta region is strongly related to soil saturation and salinity. Natural levees along the river would have supported natural woodland sites. Within the project area, a southern hardwood climax forest with Nuttall Oak (*Quercus nuttallii*), Water Oak (*Quercus nigra*), Sycamore (*Platanus occidentalis*), Ash (*Fraximus* sp.) and Bitter Pecan (*Carva lecontei*) would have been dominant. Eastern cottonwood (*Populus deltoides*), overcup oak (*Quercus nuttallii*), Box Elder (*Acer negundo*), Black willow (*Salix nigra*), sweetgum (*Liquidambar styraciflua*), and various other species would have been present in bottomlands along the natural levee. Swamp tupelo (*Nyssa aquatica*) and bald cypress (*Taxodium distichum*) were common in swamps and at the lower stands above the freshwater marshes. While a climax forest regime once may have existed within the present project corridor, human intervention through industrial and agricultural activities has eliminated its presence.

Salinity also will affect microhabitats within the region and in the project area. In the lower delta, the high ground of the natural levee quickly gives way to a fresh water marsh or swamp. These two differ in that swamps tend to have some forest cover while marshes do not. Freshwater marshes in the western portions of the Mississippi River Delta consist of both emergent and flotant types. The fresh marsh surface is unstable and susceptible to inundation (Goodwin, Jeter et al. 1986:59). Freshwater marshes support the largest number of plant species which include, among others, maiden cane (*Panicum hemitomon*), water pennywort (*Obolaria virginica*), water hyacinth (*Eichhornia crassipes*), and pickerelweed (*Pontederia cordata*).

Although not found within the project area, brackish marshes may have encroached into the area prior to the construction of the protective levees. Brackish marshes are intermediate in salt content between fresh and saltwater marshes. Saline values for brackish marshes range from 2 to 9 parts per thousand (Goodwin, Jeter et al. 1986:59). Plant distributions within brackish marshes often reflect salinity values of particular microhabitats. Three-square (*Scirpus olneyi*), cordgrass (*Spartina patens alterniflora*), spikegrass (*Distichlis spicata*), black rush (*Juncus roemerianus*) and bulrush (*Scirpus robustus*) are the most common microhabitats. A more complete listing of vegetation types in specific microhabitats within the brackish marsh environment is contained in Penfound and Hathaway (1938).

The affect of saline content on soils is more important historically insofar as agricultural plant communities are concerned. For example, cotton is more susceptible to salinity than sugar cane, and citrus

perhaps more than either. Thus, salinity effects what can and cannot be grown in a particular area.

During the prehistoric and historic periods, terrestrial faunal species included deer (*Odocoileus virginianus*), turkey, squirrel (*Sciurus* sp.), swamp rabbit (*Sylvilagus aquaticus*), bear (*Ursus* sp.), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*) and muskrat (*Ondatra zibethicus*). Aquatic birds common to the wetlands include loons (*Gaviidae* sp.), grebes (*Podicipedidae* sp.), cormorants (*Phalacrocoracidae* sp.), duck (*Anatidae* sp.), heron (*Ardeidae* sp.), gull (*Laridae* sp.), Canada goose (*Branta canadensis*), and brown pelican (*Pelecanas occidentalis*). Fish and shellfish species include blue crab (*Callinectes sapidus*), shrimp (*Palaemonidae* sp.), oyster (*Crassostrea virginica*), seatrout (*Cynoscion* sp.), and clam (*Rangia* sp.). Of these, only the swamp rabbit (*Sylvilagus aquaticus*) was observed during the survey.

CHAPTER III

PREVIOUS INVESTIGATIONS

Introduction

Approximately 140 cultural resources surveys have been completed within the U.S. Army Corps of Engineers, New Orleans District, Southeast Louisiana Cultural Resources Management Plan area, which includes all of Plaquemines Parish and portions of St. Bernard, Jefferson, Lafourche, and Terrebonne Parishes. Since 1973, thirty-one of these archeological surveys have been conducted near the New Orleans to Venice Hurricane Protection Project (NOVHPP) (Chase et al. 1988; Montgomery et al. 1988). The following discussion focuses on those surveys conducted within the general vicinity of the planned borrow areas. Additional information regarding south Louisiana's cultural resources may be found elsewhere (Goodwin and Yakubik 1982; Goodwin, Yakubik et al. 1985; Goodwin, Jeter et al. 1986; Jeter and Goodwin 1986; Chase et al. 1988, Montgomery et al. 1988).

Cultural resources surveys pertaining to south Louisiana previously have been classified by project type (Montgomery et al. 1988). These six project types include: (1) hurricane protection projects; (2) levee and revetment projects; (3) dredging projects; (4) pipeline projects; (5) remote sensing projects; and, (6) inventory level projects.

Five cultural resources surveys were conducted for projects classified as hurricane protection projects (Davis et al. 1978; Davis et al. 1981; Goodwin, Jeter et al. 1986; Jeter and Goodwin 1986). In 1986, R. Christopher Goodwin & Associates, Inc. conducted a cultural resources survey of the Reach C Enlargement, NOVHPP, Plaquemines Parish, Louisiana. The project area extended from River Mile 60.5-L to 42.0-L, on the left descending bank of the Mississippi River, near Phoenix and Bohemia, Louisiana. Twenty-three archeological sites and twenty standing structures were identified during the coarse of this survey (Goodwin, Jeter et al. 1986).

In addition to the aforementioned survey, R. Christopher Goodwin & Associates, Inc. also conducted archival and field research to locate, to identify and to evaluate Fort de la Boulaye (16PL27), or the "Fort on the Mississippi" (Jeter and Goodwin 1986). Extensive archival research suggested that the fort was located near the town of Phoenix, Louisiana. An intensive pedestrian and auger testing survey was employed to evaluate this historic resource. Site testing also included aerial photography with interpretations, a proton magnetometer survey, and soil orthophosphate testing. Several management recommendations were made as a result of this testing. Failure to identify any association with this tract and the presence of Fort de la Boulaye resulted in a recommendation to remove the locale from the list of National Historic Landmarks. This research did determine, however, that the Phoenix Cemetery (16PL146) may contain burials associated with the fort, and that it did possess the quality of significance as defined by the National Register (36 CFR 60.4) (Jeter and Goodwin 1986).

A 35-mile cultural resources survey was conducted along the east (left descending) bank of the Mississippi River. Portions of the west (right descending) bank (River Mile 20.0 - 10.0) also were surveyed (Davis et al. 1981). A total of twenty-five historic sites were encountered during this survey. Two of these, Fort Jackson (16PL38) and Fort St. Phillip (16PL39), were previously recorded historic landmarks. The Point Pleasant Site (16PL64) consisted of abandoned wood-frame buildings and historic debris dating from the nineteenth and twentieth centuries. No prehistoric sites were recorded during this survey.

In 1978, Davis et al. performed a cultural resources survey of the west (right descending) bank (River Mile 30.4 - 44.9) of the Mississippi River, from City Price to Tropical Bend, Louisiana. The survey included an examination of proposed borrow and levee enlargement and setback areas. The east edge, or toe of the back levee, conforms to the riverside limits of Reach A and is located adjacent to the 30-acre Slater tract and the 22.2-acre Chauvin tract surveyed under this delivery order. No cultural resources were located within the project area (Davis et al. 1978).

Sixteen cultural resources surveys have been conducted in conjunction with projects related to new

levee construction, levee setback construction, levee enlargement, and revetment and slope pavement construction related to the NOVHPP (Montgomery et al. 1988). Several of these surveys were conducted near the three borrow areas surveyed under this delivery order. Hunter and Reeves conducted two cultural resources surveys near Fort Jackson, and Homeplace, Louisiana (Hunter and Reeves 1988a, 1988b). A third survey conducted by Jones (1988) also was located near Fort Jackson. No significant cultural resources were located during any of these surveys. Fort Jackson, a National Historic Landmark, is located on the west (right descending) bank of the Mississippi River, five miles downriver from the 22.2-acre Chauvin tract.

In 1983, R. Christopher Goodwin & Associates, Inc. tested a portion of Harlem Plantation (16PL84) prior to realignment of the main line of the Mississippi River levee system. The levee realignment required the relocation of the Harlem Plantation great house, which is listed on the National Register. During site testing, it was determined that no significant archeological deposits would be disturbed during relocation of the great house. Most of the located archeological deposits were twentieth century, and no in situ historic deposits were located other than a sidewalk and a shell-filled driveway (Goodwin, Gendel et al. 1983).

R. Christopher Goodwin & Associates, Inc., conducted a cultural resources survey of five Mississippi River Revetment Items (Goodwin, Yakubik et al. 1985). These included the Port Sulphur Revetment Item, the Vacherie Revetment Item, the Romeville Revetment Item, the Marchand Revetment Item, and the New River Bend Revetment Item. Only the Port Sulphur Revetment Item (River Mile 38.5-R - 38.0-R) is germane to this discussion. Two sites (16PL131 and 16PL132) were located within the Port Sulphur Revetment Item. Home Place (16PL131) consisted of a scatter of historic redeposited material recovered from spoil piles created during dredging. Old St. Patrick's Church Cemetery (16PL132) originally was the site of a late nineteenth and twentieth century church cemetery. The cemetery was moved in 1951. All human remains were reinterred in a new cemetery built in front of St. Patrick's Church and adjacent to LA 23. Neither site possessed research potential or the quality of significance as defined by the National Register of Historic Places.

Coastal Environments, Inc. conducted a cultural resources survey of the Empire to the Gulf of Mexico Waterway, Plaquemines Parish, Louisiana. Five sites were identified as a result of this boat and pedestrian survey. Only two of these sites, Buras Mounds (16PL13) and the Empire Hotel, possessed the quality of significance as defined by the National Register of Historic Places (Gagliano, McCloskey et al. 1979).

In 1977, Shenkel completed surveys of the Homeplace Levee Enlargement and Slope Pavement Project (River Mile 37.7-R - 35.0-R), near Hesperides, Louisiana (Shenkel 1977b), and of the Port Sulfur Levee Enlargement and Setback Project (River Mile 41.7R), near Port Sulfur, Louisiana (Shenkel 1977a). A pedestrian survey and shovel testing regime of both project areas failed to produce any evidence of potentially significant archeological remains. Shenkel (1976) also conducted a survey of the Empire Lock Forbay and Levee Setback Project area (River Mile 29.9-R). This survey, conducted between the banks of the Mississippi River and the east shore of Adams Bay, failed to identify any evidence of existing cultural resources.

Cultural resource surveys conducted in response to dredging, pipeline construction, or remote sensing projects are less common along the NOVHPP area. One survey which did include extensive remote sensing was the previously mentioned 1986 testing by R. Christopher Goodwin & Associates, Inc. which attempted to verify the location of Fort de la Boulaye (Jeter and Goodwin 1986).

In 1982, R. Christopher Goodwin & Associates, Inc. conducted an archeological survey at Magnolia Plantation (16PL94) prior to planned dredging and construction of a coal transfer facility. This area is located on the west bank of the Mississippi River, one mile downriver from West Pointe a la Hache. During this testing, no significant in situ features or cultural deposits were located within the project boundaries, and no further testing was recommended (Goodwin and Yakubik 1982).

A few inventory level studies also have been undertaken in the vicinity of the project area. Kniffen (1936) studied the distribution of prehistoric archeological sites throughout the lower Mississippi River Delta, including Plaquemines Parish. He collected ceramics from approximately 50 sites; from these collections,

he defined two archeological phases—Bayou Cutler and Bayou Petre. Kniffen (1936) also attempted to create a temporal classification of prehistoric sites, and to delineate the geomorphological sequence of Mississippi River deltaic lobes. McIntire (1958) studied spatial and temporal patterns of the prehistoric occupation of coastal and delta sites, providing a valuable framework for subsequent investigations.

A few other inventory level surveys have been conducted in the vicinity of the study area. Neuman (1977) conducted an archeological assessment of prehistoric sites of coastal Louisiana. Montgomery et al. (1988) reviewed previous archeological investigations in the NOVHPP area, summarized the previously recorded sites within the proposed NOVHPP impact areas, and made recommendations for further archeological testing and mitigation at significant sites. In addition, Chase et al. (1988) prepared a cultural resources management plan for southeast Louisiana. This study summarized the cultural history of the region, examined previous cultural resources investigations, identified archeological sites in the area, and developed regional research goals and management plans for the U.S. Army Corps of Engineers, New Orleans District.

While no previously recorded archeological sites were situated within any of the three survey areas investigated under this deliver order, several important sites have been identified in the vicinity. Three of these sites are prehistoric: the Adams Bay site (16PL8), the Buras Mound site (16PL13), and Grand Bayou (16PL34). The Adams Bay site (16PL8) is situated over seven miles south of the Chauvin project area, on the southwest shore of Adams Bay. The site initially was recorded by Kniffen in 1936, and later studied by McIntire (1958). The Adams Bay site is comprised of three prehistoric mounds and an oyster and *Rangia* shell midden. The site dates from the Plaquemine period, although an early to mid-twentieth century component was noted.

The Buras Mound site (16PL13) was identified by McIntire (1958). The site is a Plaquemine-Mississippian village situated on the natural levee of a relict trunk channel distributary. It is comprised of three or four mounds situated around a central plaza. The site also includes shell midden and earthen midden, along with prehistoric burials. Some charred maize fragments have been recovered from the site, although not in sufficient quantities to confirm that maize formed an integral component of the dietary system. The site, tested by Coastal Environments, Inc., appears to possess the quality of significance as defined by the National Register (Gagliano and Weinstein 1979). To date, the Buras Mound site has not been listed on the National Register.

Grand Bayou (16PL34) was identified by Kniffen (1936). It is situated nearly seven miles northwest of the Slater survey tracts, adjacent to Grand Bayou. It is comprised of a prehistoric shell midden of unknown cultural affiliation. Attempts to relocate the site by Davis et al. (1981) were unsuccessful.

The majority of the sites located in the immediate vicinity of the project areas are historic. Several of these sites have been identified and tested. These include Home Place (16PL131); Old St. Patrick's Church Cemetery (16PL132); Pleasant Hill Campsite (16PL164), a late nineteenth and twentieth century camp; Magnolia Plantation (16PL94); a portion of the archeological resources of Harlem Plantation (16PL84); Point Pleasant Site (16PL64); and, Phoenix Cemetery (16PL146). Of these sites, only the Phoenix Cemetery appears to possess the quality of significance.

Several sites and structures listed on the National Register are located in the vicinity of the study area. Three are historic military sites, including Fort de la Boulaye (16PL27), Fort Jackson (16PL38), and Fort St. Phillip (16PL39). All three are designated National Historic Landmarks. As noted, negative archeological evidence obtained during an intensive survey of the Fort de la Boulaye area by R. Christopher Goodwin & Associates, Inc. led to a recommendation that it be removed from the National Register (Jeter and Goodwin 1986); however, its status has not changed.

Two additional standing structures have been evaluated as significant cultural resources. The Harlem Plantation House, situated near Pointe a la Hache, was listed on the National Register in 1982. As previously mentioned, this house was moved prior to construction of a levee setback; no significant archeological resources were located at that time. In addition, the Empire Hotel, located in Empire, was evaluated as eligible for inclusion in the National Register; it has not been nominated.

CHAPTER IV

PREHISTORIC SETTING

Introduction

The Archeological Plan for Louisiana divides the prehistory and history of the state into nine prehistoric and five historic cultural units (Smith et al. 1983:27). For the prehistoric sequence, these units are: Paleo-Indian, Archaic, Poverty Point, Tchefuncte, Marksville, Troyville/Coles Creek, Plaquemine, Mississippian, and Caddo. Caddo culture is geographically limited to the northern part of the state. Archeological sites dating prior to the Coles Creek Period should not be found in the project region due to the recent age of the Plaquemine-Modern landform (Chase et al. 1988; Montgomery et al. 1988). Therefore, this prehistoric setting does not discuss the Paleo-Indian through Marksville periods, which have been summarized elsewhere (Smith et al. 1983; Speaker et al. 1986).

Troyville/Coles Creek Period (A.D. 400 - A.D. 1100)

The Troyville culture is named for the mostly destroyed Troyville mound group (16CT7) in Jonesville, Louisiana. This period represents a brief transition that supplanted the waning Marksville culture and culminated in the Coles Creek period around A.D. 700 (Smith et al. 1983).

The Troyville culture was contemporaneous with the Baytown culture. Baytown first was identified outside the state, but now it is recognized throughout southeast Louisiana. While evidence indicates riverine adaptations for Troyville, Baytown seems to have been more of a coastal adaptation to the delta of the Mississippi River. Baytown components and Troyville components occur intermixed at some sites. Both contain later Coles Creek components, indicating that the transition to Coles Creek took place gradually and in situ.

Maize agriculture and the bow and arrow first emerged within the Troyville and Baytown cultures and radically altered subsequent prehistoric lifeways (Smith et al. 1983). The further development of maize, beans, and squash agriculture led to more complex settlement and subsistence patterns. Coles Creek sites are typically larger, more numerous, and seemingly more complex than those typifying earlier periods. Evidence of platform and ceremonial mounds in conjunction with the complex layout of some Coles Creek sites suggests the emergence of chiefdom-like societies (Smith et al. 1983).

McIntire noted that the ceramic features of the Coles Creek period are continuations of and elaborations on Troyville wares. "For example, the Churupa Punctate and the Mazique Incised designs, both of which are characteristic of the Troyville period, were used by both Coles Creek and Plaquemine pottery makers" (McIntire 1958:76). Similarly, French Fork Incised pottery formed the basis for many Troyville classifications, but this design continued to be used well into the Coles Creek period (Phillips 1970).

The Coles Creek period also saw the development of a new ceramic complex that included a wide range of decorative motifs. Coles Creek Incised, Beldeau Incised, Mazique Incised, and Pontchartrain Check Stamped are types characteristic of the period. Coles Creek Incised pottery is identified by a series of incised lines below the rim of the vessel, often accompanied underneath by a row of triangular impressions (Smith et al. 1983:182-183). Ceramic vessels tend to be larger than those dating from preceding periods, and Coles Creek decorations appear to be restricted to the upper half of the vessel (Neuman 1984).

Troyville/Coles Creek ceramics show some influence from foreign cultures. Zoned rocker stamping, incised lines, and curvilinear motifs are representative of decorative styles associated with the Florida Gulf Coast; cord marking and red filming were popular traits commonly used in the central Mississippi area (Smith et al. 1983).

Coles Creek sites primarily are located along stream systems where soil composition and fertility were favorable for agriculture (Neuman 1984). Natural levees were desirable locations, particularly those situated along old cutoffs and inactive channels.

The predominant characteristic of larger Coles Creek sites is the presence of one or more mounds. These mounds typically are larger, and exhibit more building episodes than the earlier Marksville burial mounds. While burials occasionally are recovered from Coles Creek mounds, the primary function of these mounds appears to have been ceremonial. At some sites, the mounds are connected by low, narrow causeways. Occasionally, plazas are associated with multiple mound sites.

The degree of social complexity of the Coles Creek period can be inferred from the complexity of the mound systems. The presence of these mounds implies the existence of a stable society, one with a labor force guided by a centralized authority for construction, maintenance, and utilization of the mounds. The centralized authority was likely of a special religious class; the general population occupied the region surrounding the larger ceremonial centers (Smith et al. 1983:182).

Smaller Coles Creek sites, consisting of hamlets and shell middens, normally do not contain mounds. Shell middens are especially common in the coastal region; they normally are located on the higher portions of natural levees (Speaker 1986:46). These areas were well-adapted for the exploitation of the surrounding natural resources.

Plaquemine Culture (A.D. 1100 - A.D. 1300)

The Medora site (16WBR1), described by Quimby (1951), represents the type site of Plaquemine culture. Plaquemine culture appears to have been an indigenous development that emerged from a Coles Creek base. The settlement patterns, economic organization, and religious practices established during the Coles Creek period were continued; however, an intensification of agriculture, socio-political structure, and religious ceremonialism took place. Ceremonial sites with multiple mounds surrounding a central plaza and dispersed villages or smaller (hamlets) settlements are typical of this period. Smaller settlements were prevalent within the vicinity of the project area.

Plaquemine ceramics, while clearly derived from the Coles Creek tradition, have distinct features that serve to mark the emergence of Plaquemine culture. The techniques of incising and punctating, typical of Coles Creek pottery, survived in the Plaquemine period, but Plaquemine craftsmen also brushed vessel surfaces and engraved the vessel after firing (Smith et al. 1983:193).

Sites of the Plaquemine period were characteristically small villages or hamlets, dispersed around a large ceremonial center that consisted of raised mounds arranged about a plaza area. Houses were rectangular in shape, with thatched roofs. Social organization was highly developed, as was maize, bean, and squash agriculture. Mound sites identified in the vicinity of the project area include the Adams Bay site (16PL13), and possibly the Grand Bayou site (16PL34).

Plaquemine Brushed pottery seems to have been the most widely utilized design during this period. Other types include Harrison Bayou Incised, Hardy Incised, L'Eau Noir Incised, Manchac Incised, Mazique Incised, Leland Incised, and Evansville Punctate. Both decorated types and plain wares, such as Anna Burnished Plain and Addis Plain, were well-made. Vessel shape, tempering, and paste appear similar to those identified from earlier periods. Lithic artifacts are relatively uncommon; however, small, stemmed projectile points with incurvate sides are known from some sites (Gagliano et al. 1979).

Mississippian Culture (A.D. 1000 - A.D. 1700)

Late during the prehistoric period, the indigenous Plaquemine culture came under the influence of Mississippian culture from the middle Mississippi River Valley. Mississippian culture extended its influence in the upper portions of the lower valley and delta region, sweeping across north Mississippi and west

Tennessee, and as far east as central North Carolina and north into the great lakes region (Haag 1971). Mississippian culture continued to impact the lifeways of inhabitants of Louisiana right up to historic contact. Mississippian sites in Louisiana typically are found on the extreme southeast coast and in an isolated pocket in the northeast part of the state.

At the Buras Mound site (16PL8), geomorphological data and studies of ceramic styles indicate that this site was inhabited from A.D. 1400 - A.D. 1550. The major occupation at the site reflects a conjunction of cultural influences from the eastern Gulf and the Mississippi Valley (Gagliano and Weinstein 1979).

The Mississippian subsistence pattern was based upon a three-part strategy: the cultivation of maize, beans, squash, and pumpkins; the collection of local plants, nuts, and seeds; and, fishing and hunting of local faunal species. Mississippian settlement patterns reflected this diversity of subsistence activities; major Mississippian sites were located on sandy and light loam soils in the fertile bottomlands of major river valleys. A typical Mississippian settlement consisted of an orderly arrangement of village houses, situated around a truncated pyramidal mound. Such mounds were characteristic of Mississippian settlements and served as platforms for temples or for the houses of the elite. Mound arrangements imply community planning, a strategy only possible under a highly organized and complex social system.

Mississippian pottery is distinguished by its shell tempering, a technological innovation that enabled potters to create larger vessels (Smith et al. 1983:203). Ceramic vessels include globular jars, plates, and bottles, as well as loop and strap-handled pots. Decorative techniques include negative painting, engraving, and incising; modelled animal heads and anthropomorphic images were used as adornments. Other Mississippian artifacts include chipped and ground stone tools; shell items such as beads, gorgets, and hairpins; and, copper and mica items.

Historic Contact

Six linguistic groups are identified within the boundaries of the state. These groups are Caddoan, Natchezan, Muskhogean, Tunican, Chitimachan, and Attapakan. The Muskhogean tribes that inhabited southeast Louisiana included the Houma, Bayougoula, Acolapissa, Mugulasha, Tangipahoa, Okelousa, Washa, and Chawasha (Chase et al. 1988:25).

DeSoto's expedition of 1541 - 1542 represents what probably was the first European contact with Indians of Louisiana. French contact first occurred in 1682 with Rene Robert Cavelier, during Sieur de La Salle's voyage down the Mississippi River from Canada. La Salle recorded tribal identities and locations of the Indians in Louisiana. Pierre Le Moyne, Sieur d'Iberville also explored the Mississippi River in 1698.

The Indian tribes of Louisiana may be described as semi-sedentary agriculturalists who exploited the faunal and floral resources of the region. The Washa first were encountered on Bayou Lafourche by Iberville (Goodwin, Jeter et al. 1986:68). The Chawasha (Chaouacha) are reported to have been a small group living in the area near English Turn. They apparently took part in a raid on an English vessel docked at English Turn in 1699 (Goodwin, Jeter et al. 1986:67). By the time Charlevoix passed in 1722, the Chawasha had relocated to the east bank and moved further down river (Goodwin, Jeter et al. 1986:68). Swanton (1946) believed the Chawasha, Washa, and Chitimacha spoke dialects of the Tunican language group, although Chitimacha is sometimes considered a separate language (Goodwin, Jeter et al. 1986:72).

Culture change, disease, and disruptive migrations due to colonial expansion, are among some of the reasons for the disintegration of aboriginal populations in the area.

CHAPTER V

HISTORIC LAND USE

Land Tenure History

Slater Property

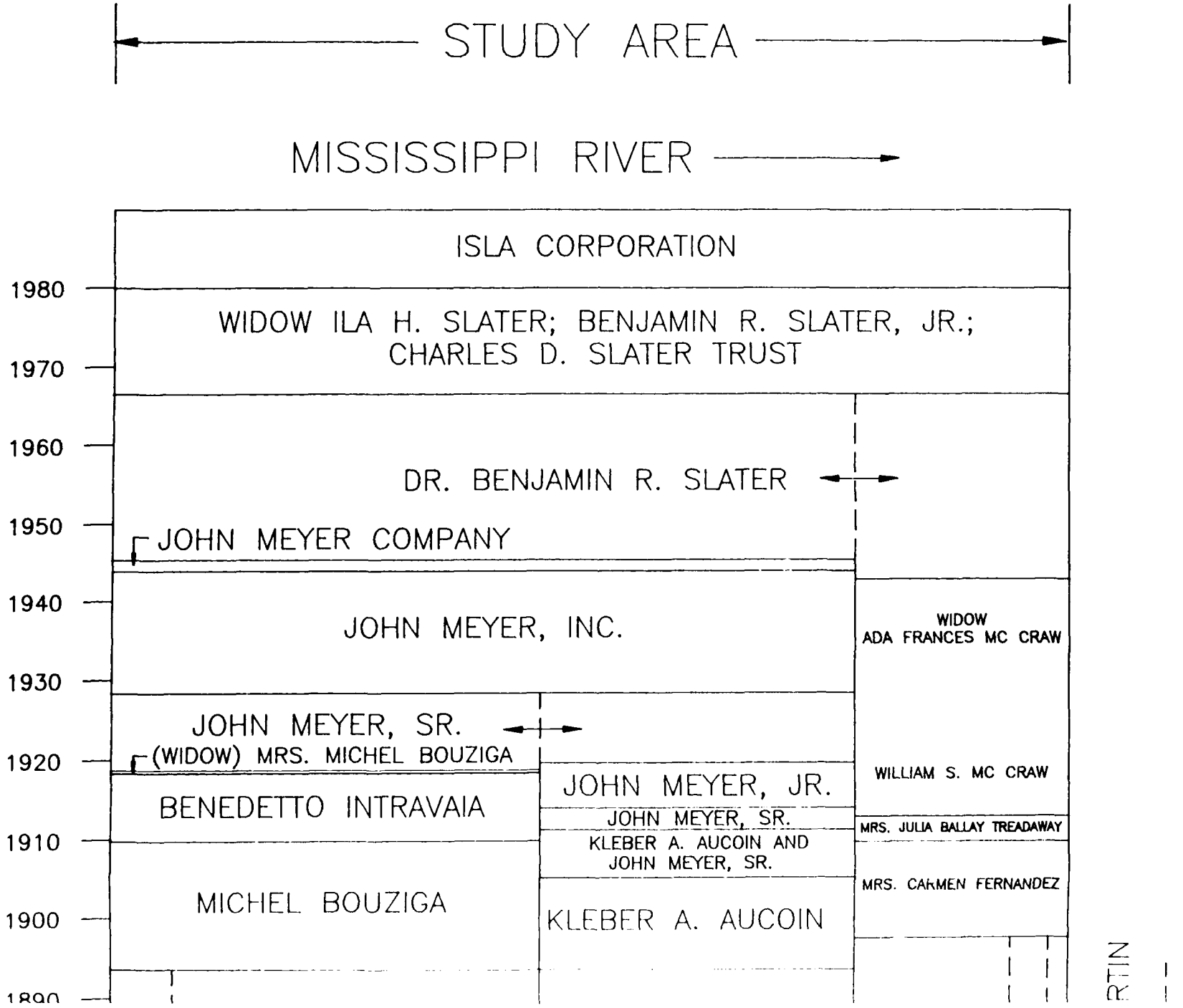
The two Slater lots are located in the central portion of Section 6, Township 18S, Range 27E. They are situated within a tract of land which has nearly 12.25 arpents front on the Mississippi River; the tract extends 40 arpents back from the river. The land is owned by the Isla Corporation, which is controlled by the Slater family. Figure 4 is a schematic representation of land ownership for the Slater property; this land tenure history is discussed below.

The original American land claim for Section 6, Township 18S, Range 27E, was made by Mr. Newman and Mr. Ronquillo during the 1810s. While little is known about Neuman, Juan Ronquillo was a wealthy merchant who operated a river pilot concession near the mouth of the Mississippi River (Goodwin and Yakubik 1982:9). The land claim patent submitted by these men comprised an 84 arpent frontage on the Mississippi River; the claim was bounded on one side by vacant land, and on the other by lands claimed by Peter Cose. Their claim was founded on a June 19, 1795 survey (Lowrie and Franklin 1834:3:256); this survey, however, has not been located. By the time of his death (late 1830s), Juan Ronquillo and his wife were the sole owners of the study area property. It is unclear when Ronquillo obtained clear title to the property, although it probably was some time after the original land claim was confirmed. Ronquillo is the only name listed on the original land claim map, and some subsequent conveyance records refer to a portion of the land as the "Ronquillo Settlement" (COB 18, Folio 83; COB 33, Folio 919; COB 43, Folio 1139, Plaquemines Parish Courthouse).

By 1839, Juan Ronquillo and his wife Graciana Solis Ronquillo had died, leaving their property to their two children, Manuel Ronquillo and Camilla Ronquillo Solis. On May 9, 1839, Camilla Solis sold her share of the property to Manuel, giving him and his wife, Hypolite Rosalie Perez, sole ownership of the land (NB 8, Folio 458, Plaquemines Parish Courthouse). Toward the end of his life, Manuel began subdividing his land. In 1848, he sold a 160 foot frontage lot, at the upriver edge of the project area, to Pierre Bougon (COB 2, Folio 140, Plaquemines Parish Courthouse). A few years later, in 1852, he sold 4.5 arpent frontage property to Hypolite LeRiche, who married Hypolite Anastasia Ronquillo, the adopted daughter of Manuel and Hypolite Ronquillo (COB 5, Folio 324, Plaquemines Parish Courthouse).

Manuel Ronquillo died in 1853, leaving eight arpents of land and 18 slaves to his heirs. Hypolite LeRiche was appointed executor of the estate. Half of the estate, including a four arpent tract located in the center of the project area, was transferred to the widow Ronquillo. The other half was sold at auction on August 16, 1853 (Figure 5). The four arpent lot positioned at the downriver end of the project area was purchased by Victor Solis, who may have been the husband of Manuel's sister Camilla (Docket S-132, 2nd J.D.C.; COB 7, Folio 315). By 1854, the modern Slater property had been subdivided into four lots (Figure 4). With the possible exception of property owned by Pierre Bougon, this initial subdivision was made among heirs of Manuel Ronquillo. The chain of title for each lot is discussed below.

The upriver five arpents and 90 feet of the project area were sold by Ronquillo prior to his death; 160 feet went to Bougon, and the remaining portion was sold to Hypolite LeRiche. Bougon sold his lot to LeRiche in 1877 (COB 21, Folio 233, Plaquemines Parish Courthouse), giving LeRiche ownership of the entire five arpent, 90 foot lot. LeRiche died, and the property passed to his widow, Hypolite Anastasia Ronquillo LeRiche, and Louis E. Legier, a grandson, and sole surviving descendent. They sold the lot to Michel Bouziga in 1893 (COB 30, Folio 279, Plaquemines Parish Courthouse). Based on the ca. 1894 *Survey of the Mississippi River* map of the project area (Figure 6), the front three arpents of the lot were planted in citrus; rice probably was grown behind the citrus. About six structures are depicted on his property, including one located a short distance inland from a probable wharf. That structure may have been a packing house for citrus produced on the property.


STUDY AREA
MISSISSIPPI RIVER
ISLA CORPORATION
1980
WIDOW ILA H. SLATER; BENJAMIN R. SLATER, JR.;
CHARLES D. SLATER TRUST
1970
1960
DR. BENJAMIN R. SLATER
1950
JOHN MEYER COMPANY
1940
JOHN MEYER, INC.
WIDOW
ADA FRANCES MC CRAW
1930
JOHN MEYER, SR.
1920
(WIDOW) MRS. MICHEL BOUZIGA
JOHN MEYER, JR.
WILLIAM S. MC CRAW
BENEDETTO INTRAVAIA
JOHN MEYER, SR.
MRS. JULIA BALLAY TREADAWAY
1910
KLEBER A. AUCOIN AND
JOHN MEYER, SR.
MRS. CARMEN FERNANDEZ
MICHEL BOUZIGA
KLEBER A. AUCOIN
1900
1890

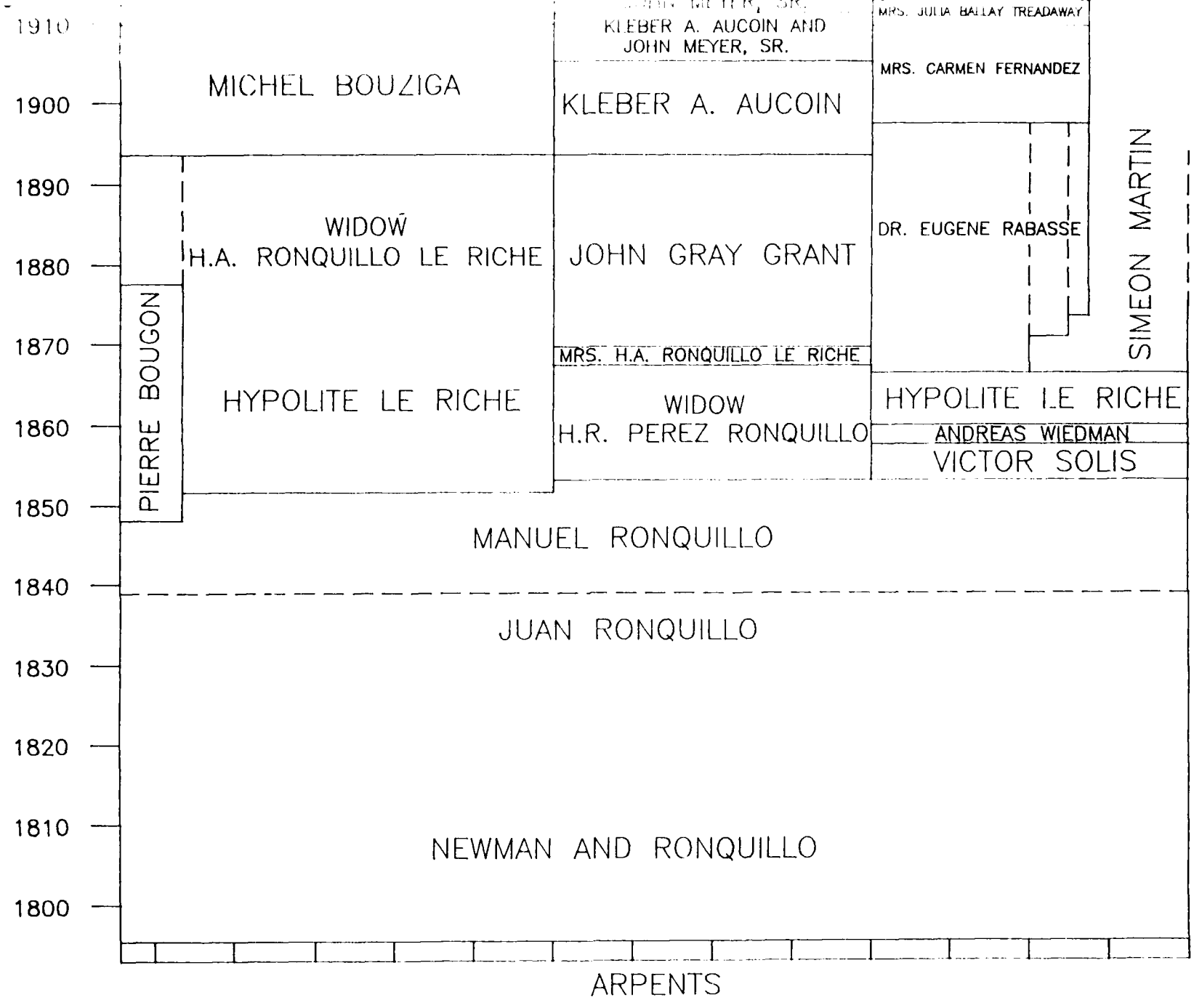
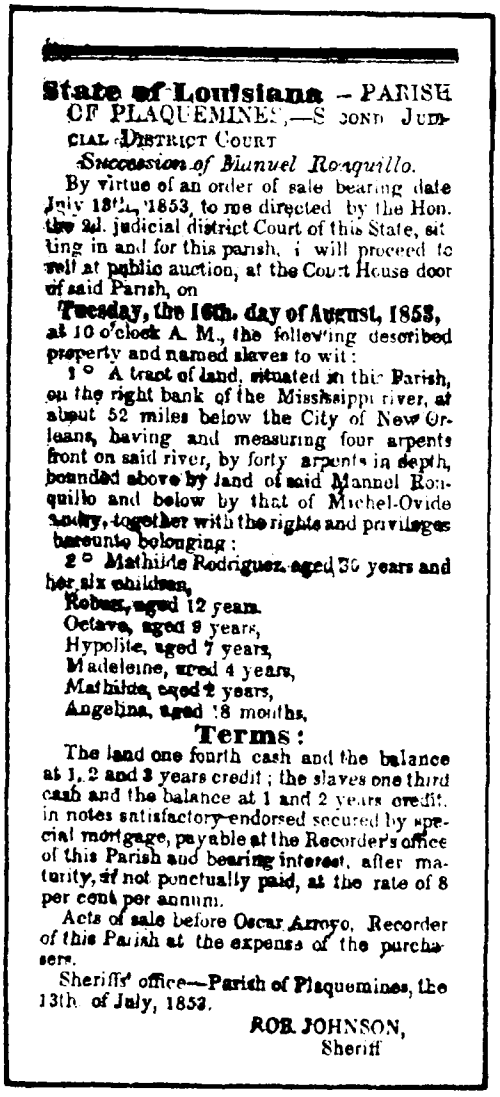


Figure 4. Schematic representation of land tenure for the Slater study properties.



State of Louisiana – PARISH OF PLAQUEMINES,—SECOND JUDICIAL DISTRICT COURT

Succession of Manuel Ronquillo.

By virtue of an order of sale bearing date July 13th, 1853, to me directed by the Hon. the 2d. judicial district Court of this State, sitting in and for this parish, I will proceed to sell at public auction, at the Court House door of said Parish, on

Tuesday, the 16th. day of August, 1853,

at 10 o'clock A. M., the following described property and named slaves to wit:

1° A tract of land, situated in this Parish, on the right bank of the Mississippi river, at about 52 miles below the City of New Orleans, having and measuring four arpents front on said river, by forty arpents in depth, bounded above by land of said Manuel Ronquillo and below by that of Michel-Ovide Landry, together with the rights and privileges thereunto belonging;

2° Mathilde Rodriguez, aged 36 years and her six children,

Robert, aged 12 years,
Octave, aged 9 years,
Hypolite, aged 7 years,
Madeleine, aged 4 years,
Mathilde, aged 2 years,
Angelina, aged 18 months,

Terms:

The land one fourth cash and the balance at 1, 2 and 3 years credit; the slaves one third cash and the balance at 1 and 2 years credit, in notes satisfactory endorsed secured by special mortgage, payable at the Recorder's office of this Parish and bearing interest, after maturity, if not punctually paid, at the rate of 8 per cent per annum.

Acts of sale before Oscar Arroyo, Recorder of this Parish at the expense of the purchasers.

Sheriffs' office—Parish of Plaquemines, the 13th of July, 1853.

ROB. JOHNSON,
Sheriff

Figure 5. Unidentified 1853 newspaper clipping advertising sheriff's sale for the succession of Manuel Ronquillo (Docket S-132, 2nd J.D.C., Plaquemines Parish Courthouse).

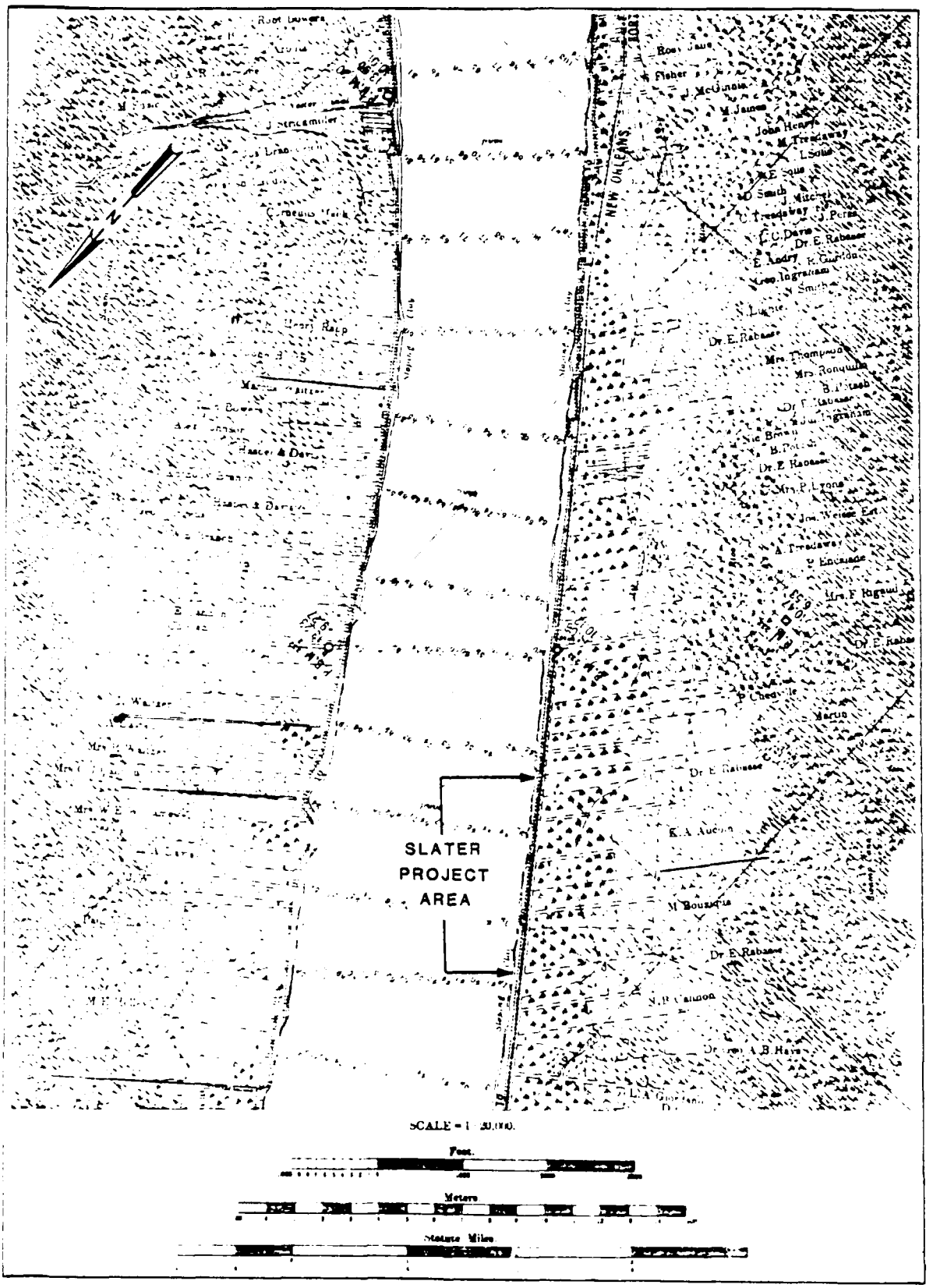


Figure 6. Excerpt from the ca. 1894 *Survey of the Mississippi River Made under the direction of the Mississippi River Commission, Chart 80,* showing the Slater study properties (Louisiana Collection, Tulane Unive. sity).

Michel Bouziga sold his lot to Benedetto Intravaia in 1909. This sale included a mortgage, in three promissory notes, which was to be paid to Bouziga over the next few years (COB 43, Folio 270, Plaquemines Parish Courthouse). By 1918, Intravaia defaulted on the mortgage, and Widow Bouziga sued him for full payment. Widow Bouziga repurchased the property at a sheriff's sale on July 13, 1918. The next month, she sold it to John Meyer (Docket 2187, 29th J.D.C.; COB 52, Folio 539 and 764, Plaquemines Parish Courthouse).

Following the death of Manuel Ronquillo in 1853, the middle four arpents of the lot passed to widow Ronquillo (Figure 4). She lived on the property until her death on October 12, 1867. Her property was inherited by her sole surviving heir, her adopted daughter, Hypolite Anastasia Ronquillo LeRoche. However, the judicial proceedings in 1867, in which the will was confirmed, failed to give Mrs. LeRoche clear title to the property. Mrs. LeRiche petitioned the court, who clarified their 1867 judicial decision, and granted her a clear title in December, 1869 (Docket S-304, 2nd J.D.C.; COB 17, Folio 484, Plaquemines Parish Courthouse). Within a week, Mrs. LeRiche liquidated the property, selling it to John Gray Grant (COB 17, Folio 536, Plaquemines Parish Courthouse).

Grant, a resident of Plaquemines Parish, probably lived on the four arpent tract until he sold it to Kleber A. Aucoin in 1893 (COB 30, Folio 286, Plaquemines Parish Courthouse). Aucoin, who resided in Ascension Parish throughout his ownership of the tract, probably rented the property to tenant farmers who tended the citrus groves (Figure 6), grew other crops, and raised livestock. Aucoin's property included at least four structures and a lane (Figure 6). By 1905, Aucoin began liquidating his property, selling a third interest to John Meyer. Aucoin sold his remaining interest to Meyer in 1911 (COB 39, Folio 616; COB 46, Folio 188, Plaquemines Parish Courthouse).

In 1914, Meyer sold the lot to his son John Meyer, Jr., an unmarried minor over the age of 18. By June 1918, the now married John Meyer, Jr. sold half interest in the property to Charles L. Napp, who sold it back to John Meyer, Jr. less than a year later, in April 1919. Later that month, John Meyer, Jr. sold the four arpent lot to his father, John Meyer, Sr. (COB 48, Folio 905; COB 52, Folio 495; COB 53, Folio 267 and 296, Plaquemines Parish Courthouse). Combined with the adjacent upriver lot, the father now owned the upriver nine arpents, 90 feet of the modern Slater property under consideration here. In 1928, Meyer incorporated the property into John Meyer, Inc., which he controlled until his death in 1943. After his death, the corporation was dissolved, and the property was transferred to the newly formed John Meyer Company. This company was owned by John Meyer, Sr.'s widow, and their four children. In 1945, the Meyer family liquidated their property, selling the lot to Dr. Benjamin R. Slater (COB 65, Folio 240; COB 110, Folio 461; COB 115, Folio 129, Plaquemines Parish Courthouse).

In 1853, Victor Solis purchased, at auction, a four arpent tract at the downriver end of the study area from the estate of Manuel Ronquillo (Figure 4). Four years later, Solis sold the lot to Andreas Wiedman, a resident of New Orleans (COB 11, Folio 189, Plaquemines Parish Courthouse). Wiedman apparently never lived on the property, but rather leased the property to tenants. In January 1860, Wiedman sold the land to Mr. Hypolite LeRiche (COB 14, Folio 17, Plaquemines Parish Courthouse). LeRiche subdivided the property into two lots (two arpents each) shortly after the Civil War. Toward the end of 1866, LeRiche sold the upriver lot to Dr. Eugene Rabasse, and the downriver lot to Simeon Martin (COB 16, Folio 17 and 368, Plaquemines Parish Courthouse).

Between 1866 and 1873, Rabasse increased the size of his lot by purchasing portions of Martin's lot; in 1871 he purchased half an arpent frontage, and in 1873 he purchased an additional 50 feet (COB 18, Folio 83; COB 19, Folio 358, Plaquemines Parish Courthouse). These additional purchases increased Rabasse's lot to 2.75 arpents front. This lot was located at the downriver end of the current study area.

Dr. Eugene Rabasse had considerable landholdings on the west bank, owning at least seven lots by the 1890s (Figure 6). These lots were leased to tenants, who maintained and harvested the citrus groves, and cultivated other agricultural crops, including rice. Following his death in 1897, Rabasse's property in the study area was sold to Mrs. Carmen Fernandez. The terms of sale included the stipulations that all crops in the fields belonged to the current tenants or parties cultivating the land, with the rights to remove the crops through the end of 1897. However, the orange crop was not included in the sale. Finally, the terms

of the mortgage used to purchase the property required that all buildings and improvements on the property be insured against loss by fire until the promissory notes were paid in full (COB 33, Folio 919, Plaquemines Parish Courthouse). While the structures and improvements were not described, they included at least three buildings (Figure 6).

Mrs. Fernandez, now a widow, sold her 2.75 arpent lot to Julia Ballay Treadaway in 1910 (COB 43, Folio 1139, Plaquemines Parish Courthouse). She, in turn, sold the property to William S. McCraw and Mrs. Ada Francis Norman Hartin in January 1913. The terms of sale contained a clause stipulating that the sale did not include the agricultural implements, the livestock, or the siphon situated on the property (COB 47, Folio 159, Plaquemines Parish Courthouse). This suggests that in addition to the orange groves, rice, irrigated with a siphon flume, may have been grown behind the citrus groves, and that livestock was kept.

Over the next several years, the property changed hands several times. McCraw divorced his wife, Mrs. Kate Miller, by 1915. She received a quarter interest in the property in the divorce settlement and then sold it back to McCraw in May 1915. Following the divorce, Mrs. Hartin married McCraw, returning ownership of the lot to one family. In 1932, toward the end of his life, McCraw sold half of his interest in the lot to his wife. Finally, after McCraw's death in 1935, Widow McCraw inherited the remaining portion of the lot, giving her full ownership (COB 70, Folio 166; COB 79, Folio 340; COB 108, Folio 805, Plaquemines Parish Courthouse).

Toward the end of the Second World War, Dr. Benjamin R. Slater purchased the entire frontage of the current Slater project area (Figure 4). In 1943, he purchased the downriver 2.75 arpent lot from Widow McCraw. Two years later, in 1945, he purchased the upriver nine arpents, 90 feet, from the John Meyer Company (COB 108, Folio 810; COB 115, Folio 129, Plaquemines Parish Courthouse). During Dr. Slater's ownership, and into the 1970s, oranges were grown on the portion of the property between the Mississippi River levee and LA 23. The oranges were taken to a citrus packing house located toward the downriver end of the property, and adjacent to the modern levee, outside of the study area. This two story packing house was razed in the late 1970s, a few years after orange production on the property ceased (Donald Frelich, personal communication 1989).

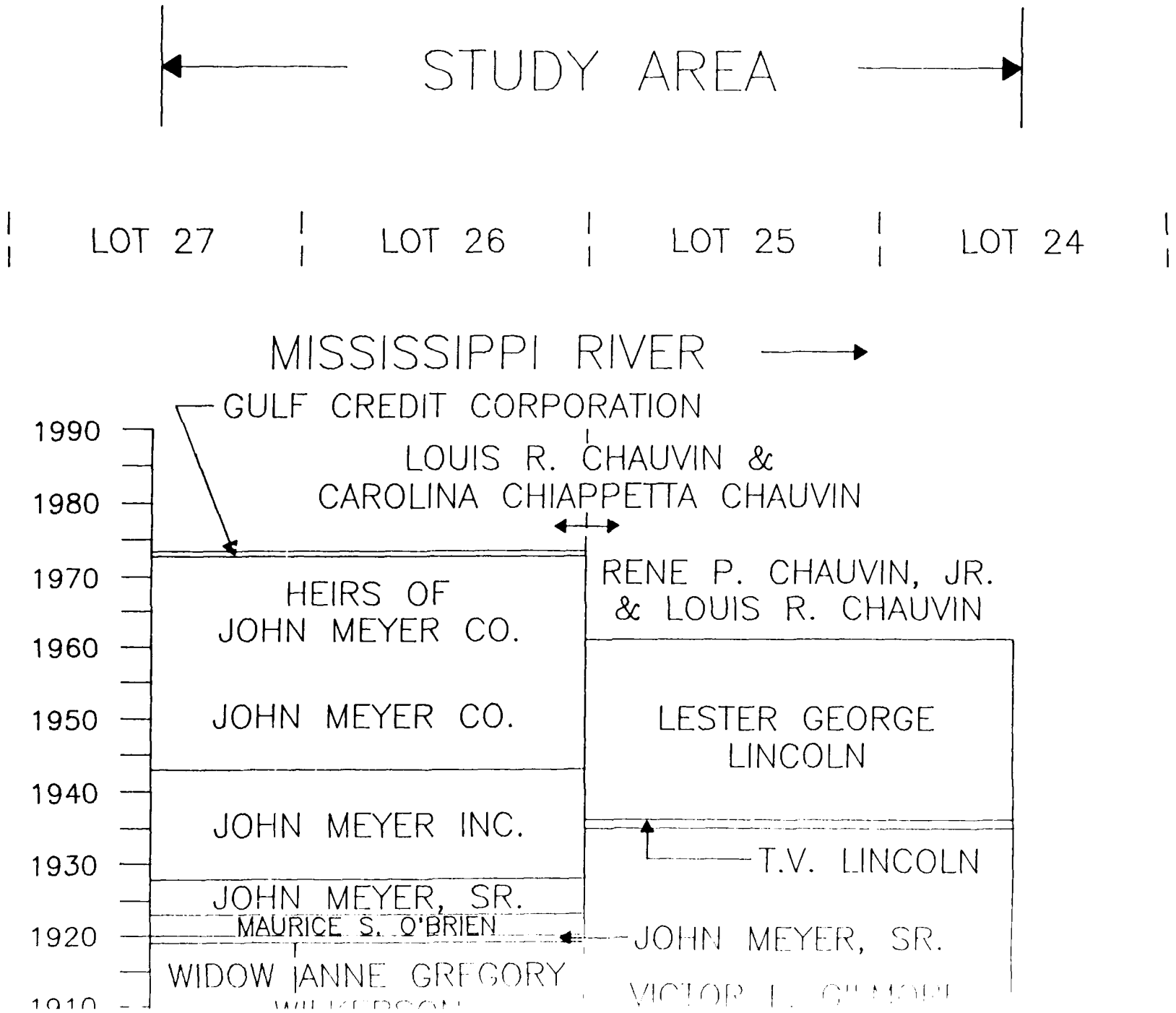
Since the 1950s, the Slater property has been subdivided into numerous small lots. In December, 1954, Dr. Slater sold a 3.87 acre tract, along with various easements, to the Humble Oil & Refining Company (COB 179, Folio 533, Plaquemines Parish Courthouse). This tract is located toward the center of the Slater lot frontage, near the Mississippi River levee. In addition, many small lots fronting on LA 23, and adjacent to Trigg Road, have been subdivided from the larger Slater lot (COB 490, Folio 26, Plaquemines Parish Courthouse).

Dr. Slater died in 1966, leaving his property to his widow and two sons (COB 297, Folio 741, as amended in COB 298, Folio 631, Plaquemines Parish Courthouse). The front end was modified in the late 1970s with the setback of the Mississippi River levee, and a new road was constructed at the toe of the levee (COB 456, Folio 211, Plaquemines Parish Courthouse). Finally, in 1979, the Slater family sold the property to the Isla Corporation, (COB 490, Folio 26, Plaquemines Parish Courthouse). Except for the construction of a small park southwest of LA 23, which currently is in a state of disrepair, the property has not been developed.

Chauvin Property

The Chauvin project area is situated on the west (right descending) bank of the Mississippi River, toward the north end of Section 41, Township 19S, Range 28E, in Plaquemines Parish, Louisiana. The lot is owned by Louis R. Chauvin and his sister-in-law, Carolina Chiappetta Chauvin. The chain of title for this property is shown in Figure 7.

Genevieve Millet was the original American land claimant of Section 41, Township 19S, Range 28E, in Plaquemines Parish, Louisiana. Her confirmed claim measured 40 arpents frontage by 40 arpents in depth. The claim was based on a 1790 Spanish land grant to Millet's deceased husband, John A. Frederick.


STUDY AREA
LOT 27
LOT 26
LOT 25
LOT 24
MISSISSIPPI RIVER
1990
1980
1970
1960
1950
1940
1930
1920
1910
GULF CREDIT CORPORATION
LOUIS R. CHAUVIN &
CAROLINA CHIAPPETTA CHAUVIN
HEIRS OF
JOHN MEYER CO.
JOHN MEYER CO.
JOHN MEYER INC.
JOHN MEYER, SR.
MAURICE S. O'BRIEN
WIDOW ANNE GREGORY
RENE P. CHAUVIN, JR.
& LOUIS R. CHAUVIN
LESTER GEORGE
LINCOLN
T.V. LINCOLN
JOHN MEYER, SR.

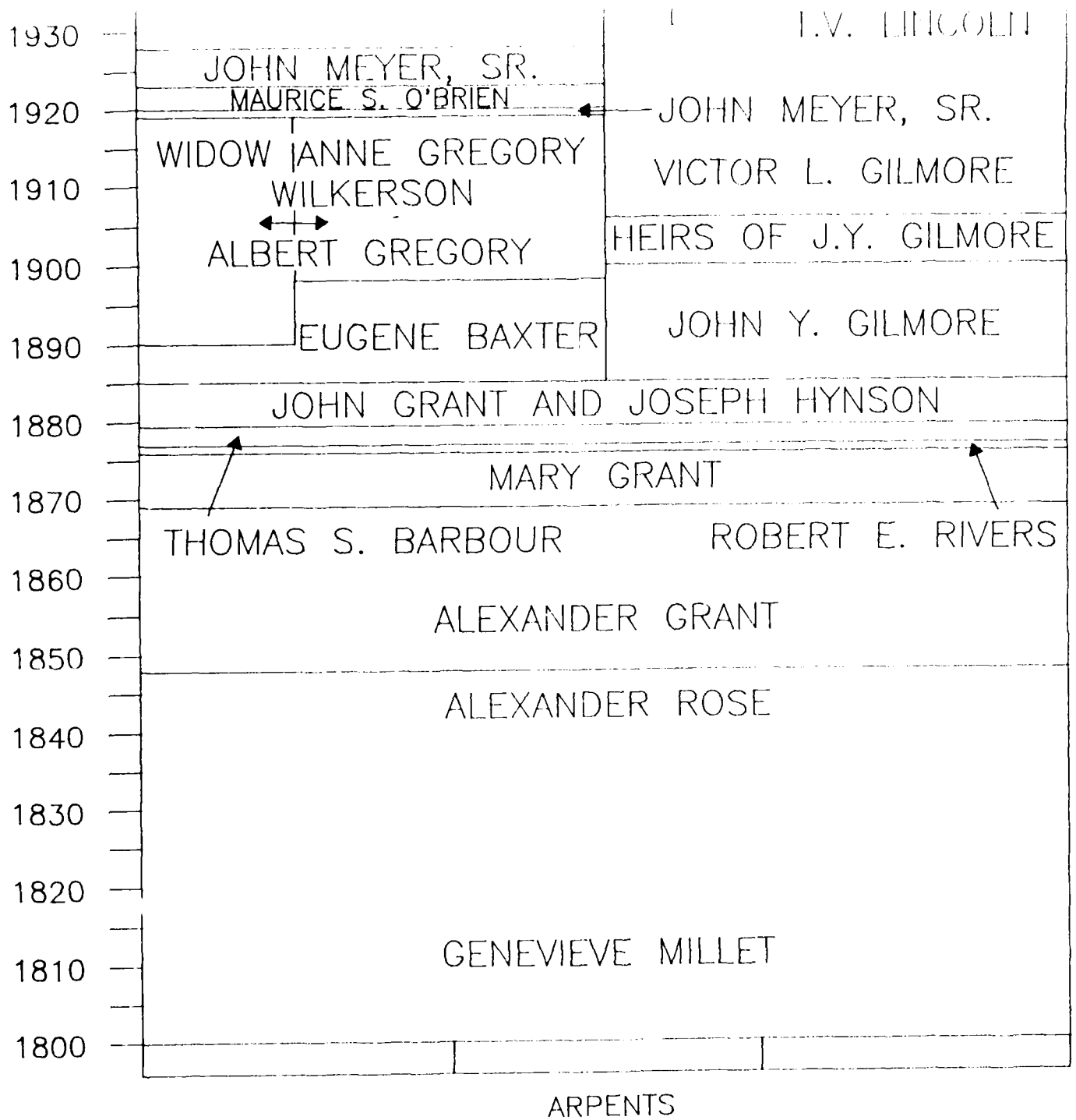


Figure 7. Schematic representation of land tenure for the Chauvin study property.

The land claim record suggests that the land was inhabited and cultivated by October 1, 1800 (Lowrie and Franklin 1834:2:334).

The land ownership for the next few decades is unclear. However, by the late 1840s, 39 arpents of the original tract, now known as Nairn Plantation, were owned by Alexander Rose. Nairn Plantation undoubtedly was an established sugar plantation. Rose sold the plantation to Alexander Grant in 1848, in a sale that included at least some of the plantation's slaves (COB 2, Folio 383, Plaquemines Parish Courthouse).

Alexander Grant died in the 1860s, leaving his property to his three children, Alexander, John, and Mary. In 1869, Mary Grant Saul purchased her two brothers' interest in the plantation, giving her full ownership (COB 17, Folio 307 and 314, Plaquemines Parish Courthouse). By 1876, however, Mrs. Saul had failed to meet her financial obligations, and the property was auctioned at a sheriff's sale. The property was described as a sugar plantation; it included the sugarhouse, all machinery, a dwelling house, the stables, the quarters, mules, oxen, and various agricultural implements. The tract was purchased by Robert E. Rivers. In less than a year, Rivers sold the property to Thomas S. Barbour (COB 20, Folio 575 and 781, Plaquemines Parish Courthouse).

Barbour owned Nairn Plantation for two years. The plantation was not profitable, and by 1879, Barbour was unable to meet his financial obligations. Following a suit brought by John G. Grant, a brother of Mary Grant Saul, Nairn Plantation was sold at sheriff's sale, and was purchased by Grant. Grant sold half interest in the plantation to Charles McCann, who sold his interest to Joseph Hynson. By 1883, the plantation was owned equally by Grant and Hynson (Docket 2498, 2nd J.D.C., Plaquemines Parish Courthouse). By 1884, Grant and Hynson began subdividing Nairn Plantation. In September 1884, the plantation was surveyed and subdivided into lots. Each lot contained one arpent frontage on the river and measured 40 arpents in depth.

The Chauvin study area consisted of the upriver half of Lot 24, all of Lots 25 and 26, and the downriver half of Lot 27. From 1885 to 1973, ownership of the property was divided between Lots 25 and 26 (Figure 7). The chain of title for each half is considered separately below.

Upriver Portion of the Chauvin Project Area

Eugene Baxter purchased the upriver half of the study area, including Lots 26 and 27, in 1885. Between 1890 and 1898, Baxter sold these lots to Albert Gregory; Lot 27 was sold in 1890, and Lot 26 was sold in 1898 (COB 28, Folio 595; COB 33, Folio 428, Plaquemines Parish Courthouse). Based on the ca. 1894 *Survey of the Mississippi River* map of the project area (Figure 8), the front portion of Gregory's property, including the current study area, was planted in oranges. Since Baxter was not identified as the landowner, it is possible that by the mid-1890s, Gregory not only owned Lot 27, but that he also managed Baxter's Lot 26.

Albert Gregory died prior to 1919, leaving his property to his wife Anne Ridgley Webb Gregory, and his daughter Mary Elizabeth Gregory. Widow Gregory remarried (Levi Wilkerson), and then sold Lots 26 and 27 to John Meyer, who also owned property in what is now the upriver Slater property. Less than two months later, in April 1919, Meyer sold both lots to Maurice O'Brien. Meyer later repurchased the lots from O'Brien in 1923 (COB 53, Folio 146 and 270; COB 58, Folio 177, Plaquemines Parish Courthouse).

Lots 26 and 27 remained in the Meyer family between 1923 and 1973. In 1928, Meyer consolidated his land holdings, including both the Chauvin and the upriver Slater project areas, into John Meyer, Inc. This corporation consisted of John Meyer, Sr., his wife Josephine, and their four children; an orange grove was mentioned in the 1928 land transfer. Following John Meyer, Sr.'s death in 1943, the corporation was dissolved, and land ownership was transferred to the John Meyer Company. This company was owned by Josephine Meyer and her four children. Over the next 30 years, land ownership changed through succession and inter-family sale. Oranges continued to be cultivated throughout this period. The Meyer family then sold the property to Gulf Credit Corporation (COB 65, Folio 240; COB 110, Folio 461; COB 169,

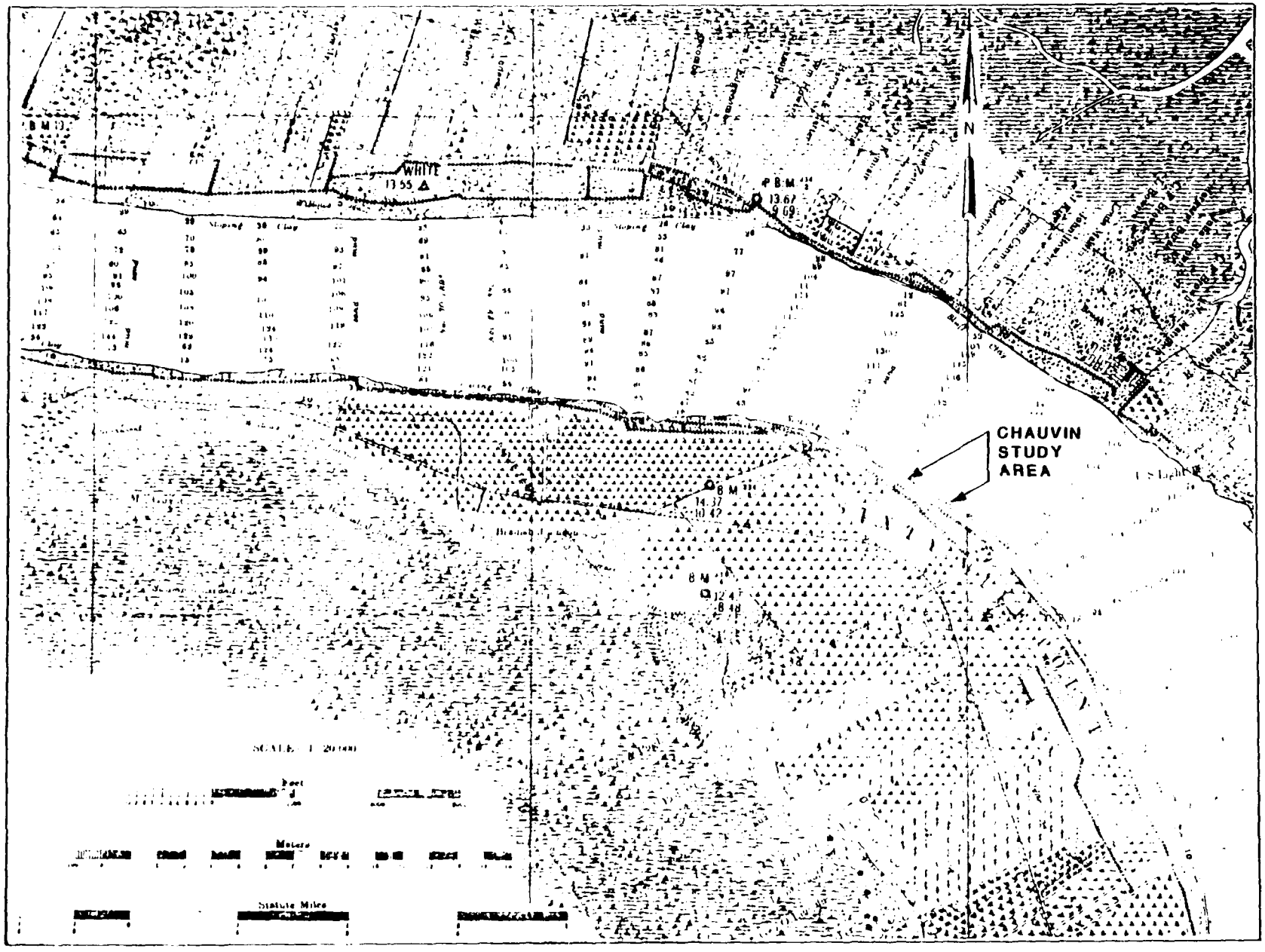


Figure 8. Excerpt from the ca. 1894 *Survey of the Mississippi River Made under the direction of the Mississippi River Commission, Chart 81*, showing the Chauvin project area (Louisiana Collection, Tulane University).

Folio 590; COB 331, Folio 418; COB 377, Folio 28; COB 398, Folio 304, Plaquemines Parish Courthouse).

Downriver Portion of the Chauvin Project Area

In 1885, Grant and Hynson sold the downriver portion of the project area (Lot 25 and half of Lot 24), along with several other lots, to John Y. Gilmore. Gilmore owned the land until his death in 1900 (Figure 7). Gilmore cultivated an extensive orange grove (Figure 8). Following his death, the property was inherited by his widow Margaret, and their four children. Six years later, in 1906, the property was consolidated when Victor L. Gilmore, son of the late John Gilmore, purchased his mother's and siblings' interests in the property. Victor Gilmore owned the property for nearly 30 years, during which oranges probably were grown (COB 26, Folio 66; COB 35, Folio 424; COB 40, Folio 9, Plaquemines Parish Courthouse).

Victor Gilmore sold the property, which included six one arpent lots, to Timothy V. Lincoln in 1935. The next year, Lincoln sold three of those lots, including Lots 24 and 25, to his son Lester G. Lincoln, who owned the lots until 1961. The property then was sold to two brothers, Louis R. Chauvin and Rene P. Chauvin, Jr. In 1973, the brothers also purchased the upriver half of the project area from the Gulf Credit Corporation, giving them ownership of the entire project area (Figure 7) (COB 78, Folio 476; COB 81, Folio 614; COB 245, Folio 171; COB 399, Folio 165, Plaquemines Parish Courthouse).

Catherine Chiappetta Chauvin, the wife of Louis Chauvin, died in 1986, leaving her interest in the property to her husband. The following year, Rene Chauvin died, leaving his property to his widow, Carolina Chiappetta Chauvin (COB 652, Folio 738; COB 674, Folio 855, Plaquemines Parish Courthouse). The property currently is owned by Louis Chauvin and his sister-in-law Carolina.

In summary, the Chauvin lot has been settled and cultivated since the end of the eighteenth century. From the 1840s, into the 1880s, this portion of the project area was part of Nairn Plantation. However, the postbellum plantation apparently was not profitable, and it later was subdivided in the mid-1880s. From that time until at least the 1970s, the land has been used for cultivating oranges. The project area currently is overgrown; however, a portion of the property still contains an actively managed orange grove.

CHAPTER VI

RESEARCH DESIGN AND FIELD METHODOLOGY

The cultural resources survey of three proposed borrow areas, for New Orleans to Venice Hurricane Protection Project, was designed to identify and to assess the significance of all cultural resources located within the project area. This entailed pedestrian survey, supplemented with systematic shovel testing of the project area. During the survey, the ground surface was examined for evidence of cultural remains; shovel testing was conducted along linear transects spaced 20 m apart and oriented parallel to the axis of the Mississippi River. Shovel tests were placed at 50 m intervals along each transect; shovel tests of adjacent transects were offset. Each shovel test measured approximately 30 cm in diameter, and was excavated to sterile subsoil. The excavated soils were screened through 0.25 inch wire mesh. Recovered artifacts were bagged and labeled by shovel test number and by depth. Modern debris and undiagnostic historic artifacts recovered from each shovel test were described on shovel test record forms; however, they were not collected. Stratigraphic profiles of all shovel tests were recorded, and all shovel tests were backfilled upon completion of excavation. A total of 360 shovel tests were excavated within the 92.2 acre project area. Two archeological sites, Slater Site VH-1 (16PL151) and Slater Site VH-2 (16PL152), were identified and recorded. The sites were photographed, and field maps depicting all visible features were drawn. Transect length varied in accordance with the boundaries of each project area. Twelve transects (86 shovel tests) were placed within the 22.2-acre Chauvin borrow area. Twelve transects also were placed within the 30-acre and 40-acre Slater Property tracts (120 and 154 shovel tests, respectively).

Additional testing was conducted at the two previously unrecorded sites. Nine additional shovel tests were placed within 16PL151, and an additional 18 shovel tests were excavated at 16PL152 to determine site boundaries, soil stratigraphy, archeological integrity, density of cultural material, and chronological placement. These shovel tests were supplemented with the excavation of two 2-inch Dutch auger tests at each site; each was excavated to 140 cm to verify the depth of the cultural deposits. The excavated soils were screened and examined for cultural materials. Artifacts recovered from both auger and shovel tests were bagged and labeled according to provenience.

Two 1 x 1 m test excavation units were placed within the Slater Site VH-1 (16PL151). Also, one shovel test was expanded to a 50 cm^2 test unit to help document the site's stratigraphy and integrity. Each unit was excavated in 10 cm arbitrary levels. Each unit was photographed and mapped. Stratigraphic profiles were drawn of all units, and descriptive notes were recorded. Excavated units were backfilled prior to the completion of fieldwork.

In addition, site maps of both sites were drawn, and shovel and auger tests and test excavation unit locations were recorded on each. Site boundaries, artifact locations, observable features, and markers also were recorded, and both sites were photographed.

CHAPTER VII

RESULTS OF THE FIELD INVESTIGATIONS

Introduction

An intensive pedestrian survey supplemented with a systematic shovel testing survey was conducted on three properties near Port Sulfur, Louisiana for the U.S. Army Corps of Engineers. Two sites were identified within the 40-acre Slater parcel. The Slater Site VH-1 (16PL151) consisted of a sparse surface and mixed plowzone artifact scatter which dates from the late nineteenth to late twentieth centuries. The Slater Site VH-2 (16PL152) is a mixed plowzone and surface scatter of artifacts which represents the razed and bulldozed remains of a late nineteenth to late twentieth century shotgun dwelling.

Both the 22.2-acre Chauvin parcel and the 30-acre Slater parcel are adjacent to the back protection levee and failed to produce any evidence of potentially significant cultural resources.

30-Acre Slater Parcel

The first Slater property surveyed is located in undeveloped agricultural land in Section 6, Township 18S, Range 27E. This parcel is situated on the northern outskirts of Port Sulfur, Louisiana (Figure 2). The eastern boundary of the parcel extends along the rear lot line of three dwellings positioned adjacent to the southbound lanes of LA 23. The western boundary of the parcel is the canal adjacent to the rear protection levee. The southern boundary of the project area follows a concrete road leading from the highway to an abandoned sports facility in the southwest portion of the survey area. A field drainage ditch adjacent to a vocational school runs the entire length of the northern boundary.

A total of 120 shovel tests in 12 transects were excavated within this survey area. Transects originated along the south boundary of the project area and traversed the project area on 330° and 150° azimuths. These transects were numbered 1 through 12.

A typical soil profile of this parcel exhibits an upper 15 to 25 cm thick 10YR 3/2 very dark grayish brown silty clay with lots of organic material, overlaying 10YR 3/1 very dark gray silty clay. Some *Rangia* shell was incorporated in both of these strata along the southern boundary of the project area. The presence of *Rangia* shell in this area appears to derive from disturbances from the construction of the nearby concrete road, the sports facility, and a fuel storage facility located within the project boundaries. At the time of the survey, the vegetation of the entire project area consisted of tall weeds and grass. Although the parcel currently is untended, it has been used to graze livestock.

The sports facility includes a fenced baseball diamond with concrete grandstand and overhead lighting. The entire field is now covered with tall woody weeds and briars. *Rangia* shell incorporated within the soils inside the playing field is recent fill. A large earthen mound, 1.5 m high and 6 m in diameter, is in shallow centerfield. The mound's function is uncertain, but it also is of recent origin. There are three field ditches running across the property to the back canal. A gas pipeline right-of-way is buried in the centrally located ditch. A 5 m high, 3 m diameter fuel storage tank was identified between Shovel Tests 1 and 2 on Transect 12. The tank has a low encircling earthen berm. The earthen berm contains considerable amounts of *Rangia* shell. Though now quite rusty, the tank at one time was painted.

40-Acre Slater Parcel

The second Slater property surveyed is an irregularly shaped parcel located in undeveloped agricultural land in Section 6, Township 18S, Range 27E (Figure 2). This parcel is on the northern outskirts of Port Sulfur, Louisiana. The parcel is bounded on the east by an easement for a shell road parallel to and immediately landside of the Mississippi River protection levee. The western limits of the project area abut

the rear lot line of structures facing a four lane highway. The north and south limits of the project area are delineated by tall trees, McBride School, and by a shell road.

The area on the riverside edge, in the central portion of the project area, currently is leased by the McGoldrick Oil Company. This property is not included in the project area. Although it was traversed during the pedestrian survey, no shovel testing was completed in this area outside of proposed impact.

A total of 154 shovel tests were made along twelve transects (numbers 13 through 24) within the 40-acre Slater parcel. Transects followed 144° and 324° azimuths, and averaged approximately 700 m in length. A typical soil profile had an upper 25 cm 10YR 3/2 very dark grayish brown silty clay overlaying 10YR 4/3 dark brown clayey silt mottled with 10YR 4/6 dark yellowish brown silt.

Various tests produced evidence of burning. Fired earth and charcoal from modern field burning were noted in the upper 15 cm of a few shovel tests throughout the north end of the parcel. No historic artifacts were associated with the fired earth and charcoal.

Transects along the western portion of the survey area contained modern refuse. Machine-made brick fragments, oyster and *Rangia* shell, plastics, aluminum, and wood, were encountered both at the surface and in a few of the shovel tests. These modern artifacts appear to relate to the structures located immediately outside the project area.

Transects 17 through 24 crossed under an overhead powerline that runs from the McGoldrick Oil Company facility and follows two field drainage ditches. The line is overgrown with tall trees, palmetto, and poison ivy. A cross ditch, which is perpendicular to the power line, runs in a northerly direction between Transects 17 and 18.

The majority of the survey area was covered with tall grass during survey. The few trees and scrubs in the area appear in abandoned field irrigation ditches and on property lines. A few live oak trees dot the parcel as outliers. It is apparent that the parcel was used primarily for agriculture. This is evidenced by the various drainage ditches, the presence of charcoal and burned earth, and by the soil profiles.

Two sites were identified during the transect survey. Each of these areas is discussed below.

Slater Site VH-1 (16PL151)

The Slater Site VH-1 is located in Port Sulfur, Louisiana, approximately at River Mile 41.5-R (Figures 9 and 10). The site measures 250 x 30 m. It is a shallow, linear historic artifact scatter. Artifacts at the site date from the late nineteenth century through the twentieth century. During the initial survey, three shovel tests on Transect 13 produced various artifacts including ironstone ceramics, a kaolin pipestem fragment, brick and shell fragments, and glass. Two shovel tests on Transect 14 produced nondiagnostic artifacts and ecofacts.

In order to define the limits of the site, nine additional shovel tests were placed along Transects 13 and 14, and shovel tests were excavated at 25 m intervals between each of the previously excavated transect survey shovel tests. The presence of artifacts was noted on shovel test record forms; only diagnostic artifacts were collected, bagged, and labelled with provenience information. Shovel testing indicated that the density of artifacts was sparse and that they were diffusely scattered across the project area.

After completing the shovel testing, two auger tests were excavated (Figure 11). Auger test profiles then were drawn, and Munsell colors were recorded. Auger tests exhibit profiles consistent with soils in the Commerce-Mhoon-Sharkey Association.

Two 1 x 1 m test units then were excavated within the area. Unit 1 produced an upper 26 cm layer of 10YR 3/1 very dark gray silt which contained brick, oyster shell, charcoal, some gravel, and other artifacts. Stratum II consisted of 10YR 4/2 dark grayish brown silt mottled with 10YR 3/6 dark yellowish

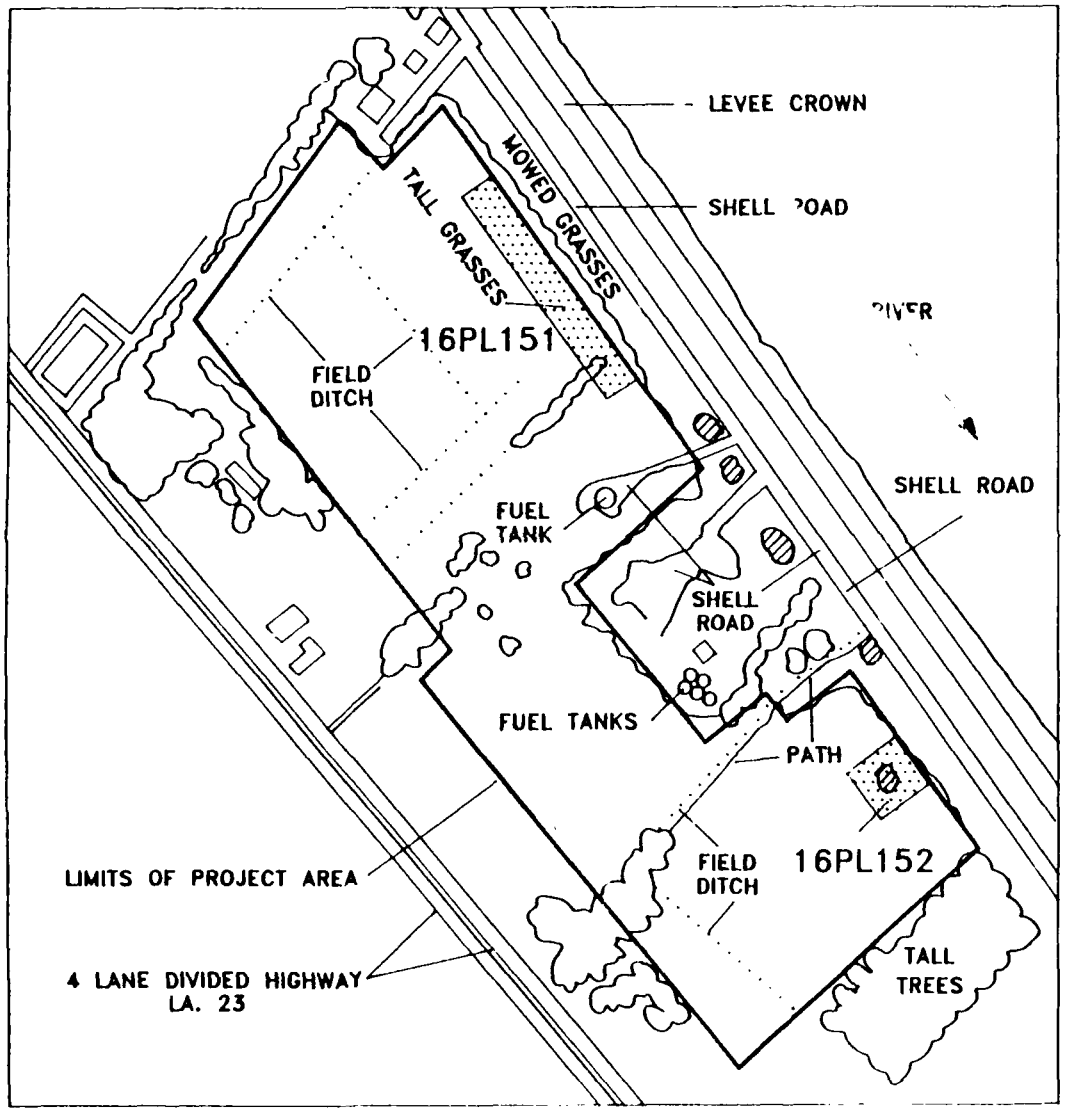
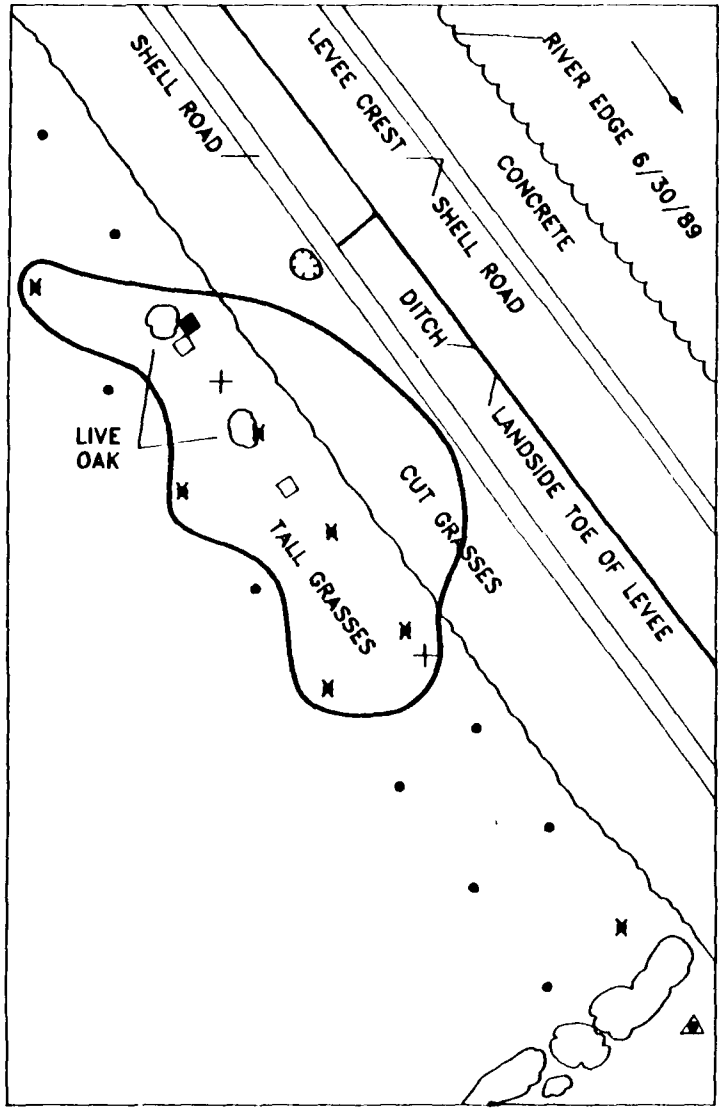


Figure 9. 40-Acre Slater parcel showing the location of sites 16PL151 and 16PL152, and landscape features.



SITE MAP FOR 16PL151

- POSITIVE SHOVEL TEST
- NEGATIVE SHOVEL TEST
- 50 CM² EXPANDED SHOVEL TEST
- 1 X 1M TEST EXCAVATION
- AUGER TEST
- TREELINE
- SITE BOUNDARY
- DATUM

N

0 125

METERS

Figure 10. Site plan of the Slater Site VH-1 (16PL151).

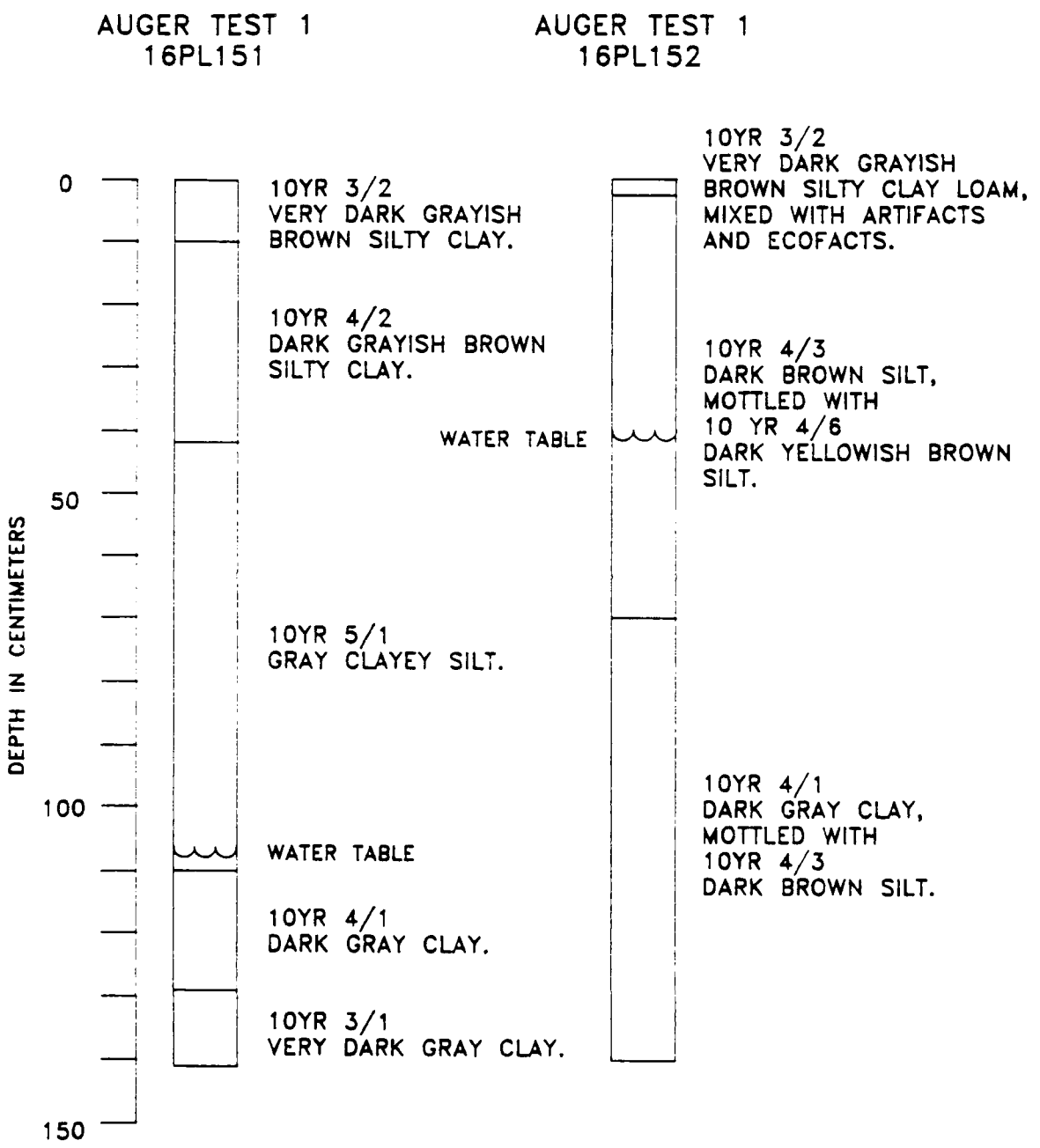


Figure 11. Stratigraphic profiles of representative auger tests and sites 16PL151 and 16PL152.

brown silt (Figure 12). Artifacts were not present within this stratum.

Unit 2 was located downriver from this first test unit (Figure 10). Excavation of Unit 2 revealed an upper 20 cm thick 10YR 3/2 very dark grayish brown silty clay which contained glass, ceramics, rusted iron, and some oyster fragments. The substratum consisted of 10YR 4/3 dark brown clayey silt mottled with 10YR 4/6 dark yellowish brown silt (Figure 12). Patches of the upper stratum also mottled the upper 10 cm of the substratum. Artifacts were recovered from Stratum I, and from the upper 10 cm level of Stratum II. No soil break was observed between the upper artifact bearing zone of Stratum II and the lower sterile soils of the same stratum. However, the artifacts within Stratum II were lying in a position which would suggest plowing.

In addition to the two test units, Shovel Test 2 on Transect 13 was expanded to delineate differences in the soil profile. This test produced artifacts to a depth of 30 cm below surface. The profile of this test exhibits an upper 14 cm thick stratum of 10YR 3/2 very dark grayish brown clayey silt overlaying 10YR 4/2 dark grayish brown clayey silt (Figure 13). The water table was encountered at 48 cm below surface in this unit.

Slater Site VH-2 (16PL152)

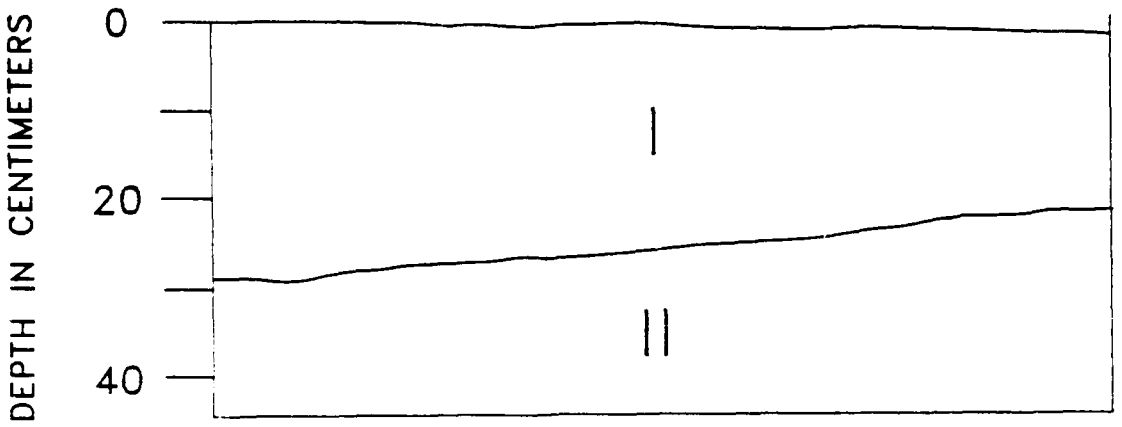
A second site was found in the downriver portion of this same parcel, at River Mile 41.2-R (Figures 9 and 14). At this site, a scatter of oyster and *Rangia* shell mixed with machine-made brick and brick fragments, gravel, and late nineteenth to late twentieth century artifacts were recorded in a 50 x 30 m area. The artifact scatter is associated with a 1.5 m high, 14 m diameter push-ups of earth, brush, trees, and recent refuse. The initial transect survey revealed the presence of oyster shell, brick, burned wood and charcoal, and bottle glass within an upper 18 cm thick stratum of 10YR 3/2 very dark grayish brown clayey silt. Two auger tests excavated at the site indicated a substratum of 10YR 4/3 dark brown silt mottled with 10YR 4/6 dark yellowish brown silt overlying 10YR 4/1 dark gray clay mottled with 10YR 4/3 dark brown silt (Figure 11). The water table was reached between 40 cm and 70 cm below surface in each auger test. An additional 18 shovel tests were excavated within the site area. Artifacts recovered from various shovel tests indicate that the upper 18 cm thick surface layer at the site was considerably disturbed. Late nineteenth century ginger beer bottle fragments were found in association with machine-made clear and amber bottle fragments. Plastic also was recovered from within this upper stratum.

The 1973 Port Sulfur, Louisiana quadrangle indicates the presence of a standing structure in the area where this site is located. One of the local residents in the area remembers both a shotgun dwelling and a citrus packing house in this vicinity. The citrus packing house was located a short distance downriver from the McGoldrick Oil Company lot, adjacent to the modern levee, and just outside the current study area. The small shotgun house was located about 30 m downriver from the packing house, 20 - 30 m inside the Slater lot study area, within the Slater Site VH-2 (16PL152) area. Citrus production ceased sometime in the 1970s. The trees were removed, and the land was leveled. The shotgun dwelling also was demolished at that time. The packing house was razed during the late 1970s (Donald Frelich, personal communication 1989).

In addition to the presence of the earth and timber mound at the second area, four other pushups or refuse mounds are located in the vicinity of the project area. These mounds are located in the cleared easement parallelling the existing shell road. Kitchen appliances, metal, concrete foundation materials, and other artifacts are associated with these earthen mounds. All of these mounds are in proximity to the plot of land currently leased to the McGoldrick Oil Company.

22.2-Acre Chauvin Parcel

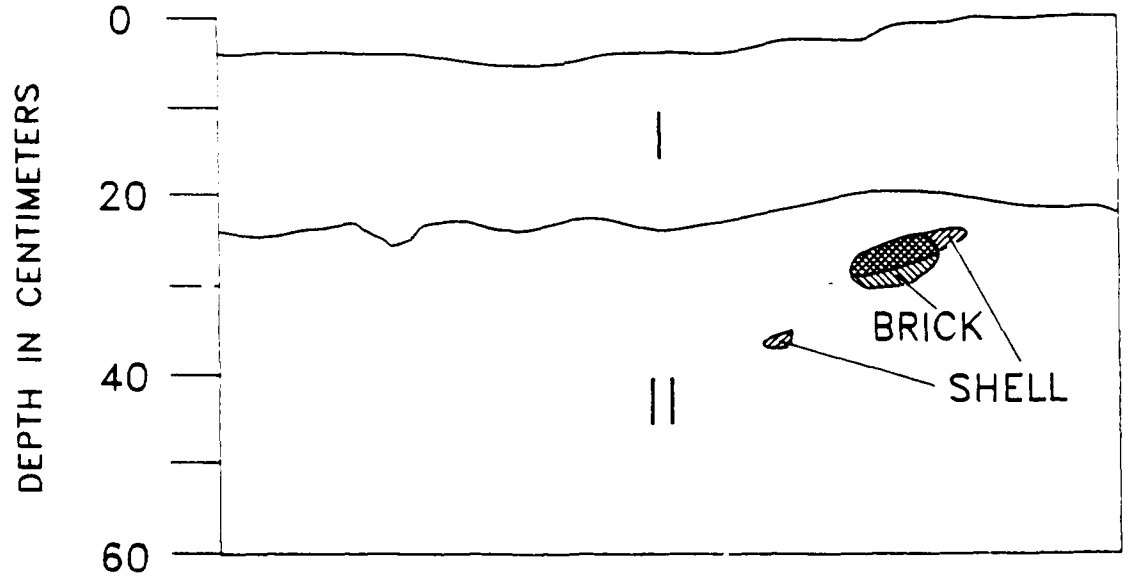
The Chauvin parcel consists of a 22.2-acre parcel of undeveloped agricultural land located in Section 41, Township 19 South, Range 28 East (Figure 3). The project area is between the southbound lanes of LA 23 and the canal adjacent to the rear protection levee. The northern and southern boundaries of the project area are adjacent to occupied house lots. The Chauvin parcel is located on the outskirts of Hesperides,



I: 10YR 3/1 VERY DARK GRAY SILT.

II: 10YR 4/2 DARK GRAYISH BROWN SILT MOTTLED WITH 10YR 3/6 DARK YELLOWISH BROWN SILT.

UNIT 1

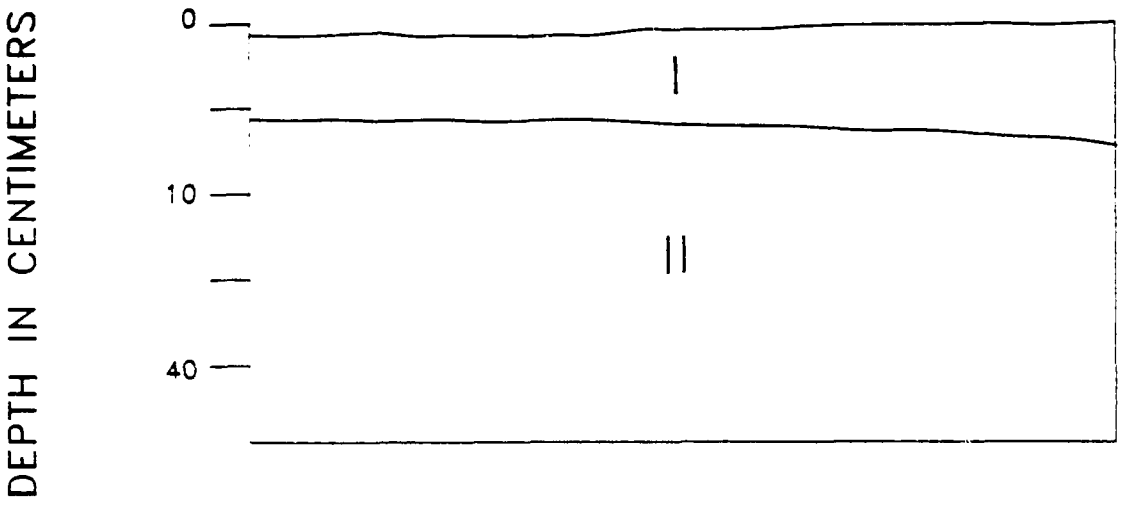


I: 10YR 3/2 VERY DARK GRAYISH BROWN SILTY CLAY.

II: 10YR 4/3 DARK BROWN CLAYEY SILT MOTTLED WITH 10YR 4/6 DARK YELLOWISH BROWN SILT.

UNIT 2

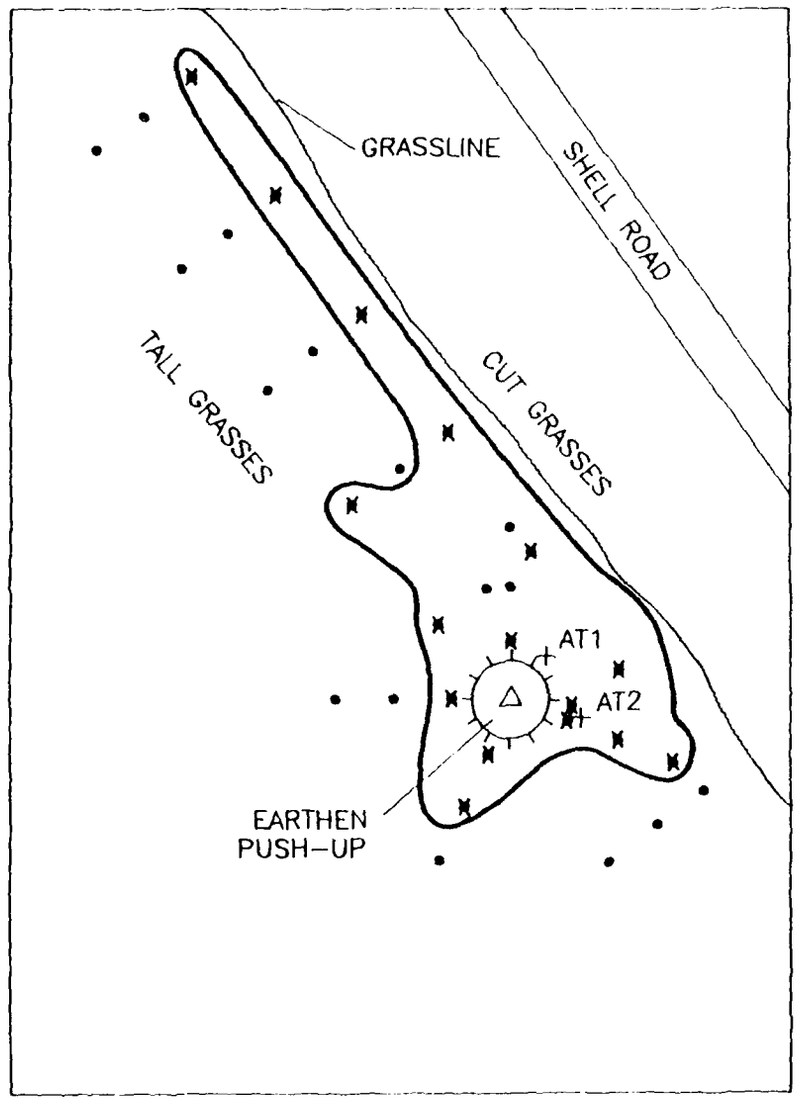
Figure 12. Stratigraphic profile of the west wall of Unit 1, and a stratigraphic profile of the south wall of Unit 2.



I: 10YR 3/2 VERY DARK GRAYISH BROWN CLAYEY SILT.

II: 10YR 4/2 DARK GRAYISH BROWN CLAYEY SILT.

Figure 13. Stratigraphic profile of the 50cm expansion of Transect 13, Shovel Test 2.



SITE MAP FOR
16PL152

POSITIVE SHOVEL TEST
NEGATIVE SHOVEL TEST
AUGER TEST
SITE BOUNDARY
DATUM

0 100

METERS

Figure 14. Site plan of the Slater Site VH-2 (16PL152).

Louisiana. The front part of the parcel facing the highway currently is planted in citrus, and it is kept mowed. However, the majority of the parcel is covered with tall weeds. A field ditch is present in the northern third of the project area. This ditch runs perpendicular to and drains into the back canal. A few live oak and pecan trees were located in the northeast portion of the parcel.

The survey was initiated at the downriver (southern) corner of the property; the initial transects originated near the highway. A total of 86 shovel tests located along twelve transects were excavated in this parcel. Transects followed 236° and 56° degree azimuths across the project area. The transects averaged 390 m in length.

A typical soil profile within the project area consisted of a 22 cm thick surface layer of 10YR 3/1 very dark gray clay with high organic residues overlaying a 10YR 4/1 dark gray silty clay mottled with 10YR 4/6 dark yellowish brown clay.

Shovel Test 6 on Transect 4 exposed an oyster shell fill zone from 0 to 8 cm below the surface. This test was located along a field road leading to the back canal. The oyster shell fill did not extend beyond the limits of the field road. No artifacts were found in association with the oyster shell fill. The oyster shell probably represents road fill in a low spot near the back canal. No significant cultural resources were identified within the Chauvin property.

CHAPTER VIII

LABORATORY ANALYSIS

Introduction

A total of 189 artifacts and ecofacts were recovered from two archeological sites identified within the three survey areas. The one hundred sixty artifacts recovered from Slater Site VH-1 (16PL151) included 50 historic ceramic sherds; 47 glass fragments; and 36 metal artifacts, including 28 nails. An additional 29 artifacts were collected from Slater Site VH-2 (16PL152); these included 11 historic ceramic sherds, nine glass fragments, and six metal artifacts.

All recovered materials were washed and sorted into their respective material categories. These materials were catalogued and encoded into a computerized site catalog to allow further manipulation of the data. The computerized site catalog is organized by category, functional group, type, and subtype. The first level, **category**, is based on the format used by the Louisiana Division of Archaeology, and describes artifact and ecofact composition. The second level, **functional group**, is based on the classification established by South (1977). The third and fourth levels, **type** and **subtype**, describe the diagnostic attributes of the recovered materials. The resulting code identifies the artifacts and ecofacts to the subtype level, allowing detailed pattern analysis in large artifact assemblages.

In the following discussion, the artifacts collected from the two located archeological sites (16PL151 and 16PL152) are examined. The materials recovered from both sites are summarized on Table 1, while Table 2 presents chronological information on the diagnostic historic artifacts recovered during the survey.

Slater Site VH-1 (16PL151)

Of the 160 artifacts and faunal remains recovered from Slater Site VH-1 (16PL151), only six were found by surface collection. This was because the site was covered with tall grasses and weeds, and surface visibility was poor. These artifacts included a buff bodied earthenware sherd with an opaque exterior glaze and a brown interior glaze; a fragment of amethyst, mold-blown bottle glass; and, an aqua machine-made bottle glass fragment. Amethyst colored glass has a use popularity date range of 1875 - 1920, with a mean date of 1898, while the use of machine-made bottle glass became widespread around 1920. In addition, two small brick fragments, and a clear bottle glass fragment, were recovered from the surface of the site.

Thirty-nine artifacts and four faunal remains were located during the initial shovel testing of the site area. Ceramic materials included five undecorated ironstone sherds; two annular whiteware sherds; and a whiteware/ironstone sherd. The date ranges for the recovered sherds span much of the nineteenth century and extend into the twentieth century. One of the ironstone sherds is half of a deep plate with a partial makers mark. The entire mark features a crown surrounded by two banners, one above and the other below, which are marked "ROYAL/STONE CHINA". Underneath is printed "MADDOCK & CO./BURSLEM ENGLAND/TRADE MARK". John Maddock & Sons, Ltd. was a Staffordshire pottery firm in Burslem which was established in 1855, and which continued to produce wares at least into the 1960s. The mark was used on wares from ca. 1906+ (Godden 1964:406, Mark No. 2466).

A porcelain button and a kaolin pipestem also were recovered from shovel tests. The porcelain button was manufactured by a process developed in 1840, in which buttons were stamped out of a fine clay and then fired. This process was used for marking utilitarian buttons, often shirt buttons, well into the twentieth century (Hinks 1988b:136). While kaolin pipe fragments normally are associated with eighteenth and early nineteenth century sites, they were manufactured into the twentieth century, and have been collected in sizeable quantities from early twentieth century sites (Hinks 1988a:51).

Table 1

RECOVERED MATERIAL FROM SITES 16PL151 AND 16PL152

	16PL151				16PL152
	Surface & Auger Tests	Shovel Tests[a]	Unit 1	Unit 2	Shovel Tests
CERAMIC MATERIALS					
Porcelain					
Undecorated, Hard			2		
Molded, Hard			2		
Button		1			
Toy Dish		1			
Ironstone					
Plain		5	2		3
Blue Glaze			1		
Buff Bodied Earthenware					
Opaque Glaze	1[b]				
Albany Slip			1		
Whiteware					
Plain		3	13	5	6
Annular		2			
Flow Blue			1		
Molded			2		
Transfer Printed			1		
Whiteware/Ironstone		1	7		1
Yelloware					
Ginger Beer					1
Tobacco Pipe					
Kaolin Stem		1			
CONSTRUCTION MATERIALS					
Brick, Handmade, Partial		1			
Brick Fragments	2[b]	6			1
Roofing Slate		3	1	1	
Asbestos Shingle		2			
Other		1			
FAUNAL (Non-Human)					
Unidentified Bone		4	1	1	

	16PL151				16PL152
	Surface & Auger Tests	Shovel Tests[a]	Unit 1	Unit 2	Shovel Tests
GLASS					
Blown in Mold					
Amber					
Amethyst			1		
Green	1[b]				
		1			
Applied Lip					1
Clear					
		1			
Hand-Turned Lip					
Amethyst					
			1		
Machine-Made					
Clear					
Amber			1		
Aqua		1	5		3
	1[b]		3		
Window Glass					1
			1		
Table Glass					
Tumbler					
Unidentified			3		
			2		1
Unidentified Bottle Glass					
Clear					
Amber	1[b]	3	7		
Aqua					2
Blue		2	2		1
Light Green			1		
Green			1		
Yellow Green			2	1	
Milk Glass		2		1	
		1	1		
Bead					
Green					
					1
METAL					
Brass Clothing Rivet					
Brass Furniture Hinge			1		
Unidentified Hardware					
Unidentified Iron			1		1
	1[c]	1	2	2	
					1
NAILS					
Cut					
Wire		6	14	3	
Unidentified					1
		4			3
				1	

	16PL151				16PL152
	Surface & Auger Tests	Shovel Tests[a]	Unit 1	Unit 2	Shovel Tests
OTHER					
Electrical Tape			1		
Plastic		1			1
TOTALS	7	54	84	15	29

GRAND TOTAL

16PL151 = 160 Artifacts

16PL152 = 29 Artifacts

KEY

a = Includes expanded shovel test at Transect 13, Shovel Test 2.
b = Surface collection.
c = Auger test.

Table 2

CHRONOLOGY OF CERAMIC TYPES, GLASS TYPES, AND NAILS RECOVERED FROM SITES 16PL151 AND 16PL152

Material Type	Use Popularity Date Range	Mean	Date Source
CERAMIC WARE AND DECORATION			
Porcelain			
Button	post 1840		Hinks 1988b
Ironstone			
Plain	post 1845		Miller 1989
Buff Bodied Earthenware			
Albany Slip	1820 - 1900	1860	Goodwin, Yakubik, and Gendel 1984
Whiteware			
Plain	1820 - 1900+		South 1977
Dipped/Annular	1820 - 1890	1855	Ramsay 1947; South 1977
Flow Blue	post 1840		Miller 1988
Transfer Printed	post 1820		Miller 1989
Whiteware/Ironstone	1813 - 1900+		Goodwin, Yakubik, and Gendel 1984
Yelloware			
Ginger Beer	1830 - 1900	1865	Ramsay 1947
DIAGNOSTIC GLASS ATTRIBUTES			
Lip, Tooled	1820s - 1920s		Jones and Sullivan 1985
Machine-made Bottle	post 1920		Munsey 1970
Amethyst Color Glass	ca. 1875 - 1920	1898	Jones and Sullivan 1985
NAILS			
Cut	1815 - 1890	1853	Nelson 1963
Wire	post 1890		Nelson 1963

Several bottle glass fragments were collected from shovel tests placed within 16PL151. These included a green mold-blown glass fragment; a clear applied lip fragment; and six unidentified bottle glass fragments of various colors (Table 1). Construction materials consisted of six brick fragments, three roofing slate pieces, two asbestos shingle fragments, and a piece of limestone with calcined clam shell mortar. Additional artifacts included six cut nails and one unidentified nail; an unidentifiable iron fragment; four animal bone fragments; and a piece of plastic. While these artifacts generally suggest a late nineteenth to early twentieth century occupation, the piece of plastic indicates a scattering of modern refuse in the site.

One shovel test, Transect 13, Shovel Test 2, was expanded into a 50 x 50 cm unit to examine the stratigraphy. Eleven artifacts were recovered from this expanded shovel test. These included three undecorated whiteware sherds; an amber machine-made bottle glass fragment; two unidentified bottle glass fragments, one clear and the other yellow green; and three unidentified nail fragments. Half of a small, 2.7 cm diameter, porcelain toy teacup also was recovered. In addition, a partial handmade brick (9.6 cm width x 6.8 cm) was recovered from the site.

Two auger tests were excavated to delineate better the vertical extent of the site. Only one artifact, an unidentifiable iron fragment, was recovered from either of these auger tests.

Two 1 x 1 m units were excavated at 16PL151. The first of these, Unit 1, contained 83 artifacts and one bone fragment, over half of the material recovered from the site. A variety of ceramic sherds was recovered, including four hard porcelain sherds, two of which were molded. Three ironstone sherds were recovered, including a flatware sherd with a tan opaque interior and exterior blue glaze. One buff bodied earthenware sherd with an Albany slip (ca. 1820 - 1900) was located. In addition, 17 whiteware and seven whiteware/ironstone sherds were found; the whiteware included two molded sherds, one flow blue rim fragment (post 1840), and one mulberry-colored transfer printed sherd. From the 1870s into the early twentieth century, transfer printed patterns generally included floral and "Japanese" designs; much more white was present in the decoration during the last half of the century (George L. Miller, personal communication 1989). The recovered transfer printed sherd has a floral, open design, and probably dates from the late nineteenth or early twentieth century.

Numerous glass fragments were located in Unit 1. Nine were fragments of clear, amber, and aqua machine-made bottle glass, including five amber fragments from one bottle, and two aqua fragments from another bottle. These all have a post 1920 use popularity date range, although the process was introduced in 1903 (Jones and Sullivan 1985). An amethyst bottle neck with a hand-turned lip, along with an amber mold-blown fragment, and 14 unidentified bottle glass fragments of various colors (Table 1), were collected. In addition, one fragment of window glass was located in the unit. Also, five table glass fragments were recovered, including two unidentified fragments, and three tumbler fragments. One of the tumbler fragments is decorated below the rim with a recessed band of closely spaced raised vertical lines. Some tumblers with this decoration were used as commercial containers for condiments such as peanut butter, jelly, and mustard, and originally featured anchor closures which crimped into the shallow recessed band. Following consumption of the product, these containers were intended to be reused as tumblers (Jones and Sullivan 1985:143). A tumbler with similar decoration was collected from a ca. 1907 institutional refuse deposit (Hinks 1988a:38), indicating this style was in use during the early twentieth century.

Additional materials recovered from Unit 1 included 14 cut nails; three unidentified iron pieces; a small brass rivet used to secure pieces of leather, such as on shoes; a piece of roofing slate; a sawn animal bone; and a piece of electrical tape. The modern electrical tape was located in the lower artifact-bearing level of the unit, verifying the mixed nature of the deposits. In addition, some brick fragments, an oyster shell, and a little gravel were observed in the unit, but not collected.

A total of 15 artifacts were located in Unit 2. These artifacts included five undecorated whiteware sherds; two unidentified bottle glass fragments, one green and the other yellow green; three cut nails and one unidentified nail; two unidentifiable iron fragments; a fragment of roofing slate; and one animal bone fragment. Some brick fragments and oyster shells were observed in the unit; they were not collected.

In summary, a variety of domestic artifacts were recovered during the testing of Slater Site VH-1 (16PL151). These artifacts included ceramics, bottle and window glass, construction materials, nails, and other objects. While some of the artifacts, such as whiteware and ironstone, could date from throughout the nineteenth and early twentieth centuries, the assemblage as a whole dates from the late nineteenth and early twentieth centuries, ca. 1880 - 1930s. The recovery of 23 identified cut nails and no wire nails suggests that the primary construction phase occurred during the nineteenth century. On the other hand, 11 machine-made bottle fragments, probably from six bottles, were identified within the site. While this bottle making process was introduced in 1903, its use did not permeate the bottle manufacturing industry until about 1920 (Jones and Sullivan 1985). This indicates that the site continued in use until at least the 1910s or 1920s, and possibly into the 1930s. The dearth of mid-twentieth century artifacts suggests that the site no longer was used actively after the 1920s or 1930s. These data correspond to the previously discussed historic development of the property; several domestic structures were located on the property during the late nineteenth and early twentieth centuries.

Slater Site VH-2 (16PL152)

A total of 29 artifacts were collected during the testing of Slater Site VH-2 (16PL152). All of these were recovered from a series of shovel tests placed across the site. Ceramic sherds include six plain whiteware sherds, three undecorated ironstone sherds, one whiteware/ironstone sherd, and the mouth of a yelloware ginger beer bottle. All of these artifacts were used throughout the second half of the nineteenth century; ironstone and whiteware continued to be used well into the twentieth century.

Ten glass artifacts also were recovered from the shovel tests excavated at the site. Four of these artifacts were machine-made bottle glass fragments, both clear and aqua, with a post 1920 use popularity date range. One was a green mold-blown fragment, and another a tumbler fragment. Three unidentified bottle glass fragments also were located (Table 1). In addition, a small, 5 mm diameter, opaque green glass bead was recovered from one shovel test. Other than machine-made bottle glass, none of the glass evidenced diagnostic attributes.

Several other artifacts were collected from the site. Half of a brass furniture hinge was located, along with one cut nail and three wire nails, an unidentifiable iron fragment, a brick fragment, and a piece of modern plastic. Artifacts and ecofacts which were observed but not collected included machine-made bricks, wire nails, modern bottle glass, plastic, oyster shells, and gravel.

The artifacts recovered from Slater Site VH-2 (16PL152), suggest that the site was developed during the late nineteenth or early twentieth centuries, as evidenced by the recovery of a cut nail and a ginger beer bottle fragment. However, the site continued to be used well into the mid to late twentieth century. Most of the diagnostic artifacts date from the twentieth century, including the machine-made bottle glass and brick, the wire nails, and the plastic. These artifacts correspond with the previously discussed historic development of the property, which was occupied in the late nineteenth century, but that also featured a small shotgun dwelling through much of the twentieth century, and into the 1970s.

CHAPTER IX

SUMMARY AND RECOMMENDATIONS

Summary

Archeological investigations were conducted on three project area parcels, the 22.2-acre Chauvin lot, and the 30-acre and 40-acre Slater lots. During these investigations, two archeological sites were located, both on the 40-acre Slater lot. No archeological deposits were located on the other two parcels. In addition, no pre-1945 structures were located within any of the project areas.

The Slater Site VH-1 (16PL151) is located in the central part of the larger Slater lot, adjacent to an unimproved road (Figure 9). It contained a moderate quantity of late nineteenth through mid-twentieth century domestic and architectural debris, including ceramic sherds, bottle and window glass, nails, a button, and brick fragments. Shovel tests and auger tests were placed throughout the site to delineate its horizontal and vertical extent. Two excavation units placed within the site indicated that cultural deposits were confined to the plowzone of the site; there was no evidence of subsurface features or of in situ cultural deposits.

Based on the documented history of the property, the site probably is refuse associated with the late nineteenth and twentieth century occupation of the property. In the late nineteenth century, several structures stood in the vicinity of the site (Figure 6). These structures may date from early postbellum, when the property was owned by the LeRiche family. They certainly were occupied during Michel Bouziga's terminal nineteenth century ownership of the property, and probably until the 1930s or 1940s, when the property was owned by John Meyer, Inc. (Figure 4).

The Slater Site VH-2 (16PL152) is located near the downriver end of the larger Slater lot, adjacent to the unimproved road (Figure 9). This site contained a scatter of late nineteenth through late twentieth century domestic and architectural debris, including some ceramics, bottle glass, brick fragments, and gravel. The shovel and auger tests placed within the site indicated that cultural deposits were confined to the upper 20 cm of the site; there was no evidence of in situ features or cultural deposits.

A small shotgun dwelling was situated at the Slater Site VH-2 (16PL152) until it was razed in the 1970s (Donald Frelich, personal communication 1989). This structure may have been one of the buildings owned by Dr. Eugene Rabasse in the late nineteenth century that was depicted on the 1894 *Survey of the Mississippi River* map of the area (Figures 4 and 6). It undoubtedly was owned by the McCraws, and was purchased by Dr. Benjamin Slater in 1943. Following his death, the house was owned by his heirs until it was destroyed in the 1970s. The identified archeological deposits are the bulldozed remains of the shotgun house and the surrounding sheet refuse.

Recommendations

Both archeological sites were evaluated applying the National Register of Historic Places criteria of significance [36 CFR 60.4(a-d)]. The two sites, Slater Site VH-1 (16PL151) and Slater Site VH-2 (16PL152), are comprised of domestic remains associated with small farmsteads involved in citrus production. Both sites are associated with at least two significant historical themes identified in *Louisiana's Comprehensive Archaeological Plan:* the influence of the Mississippi River on historic settlement, and culture history (Smith et al. 1983:95-97). Important aspects of the culture history theme include the development of postbellum farmsteads, and Plaquemines Parish citrus production. Since small citrus-production farmsteads along the Mississippi River played a vital role in the development of the parish, these sites clearly are associated with themes significant in the regional history [36 CFR 60.4(a)].

However, both sites lack substantive archeological integrity and research potential [36 CFR 60.4(d)]. Both are contained within the plowzone, which has been disturbed within the past few decades. Excavations failed to reveal any features or in situ deposits. The recovered artifacts potentially span a century, yet were

mixed together. Potentially important components of the Slater Site VH-1 (16PL151) without a doubt were destroyed in the late 1970s levee setback and road realignment. Furthermore, the shotgun house originally situated in the Slater Site VH-2 (16PL152) was razed and bulldozed as recently as the late 1970s. Few important data have survived at either site. Because both sites lack substantive research potential, these sites are not significant historical resources, and they are not eligible for nomination to, or inclusion on, the National Register (36 CFR 60.4). No further archeological work at the Slater Site VH-1 (16PL151) or the Slater Site VH-2 (16PL152) is warranted. Further testing at these sites would not provide significant information about regional historic themes.

REFERENCES CITED

Chase, James E., John L. Montgomery, and Keith Landreth
1988 *Southeast Louisiana Cultural Resource Management Plan.* Agency for Conservation Archaeology Station 9, Eastern New Mexico University, Portales, New Mexico. Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Davis, Dave D., Marco J. Giardino, and John D. Hartley
1978 *Cultural Resources Survey, New Orleans to Venice Hurricane Protection Levee, Reach A, Plaquemines Parish, Louisiana.* Department of Anthropology, Tulane University, New Orleans, Louisiana. Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-78-M-1873.

Davis, Dave D., John D. Hartley, and Ruth Weins Henderson
1981 *An Archaeological and Historic Survey of the Lowermost Mississippi River: Cultural Resources Survey, New Orleans to Venice Hurricane Protection Levee, East Bank Barrier Levee Plan, Plaquemines Parish, Louisiana.* Department of Anthropology, Tulane University, New Orleans, Louisiana. Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-79-C-0090.

Frazier, David E.
1967 Recent Deltaic Deposits of the Mississippi: Their Development and Chronology. *Gulf Coast Association of Geological Societies Transactions* 17:287-315.

Gagliano, Sherwood M., Kathleen G. McCloskey, Johannes L. Van Veek, Richard A. Weinstein, Diane E. Wiseman, and Karen M. Wicker
1979 *A Cultural Resources Survey of the Empire to the Gulf of Mexico Waterway, Plaquemines Parish, Louisiana.* Submitted by Coastal Environments, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-77-D-0272.

Gagliano, Sherwood M. and Richard A. Weinstein
1979 The Buras Mounds: A Lower Mississippi River Mound Group, Plaquemines Parish, Louisiana. Appendix A in *A Cultural Resources Survey of the Empire to the Gulf of Mexico Waterway* by Sherwood M. Gagliano, Kathleen G. McCloskey, Johannes L. Van Veek, Richard A. Weinstein, Diane E. Wiseman, and Karen M. Wicker. Submitted by Coastal Environments, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Gagliano, Sherwood M., Richard A. Weinstein, Eileen K. Burden, Katherine L. Brooke, and Wayne P. Glander
1978 *Cultural Resources Survey of the Barataria, Segnette, and Rigaud Waterways Jefferson Parish, Louisiana.* Submitted by Coastal Environments, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Godden, Geoffrey A.
1964 *Encyclopaedia of British Pottery and Porcelain Marks.* Bonanza Books, New York.

Goodwin, R. Christopher, Peter A. Gendel, and Jill-Karen Yakubik
1983 *Archeological Survey of the New House Site, Harlem Plantation, Plaquemines Parish, Louisiana.* Submitted by R. Christopher Goodwin & Associates, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Goodwin, R. Christopher, Marvin D. Jeter, Mark A. Catlin, Jeffrey E. Treffinger, Paul C. Armstrong, Jill-Karen Yakubik, Roderick Lincoln, Mary K. Knill, Herschel A. Franks, and Carol J. Poplin

1986 *Cultural Resources Survey of the New Orleans to Venice Hurricane Protection Project, Reach C Enlargement, Plaquemines Parish, Louisiana.* Submitted by R. Christopher Goodwin & Associates, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Goodwin, R. Christopher and Jill-Karen Yakubik

1982 *Report on the Level II Archeological Survey of Magnolia Plantation, Plaquemines Parish, Louisiana.* Submitted by R. Christopher Goodwin & Associates, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Goodwin, R. Christopher, Jill-Karen Yakubik, and Peter A. Gendel

1984 *Historic Archeology at Star and Bourbon Plantations: Miles 65.5-R and 151-L Mississippi River.* Submitted by R. Christopher Goodwin & Associates, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Goodwin, R. Christopher, Jill-Karen Yakubik, Debra Stayner, and Kenneth Jones

1985 *Cultural Resources Survey of Five Mississippi River Revetment Items.* Submitted by R. Christopher Goodwin & Associates, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Haag, William G.

1971 Louisiana in North American Prehistory. *Melanges* 1:1-45. Museum of Geoscience, Louisiana State University, Baton Rouge, Louisiana.

Hinks, Stephen

1988a *Archeological Data Recovery, Hampton VA Medical Center, Hampton, Virginia.* Report submitted by MAAR Associates, Inc. to the U.S. Veterans Administration, Washington, D.C. Contract No. VIOC-1531.

1988b *A Structural and Functional Analysis of Eighteenth Century Buttons.* Unpublished M.A. thesis, Department of Anthropology, College of William and Mary in Virginia, Williamsburg.

Hunter, Donald G. and Sally K. Reeves

1988a *Cultural Resources Investigations in the Vicinity of Fort Jackson, Plaquemines Parish, Louisiana: An Archeological Survey of Proposed Borrow Area A and A Research Design for Four Additional Construction Locales.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

1988b *Cultural Resources Investigations in the Vicinity of Fort Jackson, Plaquemines Parish, Louisiana: The Proposed Homeplace and Tropical Bend Borrow Areas.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Jeter, Marvin D. and R. Christopher Goodwin

1986 *Archeological Research to Locate and Identify The French "Fort on the Mississippi" 16PL27 (1700-1707) Plaquemines Parish, Louisiana.* Submitted by R. Christopher Goodwin & Associates, Inc. to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Jones, Dennis

1988 *Cultural Resources Investigations in the Vicinity of Fort Jackson, Plaquemines Parish, Louisiana: The Proposed Solari Borrow Area.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Jones, Olive and Catherine Sullivan

1985 *The Parks Canada Glass Glossary.* Studies in Archaeology, Architecture and History, National Historic Parks and Sites Branch, Parks Canada.

Kniffen, Fred B.
1936 A Preliminary Report on the Mounds and Middens of Plaquemines and St. Bernard Parishes, Lower Mississippi River Delta. *Louisiana Geological Survey* Bulletin No. 8:407-422. Baton Rouge, Louisiana.

Lowrie, Walter and Walter S. Franklin
1834 *American State Papers, Class VIII, Public Lands,* Vols. II and III. Gales and Seaton, Washington, D.C.

May, J.R.
1984 *Geological Investigation of Mississippi River Deltaic Plain.* U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg District, Mississippi. Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

McIntire, William G.
1958 Prehistoric Indian Settlements of the Changing Mississippi River Delta. *Coastal Studies Series* No. 1. Louisiana State University, Baton Rouge, Louisiana.

Montgomery, John L.
1988 Geomorphology of the Mississippi River and Paleogeography of the Management Area. Appendix E in *Southeast Louisiana Cultural Resource Management Plan,* by James E. Chase, John L. Montgomery, and Keith Landreth, Vol. 3. Agency for Conservation Archaeology, Eastern New Mexico University, Portales, New Mexico. Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-86-D-0094.

Montgomery, John L., Keith Landreth, Joan Exnicios, Kathleen Bowman, and James Bowman
1988 *Final Report of Cultural Resource Investigations within the U.S. Army Corps of Engineers New Orleans to Venice Hurricane Protection Project.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-86-D-0094.

Munsey, Cecil
1970 *The Illustrated Guide to Collecting Bottles.* Hawthorn Books, Inc., New York.

Nelson, Lee H.
1963 Nail Chronology as an Aid to Dating Old Buildings. *American Association of State and Local History.* Technical Leaflet 15.

Neuman, Robert W.
1977 An Archeological Assessment of Coastal Louisiana. *Melanges,* No. 11. Louisiana State University Museum of Geoscience, Baton Rouge, Louisiana.

1984 *An Introduction to Louisiana Archaeology.* Louisiana State University Press, Baton Rouge, Louisiana.

Newton, Jr., Milton B.
1987 *Louisiana: A Geographical Portrait.* 2nd ed. Geoforensics, Baton Rouge, Louisiana.

Penfound, W.T. and E.S. Hathaway
1938 Plant Communities in the Marshland of Southeastern Louisiana *Ecological Monographs* 8:1-56.

Phillips, Philip
1970 Archeological Survey in the Lower Yazoo Basin, Mississippi, 1949-1955. *Papers of the Peabody Museum,* Vol. 60. Harvard University, Cambridge, Massachusetts.

Quimby, George I.
1951 The Medora Site, West Baton Rouge Parish, Louisiana. *Anthropological Series Field Museum of Natural History* vol 24:(2) 80-135. Field Museum Press, Washington D.C.

Ramsay, John
1947 *American Potters and Pottery.* Tudor Publishing Company, New York.

Saucier, Roger T.
1974 *Quaternary Geology of the Lower Mississippi Valley.* Research Series No. 6. Arkansas Archeological Survey, Fayetteville, Arkansas.

Shenkel, J. Richard
1976 *Cultural Resources Survey, Empire Lock Forebay and Levee Setback, Plaquemines Parish, Louisiana.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

1977a *Cultural Resources Survey of the Port Sulfur Levee Enlargement and Setback, Mississippi River Levees, Buras Levee District, Item M-41.7-R, Plaquemines Parish, Louisiana.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-76-C-0150.

1977b *Cultural Resources Survey of the Homeplace Levee Enlargement and Slope Pavement (Phase II) Mississippi River Levees, Buras Levee District, Item M-37.7-R., Plaquemines Parish, Louisiana.* Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana. Contract No. DACW29-76-C-0150.

Smith, Lawson M., Joseph B. Dunbar, and Louis D. Britsch
1986 *Geomorphological Investigation of the Atchafalaya Basin, Area West, Atchafalaya Delta, and Terrebonne Marsh.* Geotechnical Laboratory and Coastal Engineering Research Center, U.S. Army Corps of Engineers Waterways Experiment Station Vicksburg, Mississippi, Technical Report GL-86-3. Submitted to the U.S. Army Corps of Engineers, New Orleans District, Louisiana.

Smith, Steven D., Philip G. Rivet, Kathleen M. Byrd, and Nancy Hawkins
1983 *Louisiana's Comprehensive Archaeological Plan.* State of Louisiana, Department of Culture, Recreation and Tourism, Office of Cultural Development, Division of Archaeology, Baton Rouge, Louisiana.

South, Stanley
1977 *Methods and Theory in Historical Archeology.* Academic Press, New York.

Speaker, John S., Joanna Chase, Carol J. Poplin, Herschel Franks, and R. Christopher Goodwin
1986 Archeological Assessment Barataria Unit Jean Lafitte National Historical Park. *Southwest Cultural Resources Center Professional Papers* No. 10. Submitted by R. Christopher Goodwin & Associates, Inc. to the National Park Service, Southwest Region, Santa Fe, New Mexico.

Swanton, J.
1946 *The Indians of the Southeastern United States.* Bureau of American Ethnology, Bulletin 137. U.S. Government Printing Office, Washington D.C.

United States Department of Agriculture
1969 *General Soil Map Plaquemines Parish, Louisiana.* Alexandria, Louisiana.

1983 *Soil Survey of Jefferson Parish, Louisiana.* United States Department of Agriculture, Soil Conversation Service, Washington, D.C.

PERSONAL COMMUNICATION

Bedford Brown, National Weather Service, 1989

Donald Frelich, 1989

George L. Miller, 1988, 1989

UNPUBLISHED SOURCES

Conveyance Office Books (COB), Plaquemines Parish, Louisiana.

Notarial Books (NB), Plaquemines Parish, Louisiana.

ACKNOWLEDGMENTS

We would like to express our gratitude to those individuals and organizations who gave their time and effort to assist us in the development of this report. Mr. Van T. Button, COTR, wrote the scope of services, and provided valuable advice throughout the project; Ms. Carroll H. Kleinhans served as COR. We also thank the staffs of the Louisiana Division of Archaeology, the Louisiana Collection at the Howard-Tilton Memorial Library, Tulane University, and the Plaquemines Parish Courthouse for their assistance.

At R. Christopher Goodwin & Associates, Inc., William P. Athens served as project manager. James M. Wojtala acted as field supervisor. Field investigators included Stephen Hinks, Rebecca E. Bruce, and Christy Sevante. Shirley Rambeau and Claudette M. Broussard prepared the graphic materials for inclusion in this report, and Lyn O'Brien produced the report.

APPENDIX I

SCOPE OF WORK

CELMN-PD-RA 24 April 1989

Contract DACW29-88-D-0121
Delivery Order 7

SCOPE OF SERVICES

CULTURAL RESOURCES INVESTIGATIONS OF THREE BORROW AREAS: NEW ORLEANS TO VENICE HURRICANE PROTECTION PROJECT, REACH A- B/L STA. 0+00 TO STA. 249+00,PLAQUEMINES PARISH, LOUISIANA

1. Introduction

The U.S. Army Corps of Engineers, New Orleans District (NOD), is constructing the New Orleans to Venice Hurricane Protection Project in Plaquemines Parish, Louisiana. Borrow areas have been defined to provide material for the lift of the Reach A levee from B/L Station 0+00 to 249+00. These three borrow areas, Slater Properties (2 parcels on either side of the highway) and Chauvin (see Figures 2, 3) lie outside of the Project areas which have been previously surveyed and reviewed for cultural resource impacts. Accordingly, a survey of the three borrow areas only (about 92 acres total) is needed at this time.

This delivery order calls for a cultural resources investigation of the three borrow areas (see Figures 2, 3,). The contract period for this work is 175 days.

2. Study Area

The project is located in southeastern Louisiana within Plaquemines Parish on the West (right descending) bank of the Mississippi River. The borrow areas are on lands lying between the main Mississippi levee and the back levee. The plots are in each case located on the outskirts of small communities and are on undeveloped agricultural land. The Slater Properties (one parcel about 30 and the other 40 acres) are on the edge of Port Sulphur. The Chauvin parcel (approximately 22 acres) is behind Hesperides.

The areas to be surveyed are clearly demarcated small land parcels. All three parcels have been cleared in the recent past. The Chauvin plot appears to have been plowed in 1988 and the Slater Properties plots have been recently brush-hogged. The three parcels comprise a total of approximately 92 acres to be surveyed.

3. Background Information

Comprehensive background studies and research design creation have already been done for the area as part of the NOD Southeast Louisiana Cultural Resource Management Plan (SELACRMP). The borrow areas do not fall within areas previously subjected to archeological survey. No documented sites are located on any of the parcels. No standing structures appear on aerial photographs or were observed in a recent overflight of the area. No properties currently listed in or determined eligible for inclusion in the NRHP are recorded in any parcel.

The natural levee of the Mississippi, where all three parcels are located, may incorporate both historic and prehistoric archeological sites No sites earlier than Coles Creek are predicted.

4. General Nature of the Work to be Performed.

Three land parcels totaling approximately 92 acres within Plaquemines Parish, Louisiana, will be addressed under this delivery order. The investigation will utilize SELACRMP for general background, overview and research perspectives. The work will be divided into three phases :

(1) Mobilization and Title Search
(2) Intensive Cultural Resources Survey
(3) Data Analysis and Report Preparation

5. Study Requirements

Phase 1: Mobilization and Title Search

A title search will be done for each parcel. The title search will provide a history of land ownership as context for the evaluation of archeological sites which may be found by the survey. No extensive literature review or historic map research will be performed under this delivery order. The need for extensive background work is obviated by the comprehensive nature of previous New Orleans to Venice Project and SELACRMP studies and the small acreage under study.

Phase 2: Intensive Cultural Resources Survey

Upon completion of Phase 1, the contractor will conduct an intensive pedestrian survey augmented with systematic shovel testing. No excavation will be permitted within any existing levee. A 20-meter transect width, and a shovel-testing interval of 50 meters in an offset pattern are suggested. Shovel tests will be approximately 30x30 cm in the horizontal plane down to sterile subsoil. All excavated soil will be screened through 1/4 inch wire mesh. All shovel tests will be backfilled. This systematic procedure will be supplemented with judgmental shovel testing based upon the background research and surface artifacts which may be observed.

State site forms will be completed and state-assigned site numbers will be utilized for all archeological sites located by the survey. All sites located in the survey area will be mapped, photographed, and defined using shovel, auger, and limited controlled surface collection to *characterize* depth of deposit, site boundaries, stratigraphy, cultural association, and possible activity areas. All cultural resources located by the survey will be evaluated against the National Register criteria contained in Title 36 CFR Part 60.4 and within the framework of the historic setting to assess the potential eligibility for inclusion in the National Register.

Upon completion of the Phase 2 field work, a management summary succinctly reporting the results of the title search and the field survey shall be submitted to the COR within 14 days (see section 6).

Phase 3: Data Analysis and Report Preparation

All data will be analyzed using currently acceptable scientific methodology. The Contractor shall catalogue all artifacts, samples, specimens, photographs, drawings, etc., utilizing the format currently employed by the Louisiana State Archeologist. The catalogue system will include site and provenience designations.

The Contractor shall abstract from SELACRMP brief descriptions of the geomorphology, ecology, and cultural history of the area, and summarize previous research. This information shall be integrated with the title search and survey results, and analyses to produce an appropriately illustrated, scientifically acceptable draft report.

All cultural resources located by the survey within the study area will be evaluated against the NRHP criteria contained in Title 36 CFR Part 60.4 and within the framework of the historic setting to assess the potential eligibility for inclusion in the NRHP. The Contractor will classify each site as being *eligible*, *potentially eligible*, or *not eligible*. for inclusion in the NRHP.

6. Reports

Management Summary

Four copies of the management summary, one set of U.S.G.S. quadrangle maps accurately delineating site locations, and one set of site forms for any sites located will be submitted to the COR within 14 days after completion of field work (49 days after date of order). The management summary will succinctly report the results of the field investigations, i.e. number, type, brief description and assessment of project impacts for all cultural resources located and preliminary assessments of site significance. If cultural resources are identified during the survey, the report will recommend which (if any) of them should be avoided in the lay out of the borrow pits. The summary report is not intended to be a lengthy interim report, but shall contain enough information to serve as a planning aid and a means of informing the COR .

Monthly Progress Reports

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

Draft and Final Reports

Five copies of the draft report integrating all phases of this investigation will be submitted to the COR for review and comment 70 days after date of date of order. The Contractor shall submit state site forms for sites discovered in the course of work under this delivery order as an appendix to the draft report.

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

The COR will provide all review comments to the Contractor within 42 days after receipt of the draft reports (112 days after date of order). Upon receipt of the review comments on the draft report, the Contractor shall incorporate or resolve all comments and submit one preliminary copy of the final report to the COR within 21 days (133 days after date of order). Upon approval of the preliminary final report by the COR, the Contractor will submit 30 copies and one reproducible master copy of the final report to the COR within 175 days after date of order. Included as an appendix to the Final Report will be a complete and accurate listing of cultural material and associated documentation recovered and/or generated.

A copy of the Delivery Order Scope-of-Services shall be bound with the Final Report.

In order to preclude vandalism, the final report shall not contain specific locations of archeological sites. Site specific information, including one set of project maps accurately

delineating site locations, site forms, black and white photographs and maps, shall be included in an appendix separate from the main report.

7. References

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

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

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

-Louisiana's Comprehensive Archeological Plan dated October 1, 1983;

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

-The Advisory Council on Historic Preservation's Section 106, Update/3 entitled, "Manual of Mitigation Measures (MOMM)" dated October 12, 1982.

-Agency for Conservation Archeology, Eastern New Mexico University Southeast Louisiana Cultural Resource Management Plan.

8. Attachments

(Figure 1) General Location of Work Area
(Figure 2) Detail Map, Slater Properties Location
(Figure 3) Detail Map, Chauvin Location
(Figure 4) Photographs Slater Properties, Chauvin Locations
Previously Furnished- Reproducibles (2), Aerial Photograph Mosaic Maps of Project Areas

9. Disposal of Records and Artifacts

All records, photographs, artifacts, and other material data recovered under the terms of this delivery order shall be recorded and catalogued in a manner compatible with those systems utilized by the Louisiana SHPO and by State and Federal agencies which store archeological data. They shall be held and maintained by the Contractor until completion of the delivery order. Final disposition of the artifacts and records will be in accordance with applicable Federal and State laws. Unless otherwise specified, artifacts will be returned to the landowner or permanently housed with the Louisiana Division of Archaeology and Historic Preservation or in a repository selected by the State Archeologist. The Principal Investigator shall inform the COR in writing when the transfer of data has been completed and shall forward to the COR a catalogue of items entered into curation. The location of any notes, photographs or artifacts which are separated from the main collections from the project area which are used in data analyses will remain in private ownership. The Contractor shall be responsible for delivery of the analyzed archeological material to the individual landowners, the Louisiana SHPO's office, or any other repository designated by the Government following acceptance of the final report. All artifacts to be permanently curated will be cleaned, stabilized, labeled, catalogued on typed State curation forms, and placed in sturdy bags and boxes which are labeled with site, excavation unit or survey collection unit provenience.

10. **Schedule**

Initiate Phase 1 (Title Search)-14 days after date of order

Initiate Phase 2 (Field Survey)-28 days after date of order

Submit Management Summary- 49 days after date of order

Submit Draft Report-70 days after date of order

Receive NOD comments-112 days after date of order

Provide Preliminary Copy of Final Report-133 days after date of order

Submit Final Reports-175 days after date of order

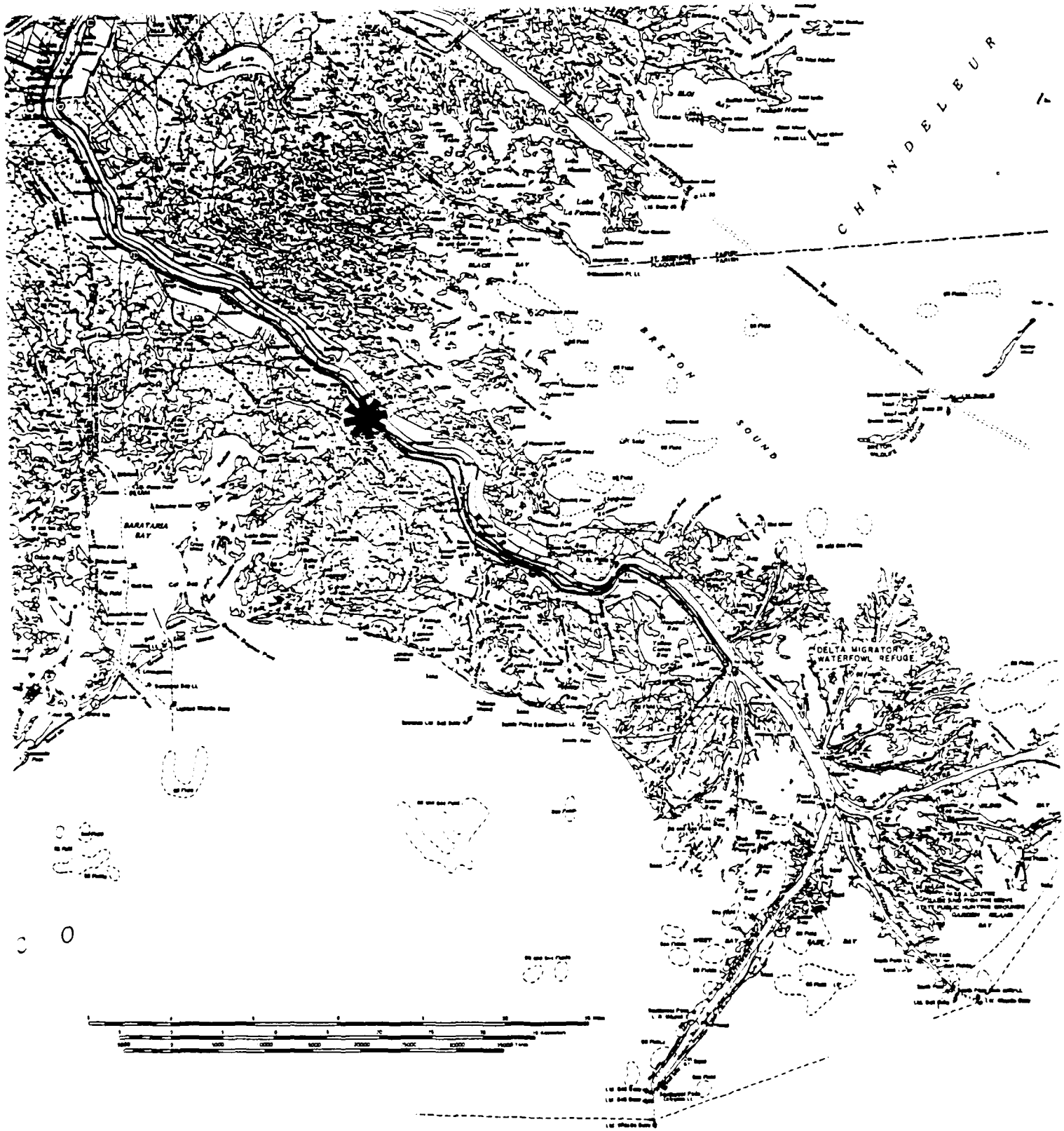


FIGURE 1
General Location of Work Area

FIGURE 2
Detail Map, Slater Properties Location

SCALE IN FEET
1000 0 1000 2000

Note:
Uncontrolled mosaic prepared from aerial photos flown January - February 1987

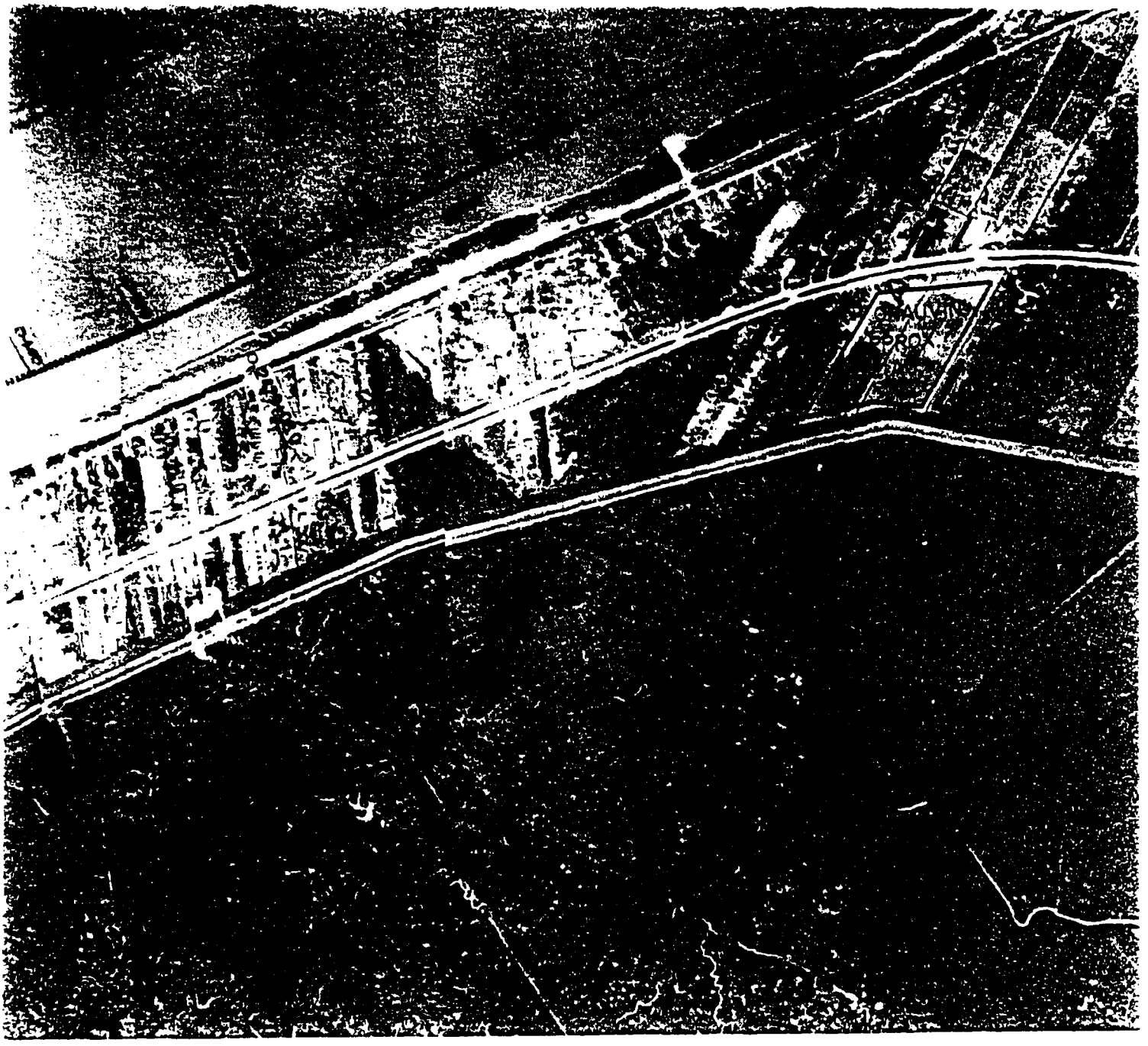
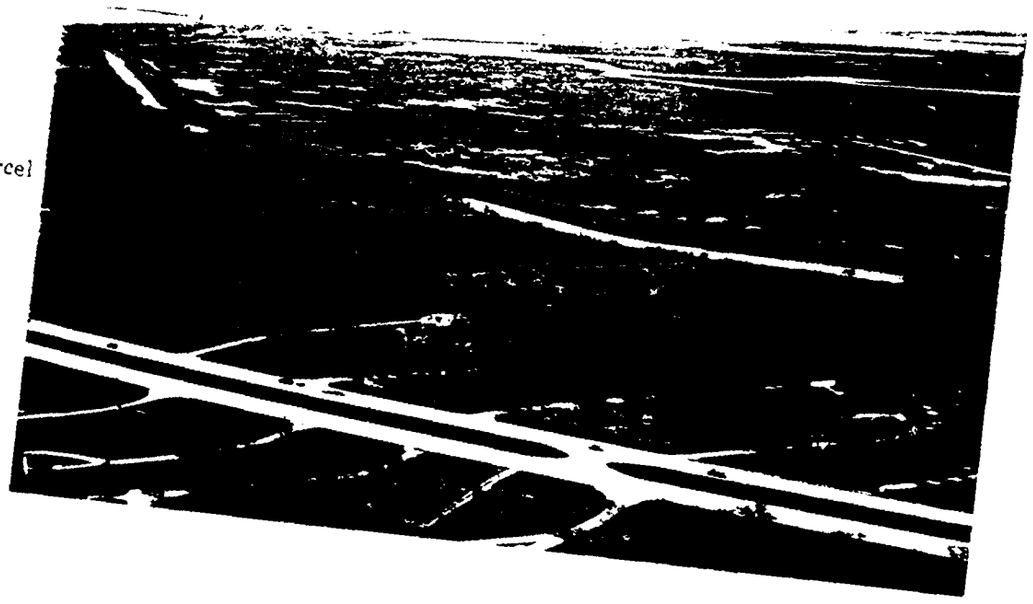


FIGURE 3
Detail Map, Chauvin Location

FIGURE 4

Chauvin Parcel



Slater Properties
Parcel