

# Roots in the Wetlands

*Gay M. Gomez*

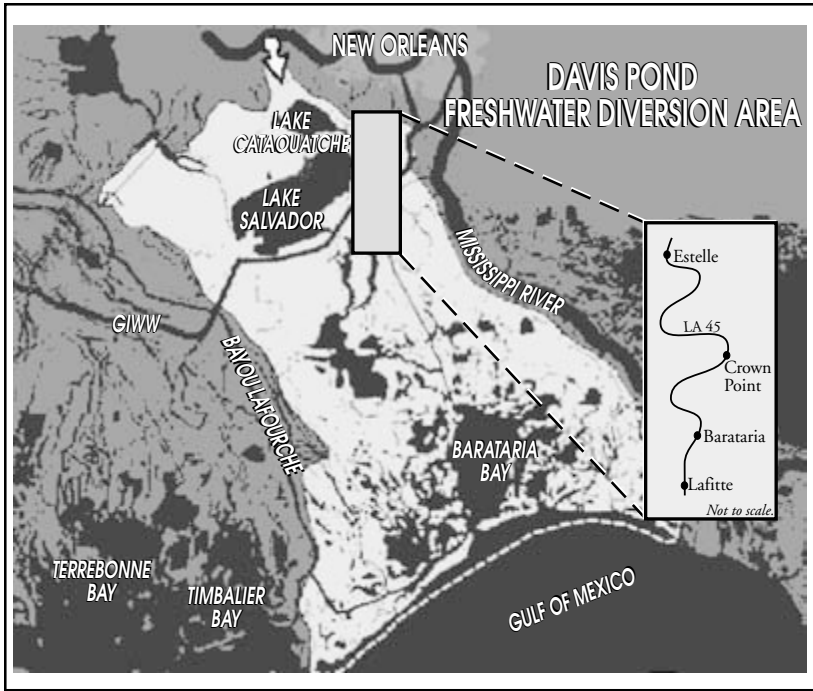
On March 26, 2002, 300 people gathered along the west bank of the Mississippi River some 20 miles upriver from New Orleans to watch as Louisiana's top governmental officials joined those of the U.S. Army Corps of Engineers at a ribbon-cutting ceremony opening the Davis Pond Freshwater Diversion Structure (Figure 1). Massive gates opened, allowing a torrent of milk-chocolate-brown water to pour through a concrete channel under the levee and into a canal that stretched southward to the swamps and marshes of the Barataria basin, a 1.5-million-acre lowland situated between the Mississippi River and Bayou Lafourche. The structure, which the Corps bills as the world's largest coastal-restoration project, is a controlled puncture in the river's bulwark of levees. It can divert up to 10,650 cubic feet of water per second to benefit approximately 700,000 acres of deteriorating wetlands, reducing salinity and increasing sediments so that cypress trees will not succumb to saltwater and the marsh grasses of lower elevations can again flourish.<sup>1</sup>

Vegetated wetlands like these are the key to south Louisiana's bountiful fish and shellfish harvest,<sup>2</sup> but the wetland plants, especially the amazing variety of marsh grasses, serve yet another function: they grip the land with a web of intertwined roots and so help hold the line against the wetland loss that is tearing at the fabric of Louisiana's culture and economy. In a state that is losing an average of twenty-five to thirty-five square miles of coastal wetlands each year,<sup>3</sup> the muddy brown water flowing through the Davis Pond Freshwater Diversion Structure is viewed as a gift to the plants, a gift to the estuary, and a gift to Louisiana.

The objective of this \$119 million project is to mimic nature, for most of Louisiana south of the 30th parallel of latitude is a gift of the Mississippi. During the past 7,000 years, the great river has shifted course five times, forming deltas and building land. The water that flows through the Davis Pond Diversion is, of course, a mere drop in comparison to the annual floods of the Mississippi River that created the Barataria region some 3,500-2000 years ago. Then, according to geologist David E. Frazier,

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Gay M. Gomez is Assistant Professor of Geography in the Department of Social Sciences at McNeese State University in Lake Charles, Louisiana. *Historical Geography* Volume 31(2003): 33-42. ©2003 Geoscience Publications.



**Figure 1.** Water-distribution pattern of the Davis Pond Freshwater Diversion Structure. Inset depicts location of Louisiana Highway 45 as described on page 35. (Map courtesy U.S. Army Corps of Engineers and Geoscience Publications.)

the shifting Mississippi River followed a course approximately eight to twenty miles west of its present location, a course that Bayou des Familles and Bayou Barataria now mark. As the river flowed south along this route to the Gulf of Mexico, its annual floods spread a broad fan of sediment across the landscape. Coarse sediments deposited near the river's channel built natural levees. From these banks, the land slopes gently into areas of progressively lower elevation, each zone marked by distinctive vegetation.<sup>4</sup>

Today, hardwood forests dominated by live oak and hackberry grow on the natural levees, which are higher and better drained than surrounding land; further down the very gradual slope, swamp red maples and palmettos begin to punctuate the forest. Even farther from the natural levee, water covers the land much of the year, a condition that favors the growth of bald cypress and water tupelo. These swamp trees, however, cannot tolerate immersion for years at a time, and in areas of still lower elevation the marsh grasses dominate and create a grassy expanse often pocked with ponds of varying sizes. As the slope continues toward the Gulf, freshwater and intermediate marshes become brackish, then saline. Each of these marsh types has its characteristic suite of vegetation as well.<sup>5</sup>

The marshes of Barataria, however, are in tatters, and its cypress-tupelo swamps are threatened, due in part to the natural subsidence of the

old, abandoned delta; in part to the network of oilfield and navigation canals that allows saltwater to penetrate previously freshwater wetlands; and in part to the sediment starvation that has resulted from the extensive levee system that constrains the Mississippi River and prevents its overflow into the wetlands.<sup>6</sup> Standing atop the fifteen-foot-high levee near Davis Pond, I watch the wide river flow swiftly past me toward its mouth, where it will dump tons of sediment off the edge of the Continental Shelf. Acknowledging the need for navigation and flood control (in spring the river level is clearly higher than that of the land), I glance toward the diversion's canal, and I wonder if the plan for restoring this part of the coast will work.

The Davis Pond Diversion is part of the \$14 billion Coast 2050 plan, the master plan for saving all of Louisiana's coast.<sup>7</sup> I am concerned, because if the plan fails to receive the funding necessary for full implementation, or fails to measure up to expectations, there will be more than land lost. Like every Louisianian—and every American—I have something at stake here: the continued viability of port facilities and cities shielded by these wetlands from storm surges, millions of pounds of Gulf seafood nurtured by these wetlands, billions of dollars of oil and gas that is either produced in or piped through these wetlands, and the continuance of a unique and valued Cajun culture that remains closely tied to these lands and waters.<sup>8</sup> Yet for me and for thousands of other south Louisianians, the fate of the Barataria basin is something more personal. Like the cypress trees and marsh grass, I have roots in these wetlands.

I first encountered Barataria during my early childhood on Sunday drives with my parents along Louisiana Highway 45. The two-lane road follows the winding course of Bayou des Familles through the hardwood forest and palmetto woods, with cypress trees and standing water visible in the shadows beyond them. At one place along the road, a high place called "Coquille" for the clam shell mounds that Native Americans built there long before,<sup>9</sup> branches of huge oak trees span the road, and cascades of gray Spanish moss cast moving shadows upon it. It was—and still is—a magical place, and I can still hear my mother's voice repeating its legend: "On moonlit nights, they say you can see the ghost of Jean Laffite up there, in the moss."<sup>10</sup> We parked there one night and looked but saw only the beauty of the full moon behind the tracery of dark limbs and glowing filaments.

Jean Laffite (widely spelled Lafitte) is the locally famous pirate and smuggler who operated in the Barataria region from approximately 1803 to 1815. A French-Creole likely born in the West Indies, Laffite and his fellow privateers used Barataria's maze of bayous, swamps, and marshes to avoid paying taxes on "imports" that included both material and human cargo. While New Orleans residents welcomed the opportunity to purchase the smugglers' merchandise and slaves at a lower price than American merchants could offer, Louisiana governor William C.C. Claiborne

sought to end the Baratarians' activities by ordering Laffite's arrest and sending an expedition against the pirates' stronghold in late 1814. Fortunately for the smugglers, Laffite's intimate knowledge of the waterways leading to the Mississippi River and New Orleans proved valuable to General Andrew Jackson in the Battle of New Orleans in December 1814 and January 1815, earning Laffite and his men pardons from the American governor and the appellation of patriots.<sup>11</sup>

Laffite's use of the region as a place to evade capture and to distribute his goods gave the area not only legends but also several place names, including "Lafitte," a community stretching along the east bank of Bayou Barataria, and "Jean Lafitte," an incorporated town in the northern part of that community. Across the bayou from Jean Lafitte lies another linear community called Barataria. The latter place name may also be connected with piracy or smuggling, but its origins antedate the privateer and remain uncertain.

"Barataria" simultaneously designates one small community and the entire region, as well as its major bayou and bay, and it appears on Louisiana maps at least a half century before Laffite plied its waters.<sup>12</sup> The name also appears in Antoine Simon Le Page Du Pratz's 1758 *History of Louisiana*. Le Page du Pratz, a plantation overseer in the French colony of Louisiana from 1718 to 1734, described a region of interconnected lakes south of New Orleans and stated that the lowland it enclosed was called Barataria because it formed "almost an island on dry land."<sup>13</sup> The chronicler associated the name with the island of Barataria in Cervantes' *Don Quixote*, a similar place which the duke had awarded Sancho Panza in jest. "Jest" is the Old Spanish meaning of *barato*, from which the island's name springs.<sup>14</sup> Other possible sources of the name's origin are the Old French *baraterie*, which means fraud, swindle, or deceit (perhaps referring to the disenchantment of early Louisiana colonists when their recruiters' glowing descriptions of the area did not coincide with the reality of the watery lowlands), and the nautical use of *baraterie*, which local historian Betsy Swanson interprets as "fraudulence, illegality, or dishonesty at sea."<sup>15</sup>

Today, Barataria's culture and economy remain tied to the area's waters, as the landscape bears witness. South of Coquille, Highway 45 turns to follow Bayou Barataria, which is the "real" main highway, a water road lined with houses that open not to backyards but to wooden docks with boats of many sizes. Here are fifty-foot shrimp trawlers fit for the open Gulf, slender "Lafitte skiffs" half their size that trawl inshore waters, thirty-foot oyster luggers with horizontal wooden slats above their gunwales to hold piles of shellfish torn from the reefs with a mechanical dredge, speedy bass boats and cabin cruisers, smaller recreational and fishing boats such as twelve-foot flatboats or skiffs with outboard motors, and human-powered pirogues (shallow-draft vessels similar to a dugout canoe) which are ideal for travel in the shallow marshes. The houses and boats belong to people of varied ancestries; many are Cajun French, but there is also Spanish

(Canary Island), German, English, Irish, Italian, Croatian, African, Chinese, Filipino, and Native American heritage here. “Cajun Louisiana” is in places like Barataria actually a multicultural gumbo.

As a Canary Island descendant, I am part of that gumbo, and my connection to Barataria deepened when I learned that one of my ancestors was an eighteenth-century settler in the region. In fact, Bayou des Familles (Bayou of the Families) was named for the Canary Island families that Louisiana’s Spanish government settled along that waterway in the late 1770s.

The families came voluntarily, responding to a call from the Spanish Crown that must have seemed like a heaven-sent opportunity: a chance to escape the economic depression and social unrest that plagued their dry, mountainous homeland, a group of seven islands in the eastern Atlantic Ocean off the coast of Morocco.<sup>16</sup> The low, wet banks of Bayou des Familles, along with the three other Isleño settlement areas in southeast Louisiana (Galveztown, Valenzuela, and St. Bernard), presented a very different climate and topography that challenged the new settlers. Nevertheless, these locations—and the Isleños’ presence there—were a key part of Spain’s strategy to defend New Orleans and the Louisiana colony.

Having received the colony from France in a cession in 1762, Spain worked vigorously after 1775 to boost Louisiana’s population and economy in order to strengthen it against a possible British attack from the east. French-speaking Acadian immigrants, victims of a brutal deportation from their homeland in 1755 at the hands of the British, had been streaming into Louisiana since 1765, encouraged initially by Spanish assistance in the form of land, tools, seeds, food, and building materials.<sup>17</sup> After 1775, however, the growing British threat forced the Spanish to further bolster the population with men who would both defend the colony and remain as loyal settlers. Accordingly, by royal decree in August 1777, the Spanish began recruiting Canary Island men and their families for permanent settlement in Louisiana.<sup>18</sup>

Among the nearly 1,600 Isleños who reached the colony by mid-1779 were my great-great-great-great-great-grandfather Angel Gomez and an older man who would become his son Diego’s father-in-law, Juan Alemán. The Spanish colonial government assigned Angel and his family to the Valenzuela settlement along upper Bayou Lafourche near its confluence with the Mississippi River, while Juan Alemán and his household, along with fifty-six other Isleño families, received posting to Barataria.<sup>19</sup>

While the Valenzuela settlement along high land near the Mississippi River flourished, the low-lying, palmetto-strewn settlement at Barataria struggled with floods, hurricanes, disease, and repeated losses of crops and livestock. By the end of 1779, the year of the settlement’s founding, the Barataria Isleños had already endured a flood and hurricane. Another hurricane struck the following year, and a flood ravaged the community

again in 1782. Realizing the futility of maintaining a settlement subject to such frequent natural disasters, the colonial government decided that year to abandon support of Barataria and to relocate its settlers to more stable Isleño communities. The Spanish commandant at Valenzuela evacuated sixteen families to his settlement in 1779; three years later Juan Alemán joined them, along with thirty-seven other refugees. By 1783, most of the remaining Barataria families were gone, leaving the lowlands of Bayou des Familles for the ridges of Bayou Terre-aux-Boeufs in St. Bernard, east of New Orleans.<sup>20</sup>

In recent years, the remains of the Canary Islanders' Barataria settlement have become the subject of archaeological study.<sup>21</sup> Walking in rubber boots along the leaf-strewn banks of the bayou with an archaeologist friend several years ago, I came to understand why this land was such a challenge for newly arrived Europeans. The natural levee here is low and narrow; its elevation averages a mere four-and-a-half feet above sea level.<sup>22</sup> The ground is damp even when it isn't flooded, but the presence of palmettos indicates that overflow is common. The forest and its canopy are thick and cast dark shadows; clearing a sufficient amount of land for farming here would take great effort. Mosquitoes, biting flies, and other insects abound. Reptiles such as alligators and water moccasins are also present. As I looked upon the low earthen mound that my friend indicated marked the site of an Isleño's home,<sup>23</sup> I wondered if my ancestor and his neighbors could ever have imagined this place as alluring.

Yet people did come to the Barataria basin, and they still do. Since 1820, Barataria has witnessed a succession of human users: sugarcane and rice farmers on its "frontlands" or natural levees; moss gatherers and loggers in its "backlands" or cypress swamps; waterfowl and deer hunters, fur and alligator trappers, and oil drillers in its "prairie tremblante" or marsh country; fishermen and shrimpers in the estuary's bays; and now scientists and tourists in each of these habitats.<sup>24</sup> The latter would likely have astounded the Isleños most of all.

The person most responsible for preserving a part of the Barataria wetlands, with the byproduct of making them more easily accessible to visitors, is a man with both deep roots and deep affection for this place. The man is Frank Ehret Jr., a retired educator from Marrero, Louisiana—a suburb of New Orleans that lies across the Mississippi River from the big city and ten miles north of Barataria. Born in 1917, Ehret spent much of his boyhood hunting and fishing in the region's swamps and marshes. His growing familiarity with the area and its wildlife led to a sense of caring and concern that spurred him to action as development from New Orleans' expanding West Bank suburbs began to encroach on the Barataria wetlands in the 1960s and 1970s.<sup>25</sup>

For nearly two decades, Ehret pressed his state representatives and U.S. senators and congressmen, urging them to protect the swamps and marshes by creating a national park. He wrote letters, made telephone

calls, spoke to environmental and civic groups, testified at hearings, hosted elected officials, and guided them into the Barataria wetlands so they might learn firsthand the beauty and value of its habitats. He also showed them the string of subdivisions that was extending New Orleans' residential development southward, threatening to consume these valued areas.

After numerous setbacks, and despite challenges that included a mandate to reconcile wetland and wildlife protection with continued access for local fishermen, hunters, trappers, and oil companies, Ehret's tenacity paid off at last. Louisiana Senator J. Bennett Johnston introduced the enabling legislation, and Congress in 1978 passed Public Law 95-625 authorizing the establishment of Jean Lafitte National Historical Park and Preserve. Approximately 20,000 acres of Barataria's wetlands and natural levees, including those along Bayou des Familles, comprise the park's Barataria Preserve, which is one of several park units in South Louisiana.<sup>26</sup>

Nearly every season since the Barataria wetlands became accessible to foot travel, I have walked the park's Coquille Trail. The two-mile trail stretches south of the shell mound and brooding oaks I knew as a child, follows the course of Bayou Coquille, then turns away from the hardwood forest to cross the cypress swamp. Descending gradually, this trail atop an old oilfield service road soon becomes a boardwalk, and at its halfway point lies the Kenta Canal, a straight-as-an-arrow waterway that divides the thinning cypress forest from the marsh beyond. Following the old logging canal to the trail's end is worth the extra steps, for here a tall bridge and observation tower overlook the eastern edge of one of the world's largest areas of floating freshwater marsh, or *flotant*.<sup>27</sup> The view to the north is equally striking: the tall office tower of One Shell Square in New Orleans juts above the trees, a reminder of the proximity of these wetlands to a major metropolitan area.

So many thoughts cross my mind here: the importance of this area for hurricane protection in my parents' hometown; the many layers of human occupation and use; the beauty of the swamp and marsh embodied in the annual spring bloom of native irises, the myriad butterflies, migratory and resident birds, alligators, snakes, and furbearers; but, most of all, the fragility of this ecosystem, of which humans are definitely a part.

The Barataria basin is losing an average of 11.1 square miles of land each year, the highest loss rate in the state.<sup>28</sup> If the freshwater and sediment from the Davis Pond Freshwater Diversion Project, or other components of the Coast 2050 Plan, do not succeed in stemming the tide of coastal land loss, there will be little incentive for humans to remain. It has taken roots of many kinds to make these wetlands a distinct and valued place, and the tenacity of both plants and people will be necessary if they are to endure for generations to come.

## Notes

1. Louisiana Department of Natural Resources, "Davis Pond is Largest Coastal Restoration Project in History," *Louisiana Coastlines* (Spring 2002): 6. The influx of freshwater from the Mississippi River is expected to reduce salinity in the Barataria Basin, pushing back saltwater that has infiltrated far into the estuary as a result of subsidence and canal dredging. At high flow rates, the structure will also pass sediments from the river into the basin, enhancing land building processes and stimulating the growth of marsh vegetation. Additional information on the Barataria Basin and the Davis Pond Freshwater Diversion Structure appears on the state's coastal restoration website at <http://www.lacoast.gov>.
2. Coalition to Restore Coastal Louisiana, "Louisiana's Estuaries: Where Our Rivers and Bayous Meet the Sea," *CoastWise* 8:2 (1998): 6, 11-12. The Barataria basin is part of the Barataria-Terrebonne National Estuary, the most productive estuary for fisheries in the lower forty-eight United States. For more information on the estuary, see the Barataria-Terrebonne National Estuary Program's website at <http://www.btneq.org>.
3. Coalition to Restore Coastal Louisiana, *No Time to Lose: Facing the Future of Louisiana and the Crisis of Coastal Land Loss* (Baton Rouge: Coalition to Restore Coastal Louisiana, 2000): 2-5. According to a Louisiana Department of Natural Resources public information brochure (R. C. Raynie and S. K. Beasley, *Working to Save Our Coastal Wetlands* [Baton Rouge: Louisiana Department of Natural Resources, Coastal Restoration Division, 2000]: 2), the state is currently experiencing 80% of the nation's coastal wetland loss.
4. David E. Frazier, "Recent Deltaic Deposits of the Mississippi River: Their Development and Chronology," *Transactions—Gulf Coast Association of Geological Societies* 17 (1967): 287-308. James M. Coleman provides a summary of the area's Late Quaternary geologic history, including a succinct description of the Mississippi's shifting delta, in *Recent Coastal Sedimentation: Central Louisiana Coast* (Baton Rouge: Louisiana State University Press, 1966): 7-10.
5. Betsy Swanson, David P. Muth, Herschel A. Franks, Richard S. Fuller, Marco J. Giardino, Charles E. Pearson, Jill-Karen Yakubik, and Henry C. Bezou, *Terre Haute de Barataria: An Historic Upland on an Old River Tributary Overtaken by Forest in the Barataria Unit of the Jean Lafitte National Historical Park and Preserve* (Harahan, La.: Jefferson Parish Historical Commission, 1991): 21-28, 43-47; Robert Belous, Kate Richardson, and David Muth, *Boundary Study/Environmental Assessment, Barataria Preserve Unit, Jean Lafitte National Historical Park and Preserve, Louisiana* (Denver: U. S. Department of the Interior, National Park Service, 1996): 45-46.
6. Coalition to Restore Coastal Louisiana, *No Time to Lose*, 2-5; Raynie and Beasley, *Working to Save Our Coastal Wetlands*, 5. Works on Louisiana's network of canals and their role in wetland loss include Donald Wayne Davis, "Louisiana Canals and Their Influence on Wetland Development" (Ph.D. diss., Louisiana State University, 1973) and R. Eugene Turner, *Relationship Between Canal and Levee Density and Coastal Land Loss in Louisiana* (Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service, 1987), Biological Report 85 (14).
7. Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority, *Coast 2050: Toward a Sustainable Coastal Louisiana, an Executive Summary* (Baton Rouge: Louisiana Department of Natural Resources, 1998): 1-12. This multifaceted plan for restoring the state's coast includes freshwater diversions, barrier island restoration, and marsh creation with dredged material, along with other strategies. The detailed plan is accessible on the state's coastal restoration website at <http://www.lacoast.gov>.
8. Coalition to Restore Coastal Louisiana, *No Time to Lose*, 7-45. Detailed descriptions of the links between contemporary Cajun culture and Louisiana coastal wetlands appear in Christopher Hollowell, *Holding Back the Sea: The Struggle for America's Natural Legacy on the Gulf Coast* (New York: HarperCollins, 2001) and in Gay M. Gomez, *A Wetland Biography: Seasons on Louisiana's Chenier Plain* (Austin: University of Texas Press, 1998). For a more general description of Cajun culture, see Barry Jean Ancelet, Jay Edwards, and Glen Pitre, *Cajun Country, Folklife in the South Series* (Jackson: University Press of Mississippi, 1991).
9. More than 80 prehistoric archaeological sites in the vicinity of Bayou des Familles and Bayou Barataria reveal a long history of human occupation in the region. Remains exist from the Tchefuncte (500-100 B.C.), Marksville (100 B.C.-300 A.D.), Troyville/Coles Creek (300-1000 A.D.), and Plaquemine/Mississippian (1000-1500 A.D.) periods, as well as from historic Native American tribes such as the Ouacha, Tchaouacha, and Chitimacha. The Ouacha and Tchaouacha reportedly lived in the Barataria region until the mid-nineteenth century. John



- Stuart Speaker, Joanna Chase, Carol Poplin, Herschel A. Franks, and R. Christopher Goodwin, *Archaeological Assessment, Barataria Unit, Jean Lafitte National Historical Park, Louisiana* (Santa Fe: U.S. Department of the Interior, National Park Service, 1986): 39-56; Belous et al., *Boundary Study/Environmental Assessment*, 47-48.
10. This legend, with a slight variation, also appears in an oral history recorded in Swanson et al., *Terre Haute de Barataria*, 163.
  11. Stanley Faye, *Privateers of the Gulf, 1803-1820* (Hemphill, Tex.: Dogwood Press, 2001): 36-39, 66-67, 91-98. Laffite's origins, as well as his early ties to Louisiana, are a matter of conjecture; for one plausible interpretation, see Jack C. Ramsay, Jr., *Jean Lafitte: Prince of Pirates* (Austin, Tex.: Eakin Press, 1996): 9-14.
  12. For example, see Jean-Baptiste Bourguignon d'Anville's "Carte de la Louisiane" (Paris, 1732/1752), which depicts "Isle Barataria" in the watery lowlands south of New Orleans. In *Historic Jefferson Parish, From Shore to Shore* (Gretna, La: Pelican, 1975: 134), author Betsy Swanson states that the name first appears on a 1729 map but fails to include a citation or illustration.
  13. Antoine Simon Le Page Du Pratz, *The History of Louisiana* (Baton Rouge: Claitor's, 1972, reprint, London: 1774): 145. While the reference to Sancho Panza does not appear in the English translation, it does appear in Le Page du Pratz' original work. M. [Antoine Simon] Le Page du Pratz, *Histoire de la Louisiane* (Paris: De Bure, Delaguette, and Lambert, 1758), 1: 289.
  14. Samuel Putnam, *The Portable Cervantes* (New York: Viking, 1951): 597, 836.
  15. A definition and etymology of *baraterie* appear in Paul Robert, *Le Grand Robert de la Langue Française* (Paris: Le Robert, 1985): 846. The first interpretation of its possible meaning as a Louisiana place name is mine; Swanson's interpretation appears in *Historic Jefferson Parish*, 134.
  16. Gilbert C. Din, *The Canary Islanders of Louisiana* (Baton Rouge: Louisiana State University Press, 1988): 1-14.
  17. Carl A. Brasseaux, *The Founding of New Acadia: The Beginnings of Acadian Life in Louisiana, 1765-1803* (Baton Rouge: Louisiana State University Press, 1987): 24-26, 73-75.
  18. Din, *Canary Islanders of Louisiana*, 12-15.
  19. Din's *Canary Islanders of Louisiana* (209-235) includes passenger lists of vessels that transported Isleños to Louisiana in 1778, 1779, and 1783 but does not list individuals' settlement locations. Useful sources for this information include parish censuses and the *Libros Maestros*, Spanish record books that tally the material and financial aid a family received from the colonial government and was expected to repay. While Din (47) states that he found no *Libro Maestro* for the Barataria settlement, one does exist; researcher Paul Newfield discovered it at the *Archivo General de Indias* in Seville, Spain, and its enumeration of families appears in Swanson et al., *Terre Haute de Barataria*, 63-66.
  20. Din, *Canary Islanders of Louisiana*, 47-51; Swanson et al., *Terre Haute de Barataria*, 58-67, 93-95.
  21. Summaries of the excavations' findings appear in Swanson et al., *Terre Haute de Barataria*, 81-91.
  22. Belous et al., *Boundary Study/Environmental Assessment*, 5.
  23. Archaeological investigations of 10 Isleño house sites along Bayou des Familles in 1988 and 1989 revealed a late eighteenth-century settlement atop prehistoric Native American remains. The Canary Islanders' houses were apparently built on mounds about 40 feet in diameter and 2 feet high, with shallow borrow pits between them for additional earthen fill. The houses were low wooden cottages raised on brick piers; *bousillage*, a mixture of mud and moss, filled the spaces between timber beams. Swanson et al., *Terre Haute de Barataria*, 69, 79-91.
  24. Swanson et al., *Terre Haute de Barataria*, 103-179; Belous et al., *Boundary Study/Environmental Assessment*, 48-50.
  25. Hollowell, *Holding Back the Sea*, 229-234. For additional information on population growth and expanding development in the West Bank area of metropolitan New Orleans, see Belous et al., *Boundary Study/Environmental Assessment*, 51-54.
  26. Craig E. Colten, "Reintroducing Nature to the City: Wetlands in New Orleans," *Environmental History* 7:2 (2002): 236-238; Hollowell, *Holding Back the Sea*, 233-234. The text of Public Law 95-625 appears in Belous et al., *Boundary Study/Environmental Assessment*, 75-78. For his efforts to establish the Barataria Preserve, Frank Ehret, Jr., received the National Wildlife Federation's National Conservation Achievement Award in 1989. "Wildlife Federation Honors Ehret," *New Orleans Times-Picayune*, 30 April 1989.
  27. Belous, et al. (*Boundary Study/Environmental Assessment*, 46) provide an interesting description of Barataria's *flotant* marshes: "Above this sunken surface [of alluvial soils], generations of marsh

plants laid down a layer of peat, often many feet thick. The peat supports a unique floating marsh characterized by annual grasses, sedges, rushes, and forbs, known as *flotant*. . . . In some places, the *flotant* is so thick that it supports a unique floating community of shrubs and small trees.” For additional information on floating freshwater marshes, see Richard Joel Russell, “Flotant,” *Geographical Review* 32 (1942): 74-98.

28. Raynie and Beasley, *Working to Save Our Coastal Wetlands*, 5.