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THE NINETEENTH AND EARLY TWENTIETH CENTURY SUGAR INDUSTRY
IN THE LAFOURCHE COUNTRY

by John A. Heitmann¹

The Lafourche Country's narrow highways, characteristic swamplands, and ever present tidal pools convey to the unfamiliar visitor the feeling of being in a strange and rather mysterious land far removed from modern technology and culture.² Yet, this land's navigable waterways, favorable climate, and rich soil has long favored a productive sugar cane industry that has been neglected by scholars. A careful examination of the past reveals that the Lafourche Country sugar industry ranked as an equal in terms of innovation and productivity to that of the well-studied plantations along the Mississippi River and Bayou Teche. Indeed, both in the past and in the present, local developments reflected the dynamic technological and organizational changes associated with the international sugar trade. Centered along the banks of the 110 mile-long Bayou Lafourche and the bayous of Terrebonne Parish—Terrebonne, Black, Blue, du Large, Calliou, and Grand Calliou—this important sector of the Louisiana Sugar industry has its historical significance not only statistically in terms of the amount of sugar produced but also because of its leaders who did much to promote and direct the industry during the nineteenth and twentieth centuries.

Lafourche Country sugar lands were initially settled during the 1760s by displaced Acadians, who were subsequently joined by Spaniards from the Canary Islands and migrants from the German coast of the Mississippi River. Settlement in Terrebonne Parish followed a similar pattern. The region's inhabitants quickly developed an agricultural economy based on corn, rice, and vegetables. Beginning in the 1820s, a rush for prime sugar lands dramatically transformed this rather simple, small-scale farming, way of life. Between 1828 and 1858, sugar production more than quadrupled, and in 1861 Louisiana produced a record 264,000 tons of sugar.³

The reason for this boom, which saw the influx of Anglo-American settlers and the consoli-

dation of agricultural operations to larger and larger units in the Lafourche Country, were complex and multifaceted. They included the perceived relative profitability of sugar versus cotton, the introduction of new, more resistant cane varieties, and the assured continuance of a high protective tariff. Consequently, the land rush radically altered Lafourche Country society as the boom brought with it a small but wealthy and influential number of American elites. With names like Pugh, McCollam, Martin, and Kittridge, these Americans purchased huge tracts of land and busily cleared woodlands, dug ditches, broke ground, and erected magnificent plantation homes.⁴

Most significant to this transition was the introduction of a cane variety suitable to the region, "ribbon cane," first planted in the American South in 1814 and in south Louisiana in 1820.⁵ Having origins in the Dutch colonies and known as Batavian Striped or Black Java, the ribbon cane had characteristic stripes and either a green and yellow or green and red stalk. Fast growing and possessing a thick bark, it was ideal as a cold resistant variety for the sugar planters of the Lafourche Country.

In addition to the availability of this hardy cane variety, the promise of profitable returns tied to the protective tariffs of 1816 and 1828, coupled with concurrent distress in cotton, convinced many entrepreneurial planters to pull up stakes and move to the sugar lands of the Lafourche Country and south Louisiana. In a very real sense, the Louisiana sugar industry with its semi-tropical climate and short growing season has always been dependent upon government legislation to remain competitive and vibrant within the international sugar trade. Perhaps this fact was never more evident than in the antebellum Tariff of 1842. Journalist James DeBow stated that the Tariff of 1842 caused "to start up, as if by magic, the costly mansion and the magnificent sugar mill." Edward J. Forstall, in an



1845 pamphlet entitled *Agricultural Productions of Louisiana*, was more specific in making a causal relationship between the tariff and expansion:

The Tariff of 1842 was their [Louisiana planters'] salvation; it at once restored confidence, enabled the planter to improve his sugar works, to clear and drain his lands. Thousands of Irishmen were soon seen digging canals in all directions; engineers putting up new engines, or repairing old ones—masons, setting sugar kettles on improved plans. A steam apparatus, for the purpose of boiling in vacuo and producing white sugar direct from the cane, was put up last year; its success was such to induce another planter to order one. Not less than five large estates will be working, this year, on the white sugar system.

Associated with this burst of activity was the introduction and application of new and relatively sophisticated technology, at first glance incongruous to an agrarian way of life largely dependent upon slave labor.⁶

The sugar industry was above all an agricultural pursuit, having its own cycles of activities and tasks that were tied to the months and seasons. With the conclusion of the Christmas and New Year holidays, plowing and planting began in earnest. Customarily, black slaves used horse drawn plows to cut deep grooves into the ground. Once the land was broken, workers placed seed cane, cut in lengths between 2 1/2 and 4 feet, in furrows and then, depending on conditions, covered them with varying amounts of soil. By the end of the winter months sugar cane planting was complete and attention now shifted to the planting of corn, peas, and potatoes. With the coming of summer an important task for the plantation labor force was in keeping the brush and weeds down. As summer drew to a close, more and more effort was directed towards harvest preparations, including the cutting of wood for fuel used in sugar-making operations and the building of molasses barrels and hogsheads. By mid-October, the harvest and the

grinding season usually began with workers taking the sugar cane in carts from the fields to the sugarhouse. This intense period ended in late December or early January when the plantation sugarhouse extracted the sugar from the cane and converted it to a marketable product.

The manufacture of sugar in Louisiana in the 1830s generally differed only slightly in method from the manufacture of sugar in the French, Spanish, and English Caribbean colonies of the eighteenth century. The process of converting sugar cane to raw sugar can be divided into five steps: grinding the cane, defecating and purifying the extracted juice, evaporating the juice to a viscous syrup, granulating the syrup into sugar crystals, and potting (i.e., the separation of crystals and molasses by slow drainage).⁷

During the 1830s, there were two methods of grinding the cane: animal and steam power. In either case, an elevated mill was employed to allow the juice to run into vats and to leave room to receive the exhausted cane called *bagasse*. The animal-powered mill was usually of a vertical design, consisting of three fluted, interlocking cylinders, each 30 to 40 inches long and 20 to 25 inches in diameter. The oxen, horses, or mules applied power to the central cylinder of the mill by means of a lever or beam arrangement. In response to changes in the nature of the cane, engineers used a system of cross keys and wedges to make adjustments to the distance between cylinders.

By the 1830s, steam engines began to supplant animal power. In 1828, only 120 of the 691 sugarhouses in Louisiana employed steam-powered mills; sixteen years later, 408 of the 762 mills employed the steam engine to crush the cane. Indeed, in the Lafourche Interior in 1846, 33 of 98 sugar mills were steam-driven; in Terrebonne Parish, 42 of 78 mills used steam rather than animal power.⁸ The steam-powered mill usually had its cylinders arranged in a horizontal configuration. These cylinders, 4 to 5 1/2 feet long and 25 to 27 inches in diameter, were arranged triangularly with one cylinder above and two beneath. A cane carrier, a continuous chain that was steam-powered, conveyed the 3 to 4 1/2 foot length cane to the mill. The carrier dropped



the cane into a wooden hopper and gravity carried it to the mill rollers which squeezed the juice from the cane. After passing through the mill, the discarded cane was conveyed outside the sugarhouse by means of an inclined plane.

The mill was a constant source of anxiety for the planter. In his business, time was crucial; an early frost could lead to financial ruin. The mill's operation was uncertain; for example, if the cane piled up at the entrance between the first two rollers, the roller shafts often broke suddenly. Making matters worse, parts and repair service were usually found only in New Orleans. Another problem were the ridges on the cane shafts—the nodes or joints that determined the distance set between the mill cylinders. Because of the varying distances, pressure was often inadequate to squeeze all the juice from the cane. As a result, a great deal of juice was often left in the cane after its passage through the mill.

The freshly extracted cane juice flowed through a spout into two large vats, or juice boxes, made of cypress planks. These vats, which had a capacity of several hundred gallons, were located in the mill room (sometimes called the laboratory), in an area separated from the boilers. Prior to boiling, a strainer was used to skim the juice contained in these boxes, thus removing scum, trash, and cane pieces. The juice was boiled in a consecutive line of large open kettles that were set in brickwork and arranged over a furnace. This set of kettles was called a "battery," "equipage," or "kettle train." Each kettle was of a different capacity—the largest held from three hundred to five hundred gallons, and the smallest held seventy to one hundred gallons. The first and largest kettle was called the *grande*. The second was the *flambeau*, so called because the point of the flame touched the kettle. In the third kettle, or *sirop*, the juice was boiled down to the density of syrup. Finally, in the *batterie*, or last kettle, the concentrated syrup was "struck;" small, almost invisible crystals of sugar formed. At a number of plantations, a fifth kettle was placed between the *sirop* and *flambeau*. This fifth kettle was called the *proper clear* because it was in it that the juice began to become transparent.

At the beginning of the clarification and

evaporation step, the contents of the nearly full *grande* were brought close to the boiling point, and the proper defecating agent, usually lime, was carefully added. Rising to the surface, the resultant scum was ladled off and discarded. The water in the juice evaporated, and the resulting sugar syrup was concentrated during this step. As the water evaporated, the juice was gradually ladled by hand into the *flambeau*. The juice, tempered again with lime in the *flambeau*, was eventually transferred to the *sirop*, and as it approached the proper density and quality, was placed in the *batterie*. The syrup, having reached its striking point in the *batterie*, was promptly turned out into the cooler. The last kettle was then recharged with a fresh supply from the *sirop*, and the *sirop* replenished by the contents of the *flambeau*, which in turn was recharged with the material from the *grande*. The transfer of juice from one kettle to another involved the danger of exposing a nearly empty kettle to the direct heat of the flame. The remaining liquor would then be carbonized, producing a lower quality sugar.

In the last kettle, or *batterie*, the sugar was granulated or "struck." The sugar maker used a number of criteria to determine the proper moment for crystallization. A common practice was to thrust a wooden-handled copper spoon into the *batterie*. If the syrup had a grained appearance and formed a slowly draining film over the entire spoon, it was ready for removal to the cooler. Another method of testing the syrup was to place a small amount of the boiled juices between the thumb and forefinger; when drawn out into a thread, properly boiled syrup would break dry and rise in a spiral.

The resulting concentrated syrup was placed in coolers, where it remained for about twenty-four hours. The crystallized mass was then dug out and placed in hogsheads (large casks) located in the draining room. The modern sugarhouses of the 1830s normally had two draining houses, located at right angles to the sugarhouse with connecting doors to the area occupied by the coolers. The floor consisted of small beams running crosswise and placed about eighteen inches apart. The hogsheads were placed on these beams, and underneath were placed the molas-



ses cisterns, each covering an area of about twenty square feet and approximately sixteen to twenty inches deep. The molasses drained from three or four holes located in the bottom of the hogshead. To facilitate drainage, canes were often loosely stuck into these holes, and, as the separation of crystallized sugar from molasses took place, the liquor drained down the sides of the canes into the cisterns. The by-product molasses was then set aside, later to be packed in barrels and sent to market.

Much of the sugar made in the Lafourche Country was transported to New Orleans in steamboats that plied Bayou Lafourche during the 1820s. By the mid-nineteenth century a canal linking Bayou Terrebonne to Bayou Lafourche was constructed a few miles south of Houma, thus facilitating coastal trade in that once inaccessible region. At the hub of this commercial activity was New Orleans, where hundreds of hogsheads containing raw sugar were loaded on steamboats and ocean vessels. Approximately one-half of the sugar and molasses made in Louisiana was sold to western customers. With the exception of a small quantity consumed in the local region, the remainder of the product was shipped to the east coast cities of Boston, New York, Baltimore, Savannah, or Charleston.⁹

Throughout the 1840s and 1850s, the sugar industry in the Lafourche Country experienced a sustained expansion in terms of lands brought under cultivation and quality of sugar produced. However, the dislocations associated with the Civil War marked the end not only of a way of life but also of economic prosperity and stability to the region. Sugar production in Louisiana, which had peaked at 264,000 tons in 1861, fell precipitously to 9,950 tons in 1865. The operations of most Lafourche Country sugar plantations were seriously disrupted by the autumn of 1862, since Federal forces were quick to occupy a region recognized as being both strategically and economically of value. With the coming of Federal troops, slaves were quick to drop their tools and, in several cases, confront former overseers and masters. The uncertainty and instability of the war years continued to a degree after the war as well, as three years of floods and bad weather after 1865 forced banks like

the Citizens National Bank of New Orleans to reluctantly call in loans from overextended and capital-poor planters. Gloom and despair often prevailed, as reflected in W. W. Pugh's comments in 1865: "My time is hanging very heavily on hand[;] it is like dragging out an existence. All is dark and dreary in the future and the present is no better." This state of melancholy seemed justified considering that there was little capital for repairs and the purchase of new equipment. During the late 1860s and early 1870s, new growing areas within the international market, including Hawaii, Java, and European beet sugar producers, rapidly eclipsed the Lafourche Country sugar industry. In the early 1870s, one visitor to Terrebonne Parish observed that a large number of the once magnificent plantations "were utterly abandoned. The residences, Negro quarters and sugarhouses were going to decay, the fences were all gone, the fields were overgrown with cockle-weeds so dense that the roads were obliterated by them, and so tall that I could scarcely see my way over them."¹⁰

Despite what seemed to be insurmountable obstacles, gradual recovery took place during the 1870s. With the end of the Reconstruction Era in 1877, a dramatic transformation in terms of organization and technology began. Reflective of these changes was the gradual recovery of sugar production in Louisiana:¹¹

Year	Sugar Production (in 2000 lb. tons)
1865	10,401
1870	84,413
1875	81,713
1880	136,512
1885	143,313
1890	241,744

The establishment of the Louisiana Sugar Planters' Association (LSPA) was central to the late nineteenth century modernization of the Louisiana sugar industry. Several of its key members were from the Lafourche Country. On November 20, 1877, sixteen men closely associated with the Louisiana sugar interest met in Ascension Parish planter Duncan Kenner's New



Orleans office to discuss impending tariff legislation which called for lowering the sugar duties. As a result of this first meeting, the organization published a statement of the purposes and objectives of the association on November 29, 1877, in the *Louisiana Sugar Bowl*, a weekly New Iberia trade newspaper. The LSPA was a response to the "disastrous situation of the sugar interests of Louisiana." It was hoped that an alliance of planters would harmonize and concentrate the sugar interest. The association would be similar to other trade associations, "whose purpose it is to foster the interests of the class they represent, . . . and they have been found powerful and efficient agents in securing legislation or other aid in behalf of their constituents." The leaders asked: "Shall we, as a class, remain idle and indifferent, totally unorganized, trusting only to individual effort to protect our interests, or shall we, by united and concentrated association, give greater force and efficiency to our action?" According to the association's constitution, its objectives were to improve methods of cultivation and manufacture of sugar, to compile statistics on the industry, and to bring together growers, manufacturers, and foundrymen engaged in fabricating machinery used in the sugar industry.¹²

Until its political fragmentation in the 1890s, the LSPA had notable success in sponsoring favorable tariff legislation, promoting the role of science in cane cultivation and sugar manufacturing, and vigorously advocating the use of modern technology. As an organization that represented the entire Louisiana sugar industry, it drew its leadership from several quarters, including the Lafourche Country. For example, in the critical tariff rate negotiations of the late 1870s and early 1880s, Terrebonne Parish planter Taylor Beattie was an important member of the delegation that travelled to Washington in 1878 to negotiate with congressmen and other representatives of the sugar interest. Louisiana Senator Randall Lee Gibson of Terrebonne played a key role in arranging the work of the 1882 Tariff Commission that ultimately favored local sugar planters. Subsequently, another planter-politician with ties to the Lafourche Country, Edward J. Gay, worked for the sugar interest in Con-

gress from 1885 to 1889, when he was succeeded by his son-in-law, Andrew Price, who had previously managed Gay's plantations.¹³

In terms of convincing planters that scientific knowledge was absolutely necessary for profits in a competitive international market, T. Mann Cage of Woodlawn Plantation was a vigorous proponent of scientific agriculture in the fields and chemical controls in the sugarhouse. Cage, who had studied chemistry at Edinburgh University, began a series of well thought out field experiments employing weighed quantities of fertilizers, cost accounting methods, and the analysis of mill extracts to illustrate the value of cotton-seed meal as a source of potash. By 1878, Cage had concluded from his experiments that a composite of superphosphate of lime and the ashes of cotton-seed hulls was the most economical form of fertilizer containing soluble ammonia, potash, and phosphoric acid. At monthly LSPA meetings in New Orleans, Cage strongly advocated the use of rational and scientific methods in planting and manufacturing, arguing against the often blindly followed traditions of the past. The message shared by Cage and fellow LSPA members obviously had many adherents on the grass roots level as a significant number of Lafourche Country planters, including H. C. Minor, D. R. Calder, Louis Guion, James McBride, Louis Bush, Leon Godchaux, Edmond Lapeyruse, and J. P. Viguerie, were initial subscribers to the LSPA-sponsored experiment station established in 1885, a precursor to the Audubon sugar factory at Louisiana State University.¹⁴

In addition to political lobbying and the promotion of science and modern technology, the LSPA also sought to control the marketing of Louisiana sugar. Several prominent Lafourche Country planters and merchants, including David Calder and Louis Bush, played key roles in establishing the Louisiana Sugar Exchange in 1883. Calder (1830-1902), a Scotsman who fought for the Confederacy, conducted a profitable business with a large number of planters and later bought a plantation of his own. Bush, born in Iberville Parish in 1820, practiced law in Lafourche Parish before the Civil War and fought with the 18th Louisiana Infantry Regi-



ment at Shiloh. In 1872, he opened a commission business in New Orleans and was an influential figure in local, state, and national circles.¹⁵

Organizational developments like the LSPA on the state level had their counterparts on local levels as well. For example, in Terrebonne Parish in December 1886, planter William Schaffer organized an association modeled after the Ascension branch of the Louisiana Sugar Planters' Association to deal with problems related to labor, railroad freight rates, and interest and brokerage costs. For the elite planter in the Lafourche region, organization was perceived to be power. This power had, as its ultimate goals, stability and economic prosperity for the planter class.¹⁶

For the most part, the Lafourche Country sugar industry enjoyed an extended period of prosperity during the last two decades of the nineteenth century. For a number of complex reasons, however, this industrial and economic momentum did not continue into the first three decades of the twentieth century. Serious problems with floods and freezes, adverse legislation, weakened local leadership, and assaults from New York refining interests all contributed to the decline of the local sugar industry. The collapse of sugar prices in 1920-1921, coupled with labor shortages and the ravages of mosaic disease—red rot and root rot devastated the sugar region by the mid-1920s—had a number of critical observers convinced that the century-old sugar business in the Lafourche Country was gone forever. Louisiana sugar production had slipped from 250,000 tons during World War I to the catastrophic low of only 47,000 tons in 1926. Despite these prophets of doom, the sugar industry reemerged on the eve of World War II better equipped and organized. The Lafourche sugar industry has survived, but it is nonetheless dependent upon state and national government support for its continued existence in the complex and intensively competitive international sugar trade.¹⁷

NOTES

1. Dr. John Heitmann is a Full Professor and Chairman of the History Department at the Uni-

versity of Dayton, Ohio. He is the author of *The Modernization of the Louisiana Sugar Industry, 1830-1910* (Baton Rouge: Louisiana State University, 1987).

2. For a general description of the region, see Philip D. Uzee, "Bayou Lafourche," in Edwin A. Davis, ed., *The Rivers and Bayous of Louisiana* (Baton Rouge, Louisiana Education Research Association, 1968), 121-128; Harnett T. Kane, *The Bayous of Louisiana* (New York: W. Morrow, 1943), 143-222. See also Writers' Program of the Works Projects Administration, *Louisiana: A Guide to the State* (New York, 1940), 573-581.

3. Uzee, "Bayou Lafourche," 122, 128. On the land rush, see J. Carlyle Sitterson, *Sugar Country: The Cane Sugar Industry in the South, 1753-1950* (Lexington: The University of Kentucky Press, 1953), 23-28. For annual statistics of sugar production between 1828 and 1955, see Fred I. Meyers, ed., *The Louisiana-Florida Sugar Manual, 1957* (New Orleans: Gilmore Publishing, 1957), 15.

4. An interesting case study of the McCollam family migration is traced in Sitterson, *Sugar Country*, 25-26 and Sitterson, "The McCollams: A Planter Family of the Old and New South," *Journal of Southern History* 6 (1940), 347-367.

5. Sitterson, *Sugar Country*, 119-120.

6. J. D. B. DeBow, *The Industrial Resources of the Southern and Western States* (New Orleans, 1853), 3;445; Edward J. Forstall, *Agricultural Productions of Louisiana Embracing Valuable Information Relative to the Cotton, Sugar and Molasses Interests, and the Effects Upon the Same of the Tariff of 1842* (n.p., 1845), 7; Sitterson, *Sugar Country*, 114-119, 175-178; John A. Heitmann, *The Modernization of the Louisiana Sugar Industry, 1830-1910* (Baton Rouge: Louisiana State University Press, 1987), 34-35. An excellent description of life on William J. Minor's Terrebonne Parish plantations is Sitterson, "The William J. Minor Plantations: A Study in Ante-Bellum Absentee Ownership," *Journal of Southern History* 9 (1943), 59-74.



7. Benjamin Silliman, *Manual on the Cultivation of the Sugar Cane and the Fabrication and Refinement of Sugar* (Washington, D.C., 1833), 30-41; H. O. Ames, *H. O. Ames' Improved Method of Evaporating Saccharine Juices by Steam* (New Orleans, 1859), 2-4; V. Alton Moody, *Slavery on Louisiana Sugar Plantations* (n.p., 1924), 48-52; Sitterson, *Sugar Country*, 137-144.
8. Silliman, *Manual on the Cultivation of the Sugar Cane*, 31; J. A. Leon, *On Sugar Cultivation* (London, 1848), 4; P. A. Champomier, *Statement of Sugar Made in Louisiana 1844, 1845-1846* (1846; rpr. Morgan City, LA, 1987), 67.
9. Uzee, "Bayou Lafourche," 123; Sitterson, *Sugar Country*, 168; Sitterson, "Financing and Marketing the Sugar Crop of the Old South," *Journal of Southern History* 10 (1944), 188-190; Merl E. Reed, "Footnote to the Coastwise Trade—Some Teche Planters and Their Atlantic Factors," *Louisiana History* 8 (1967), 191-197.
10. Sitterson, *Sugar Country*, 231, 295. For a comprehensive study on this subject, see Charles P. Roland, *Louisiana Sugar Plantations During the American Civil War* (Leiden, Netherlands: E. J. Brill, 1957); Roland, "Difficulties of Civil War Sugar Planting in Louisiana," *Louisiana Historical Quarterly* 38 (1955), 40-62; Sitterson, *Sugar Country*, 231-242; Walter Prichard, "The Effects of the Civil War on the Louisiana Sugar Industry," *Journal of Southern History* 5 (1939), 315-332.
11. Meyers, *Louisiana - Florida Sugar Manual*, page 15.
12. "Organization of the Louisiana Sugar Planters' Association," *New Iberia Louisiana Sugar Bowl*, 13 December 1877. The Louisiana Sugar Planters' Association is comprehensively treated in Heitmann, *Modernization of the Louisiana Sugar Industry*, 71-97, 102-113, 131-136, 244-267; Heitmann, "Organization as Power: The Louisiana Sugar Planters' Association and the Creation of Scientific and Technical Institutions, 1877-1910," *Louisiana History* 27 (1986), 281-294; Heitmann, "Responding to the Competition: The Louisiana Sugar Planters' Association, the Tariff, and the Formation of the Louisiana Sugar Exchange, 1877-1885," *Southern Studies* 25 (1986), 315-340.
13. *Biographical Dictionary of the American Congress, 1874-1971* (Washington, D.C., 1971), 991; "Andrew Price," *The Louisiana Planter and Sugar Manufacturer* 42 (1909), 114-115. On the tariff negotiations, see David A. Wells, *The Sugar Industry of the United States and the Tariff* (New York, 1878); Robert G. Ingersoll, *A Review of the Sugar Question* (Washington, D.C., n.d.); *The Government and the Sugar Trade* (New York, 1878); "Memorial of Importers, Refiners and Dealers in Sugar," [1878], in Joseph L. Brent Papers, Box 6, Louisiana State Museum; *Louisiana Sugar Bowl* 10 January 1878; Louis I. Bright, *New Orleans Price Current: Yearly Report of the Sugar and Rice Crops of Louisiana. Crop Year 1877-78* (New Orleans, 1878), 1; Theodore A. Havemeyer to Duncan F. Kenner, 3 April 1880, in Dymond Family Papers, folder 27, Historic New Orleans Collection; U.S. Tariff Commission, *Report*, 2 vols. (Washington, D.C., 1882).
14. Bright, *New Orleans Price Current: Yearly Report of the Sugar and Rice Crops of Louisiana. Crop Year 1876-77* (New Orleans, 1877), xxvii; clipping from the *Louisiana Sugar Bowl*, 7 July 1885, in William C. Stubbs Papers, folder 20, Southern Historical Collection, University of North Carolina at Chapel Hill.
15. "David R. Calder," *LP* 30 (1902), 322; *Biographical and Historical Memoirs of Louisiana* (Chicago, 1892), I, 329.
16. Clipping entitled "Sugar Planters," in William A. Shaffer Papers, vol. 5, Southern Historical Collection, University of North Carolina at Chapel Hill.
17. Meyers, *Louisiana-Florida Sugar Manual*, 15. On the decline of the sugar industry, see Sitterson, *Sugar Country*, 343-360; Heitmann, *Modernization of the Louisiana Sugar Industry*, 244-264.

