

# PART I. WHO AND WHAT CREATED NEW ORLEANS?

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## Chapter 1

# Surveyors and Engineers in New Orleans

*“What! Is it expected that for any commercial or profitable purpose boats will ever be able to run up the Mississippi River into the Wabash, Missouri or Red Rivers. One might as well try to bite a slice off the moon.”*

—Governor La Mothe Cadillac to Louis XIV  
from Dauphin Island, Alabama, 1714

New Orleans’ French, Spanish, Polish, American, and Creole surveyors, engineers, and architects were creative, educated individuals. Those who arrived at the founding of the city had studied the engravings and texts by sixteenth-century Italian designer and author Sebastiano Serlio and seventeenth-century French soldier, architect, and engineer Sébastien Le Prestre de Vauban. We can discern these are documented influences today by looking at the earliest depictions of New Orleans architecture. By the time Frenchman Le Blond de la Tour was appointed engineer in chief of Louisiana in 1719, he had served in France’s army engineering corps in Portugal in 1697 under the great Vauban.

From the early French colonial days, when Pierre Le Blond de la Tour and Adrien de Pauger worked to lay out the new Ville de la Nouvelle Orleans, now the Vieux Carré or French Quarter, New Orleans’ administrators followed customs set by French military engineer Sébastien Le Prestre de Vauban, *ingénieur du roi* (1633-1707). Vauban and his fortification system not only transformed nine French cities, but also influenced urban development in the old and new worlds. Recognized for his achievements during his lifetime, he saw his ideas about city planning taught in France and observed by the French engineers, surveyors, and architects in the New World.

The Crown sent four surveyors and their assistants to lay out New Orleans. They were called *voyers de la ville*. A Monsieur Perrier died en route. Le Blond de la Tour died of yellow fever in October of 1724 after making town plans for Nouveau Biloxi and Fort Condé de la Mobile, at the present

site of the city, and working on the fort at La Balise toward the foot of the Mississippi River and the town plan for Nouvelle Orleans. As architect, he designed the first hospital in New Orleans in 1723 and the *maison* of the Company of the Indies (with Adrien de Pauger) in New Orleans.

De la Tour’s successor, Adrien de Pauger, had come to Louisiana from Dieppe, Normandy, where his father, an attorney, was acquainted with the Le Moyne family of Dieppe, Normandy, and Montreal, Nouvelle France (Canada). De Pauger was employed, through Jean-Baptiste Le Moyne, Sieur de Bienville, by the Company of the Indies. De Pauger is credited with the Vieux Carré plan much as we know it today. By extension, he is responsible for the form the city took up and down river and to Bayou St. John, since subsequent faubourgs followed de Pauger’s street, block, and lot plans in general. De Pauger died in New Orleans in 1726.

Charles de Morand, from Rouen, France, landed and worked first in Biloxi, where he served as assistant surveyor to Le Blond de la Tour. Morand later worked in New Orleans with Adrien de Pauger. On his own behalf, Morand acquired holdings along the Road to the Bayou St. Jean (John). There he built brickyards immediately after 1719, in time for the first shipment of slaves from Africa to work in the brickyards.

Adrien de Pauger’s official replacement, Ignace François Broutin, a native of the village of La Bassée in the Pas de Calais, northern France, arrived from Natchez in 1726 where he had been commandant. He served as king’s engineer until his own death in

1751. Bernard de Verges, who had been Le Blond de la Tour's draftsman, became engineer in chief following Broutin's death. De Verges, a native of Béarn, in the Pyrenees of southwest France, spent much of his career at the foot of the Mississippi River at La Balise, where the ships arrived. He died in 1766 and was replaced by the French-born engineer Hypolite Amelot. A native of central France, Amelot was a lieutenant in the regiment of Grassins in 1750 when he was sent to Louisiana. In 1759, he received the coveted Cross of St. Louis and took the official inventory of the Vieux Carré when it was turned over to the Spanish Bourbons in 1763. Subsequently, he died at sea.

Carlos Laveau Trudeau, of French and Canadian background, became surveyor general of Spanish Louisiana from the 1770s on. Trudeau refused to turn over his records and documentations of land grants to the Americans at the time of the Louisiana Purchase in 1803. His assistant, then successor, Vincente Sebastiano Pintado took the papers and surveys in his possession with him when, in 1805, he became surveyor general of Pensacola in Spanish-owned Florida. Trudeau died in 1816; Vincente Pintado died in Havana in 1829. Many of his records were transferred to Havana, capital of Spanish-owned Cuba, and occasional administrative capital of both New Orleans and Florida. Others of his papers are preserved in the American State Papers and at the Louisiana State Museum.

Surveyor, architect, and engineer Barthélémy Lafon, a native of Villepinte, France, may have arrived in New Orleans during the Spanish colonial period since he is credited with designing the 1795 house at 617 Chartres. Lafon was in Saint-Domingue in 1802 when he left for Havana because of the slave uprising. He was soon involved in bringing refugees from Saint-Domingue and Havana to New Orleans in his own ship, and he developed a reputation as a corsair. Working with privateers Jean and Pierre Lafitte at Barataria, he also obtained a large land grant where Bayou Lafourche meets the Mississippi River. Known as a competent architect, builder, cartographer, and engineer in New Orleans, he none the less was bringing in prizes with his corsair *La Misère* in 1813 and 1814 and was indicted for taking two Spanish vessels illegally in 1814. Active service under Andrew Jackson in the Battle of New Orleans removed the indictments from his record. Lafon's maps for Jackson of the lakes, bayous,

swamps, and military fortifications that figured in the British advance toward New Orleans were essential to the successful American campaign.

Indeed, Lafon was a major cartographer, delineating the first comprehensive map of lower Louisiana in 1806 for Gov. W. C. C. Claiborne and members of the legislature. Claiborne knew Lafon's talent, because in 1804, Lafon had resurveyed and prepared plats for all the private land claims issued by France and Spain in the province of Louisiana and l'Isle d'Orleans.

Lafon continued to be active in the development of lower Louisiana. He laid out most of the Lower Garden District beginning in 1806. About the same time, William Donaldson of New Orleans hired Lafon to survey lots and produce the town plan for what is now Donaldsonville, Louisiana, in St. James Parish on the Mississippi River. Lafon's conception of Donaldsonville, like that of his plans for American New Orleans, is quite sophisticated and exciting. He died in 1820 after reassociating himself with the Lafitte brothers at Barataria and Galveston Island.

French architect Jean-Hyacinthe Laclotte, like Barthélémy Lafon, was quite creative with his subdivision assignments. In 1807, he described his plan for "Quartier de Plaisance, Plan of the Plantation of Mr. Joseph Wiltz at 2½ miles above the city, [d]ivided into lots spacious enough . . . to there establish Country Houses, Road-side Inns, Gardens, etc." His survey work has not been considered as important as his work as an architect with Arsène Lacarrière Latour. They worked on 638 Royal, the Lemonnier House, and 619 Bourbon, the 1810-1812 Fouché House. Laclotte probably designed the Girod (Napoleon) House at 500-506 Chartres. Improbable as it may seem, French architects Claude Gurlie and Joseph Guillot designed the atelier of Latour and Laclotte at 625-627 Dauphine.

Laclotte was a third-generation French architect/engineer and is well known for his painting of the Battle of New Orleans at Chalmette, for which he volunteered as an engineer in the First Louisiana Militia. He had his drawing published in France as an aquatint engraving, and it sold briskly in the United States and England. After working in New Orleans until 1821, Laclotte returned to his birthplace, Bordeaux, where he continued to work as an architect.

Arsène Lacarrière Latour (1778-1839), from Aurillac, an old Gallo-Roman town originally called Orilhac in the province of Auvergne, came

to America as an engineer on Gen. Donatien Rochambeau's staff during the American Revolution. Then he worked in Saint-Domingue, sailing to New Orleans in 1803 under the auspices of diplomat and Sen. Edward Livingston. He became municipal engineer and was engaged by Elias Beaugard to survey town lots in Baton Rouge around 1806. He fought alongside Andrew Jackson in the Battle of New Orleans from December to January of 1814 to 1815, and he wrote the *Historical Memoir of the War in West Florida and Louisiana in 1814-15*, which included extensive cartographic work. It was published in Philadelphia in 1816. (West Florida included parishes now in eastern Louisiana.)

Latour designed a number of major buildings in the French Quarter, and he had an atelier in New Orleans at 625-627 Dauphine with architect/surveyor Jean-Hyacinthe Laclotte. He also worked in Cuba. Representing Spain, Latour traveled up the Arkansas River on an eight-month, 1,500-mile expedition. He reported to Havana, writing Spaniard Luís Onís (the Onís Adams Treaty settled the boundary between American Louisiana and Spanish Texas) that a holding action was all Spain could hope for to limit westward expansion of Anglo-Americans to Santa Fe and then to Spanish California.

Nicolas de Finiels, an engineer from France who trained there, sailed to America with the French forces who fought in the Revolutionary War. Since he was a monarchist, he left Philadelphia in 1797 to enter the Spanish military in the upper Louisiana Territory in St. Louis. After working throughout Spanish Louisiana, including New Orleans, he left Louisiana with the evacuating Spanish officers in the Louisiana Purchase period and went to Pensacola in 1806, like Vincente Pintado. As engineer in chief of west Florida, he directed fortification works at Mobile and Pensacola. De Finiels wrote "An Account of Upper Louisiana" during the last years of the Spanish regime.

French and Spanish military schools provided formal training for most of these military engineers who were also cartographers, *voyers de la ville* or *arpenteurs* (surveyors), architects, builders, and artists. French-born Pierre-François Olivier de Vezin, a planter below the city in St. Bernard Parish, was surveyor and keeper of the king's highways under the French and a member of the Spanish Cabildo during the Spanish colonial period.

Benjamin Buisson, born in 1783, trained as an artillery officer at l'École Polytechnique in Paris

during the Napoleonic era. When the monarchy was restored, the Legion of Honor recipient fled to New Orleans in 1817. Buisson rebuilt the Custom House of Benjamin Henry Latrobe in 1819. He laid out plantations upriver between the Garden District and Carrollton that became Faubourg St. Joseph and Rickerville, Hurstville, and Bloomingdale (later gathered into Jefferson City), among other surveying projects. Working as architect, engineer, and surveyor, he eventually became the official Jefferson Parish surveyor.

Jacques Tanesse, a noted architect; Charles Bougerol and J. A. Bougerol; Louis Bringier; and Charles Zimpel, as post-Louisiana Purchase surveyors, cartographers, and architects, contributed to the development and subdivision of land behind the city. These include a continuation of Faubourg Tremé, called Mid-City and Faubourg St. John, and the downriver Creole subdivisions and faubourgs as well as American upriver developments that were absorbed into the city of Lafayette and Carrollton. They are well represented in the Notarial Archives with archival drawings or building contracts and maps and surveys.

Joseph Pilié was the *voyer de la ville* for much of the nineteenth century. He came to New Orleans from Saint-Domingue because of the revolution that created Haiti. Contracting to work for Barthélémy Lafon for two years, he was paid sixteen dollars a month and food and lodging. After laying out Faubourg Nouvelle Marigny in 1809, adjacent and bayou-wards from Faubourg Marigny, he was appointed city surveyor in 1818. Pilié remained in the position until 1836 when New Orleans was divided into three separate municipalities at which time he was appointed city surveyor of the Second Municipality until 1844. His son, Louis H. Pilié, became surveyor of the consolidated municipality of New Orleans in 1856. He prepared maps for the numerous sale of properties willed to New Orleans and Baltimore by John McDonogh in 1850 before his 1886 death. Louis Pilié's son, Edgar Pilié, born in 1844, fought in the Army of Tennessee during the Civil War. Afterwards, he practiced as a surveyor in the private sector. When he died in 1912, the entire family's surveying archives were acquired by the Louisiana Abstract Company and are now at The Historic New Orleans Collection.

Although they made plans and subdivisions for the entire city of New Orleans, these French-speaking surveyors usually lived in the Vieux

Carré or the Creole suburbs. Another Frenchman, Claude Jules Allou d'Hémécourt, born in France in 1819, came to New Orleans in 1831 with his parents and siblings. Both he and his father, Jean Charles Allou d'Hémécourt, practiced as civil engineers and land surveyors in New Orleans in the 1830s and 1840s. Jules d'Hémécourt surveyed the entire city of New Orleans in 1857 for Mayor Charles Waterman. At that time, the city extended from Toledano Street south and east to Fisherman's Canal below Jackson Barracks.

Valery Sulakowski, an exile from Poland because of their wars and revolutions, arrived in New Orleans in 1851 at the age of twenty-six. Working as architect, engineer, and surveyor, he became the official Jefferson Parish surveyor. He also worked at the Federal Land Office in New Orleans as engineer and surveyor. During the Civil War, he was commissioned a colonel in the Fourteenth Louisiana Volunteers. Afterwards, he worked for the state land office throughout the swamps of Louisiana.

William H. Williams, after arriving in New Orleans in 1845, succeeded Benjamin Buisson as Jefferson Parish surveyor. Both men were considered architects also. Williams was also official surveyor for the city of Carrollton. A native of Cincinnati, Ohio, he arrived in New Orleans when he was twenty-eight years old, already trained as surveyor and civil engineer.

Well into the nineteenth century, New Orleans French and Creole surveyors, engineers, and architects continued to use the *pieds* (French feet), *toises*, and *arpents* that comprised France's seventeenth-century measuring system. One French *pied* is a bit longer than an American foot (1.066 feet). Surveyors used the *toise* as a unit of length equal to six French feet, 6.394 feet American measure, or 1.949 meters.

An *arpent* could be defined in one of two ways: as a linear measure equal to 180 French feet (192 feet American measure), or as a square having 180 French feet on each side. A square *arpent* is about 0.84 acres. The *arpent* survived in Canada and in lower Louisiana well into the nineteenth century. French and Creole surveyors, engineers, and architects sometimes continued to use French feet, *toises*, and *arpents* in their work on archival drawings. Some drawings by French and Creole surveyors specify "American Measure." Others simply use the French measure.

Crescent City squares generally measured three

hundred French feet on each side, about 320 feet American measure. Streets in the French Quarter measured about twenty-two feet wide (American measure), with sidewalks eight feet wide on each side of the street, according to New Orleans architect Malcolm Heard and urban planner William H. Lucy of the University of Virginia. The squares closest to the river had sides that were longer parallel to the river, about 350 feet (American measure). Lot frontages averaged about sixty French feet front (64 feet American measure). Depths ran from 120 to 150 French feet. Over time, a sixty-foot frontage could be divided into two thirty-foot lots or even four fifteen-foot lots. The narrowest lots accounted for the innovation of the two-bay, single Creole cottage and the two-bay, hall-less shotgun, as well as some narrow two-bay, two-story houses and some rare two-bay camelback houses.

The eighteenth- and nineteenth-century surveyor's work included marking off and laying out new streets, canals, and levees. They devised solutions for environmental problems so that the neighborhoods could work. They decided on proper slopes for the drainage ditches that carried storm water runoff from the city into the *marais* or *cyprières* (swamps), and later into canals that drained the swamp by means of steam-driven draining machines or pumps.

Archival drawings and maps provide evidence regarding how much of what the surveyors did created the character of New Orleans neighborhoods. They were attentive to the need for occasional wider openings in the street grid, as well as to the need for ease of access to each neighborhood section. Their response was to create the wider avenues, such as Champs Elysées (Elysian Fields), Rampart, Esplanade, Canal, Melpomene, Louisiana, St. Charles, and others. These thoroughfares were divided streets with "neutral grounds," or median strips. Archival drawings show that these grand concourses were all conceived of as landscaped promenades, filled with single and double rows of trees (usually live oaks today). The thirty-foot-wide neutral grounds were flanked on either side by twenty-four-foot-wide streets. The neutral ground often provided space for railroad, then later, streetcar tracks. Before it was understood that small bodies of water harbor mosquitoes that cause yellow fever, canals with fountains encircled by walkways and basins were part of the landscape designed by surveyors.

The plantations that were subdivided to create

new faubourgs, or suburbs, up and downriver were wedge shaped. Since the river was the essential highway, each plantation had to possess frontage on the Mississippi or another river or bayou with eventual access to the Gulf of Mexico. Obviously, the riverbank was the most expensive land. Some plantations possessed no more than two *arpents* (384 feet American measure) along the water. All river-fronting properties extended in depth to the cypress swamps, or *cyprières*, usually about forty *arpents* (7,673 feet). Away from the water, the plantations widened; the total size of a plantation was not regulated, so the greater part of a property was held away from the riverfront. This made the plantations wedge shaped as they widened toward the cypress swamps.

Nineteenth-century archival drawings presented here reveal Spanish building types and traditions built onto the French customs and footprints. When the French, Spanish, and Creole building inventory and urban planning methods are added to the urban planning and architectural and building work of Irish, Scottish, German, and English immigrants and new Anglo-Americans through the 1850s, archival drawings reveal that New Orleans is the United States' most architecturally diverse and unusual city.

The archival drawings, observed collectively with a study of the men who executed them, reveal the huge amount of knowledge and talent that went into the plan of New Orleans and the architectural inventory creating a city that is more original and complex than is generally realized.

Archival drawings as well as a drive through the city, indicate that repetition of house type, block after block, street after street, is the key to New Orleans' appearance. Diversity of style within that repetition of type is rich, because there are vast varieties of styles presented along the facades. The repetition of type and styles make walking and driving through the city a daily excitement and pleasure.

A drive through the neighborhoods, however, may not reveal what every architect, renovator,

restorer, contractor, or carpenter knows. New Orleans has had craftsmen through the centuries that know how to look as well as how to build and repair. From the earliest slaves and *hommes de couleur libre* (free men of color) both from Africa and from Saint-Domingue, there have been builders who have handed down the traditional ways and building traditions. Similarly, the ensuing waves of Irish, German, Anglo-American, and, later, Cajun and Sicilian craftsmen knew how to tackle New Orleans buildings: look around and do them the way they have always been done. So, New Orleans has tradition and repeated customs in its building inventory, and the *toute ensemble* is more coherent than elsewhere in the United States. Most universal new styles that spread across America didn't invade New Orleans until after World War I. And those new innovations weren't numerous until well after World War II.

There was no need to develop or try to apply the concept of New Urbanism for New Orleans—it started there in 1718. Through floods, hurricanes, and fires, the city was infilled and rebuilt with the same vigor and taste with which it began. New Orleans is a constant celebration of architecture, an unending parade of vibrant buildings.

These archival drawings bolster the case for preserving New Orleans by retaining as neighborhoods its traditional street, square, block, and plot plans shown in the drawings. The building types must be preserved along with public and institutional buildings, such as Charity Hospital, that represent the city's culture and triumph. The artistic renderings in the archives are as valuable as the houses and buildings they represent, because the drawings make possible informed preservation of New Orleans building inventory with appropriate infill. Each group of buildings in their faubourg is the nexus of people and place, something of great value, indeed, loved by all.