

## **Like Geological Strata, Layers of Urban History Underlie Bourbon Street's Pavement**

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Bourbon Street has been in the news repeatedly in recent years, and changes are afoot on the rollicking strip. Among them is the resurfacing of the first eight blocks using a high-durability concrete poured in replaceable square slabs and topped with a light-colored fiber, rather than black asphalt composite pavement. The project, which also aims to upgrade deteriorating water and sewer lines, will begin this month and proceed two blocks at a time until December. Other downtown streets have already undergone this change, including Iberville, but Bourbon presents a unique logistical challenge, given that it is surely one of the most foot-pounded-per-square-inch spaces in the nation.

The change in surface treatments is the latest chapter in the long story of how New Orleanians have attempted to harden and smoothen the muddy alluvium on which they live. Coincidentally, Bourbon has played a key role in those experiments, well before the street became famous.



*Paving stones and steel walkways set among streetcar rails on Bourbon Street at Toulouse by the Old French Opera House, c1900. Photo courtesy Library of Congress.*

Street engineering history in New Orleans begins not with the founding of the city in 1718 but four years later, after a September 1722 hurricane destroyed early haphazard development and opened an opportunity to “get things right.” Surveyors that autumn got to work delineating a six-by-eleven block grid sketched by Assistant Engineer Adrien de Pauger and his boss, Chief Engineer Le Blond de la Tour. Wrote a colonist named Dumont, workers “cleared a pretty long and wide strip along the river,’ today’s Decatur Street, “and notified all who wished building sites to present their petitions to the council. To each settler who appeared, they gave a plot.” Each

settler had to “leave all around a strip at least three feet wide, at the foot of which a ditch was to be dug, to serve as a drain (for) inundation”—the first sidewalks and gutters.

By 1730, most city streets had been cleared, surveyed, named and cursorily drained with ditches around each “isle” (block). Yet most remained a mucky mess, made worse as hoofed animals wandered about and pigs wallowed in fetid puddles. Road surfaces had to be hardened, and with brick and stone scarce and expensive, wood became the material of choice. So wooden planks were laid along the main tread, and raised wooden *trottoirs* (footpaths) were built along the sides. Creole dubbed *banquettes* for their resemblance to little benches, and the term is still heard today.

After colonial administration transferred to Spain in 1769, the Spanish Cabildo (council) required parcel holders to build *puentes*, or “bridges,” wooden crossings for pedestrians and drayage to avoid the sludge and “odor of corrupted and stagnant waters.” Widespread noncompliance forced the Cabildo to hire publicans (contractors) to do the work instead, funded by adjacent land owners or a tax levied on cart proprietors.

Planks and *puentes*, interspersed with washboarded dirt and mud holes, impeded wheeled conveyances. In response, the city regraded the streets using fill material. This placed a premium on sediment, which workers preferred to excavate nearby, robbing Peter to pay Paul. The problem, of course: “pools will be formed and the water will become stagnant which is detrimental to the public health.” So the Cabildo required that soil be brought “from the outskirts of the city, instead of...the central section...for repairing the sidewalks.”

After the Louisiana Purchase in 1803, incoming Anglo-Americans unfamiliar with the area’s deltaic geology blamed the Creole political establishment for the conditions of the streets. One know-it-all, proudly signing his name AMERICANUS, advised the Creole mayor that “New Orleans...might be rendered as cleanly and healthy as most towns in the United States,” if only it adopted his plan to excavate brick-covered gutters flushed with diverted river water.



*This c1900 rooftop view up 100 Bourbon shows paving stones and streetcar rails for the line that later served Desire Street. Photo courtesy Library of Congress.*

That same newspaper reported the fate of a hapless Kentuckian who, in “attempting to cross the street” after a heavy summer rain in 1806, “got out of his depth, and not being able to swim, was unfortunately drowned.” The editors pondered “whether...the ‘accidental death’...ought to be

[held] against the corporation of the city,” but readers surely suspected that inebriation played a role.

An early attempt at paving came in 1817, when workers laid granite stones upon Gravier Street between Tchoupitoulas and Magazine. Five years later, a citywide paving campaign was launched, starting with Royal Street, using paving stones imported as ballast. While stones offered hard dry surfaces, they also increased roughness, making carriage rides a cacophonous and bone-rattling experience. Worse, the wooden wheels and iron-shoed hoof-beats deepened potholes, which collected water, which in turn stagnated. “We were...assailed by so unsavory a smell,” bemoaned one informant in 1826; “the whole street from Bourbon to Royal suffered alike.... Such nuisances...will give us yellow fever in abundance.”

Some wooden banquettes, which Americans called foot-ways or causeways, were replaced with brick ones starting in 1820. An 1827 city ordinance taxed adjacent property owners for this purpose and stipulated that work would begin in the front-of-town and proceed to poorer rear quarters only when revenue allowed, a recurring trend in urban improvements.

Bourbon in particular became something of a rallying cry for better streets. In an 1829 article that could be ripped from today’s newspapers, *The New Orleans Argus* reported “The sidewalks on Bourbon st. from one extremity to the other are in the most wretched state. The bricks are torn up, the gutters sunk and the edgings of the walks rotten, and in many places the walking at night is dangerous.” An 1835 ordinance resolved to contract one Mr. Claudot-Dumont “to pave, according to his method, Bourbon street from Canal to Esplanade street,” using granite stones (measuring 4 inches thick and 36-42 inches long) for the street edges, and “hard square paving stones” (12 inches by 8 inches by 8 inches) for the surface. Three years later, the city had workers smooth over perturbations with carts loaded with sediment. But this too fell short. “Bourbon street, between Canal and St. Louis...is in filthy condition,” growled a local newspaper; “the dirt carts (have not) been along for several days. This is wrong, and the person...entrusted should attend to his duty.”

In 1839, the city selected Bourbon Street for a new type of brick paving involving bitumen, a viscous tar-like petroleum which, when mixed with mineral aggregates, formed asphalt. “The paving of Bourbon street...from Canal to Toulouse...promises success,” predicted the *Picayune*; “we would not be surprised to see the plan adopted throughout the city.” Costs were shared by property owners: one 1839 real estate contract stated the new owner of present-day 626-632 Bourbon, cotton broker Auguste O’Duhigg, “binds himself to pay for the bitumen paving...of (his) 60’ front.”

It worked—for a while. But as any transportation engineer can attest, improvements on one artery tend to attract traffic that previously went elsewhere, thus negating the improvements. That’s exactly what happened on Bourbon. “Many a drayman, hackman, or cabman (goes blocks) out of his way,” reported a journalist, to take advantage of Bourbon’s smooth surface. The additional traffic crumbled the bitumen, and the work had to be repeated. “They are *re-bitumenising* Bourbon street,” huffed a cynic. In 1841 the municipality abandoned the great

Bourbon Street “asphaltum experiment,” as wags called it, in favor of imported round stones. Other paving materials used on antebellum streets included square block and flat granite stones, cobble (rectangular) stones, rangia shells dredged from Lake Pontchartrain, bricks, batture sand, demolition debris and wooden gunwales stripped from flatboats.

Our streets began to assume their modern form in the late 1800s, driven by a number of factors. The first was the nationwide urban modernization effort of the Progressive Era. Relatedly, streetcar lines were expanded, which forced paving projects to be adequately funded and professionally executed in a timely manner for private streetcar companies to lay their track beds. (It was in this era, incidentally, that French Quarter streets gained their one-way directionality.) Throughout the late 1800s and 1900s, broad flat Belgian paving stones covered most French Quarter streets, paralleled by granite curbs and gutters and concrete or planked sidewalks. Down the middle of Bourbon and Royal ran steel rails for what would later be known as the streetcar named Desire.

While most downtown streets were paved by the late 1800s, most city streets were not. New Orleans in 1880 boasted 566 miles of streets, of which only 17 percent were considered paved. About a third of those 94 miles had cobblestones, a quarter had pulverized oyster shells, another quarter had stone paving blocks, and the remaining 15 percent had some mix of stone fragments or planks. The other 472 miles were mostly dirt or mud.

A major driver for paving New Orleans was the advent of the automobile, which made every motorist a vocal advocate for smooth asphalt surfaces. Expansive new subdivisions were being laid out in drained swamplands, and all were designed for autos, while downtown arteries were repaved with asphalt oftentimes poured directly over old stones and bricks.

French Quarter streets would be torn up piecemeal again and again, for the laying of water and sewer lines in the early 1900s and the burying of utilities in the late 1920s. Extensive repairs followed in the early 1960s and 1980s, and smaller ones ever since. Each time the streets are cut open, we see geology-like strata below: layers of twentieth-century asphalt and concrete, then nineteenth-century granite stones, then a gumbo of eighteenth-century fill, shells, brick shards and the occasional mystery timber, and finally dense masses of moist alluvium deposited a thousand year ago.

It’s an entire cross-section of the city’s urban history. Expect to see a lot of it this summer, beneath Bourbon Street.

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**Top:** Repaving on Toulouse Street at Bourbon in 2012 uncovered old paving stones and the curve of a streetcar track bed (photo by Richard Campanella). **Middle:** Comparison of patchy asphalt composite surface at left and new concrete surface at right, on lower Julia Street (photo courtesy City of New Orleans). **Bottom:** Workers pouring new concrete surface on Iberville Street in 2016 (photo courtesy City of New Orleans).