ORIGINAL ARTICLE



Technopolitics and Tenderloins: Sanitation Reform, Segregation, and the Making of Storyville, New Orleans

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Accepted: 17 October 2022

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Abstract Nikhil Anand (2020:50), in a discussion of the modernization of water systems in Mumbai, conceptualizes urban infrastructure as a network of "political assemblages" that can be deconstructed to understand how power is articulated within spaces. Following Anand, we analyze the technopolitics of utility infrastructure and waste disposal in the New Orleans neighborhood that became Storyville, the city's famed red-light district (1897-1917). Storyville, as a byproduct of the city's Progressive Era efforts to engineer physically and morally salubrious urban spaces, was built on an inherent contradiction: it attempted to racially segregate social space, even as it also reserved sex across the color line as a privilege of white men. The material record helps to demonstrate the dissonance between the facades of the imagined Storyville and the diversity of everyday life there, even as that dissonance has reverberated through cycles of urban redevelopment in the neighborhood during the century since the district closed.

Keywords infrastructure · Storyville · New Orleans · prostitution · segregation

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Published online: 18 September 2024

Introduction

In the wake of the devastation of Hurricane Ida in 2021 (just as after Hurricane Katrina in 2005, 16 years before), infrastructure was at the forefront of the concerns of southeastern Louisiana's residents. The electrical grid proved to be fragile, and, while the Sewerage and Water Board of New Orleans was able to maintain safe running water for Orleans Parish, other parishes struggled with water pressure. Even after the restoration of electricity in the city, issues in trash collection and disposal persisted for weeks, a constant reminder of the precarity of the technological systems that sustain urban life. The sanitation infrastructure of New Orleans itself was largely a product of the beginning of the 20th century. It had initially lagged behind other major American cities, like Philadelphia and Chicago, with no comprehensive sewerage or water system and few service lines to individual households by the late 19th century. Street drainage and municipal trash service were both woefully inadequate, and, as a riparian and nearcoastal city, New Orleans faced frequent flooding and periodic outbreaks of diseases like cholera and yellow fever. Under the administration of Mayor Martin Behrman (1904-1920, 1925-1926), the city would drastically modify its urban infrastructure and city services, providing the foundation for many of the same networks that are still operational today (Williams 1961; Colten 2002, 2005).



Perhaps ironically, New Orleans's best-known red-light district, Storyville, plays a central role in how urban infrastructure was imagined in the city. The district only existed formally for about two decades, from 1897 to 1917, but its name still conjures images of lavish brothels, hot jazz, and New Orleans as the "Great Southern Babylon" (Long 2004), where sex across the color line was the prerogative of white men. Its image is filtered through books and movies that emphasize decadent Victorian glamor, particularly as focused through the lens of the photographer E. J. Bellocq, whose ca. 1912 image of the "Girl with Striped Stockings," sitting with a glass of rye whiskey from the bottle at her side, has become iconic, not just of Storyville, but of turn-of-the-century prostitution districts as a whole (Bellocq 1912) (Fig. 1). Even still, the Storyville name lives on, emblazoned on businesses and logos in New Orleans and abroad. The creation of Storyville implemented a new form of urban zoning that was meant to segregate not just prostitution, but the women who practiced it, with race figuring prominently as a hierarchical category defining the use of space both in and out of



Fig. 1 E. J. Bellocq, "Storyville Portrait," New Orleans, 1912 (Bellocq 1912).

the district. Eventually, this model of urban zoning, which equated interracial social spaces with nuisances and slums, would be extended across the city.

Despite its perceived importance, Storyville itself was almost entirely erased from the built environment of the city by 1941. That year, the Housing Authority of New Orleans (HANO) opened the Iberville Public Housing Project, with its boundaries nearly precisely coinciding with the former boundaries of the district (Fig. 2). The whites-only Iberville Project was part of the first generation of "slum clearance" efforts in New Orleans, one of a series of housing projects meant to eliminate overcrowded residential neighborhoods, improve access to modern infrastructure like electricity, running water, and gas, and engineer healthy families through urban design (Reckdahl 2013; Gray 2020b). The Iberville area has since been transformed again, a transformation that is still ongoing as a component of a series of major interventions into the city's built environment occurring after Hurricane Katrina, ranging from redevelopments of publichousing projects (not just at Iberville, but also at the Lafitte, C. J. Peete, B. W. Cooper, St. Bernard, and Guste Homes developments), constructions of new service facilities (e.g., a new U.S. Veterans Administration hospital and the Louisiana State University Medical Center complex), and transportation infrastructure (e.g., the Lafitte Greenway, a pedestrian and bike path through the central part of the city). Many of these redevelopments involved federal agencies, and they were thus subject to the provisions of Sect. 106 of the National Historic Preservation Act. While not part of the formal Sect. 106 obligations, the University of New Orleans (UNO) Department of Anthropology took the opportunity to conduct three summers of field work during the redevelopment of Iberville, with the intent of contributing to a broader understanding of archaeological resources there, particularly ones from the Storyville era and the more recent past.

In addition to a rich archaeological record of individual households dating from the period from ca. 1880 to 1920 recovered from privy shafts, trash pits, and wells, the UNO documented evidence of the changes in urban infrastructure associated with the Progressive Era in New Orleans and its emerging technologies. As observed by Wilkinson (2019), infrastructure is often overlooked in the interpretation of the archaeological record. In urban deposits,



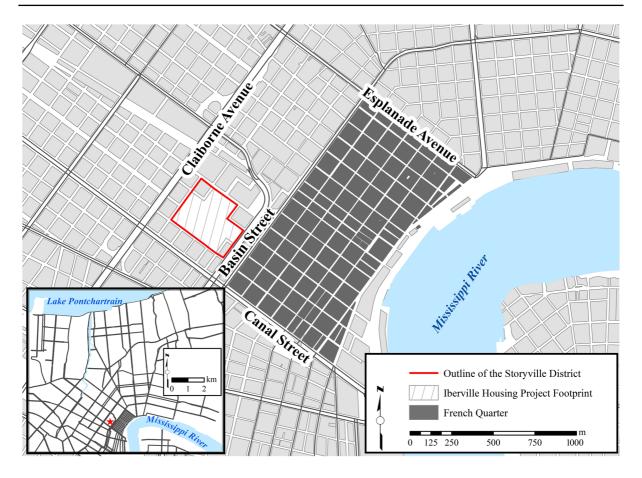


Fig. 2 Map of the project area, including the overlapping boundaries of the Iberville Public Housing Project and the Storyville District. (Map background generated by Elizabeth Wil-

liams using the "Squares" vector layer available through the City of New Orleans Open Data Portal, May 2021.)

it may be regarded as a source of entropy, particularly in the case of 20th-century utilities that disrupt earlier artifact-rich features or historical midden deposits. Matthew Palus (2005, 2010) has recognized that the archaeological study of historical infrastructure may have previously untapped research potential, emphasizing how the introduction of new forms of infrastructure constitutes new forms of materiality. He explains that "even more than the systems of objects, the network of services provided in modern life is particularly available as a graphic illustration of the connectedness implicit in technology" (Palus 2005:186). These seemingly immaterial apparatuses complement the archaeological record, as these modern networks shifted and shuffled the roles of common objects while simultaneously cementing and reinforcing underlying social and economic inequalities.

Importantly, the corporeal body itself and the relationship between its seemingly impermeable border and the social milieu shifts with the introduction of new technology. Matthew Gandy (1999) noted how the promotion of the Paris sewer system as a modern model of achievement in the Second Republic of France shifted the role of order/disorder, particularly in regard to sanitation, hygiene, and urban space. Maria Kaika and Erik Swyngedouw (2000) likewise argue that the transition from aboveground, early modern infrastructure to belowground, hidden networks in the late modern period allows for the relationships among the body, nature, labor, and urban design to remain hidden, rendering the supply of water and the development of late modern infrastructure as "urban fetishes" of late capitalism. While the implementation of these systems is coded as historical



in the Western world, uneven development throughout previously colonized territories under contemporary capitalism renders similar forms of infrastructure as "fetishized commodities," as described by P. Harvey and H. Knox (2012:523) in reference to the process of roadbuilding in rural Peru. Lauded as critical components to a decolonized landscape, the process, labor, and supply of roadbuilding becomes hidden, especially when coded and politicized as progress, nation building, and speed and connectivity.

The first decades of 20th-century New Orleans are positioned between changes in technology that can only allow for these larger political processes to unfold. The use of technology as a mechanism to expand, change, or manipulate state power was described as "technopolitics" by Edwards and Hecht (2010:619) in their work exploring what they called the "apparatus of apartheid" in South Africa during the 20th century; they defined "technopolitics" as "hybrids of technical systems and political parties that produced new forms of power and agency." They suggest that the South African Afrikaaner government struggled to distinguish itself internationally as a "developed" country through its focus on creating robust technological infrastructure, while nationally using these same technological networks to create and reinforce its political agenda of racial segregation and oppression. Citizens of South Africa protested using the same systems of technology honed by the state, particularly when these technologies became common forms of infrastructure, together creating a network of political power that became actively contested, reexamined, and resisted. Indeed, infrastructure itself forms a complex nexus of entangled political, social, and global relationships that invisibly shapes the daily lives of those whom it serves. Nikhil Anand (2020:66), in discussing proposed changes in water metering in contemporary Mumbai, observes that infrastructures are "accretions," not emerging whole from a blank slate, but "built over time with a multiplicity of historical forms and technopolitical rationalities." In this way, Anand discusses proposed changes to modern water infrastructure in Mumbai to demonstrate the shifting relationships between citizen and state.

These technologies, especially those that become part of the network of utility infrastructure like electricity and water, become integrated into a complex web of material culture that forms an active and interconnected, although not necessarily interrelated, system that this article defines as "assemblage." Deleuze and Guattari (1987) introduce this type of relationship as a "milieu," best understood through the system of the rhizome that grows outward instead of upward and multiplies to create vast networks and diverse ecologies. The rhizome theory lends itself to spatial explorations of past and present landscapes. The rhizome, with its decentralized forms and assemblages of events, ecologies, and politics, and its resistance to rupture, provides a lens through which to analyze complex relationships among the state, individuals, the private sector, material culture, and the environment, even when these appear fragmented or nonhierarchical. In describing the assemblage of electricity, Jane Bennett uses Deleuze and Guattari's concept of the rhizome to examine the complex interconnections that led to the Great North American Blackout. Bennett (2005:603) critiques the conventional association between humans and agency, and instead locates agency within a web of intention and nonintention. She argues: "This is the agency of assemblage: the distinctive efficacy of a working whole made up, variously, of somatic, technological, cultural, and atmospheric elements."

In this article, we use the concept of "technopolitics" to examine the historical installation of sewer and water house connections in turn of the 20th century New Orleans as an important piece of the material "assemblage" from the Tenderloin district. While Progressive Era policies grafted Victorian ideals of sexuality, racial purity, and sanitation into the urban grid, these modifications to the technopolitical landscape created tensions between the promise of reform and its implementation. The dissonances in the conceptions of the Storyville district, the historical and archaeological evidence for urban-infrastructure installation, and the material assemblages from households in the area together provide an opportunity to examine the contradictions inherent in the Storyville project and in attempts to segregate urban spaces more broadly. They also reveal the productive dissonances that emerge from examining the state-sanctioned modifications to infrastructure alongside the material record of how they were implemented at the level of the everyday.



Storyville and the City Commons/Iberville Neighborhood

In the colonial era of New Orleans (ca. 1718–1803), the area that became Storyville had been the city commons, unclaimed land beyond the city's porous walls used for public grazing and gathering firewood, until it was surveyed and subdivided for residential development in 1810. The neighborhood that developed there was characterized by social and economic diversity, with a mixture of ethnic and racial groups, including a substantial population of free people of color in the years before the Civil War, many of whom were employed in skilled crafts and the building trades. Access to the nearby Carondelet Canal encouraged woodworking-related commerce in the area, with many carpenters, cabinetmakers, cistern makers, and shipbuilders settling in the vicinity. This pattern of relative integration and mixed residential and commercial use continued after emancipation, even persisting after Storyville was established (Toledano and Christovich 2003).

Prostitution had been a concern of Progressive reformers throughout the latter half of the 19th century, with a central part of that concern having to do with its interpenetration of more respectable neighborhoods. New Orleans had its own distinctively varied history in this regard, with numerous informal tenderloins operating in the city through the 19th century. The city had made various efforts to regulate them, like the so-called Lorette Ordinances, which, beginning in 1857, taxed both brothel keepers and prostitutes, and specified where they could operate (Long 2004; Schafer 2009; Campanella 2014). Likewise, the prominence of New Orleans in the antebellum trade in enslaved people was also intimately tied to its history of commercial sex. In the antebellum, the rape of enslaved women was often treated as a prerogative of slavers, and New Orleans in particular was known as a market for the acquisition of light-skinned and presumably mixed-race "fancy girls" who were sold explicitly for sexual abuse (W. Johnson 1999; Baptist 2001; Green 2011; J. Johnson 2020). This mixed-race status would be commodified and further sexualized in Storyville, with outdated and now-offensive terms for mixed ancestry, such as "quadroon" and "octoroon," used to identify the women of Storyville's brothels. One of the "Blue Books," the guides to New Orleans brothels published in the district, describes "Countess" Willie Piazza as having "the most handsome and intelligent Octoroons in the United States," while Mahogany Hall, the brothel presided over by Lulu White, the so-called Queen of the Octoroons, was advertised as specializing in light-skinned women (Landau 2013; Arceneaux 2017). Both of these prominent establishments, lavish brothels along Basin Street, would only have been open to white men: white-male sexual privilege is something that echoes throughout the history of Storyville.

By the late 1800s, even though there were a few areas with concentrations of businesses related to vice, newspapers claimed that so-called disorderly houses were everywhere and that many apparently respectable businesses, like milliners and dressmakers, merely acted as a fronts for them. After traveling abroad and seeing attempts by European cities to regulate commercial sex, alderman Sidney Story, an antiprostitution reformer, proposed the creation of a "restricted district." The city, fearful that it could not legalize prostitution per se, avoided this problem through careful wording of its Ordinance 13,032, passed in January of 1897 and going into effect late that year (City Council of New Orleans 1897a).

The ordinance made it unlawful for "any public prostitute or woman notoriously abandoned to lewdness" to occupy a premises outside the district's boundaries of Basin, N. Robertson, Customhouse/ Iberville, and St. Louis streets, even while stating that the ordinance should not be "construed as to authorize" that lewd women could stay in any portion of the city. An "Uptown District" encompassing the area bounded by Perdido, Gravier, Franklin, and Locust streets, meant to be the segregated Black counterpart of Storyville, was countenanced in an addendum to the original Storyville ordinance; however, Storyville itself never became fully segregated, despite attempts to make it so by city authorities (City Council of New Orleans 1897b). The district officially closed for business after only 20 years, in 1917, in response to pressure from the secretaries of war and of the navy, concerned that open prostitution within 5 mi. of military installations would exacerbate issues with venereal disease in servicemen. Meanwhile, the lesser-known and less-visible "Uptown District" would continue in unofficial operation for decades afterward (Foster 1990; Long 2004; Sutton 2011; Landau 2013; Vaz 2013; Krist 2014); compare Rose (1979).



Despite its closure, a careful examination of census records reveals that many of the women who had worked in Storyville stayed on, at least some of them continuing in their previous occupations (U.S. Bureau of the Census 1920, 1930; Landau 2013; Gray 2020b). The most striking change in the area in the post-1917 period, however, is just how quickly the blocks that had formerly comprised Storyville became almost exclusively "Black" in racial composition, and, likewise, how quickly the city allowed material conditions within them, including infrastructure, to deteriorate. By the time that the Iberville area was surveyed in advance of the proposed construction of the Iberville Housing Project in 1940, conditions were among the worst that the HANO documented. Of the 723 units surveyed in the area, 485 of them had no lighting facilities (meaning no gas or electricity), almost half still utilized shared outdoor privies, and more than that had no bathing facilities. By almost all the material measures quantified in the HANO surveys, the Iberville area had become one of the worst slums in the city (HANO 1938, 1939, 1941). This marked a dramatic turn, as many of Storyville's brothels were once celebrated for having the most modern of facilities, exalted as elegant and state of the art. How was the vision of the modern that was embedded in the Storyville mystique experienced by the area's residents? And what allowed this vision to deteriorate so quickly? The archaeological record provides some key sources of evidence, both about the relationship of Storyville to Progressive sanitation efforts and about the daily lives of its residents.

Archaeology in Iberville

The archaeological potential of the Iberville Housing Project area was first realized in 1999, during trenching for routine renovations at a housing-project administration building. Rob Florence, a local tour guide and historian, happened to pass by and spotted large numbers of artifacts in a backdirt pile. Fearing that some of the bone could be human (associated with the nearby St. Louis Cemetery No. 1, which had once occupied a larger footprint), Florence contacted the Louisiana Division of Archaeology. As a result, local cultural resource management company, Earth Search, Inc., documented a series of dense deposits dating from the Storyville era back to the beginning

of the 1800s. At the time, the unique research possibilities of the Storyville material seemed self-evident: large-scale archaeological projects in other cities had begun looking at the material record of commercial sex and prostitution, and historical archaeology was providing information about gender, sexuality, work, and daily life in a way that documentary evidence had not previously done (Seifert 1991; Bonasera and Raymer 2001; Praetzellis and Praetzellis 2001; Yamin 2001, 2005; Powell 2002; Meyer et al. 2005; Seifert and Balicki 2005; Spude 2005; Yamin and Seifert 2019; Gray 2020b).

Archaeologists did not get a chance to return to Iberville until relatively recently, when the initiation of a major post-Katrina redevelopment effort made the archaeology at Iberville a pressing concern once again. The Iberville projects spanned 11 blocks, all of which had to be tested for archaeological deposits and all of which ultimately contained multiple intact loci that had to be evaluated for National Register eligibility and, in some cases, excavated in a complex multiphase data-recovery effort. Complicating the issue further was the presence of human remains beneath some parts of the housing project and previous neighborhood, a remnant of the once-larger footprint of St. Louis Cemetery No. 1 (Godzinski et al. 2013).

The full reports of the federally mandated investigations have not yet been completed, but the sheer density of historical deposits provided opportunities to combine university-based research with the compliance-based efforts. During the summers of 2012-2014, the UNO arranged with HANO to hold a summer archaeological field school focused on a single courtyard of the Iberville complex, representing an area within what had been City Square 130 (16OR180), the block historically bounded by Bienville, N. Liberty, Conti, and N. Franklin (or Crozat) streets. While this project was to be considered separate from the required Sect. 106-related excavations, its results would supplement them in several ways. The excavations were intended to provide data on possible low-visibility occupations of the area, particularly from its earliest phase of development. They were also specifically meant to foreground research themes related to the more recent past, including Storyville and the era after it officially closed, including the construction and occupation of the Iberville Housing Project itself.



The UNO completed over 40 m² of unit excavation, with the units divided among several distinct locales, uncovering remains that dated back to the earliest subdivision of the area and throughout the 19th and early 20th centuries. In particular, excavations focused on what would have been the lots numbered 315-317 and 319 N. Franklin and 318-320 and 322 N. Liberty, which seemed to be good candidates to address some significant research issues related to race, ethnicity, gender, and class for the neighborhood as a whole. A frame double residence fronting N. Liberty (318–320, but then enumerated as 62 Treme before changes in the city address system in 1894), for instance, was actually designated a "House of Illfame" in the 1880 census, almost 20 years prior to the establishment of Storyville (U.S. Bureau of the Census 1880). At the time, Mary Nott (or North), a 29-year-old German woman, was listed as the head of household there, in a residence with six other women, four men, and two children listed as boarders, all of whom were described as "B[lack]" or "M[ulatto]." While the women (Mollie Saunders, Lizzie King, Ella Page, Sarah Wilson, Hannah Glover, and Nellie Wilson) and one man (Henry Riley) were listed without occupations, three men at the address, J. Johnson, W. M. Taylor, and Chester Danenanh, were listed as "Steamboat" men. Of the two children, Edwin was the son of Nellie, and Bella was the 4-month-old

daughter of Chester (U.S. Bureau of the Census 1880).

Ironically, the neighbor at 315–317 N. Franklin sharing a rear property line with this "House of Illfame" in 1880 was William Boots, a German policeman, living with his Swiss wife and a stepson. The Boots family also shared their address with roomers of different races, individuals listed only as Mr. and Mrs. Gregg and described in the census as a mulatto laborer and a Black cook (U.S. Bureau of the Census 1880, 1900). While the main double building at the 318-320 N. Liberty address remained mostly unchanged through the next few decades, in the Storyville era the lot at N. Franklin was rapidly filled in with additional structures, capitalizing on the high rental rates that commercial sex brought to the neighborhood (Fig. 3). This culminated in all of the structures on the entire lot being razed and replaced with a large three-story brothel structure sometime around 1910.

Each of the lots investigated contained a complicated series of urban features and midden deposits, with cultural layers typically extending at least 1–1.5 m below the contemporary surface grade (Fig. 4). The construction of the Iberville projects had involved the installation of an entirely new utility infrastructure across the neighborhood, one that did not match the preexisting street grid. The deposits of

Fig. 3 Detail of the properties at 318–320 (62) N. Liberty Street and 315–317 (65) N. Franklin Street from the 1887, 1896, 1908, and 1937 Sanborn atlases (Sanborn Map and Publishing Co. 1887:63, 1896:30, 1908:130, 1937).

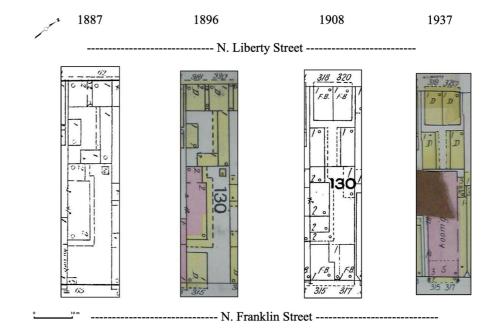




Fig. 4 The UNO excavations at City Square 130 (16OR180) during the 2012 field school. (Photo by D. Ryan Gray, 2012; courtesy of the UNO Department of Anthropology and Sociology.)



the pre-Iberville era also showed evidence of numerous efforts at replacing or improving sewerage and water systems and other utilities. While it was initially tempting to see this complicated patchwork of trenches, pipes, pits, and shafts as interruptions in the archaeological record, sources of entropy and dissonance in otherwise intact deposits of artifact-rich feature fill, we instead focus on changes in infrastructure as their own archaeological narrative, one that can be interpreted in concert with the artifactual record to highlight tensions and elisions. In this article, we will focus on three different feature areas or feature groups associated with sewerage infrastructure and excavated during the UNO investigations at 16OR180, all of which are associated with addresses used at the time for sex work, ordered here chronologically by likely time of abandonment: Area C, a brick-lined privy at 318 N. Liberty, likely filled just after a fire in 1894 and later intersected by a water pipe; Area A, a second shallow brick-lined privy on the same lot, intentionally intersected by a set of early 20th-century sewer pipes; and Area B, a brick-lined privy at 317 N. Franklin, apparently filled when abandoned and built over early in the Storyville era (Fig. 5) (Table 1).

Storyville Imagined

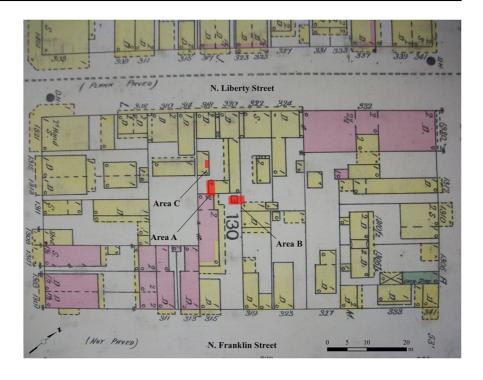
In the late 19th century, urban spaces were imagined as places fostering vice, pestilence, and plague. The immigrant influx into the United States from 1840 to the 1880s created a shortage of housing stock in

urban areas throughout the country. This was certainly also the case in New Orleans, where the city's population increased from approximately 102,000 in 1840 to 216,000 in 1880, as immigrants from European countries were joined in the post-emancipation years by the formerly enslaved, many of them fleeing the oppressive conditions of sugar and cotton plantations. Combined with rampant low wages and few, if any, tenant rights or comprehensively enforced ordinances requiring landlords to provide adequate housing, urban spaces became densely populated, associated with unhealthy conditions, contagion, and the spread of cholera, yellow fever, typhus, and venereal disease. Urban spaces inhabited by the poor and working class were conflated with squalor or with miasmas that bred and propagated diseases and disorders. New Orleans in particular had a reputation as unsanitary, with ineffective or corrupt local administrations unable to implement meaningful reforms. Major yellow-fever epidemics in New Orleans during 1853, 1878, and 1905 alarmed the rest of the nation, eventually resulting in federal orders to quarantine commercial vessels disembarking at the city's ports; Storyville, in some sense, was a way to prove that the city could safely welcome visitors by containing its own contagion.

In New Orleans, sanitary reform had been a major point of discussion throughout the second half of the 19th century; for instance, Dr. Joseph Holt, an official with the Board of Health, emphasized the need for disease prevention by creating an efficient system for waste removal for the city. In an 1879 committee



Fig. 5 Detail of the 1896 Sanborn map, illustrating locations of select areas from the UNO's excavations from 2012 to 2014 (Sanborn Map and Publishing Co. 1896:30).



meeting discussing health measures, Dr. Holt presented his data concerning layers of excrement in the soil. He concluded: "The inhabitants of New Orleans live upon a dung heap!" (Maygarden et al. 2001:8). His meticulous calculations of "night soil" per year amounted to 160 million pounds of human excrement accumulating annually (Maygarden et al. 2001:8). During the Progressive Era in New Orleans and elsewhere across the country, city officials and engineers initiated urban reforms intended to engineer physically and morally salubrious spaces in a manner that often had racial undertones. The decades surrounding the turn of the 20th century were punctuated by a variety of such reforms, including the implementation of household-trash collection, the installation of residential sewerage and water connections, the improvement of street drainage, and the separation of nuisance and industrial activities (e.g., slaughterhouses, tanneries, soap manufactories, and chemical works) from residential areas.

While the introduction of an ordinance zoning prostitution might be considered in much the same manner, the new infrastructural technology with which Storyville was associated more than any other was electricity. Electric street lighting in the city was originally introduced by entertainment establishments, with the first use associated with a

battery-powered showboat in 1852, and then in 1880 with generator-powered lighting at Spanish Fort and West End, two lively carnivalesque resort establishments on the lakefront edge of the city (Schneller 2016:10). While there were isolated pockets of experimentation with electric lighting beyond these amusement parks after 1880, the World's Industrial and Cotton Centennial Exposition in 1884-1885 marked an important shift in the city's relationship with electricity. The timing of the exposition paired multiple businesses and the New Orleans City Council with providers of electricity, including the Southwestern Brush Electric Company, the Edison Electric Illuminating Company, and the Daft Electric Light Company, all strategizing to find consumers within New Orleans's emerging infrastructural grid. The year 1893 marked an important transition, as incorporation of electrical infrastructure allowed massive state projects, including plans for water purification, the expansion of citywide drainage, and electrified public streetcar transportation. From that moment on, electricity both visibly and invisibly shaped New Orleans's future.

By the time that Storyville was established in 1897, electricity was still novel, but it was becoming a central feature of the imagination of a modern city. And, indeed, electricity was central to Storyville's



Table 1 Sewerage infrastructure excavated during the UNO investigations at City Square 130 (16OR180)		Brick privy shaft with accumulations of sheet midden surrounding, truncated by ceramic sewer pipes. Brick shaft had intersected an earlier (pre-1850) wood- lined privy shaft (not discussed here)	Brick privy shaft intersected by ceramic sewer pipes, but with intact fill	Brick privy shaft with one wall inter- sected by ceramic sewer pipes; intact fill in base sealed by thick deposit of charcoal
	Description	Brick privy sh sheet midde: ceramic sew intersected a lined privy s	Brick privy sh sewer pipes,	Brick privy sh sected by ce fill in base so charcoal
	Stratigraphic Primary Features Associated Fill Context	Shallow brick-lined privy shaft with brick base	Brick-lined privy shaft, unlined base	Context 147 Brick-lined privy shaft, wooden base
	Stratigraphic Fill Context	N/a	Context 79	Context 147
	Association and Date	318–320 N. Liberty, feature likely con- N/a structed ca. 1900 and abandoned 1913	315–317 N. Franklin, fill likely dating to ca. 1900–1910	Area C Mechanically stripped area 318–320 N. Liberty, fill likely dating to 1894
	Units	Area A T.U.2 and T.U.6	Area B T.U. 9 and T.U. 10	C Mechanically stripped area
Tabl		Area	Area	Area

renown. Tom Anderson, known colloquially as the "mayor" of Storyville, had 100 lightbulbs installed in the ceiling of his bar, the Arlington Annex, and an electric sign on its exterior (Fig. 6). When it opened in 1901, it was touted as the "first saloon in America to be lit by electricity," and its prominent sign would serve as the unofficial gateway to the district (Rose 1979:61; Long 2004:158). Electricity radiated from Josie Arlington's chandeliers along Basin Street, and well-known madam Lulu White was herself described in terminology inspired by electrification. Adorned with diamonds, she was said "to shine as brightly as the 'lights of the St. Louis Exposition'" (Long 2004:208). Mirrored halls at Hilma Burt's and Josie Arlington's establishments were lit with enormous chandeliers, pictured burning brightly in photographs in the "Blue Books" (Fig. 7), the guidebooks to the district printed nearby (Arceneaux 2017). In theory, electricity would allow for the district's raucous night life to extend beyond the previous limits of spotty gas lighting and interior candles. However, even as most contemporary descriptions of Storyville focused upon ostensibly elegant, lavishly furnished and lit brothels along Basin Street, this was merely a facade. Most of the district was occupied by small "cribs," described by Asbury (1938:436) as "flimsy one-story wooden shanties" rented at exorbitant rates and intended almost completely for commercial sex. While the Blue Books list names for women working at many of these addresses, the women often do not appear at all in U.S. census records. The back lots of the district are consistently described as dark, unlit places, almost literally in the shadows of the towering homes and brothels that were the basis of Storyville's renown.

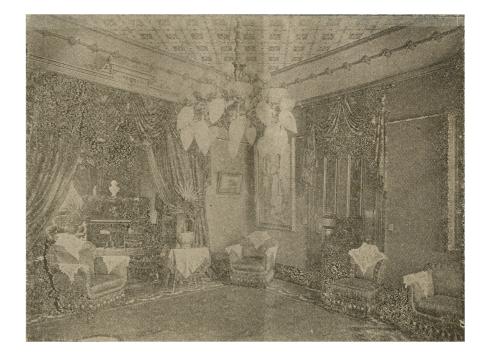
James C. Scott (1998) has emphasized the power of novel forms of technology, specifically because of their nearly "magical" properties in the context of the high modernist aesthetic (Scott 1998:166,392). Concerning electricity, he writes: "It is easy today to forget how breath-taking electricity was for those experiencing it for the first time. As Vladimir Mayakovsky was reported to have said, 'After electricity, I lost interest in nature" (Scott 1998:392). Yet Scott points out that this power is also an arm of the modern state, engineering not only the technology of the urban grid, but also the citizens who live in it. He writes: "The modern state ... attempts with varying success to create a terrain and a population with



Fig. 6 The interior of Tom Anderson's Arlington Annex, ca. 1903, from an advertisement in one of the Storyville "Blue Books." (Image courtesy of the Historic New Orleans Collection, New Orleans, Louisiana.)



Fig. 7 The "American Parlor" with its elaborate chandelier in Jose Arlington's Storyville brothel, from an advertisement in one of the Storyville "Blue Books," ca. 1905. (Image courtesy of the Historic New Orleans Collection, New Orleans, Louisiana.)



precisely those standardized characteristics that will be easiest to monitor, count, assess, and manage" (Scott 1998:81–82). By introducing new technologies by which to live, the state imposes a type of order that

literally and figuratively renders the grid, and its citizens, more visible and more subject to its control. Of course, these technologies stood in contrast to those dark, back-of-town areas where much of the real work



of the Storyville District still took place out of view of the lights of innovation, in spaces where racial dynamics were more fluid. Ultimately, this section of Storyville would prove the most persistent, until the construction of Iberville effaced it entirely.

The emergence of electrical infrastructure onto the urban landscape drastically affected the collective imagination. Matthew Palus observes that, nationwide, electricity became associated with shopping and nightlife, as electricity was first employed with large-scale infrastructure designed for citywide street lighting (Palus 2005:178). Describing electricity's introduction in Annapolis, he writes: "Technological and political apparatuses retrace one another ... creating a historical geography of power" (Palus 2005:165). Such emergent technologies both visibly and invisibly retrace power, inscribing fault lines and tensions, intents and contingencies made apparent by electrical light. Once the aboveground wires are gone, archaeologists can typically only "see" the expansion of the historical electrical grid indirectly, through artifacts like a fragment of a lightbulb, copper wiring, knobs, and insulators, visible manifestations of the impacts of electrification on "electrons, trees, wind, electromagnetic fields" (Bennett 2005:602). In the early 20th-century city, the divisions that these mark would have been stark, a separation of light from darkness that would have seemed dramatic in the city's streetscape. Archaeology's contribution to understanding the material record there is to place such objects within the context of the networks of which they are a part; in the case of New Orleans, the new drainage and sanitary infrastructure that electricity made possible would leave many more lasting traces, ones with implications today. Even as electricity visibly shaped Storyville's renown, it invisibly allowed for other state-sponsored feats of engineering during the district's tenure.

Technopolitics and Infrastructure as Assemblage

New Orleans's Progressive Era added new layers of infrastructure to the New Orleans landscape, both below and above the city streets, in the process forming novel apparatuses that reshaped New Orleanians' daily lives. These modifications transformed daily constitutionals, hygienic practices, and cooking and cleaning routines. Yet these changes were

not instilled overnight. Kaika and Swyngedouw (2000:122) place these changes in infrastructure into an historical sequence in which the initial establishment of infrastructure began as aboveground projects with heightened visibility, only subsequently to be buried underground in the postmodern era. They explain: "Urban networks became 'urban fetishes' during early modernity, 'compulsively' admired and marveled at, materially and culturally supporting and enacting an ideology of progress." In New Orleans, such features included antebellum shipping canals, waterworks, and late 19th-century "moonlight towers" that illuminated (and shadowed) large swaths of city blocks. These crude monuments of and to technology would soon be replaced by modern underground, and unseen, infrastructure.

Although New Orleans always had problems with drainage, electricity's introduction to the consumer market allowed for technological solutions to address it. In 1893, the same year that electric streetcars entered the aboveground landscape, the New Orleans City Council created the Drainage Advisory Board to measure, map, and address New Orleans's problem with water. The Drainage Advisory Board included at least three civil engineers, among them B. M. Harrod, Henry B. Richardson, and Rudolph Hering (Kelman 2003; Campanella 2018). The board established a comprehensive plan to drain the city and formed a subsequent Drainage Commission of New Orleans to do so via the installation of canals, pumping stations, and underground drainage (Kelman 2003:154). While the purpose of the board was initially to drain the municipality in response to outbreaks of disease, citizen-led campaigns petitioned the city to include municipal sewerage and water in its drainage plan. Limited water connections had been available to residents previously; for instance, the antebellum Water Works Company, a private company organized by Benjamin Latrobe, utilized underground water pipes of cypress wood. It serviced only 7,000 households, and no sewerage connections were available through it. The city eventually met this need, adding dedicated funding for the Sewerage and Water Board (SWB) to engineer a comprehensive drainage, sewerage, and water system in 1899 (Berhman 1914).

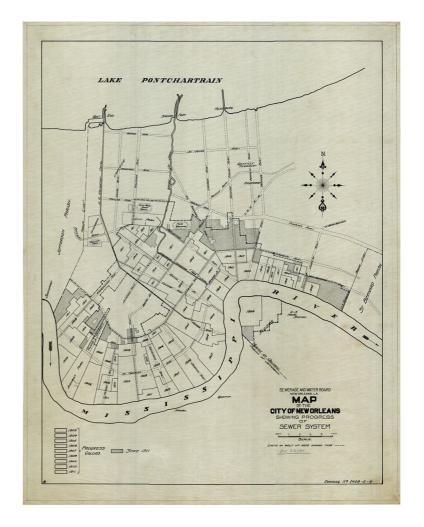
The city began installing sewerage and water house connections to the city at large in 1903, and in the Storyville area specifically beginning around 1907 (Fig. 8). In 1906, electricity allowed for the first house



connection to the electrified sewerage system (Berhman 1914). The property owners had to apply for the connection and then front the cost of its installation (Colten 2002:246). Initially, the city connected the first residents to the sewerage system on a first-come, first-served basis; the Daily Picayune announced on 31 October 1906 that Major H. M. Harrod himself, absorbed into the SWB after his post on the Drainage Advisory Board ended, was the first applicant to have his household at 1637 Foucher Street connected to municipal sewerage (Daily Picayune 1906:5). A handful of businesses followed immediately after, including C. C. Hartwell, the Abbot Cycle Company, the Union Furniture Company, Joseph Levy and Bros., and Beekman's Store. However, few residents opted to connect their properties under these costly conditions. To encourage more owners to connect, in 1911 the board threatened home and business owners with a fine if they did not close their privies and cesspools and accept house connections; by 1912, the Sewerage and Water Board began to install house connections at its own cost, finally accelerating the rate of connections to the new system (Colten 2002:248). Between 1910 and 1917, total sewerage house connections climbed from 20 to 70%, and, by 1920, 94% of residences were supposedly connected. In his 1914 address to the city of New Orleans, Mayor Behrman marveled at the ingenuity of the sewerage system. He described the system

composed of mains, sub-mains, and lateral sewers, leading to nine separate pumping stations. These slopes range from one (1) foot to three hundred (300) feet for eight (8) inch pipe, to one (1) foot to two-thousand (2,000) feet for main sewers over four (4) feet in diameter. ... The

Fig. 8 Sewerage and Water Board map indicating sewerage connections available to Storyville residents, ca. 1907. (Map courtesy of the Sewerage and Water Board of New Orleans.)





removal of the sewerage, from the instant of its discharge until it is lost in the Mississippi River, is quick and continuous. ... They are from five (5) to twenty-four (24) feet in depth, and up to twenty-four (24) inches are composed of terra cotta pipe, with cement joints, admitting some water from the soil. (Behrman 1914)

He concluded that, by 1917, all sewerages and connections would be established throughout the city, allowing for citywide availability. In reality, many areas in the newly drained back swamp still lagged behind. These low-lying neighborhoods had been swampy and slow to develop in the 19th century, often offering a refuge to the socially marginalized; many were platted and sold in the first decades of the 20th century. Colten writes that, even by 1923, many areas toward Lake Pontchartrain lacked basic sewerage infrastructure, and, of areas that did have that infrastructure, there were pockets of neighborhoods without (Colten 2002:250). Surveys of the former Storyville neighborhood, like many of the others replaced by housing projects in 1939–1941, demonstrated that nearly half of the neighborhoods lacked full sewerage and house connections, and many homes throughout the city continued to rely on detached outhouses, even though connections were available (Gray 2020b).

Evidence of sewerage and water connections appeared throughout the UNO's excavation area; in fact, most of the excavated areas included some portion of underground city infrastructure. For instance, excavation of the brick-lined privy shaft in Area C, one abandoned in the 1890s, showed that a city water pipe had been placed through one edge of the feature, with some of the brick neatly removed to form a base for the pipe. Likewise, in Area B, a sewerage pipe completely truncated the west side of another brick-lined privy shaft in the 317 N. Franklin lot, even while leaving intact a refuse deposit dating to the Storyville era (Fig. 9). The most telling feature group for reconstructing the history of sewerage infrastructure in the UNO excavations was in Area A, where the combination of privy shaft and sewer pipes makes the neat plan commissioned by the Sewerage and Water Board questionable. The privy itself was mostly empty; soils from the interior of the shaft were from a secondary depositional episode containing a scant number of artifacts. The assemblage of Area A of primary interest includes one sewerage pipe that intrudes upon the brick-lined privy shaft and one that intersects with it, each within different stratigraphic layers (Fig. 10). The larger pipe intersected the older layer associated with the Storyville period and with the privy shaft itself. The pipe ran north-south on grid with the property, and although truncated by more recent development, it appeared to be routed toward the back of the 318 N. Liberty residence. The younger and smaller pipe that intruded upon the privy shaft was associated with a heavy layer of slag, likely from the neighborhood's demolition ca. 1940, at the time the Iberville Housing Project was constructed. It appears that this pipe happened to intrude on the earlier privy; its direction was off grid compared to the city square and matched the shape and size of other similarly observed pipes throughout the block.

The larger of the two pipes that intersected with the privy shaft at 318 N. Liberty was likely not due to the property's initial connection to the city grid, because city engineers connected to houses and not to older external privies; in fact, the city plan was intentionally implemented to render the use of privies obsolete in order to benefit city sanitation in general. Instead, it seemed as though there was a connection to the house interior by routing a ceramic pipe from the back of the house to feed into the brick-lined privy shaft—a feature commonly called a "cesspit." Such cesspits are common archaeological features in those New Orleans neighborhoods that were developed through land reclamation during the 1920s and 1930s, where they were a premeditated sanitation stopgap built into the housing lot (Handly et al. 2011). However, those neighborhoods developed prior to major municipal drainage and sewerage transitioned quite rapidly from the privy to the house connection system, rendering this early cesspit at 318 N. Liberty unusual as an archaeological feature for the time and place (for discussion concerning uneven early to mid-20th-century neighborhood development in New Orleans, see Colten [2002, 2005]). Craig Stottman (2000) made a similar observation in archaeological excavations in Louisville, Kentucky, during the period of transition from the privy system to the municipal-sewerage house connections. He noted that two privies in a wealthy area of Louisville simulated municipal connections to the city grid, while in reality the waste from interior water closets was routed into outdoor privies (Stottman 2000). He locates "the



Fig. 9 Ceramic pipe in Area C truncating the west side of the brick-lined privy shaft from 315–317 N. Franklin Street. (Photo by D. Ryan Gray, 2021; courtesy of the UNO Department of Anthropology and Sociology.)



Fig. 10 Two ceramic pipes intersecting with bricklined privy shaft in Area A. (Photo by D. Ryan Gray, 2013; courtesy of the UNO Department of Anthropology and Sociology.)





cost of connecting to a sewer" as motivation for this private engineering and suggests that wealthier residents followed an "out of sight, out of mind" principle that undermined the larger goal of municipal sanitation (Stottman 2000:57).

In Storyville, modern infrastructure was also used as a type of commodity; for example, the prominent madam Lulu White bragged of having hot-and-cold running-water baths in every room of the brothel she operated (Rose 1979:80). The assurance of interior bathrooms, baths, and electricity also promised the customers of the district sexual access to what Kaika and Swyngedouw (2000:126) call "the new sanitized and deodorized (washed) urban bodies" promised by high modernism. The commodification of water infrastructure created a shift in how the body was centered in private and public networks within the city. Kaika and Swyngedouw (2000:126) elaborate: "Images of sexuality (predominately female) began to revolve around the secrets, intimacy and eroticism associated with the bathroom, the toilet, and the sprinkling of domesticated water over the naked body," one that was cleansed and hygienic. In Storyville, this technological infrastructure, by extension, created a new type of categorization, a homogeneity that allowed the Victorian imagination to grasp and, more importantly, to market and consume the modern form of commercial sex. Rosen (1983:111) has suggested that, in the first decades of the 20th century, "as Americans investigated the subculture of prostitution, they discovered a microcosm of their own daily prostitution for the almighty dollar"; see also Walkowitz (1980), Gilfoyle (1994), and Keire (2010). For that public to grasp this parallel, the bodies imagined as engaged in sex work themselves needed to be sanitized or sanitizable.

The lack of archival evidence for this halting process of infrastructural improvement makes the material assemblage all the more important, as it is difficult to get a clear sense of who the house's residents were in the period after the 1880 census recorded Mary Nott and her "House of Illfame" at the address (U.S. Bureau of the Census 1880). The 1908 Sanborn fire-insurance map designates the property as an "F.B.," for "Female Boardinghouse," which served as a euphemism for an establishment of commercial sex (Sanborn Map and Publishing Co. 1908:130). Tax assessment records from the period indicate that the property changed hands multiple

times during the district's existence; additionally, at the time, these records were collected on a blockby-block basis (Board of Assessors 1898–1899, 1899–1900, 1900–1901, 1901–1902, 1902–1903, 1903-1904, 1904-1905, 1905-1906, 1906-1907, 1907–1908, 1908–1909, 1909–1910, 1910–1911, 1911–1912, 1912–1913, 1913–1914, 1914–1915, 1915–1916, 1916–1917, 1917–1918). Even the Sewerage and Water Board house-connection records that exist in the New Orleans City Archives at the New Orleans Public Library are obscured by an index card covering the date of original house connection, and the originals appear to be lost (Sewerage and Water Board 1907–1964a, 1907–1964b, 1908–1960a, 1908–1960b, 1908–1960c, 1908–1960d). Perhaps the most telling reference to the address in the period in question comes from a 19 February 1901 Daily Picayune account of a Carnival-season theft:

E. J. O'Brien may be quick enough for Birmingham, Ala., but he was not wise enough to go alone in the red light district, for the light-fingered ladies got to his pocketbook when he was \$40 to the good. He was out Sunday night and fell into the house of Josephine Harris, at 318 Liberty street, and when he woke yesterday morning he found that his \$40 was gone. Josephine was jailed, but that did not bring O'Brien his money back. (*Daily Picayune* 1901:9)

Likely financial concerns motivated the modifications to the features in Area A; however, within the context of a commercial and highly competitive brothel district it is unclear who exactly would have commissioned a makeshift indoor bathroom or when this would have occurred. It likely would have been the property owner, of course, but perhaps the alteration reflects the needs of the women renting the address to give the appearance of modernity to keep up with the modernizing brothel spaces around them. Just as plausibly, the ostensible improvement allowed the property owner to charge more for the rental of the space. This inability to assign credit to particular actors underscores Anand's (2020) assertion that infrastructure hosts a plurality of power relations. Anand's contemporary observations surrounding infrastructure can illuminate how the relationship between state and citizen is not unidirectional, and, in fact, infrastructural nodes can act as important loci of tension, creating dissonance in attempts to order the



urban grid. Anand (2020) provides the example of a state proposal to install pre-paid water meters in contemporary Mumbai as a neoliberal solution to transform the people of Mumbai into nameless but visible citizens, made part of the state apparatus through profit in a manner that would "delink" the state from public accountability (Anand 2020:55). In this contemporary example, Anand describes infrastructure as a network of "political assemblages" that can be deconstructed to understand how power is structured within spaces (Anand 2020:50). He also demonstrates that many of these concepts—government, business, investment—can be plural and act as an effective link that shapes people's relationships to one another, to governments, and to markets.

It is precisely these day-to-day interactions with infrastructure that generate new ideas, myths, routines, and structures; but when infrastructure breaks down or when there is unequal access to it, these day-to-day disruptions expose underlying inequalities behind that disorder. These are experienced by urban residents as tensions and dissonance, the invisible made apparent in all of its contradictions. As Palus (2005:163) explains with regard to the introduction of electricity to Annapolis: "Perhaps, then, electricity fails to be materialized as the apparatus fails. ... What seems to be applied systematically becomes confounded, irregular, unpredictable and nervous in every sense of the word." In another contemporary example of infrastructure as technopolitical urban features, Christina Schwenkel (2015) articulates how infrastructure becomes part of daily practice in the water infrastructure of Vinh, Vietnam, by describing how urbanites' use of the water system shapes their social relationships to their governments and to each other in both practice and discourse. She explains that North Vietnam's water system was built by East German engineers in a show of communist solidarity after the Vietnam War. The water system included both underground indoor water and plumbing and aboveground outdoor water fountains. However remarkable the design was intended to be, residents most often found the system lacking, frustrated by systematic breakdowns and leaks that were the result of complex bureaucracy. Schwenkel explains that, in fact, the problems with running water proved so problematic in the typical northern Vietnamese privately owned, yet state-funded apartment buildings, that infrastructure breakdowns "established [an] ethos of improvisation and denial of responsibility that hinged on collective rather than individuated action," and created complex social ties as residents came together to perform an appropriate sequence of action within a complex system, albeit one that was not necessarily the most effective solution, to deal with the breakages (Schwenkel 2015:521). These examples locate how infrastructure, zoning, and other macro changes to the urban landscape can become important instruments of resistance in what Lefebvre (1996) coins as the complex struggle for the "right to the city," as citizens vie for power to shape their spaces and their lives.

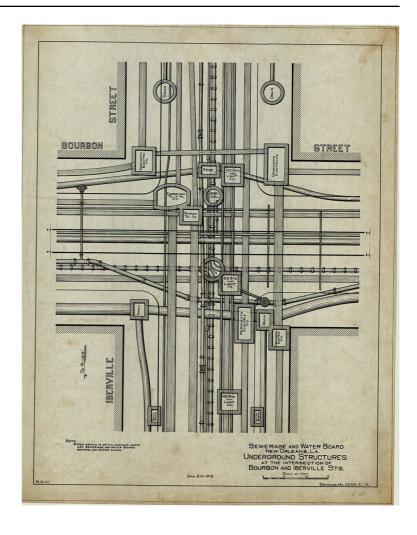
In the Storyville case, it was a network that included the City of New Orleans, the public/private Sewerage and Water Board, private absentee owners of properties, residents and short-term users, and likely their customers, not to mention the material assemblage and the electrical infrastructure available to power it; as Jane Bennett (2005:606) describes such systems: "an assortment of agentic sites, from quirky electron flows to cocky economists' assumption about market self-regulation." Soon, infrastructure would multiply and swarm, especially in the older districts of the city, where its reliability served to sediment lines of class and status (Fig. 11). But, ironically, for many of these residents working in establishments of commercial sex, the access to modern sanitation infrastructure that was intrinsic to how Storyville was imagined was in fact tenuous, especially for the largely invisible and transient residents like those at 318 N. Liberty, who lived in the neighborhood while the district was planned and actualized.

Everyday Dissonance

Ironically, as Storyville was conceptually segregated and cordoned off from the rest of the city, changes in infrastructure technology were inexorably linking this space to the rest of the city in a more direct and intimate manner than had ever been the case before. Sewage and water lines eventually flowed freely between the respectable portion of the city and the tenderloin, the commingling of waste a testament to the contradictions of segregation. But Storyville was linked in other ways as well, some of them obvious. The new Basin Street rail station, the terminus of the Frisco line, was literally on the doorstep of the district, and it has been suggested that the appeal of commercial



Fig. 11 Plans from the Sewerage and Water Board illustrating infrastructure beneath Iberville and Bourbon Streets in the French Quarter, 1912. (Plans courtesy of the Sewerage and Water Board, New Orleans, Louisiana.)



sex was directly tied to the growth of New Orleans as a tourist destination (Souther 2006). From an economic standpoint, Storyville was also linked in webs that extended throughout the city: absentee landlords rented out space in cribs and brothels for exorbitant amounts, and department stores profited by extending credit to both brothel owners and prostitutes who provided the material trappings of elegance and modernity to customers. Women moved in and out of the district, adopting and dropping pseudonyms and fictitious personas to facilitate a shift to Victorian respectability should that become desirable. While that choice was not always there for the most economically disadvantaged or socially marginalized of Storyville's women, many tried to preserve it.

There has been considerable previous research on the material culture of brothels and red-light districts in, for example, the Five Points District of New York City (Bonasera and Raymer 2001; Yamin 2001, 2005), Hooker's Division of Washington, D.C. (Seifert 1991; Seifert and Balicki 2005), the American West (Spude 2005), and California (A. Praetzellis and M. Praetzellis 2001; Meyer et al. 2005), even if some of this work has struggled with the essential question of whether a given assemblage is more indicative of the daily lives of the women engaged in sex work at that address or of the tastes and desires of the clientele who visited the brothels. Publications on the archaeology of red-light districts and brothels in the southeastern United States are much more limited, though there are certainly cultural resource management technical reports with relevant data for the study of sex work. Whatever the case, broadly speaking, archaeological assemblages from brothels have tended to share certain characteristics: ceramic assemblages that emphasize informality (small plates used in place



of full dinner services, for instance), large numbers of alcoholic-beverage bottles, items related to leisure activities like smoking, and large quantities of artifacts related to the treatment of venereal diseases (i.e., specialized medicinal bottles, hygienic syringes, etc.). Across the Iberville area, many of the components related to sex work share at least some of these characteristics. They also demonstrate shifts through time, however, as the nexus at which the city's efforts to control sanitation and population shifted over time.

The assemblages from two of the filled pit features excavated by the UNO provide an interesting opportunity to compare everyday life for sex workers in the area before and after Storyville was created. They provide a counterpoint to the material evidence for the enactment of sanitary reforms seen at the same addresses and discussed above. The fill event of the brick-lined privy in Area C (at the 318-320 N. Liberty address) can be dated relatively precisely to a few years before Storyville was established, on the basis of a dense deposit of charcoal and burned debris in the upper portion of the feature, presumably relating to a fire at the location noted in local newspapers in the 1890s. Beneath this was a thin but rich lens of artifact-laden fill, with ceramic vessels, glass bottles and tablewares, an assortment of syringes, smoking pipes, and numerous buttons and fasteners. Many of the items are what one would expect to find as furnishings in a late 19th-century prostitute's rather sparsely furnished room: a chamber pot, a cuspidor, a smattering of unmatched tablewares, and a bisque porcelain hand for displaying jewelry, along with a few items of personal adornment, such as the chain from a blue-beaded chatelaine (Fig. 12).

The pre-Storyville assemblage is striking for containing a number of idiosyncratic or unusual items as well. For instance, a six-sided bone die in the assemblage had been modified into a "trick die," with pips somewhat crudely added to make four of the six sides into the number five. Likewise, what seemed at first to be a heavily corroded but otherwise typical cupriferous saint's medal, a relatively common item in Catholic New Orleans, was marked with Chinese characters around what appears to be an image of the Virgin Mary. Such devotional medals were apparently produced for French Catholic missionaries to China from the Vincentian order beginning in the first half of the 19th century (Cribb 1981). They were intended for distribution to converts in China, and they have been little reported outside of that context. Chinese immigration to southeast Louisiana had begun in earnest after emancipation, when sugar planters had briefly promoted Chinese agricultural laborers



Fig. 12 Artifacts from Area C: *Top row, left to right*: bisque porcelain ring holder, colorless glass possible "witch bottle" or conjure charm filled with sand and pins, and a wine glass with initials "MS" scratched on the base; *bottom row, left to right*: links of a chatelaine with turquoise beads, bone die modified

into a "trick" die with four sides of "five" and possible bone gaming piece, and glass and pewter syringes. (Photo by D. Ryan Gray, 2021; courtesy of the UNO Department of Anthropology and Sociology.)



as a replacement for enslaved individuals on sugar plantations; most of those who came to Louisiana left plantations quickly, and many ended up in New Orleans, where a small "Chinatown" had formed by the 1880s (Campanella 2006:337–356; Gray 2020a). However, while there were a handful of Chinese laundries in the Storyville area, there is no evidence of any women of Chinese descent having worked in the district, and Chinese men would have been racialized as nonwhite in the incipient Jim Crow city and thus likely prohibited from visiting a brothel like this one. The presence of such an item in the privy remains something of a mystery; whether it found its way into the household assemblage as a possession of a missionary or a convert, it does speak to the network of global connections in the growing city.

Finally, a bottle that contained fine sand was found to also contain a number of straight pins. These seemed unlikely to have been placed inside for simple storage; after all, in a bottle with a restricted orifice, getting them out from the sand would have been a messy endeavor. Rather, it seems that most likely this bottle is the remnant of a witch bottle or a charm used in conjure, meant to ward off evil or break a spell. In the classic version of the witch bottle, pins are typically matched with urine, nail clippings, or hair from the intended victim of the spell and then buried near a hearth or elsewhere around the house. Fennell (2000) has previously charted English usages for the witch bottle and 18th-century examples from Virginia, but the one in this case likely also draws upon the symbolic language of New Orleans hoodoo, as described by folklorists like Harry Hyatt, who interviewed African American conjure and rootworkers extensively during the early 20th century (Hyatt 1970–1978; Leone et al. 2001). Surprisingly few such items have been documented archaeologically; a discovery of a bottle containing nails by the College of William and Mary received extensive coverage in 2020, while a bottle containing a liquid, hair, and a tooth, supposedly recovered from a privy in the Algiers neighborhood of New Orleans by a local bottle hunter (perhaps not coincidentally soon after the media coverage of the William and Mary example), was also widely reported as a witch bottle or conjure charm (MacCash 2020; Machemer 2020). Nothing about the placement of this example suggests particular intent related to its use as a charm; rather, it would have likely been discarded in the Area C privy after no longer being needed or efficacious.

Compared to the earlier (pre-Storyville) assemblage from Area C, the one from the Area B privy is striking in its homogeneity (Fig. 13). Presumably this privy was filled with household waste just prior to the ca. 1910 construction of a three-story brothel on the lot; this building had replaced a patchwork of smaller buildings, all of which had apparently been used for sex work. It does display many of the standard features associated with sex work, but in a more restrained and regimented fashion than the Area C privy assemblage. There is a much greater investment in tablewares for display and dining (Fig. 14), and this focus on display is in keeping with much of the historical research on Storyville. As Landau (2013:118) observes: "Storyville did nothing if not celebrate commerce ... Storyville was a modern market." The



Fig. 13 Portion of the brick-lined privy from Area B during excavation. (Photo by D. Ryan Gray, 2013; courtesy of the UNO Department of Anthropology and Sociology.)



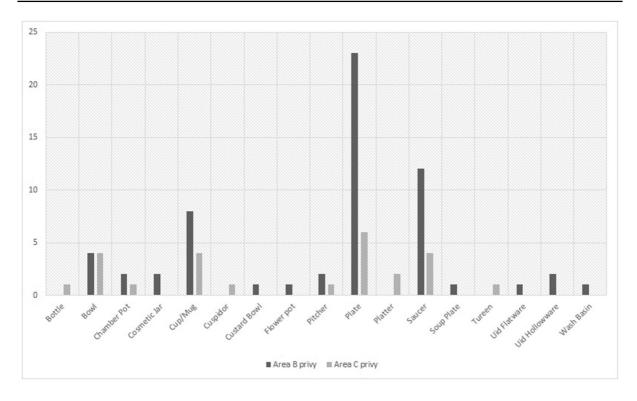


Fig. 14 Histogram depicting relative frequency of ceramic container forms from Area B and C privies. (Figure by authors, 2021.)

porcelain plates, cups, and saucers in the assemblage are accompanied by items that point to the routinization and acceleration of the commercial aspect of prostitution in the district. For instance, the privy contains two examples of the Gray Medicine Company bottles that become ubiquitous in the Storyvilleera privies excavated elsewhere in the Iberville area (Michael Godzinski 2018, pers. comm.). These small, colorless vials ostensibly contained a cure for catarrh, a term that historically described a variety of issues related to nasal congestion and the common cold. In Storyville they seemed to have served chiefly as a vehicle for the distribution of cocaine, one of the primary ingredients in the remedy (Fig. 15). By 1900, in fact, catarrh cures in general had become "closely associated with the popular, nonmedical consumption of the drug" (Spillane 2002:86–88).

It would be relatively easy to look at the preponderance of white-bodied tablewares in each assemblage and conclude that both show a concern with the facades of Victorian cleanliness; such an interpretation could be applied to almost any assemblage of the era, as the same ideology of cleanliness was becoming pervasive. In this case, the later privy's contents show this magnified and routinized, made part of a movement to standardize and sanitize sex work. It was a fitting accompaniment to the integration of the district into the city's utility infrastructure and to the commodification that this accelerated. Of course, this was not a smooth process, and the women who worked in Storyville resisted being reduced to objects in a chain of sexual transactions. One of the most striking points of overlap in the two privies is the presence in each of a colorless glass goblet with initials scratched into the base (Fig. 16). These items are otherwise unremarkable; they would not have been particularly expensive, and the marking of them, presumably to indicate ownership, belies the supposed lavishness of Storyville. Were the accoutrements of entertaining clients issued to women working within these spaces, who were then responsible for maintaining them and for paying for them if they were broken? Were such items in such short supply that, even though cheap, they were held dear? Or was this kind of ad hoc marking



Fig. 15 "THE GRAY MEDICINE CO." bottles for catarrh medication containing cocaine, recovered from Areas A and C. (Photo by D. Ryan Gray, 2021; courtesy of the UNO Department of Anthropology and Sociology.)



Fig. 16 Left to right: glass tumbler base from Area B scratched with initials: MS; goblet base from Area C scratched with initials: MC. (Photo by D. Ryan Gray, 2021; courtesy of the UNO Department of Anthropology and Sociology.)



simply a way of maintaining individual possessions in a shared social space? Whatever the case, the practice, repeated across time and at two different addresses, suggests continuities in the experience of sex work both before Storyville was created and after it was established.

Conclusions

Shannon Dawdy has discussed the myriad ways that Storyville's Basin Street brothels marketed pastness, playing off a colonialist nostalgia to create "chronotopias," sensuous "bubbles of time" (Dawdy 2016:101–111). In order to do this, however, they not



only looked back; they had to look forward, claiming access to a modernity that could sanitize and purify bodies by making them separate, both from one another and from waste and disease. Historian Alecia Long (2004) has suggested that the ordinance that created Storyville essentially set the stage for the city's later attempts at segregation by establishing a precedent that social groups could be cordoned off, separated and isolated within the confines of the city. After the Storyville ordinance went into effect, there were a number of additional attempts to regulate contacts across the color line, especially sex, within and outside of the district. The most famous of these during the Storyville era was the so-called Gay-Shattuck Law of 1908. While presented as a temperance law, with regulations about where, when, and to whom alcohol could be sold, it was also a segregation law. It prohibited men and women from drinking together in public, but it also required establishments serving alcohol to be racially segregated. Like Storyville itself, it sought to police social space (Landau 2013:165–166).

Many cities throughout the United States enacted broad reforms of this nature in the first decades of the 20th century. Navan Shah (2001:75), analyzing how the language of contagion was applied to the formalization of Chinatowns in California, explains how similar public-health reforms "first focused on shaping the behaviors of the middle class and then on using their reformed conduct as the model for regulatory norms for the entire population." These regulatory enforcement practices were rarely isolated to public health, but encompassed dominant class values that marginalized less powerful groups. Shah (2001:75) continues: "In order for a reform project to engage in transformation, public health required the conspicuous and indisputable identification of aberration from the so-called norm." The enactment of ordinances that defined clear geographic boundaries around a district like Storyville marked a pretense that sex work could be so cordoned off.

Despite such attempts at regulation, the reality on the ground was never quite as neat and well-regulated as city authorities liked to portray, with the nearconstant anxieties expressed by both lawmakers and urban reformers over this issue betraying this fact. Despite numerous attempts to set the color line as a fixed boundary, it was constantly being renegotiated within Storyville. Moreover, the concept of the segregated red-light district as a sanitary measure was itself contradictory: it made women's bodies the locus of disease, while ignoring the fact that their customers moved freely in and out of the district. This contradiction would ultimately be the undoing of the district in 1917, as a federal directive from the War Department, fearful of soldiers losing time to venereal disease, mandated closures of red-light districts that were in close proximity to military barracks.

While Storyville closed just over a century ago, its legacy continues to fuel the imagination. What is remarkable about the Storyville experiment is that it allowed the City of New Orleans to signal that its vice, its squalor, and its notoriety was sanitized and suitable for tourism. We argue that this could only be possible with the advent of modern electric, sewer, and water infrastructure. While technological advances enable infrastructural improvements, these never simply emerge fully formed in the urban setting; rather, they are the product of contingent processes in which local politics and economies intersect with ideologies actuated by historical agents. While urban histories often chart infrastructural improvements as a linear progression of modernization, the Storyville excavations expose a fragmented and dissonant narrative of change. Archaeology provides an historical view of this process, with both incremental change and rupture, as when the construction of the Iberville Housing Project resulted in a complete restructuring of utilities in the Storyville neighborhood after it had been forcefully neglected and ignored for two decades. Of course, one does not have to look far to see the implications of this infrastructural technopolitics for the lived experiences of today's city dwellers; after disaster it becomes visible in the patchwork of light and darkness over the city as the intricacies of the electrical grid are made apparent, or in the levels of floodwaters that rise after engineering failures like the ones of Hurricane Katrina, concretely mapping decades of racist housing policy.

Acknowledgments: We would like to thank all of the participants in the three seasons of excavations at Iberville with the University of New Orleans field school in historical archaeology, including Austen Dooley, Kyle Knighten, Michael Montgomery, Alahna Moore, Jonelle Schmidt, Elizabeth Seleen, Jermaine Taylor, Catherine Lorelli, Janet Greenfield, Stephen Hagen, Hien Hoang, Alexander Leigh, Christopher Lewis, Blaine Lirette, Samantha Malone, Cortney Marsh, Victoria Nätell, Krystal Weber, Nicholas Scramuzza, Christy Becnel, Ryan Borel, Ryan Hale, Patrick Lacourrege, Elizabeth Rogers,



Christopher Grant, Grace Krause, and Mia Carey. Thanks also to Andrea White, who codirected the first season of excavations; to Michael Godzinski, who directed the excavations by Earth Search, Inc., at Iberville and shared information with us; and to all of the UNO students and volunteers who have volunteered and contributed to lab projects related to the Iberville collection. Thanks to the Housing Authority of New Orleans, the City of New Orleans, the New Orleans Sewerage and Water Board, the New Orleans City Archives at the New Orleans Public Library, the Historic New Orleans Collection, and the Southeastern Architectural Archive at Tulane University, all of whom shared resources or facilitated research related to this project.

Declarations

Conflict of Interest The authors declare that they have no conflict of interest.

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