FROM BAYOU HERITAGE TO BLUE-GREEN CORRIDORS

The development and contemporary urban functions of New Orleans' Bayou St. John and Lafitte Greenway

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ABSTRACT: Over the last two decades there has been an increasing recognition of the cultural significance of rivers, canals and related bodies of water and of residential, recreational and/or heritage spaces located along their banks. These perceptions have led them to be recognised as cultural landscapes that merit preservation, maintenance and/or development. This article furthers research on this area by investigating the history and contemporary operation of one such cultural waterway in New Orleans, Bayou St. John, and of the adjacent Lafitte Greenway, built around a former canal route. In particular, the article identifies the process of social and land- and water-scape modifications that have created neighbourhoods around them and the gentrification that has accompanied this. With particular regard to Louisiana as their location, the article also addresses the nature of bayous and the cultural significance of Bayou St. John's name in that regard. Balancing its historical-archival account, the article includes detailed discussion of the contemporary circumstances of the bayou and greenway drawing on close perambulant observation conducted between 2016 and 2022.

KEYWORDS: Bayous, Bayou St. John, Lafitte Greenway, New Orleans, cultural waterways, gentrification.

Introduction

New Orleans is located on the south shore of Lake Pontchartrain and sprawls east-west, with its southern edge marked by the meandering loops of the Mississippi. Lake Pontchartrain is the broad, shallow, lagoon-like estuary of a number of rivers that covers a surface area of 1630 square kilometres. It has an average depth of 4 metres and transitions from freshwater in its north-west to semi-saline as it approaches Lake Borgne at its east,

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close to its outlet into the Gulf of Mexico. The estuarine lake is crossed by two, parallel 38.5km bridges that link New Orleans to Lewisburg, on the lake's north shore. The south shore of the lake is marked by an elongated levee that is punctuated by drainage passages and by several small creeks that have largely been stabilised by canalisation that run approximately north-south. These small, slow-moving creeks, which usually flow from rather than into - larger bodies of water, are commonly known as bayous. While the term originated in Louisiana in the late 17th century (White, 1954, p. 68), bayous are significant geographical, hydrological and socio-cultural features in the US South-East more generally.¹ Louisiana has a number of idiosyncratic place naming traditions that draw on both the francophone culture of its early settlers and associated variations of First Nation terms. As a francophone variation of the Choctaw (First Nations) term bayuk, meaning 'small stream' (Etymonline, n.d.), the term 'bayou' fits smoothly into this tradition.² Indeed, the name and its association with sluggish bodies of water, the bald cypress trees (Taxodium distichum) that typically grow in their shallows, the Spanish moss (Tillandsia usneoides) that hangs from them, and associated fauna such as egrets, alligators and catfish, have come to be iconic of rural Louisiana.³ This aspect is celebrated in a nostalgic fashion in a variety of mid-late 20th Century popular songs⁴ and in Louisiana zydeco band names such as Beau Bayou, Blue Bayou and Chubby Carrier & the Bayou Swamp. There is also a burgeoning interest in and market for bayou themed artwork both in Louisiana and in the US in general.⁵ Bayous occurring in urbanised areas have largely been canalised (or subject to more minor or partial stabilisations) and human disruption of their shorelines in such locations has substantially reduced typical indigenous flora and fauna. Despite this, the retention of the name in contemporary urban contexts serves to conjure the languor traditionally associated with the term (and imagined past rural Louisiana lifestyles more generally⁶) and signals the locales' distinct status within the busy functionality of metropolitan life. In this regard - and as discussed in Section I - the naming and visual marketing of the Bayou Boogaloo festival, held annually at the south end of Bayou St. John (henceforth BSI), activates these traditions.

As Kelman (2006, pp. xiv-xv) has detailed, the development of New Orleans has been fundamentally tied to its location on the banks of the Mississippi and its low elevation has led to series of ongoing problems and disasters arising from inundation, saturation and sanitation issues:

¹ The USGS Geographic Names Information System database currently identifies 51,000+ place names that include the term *bayou*, 2,948 of which are in Louisiana, 624 in Mississippi and 480 in Texas. While most of the rest occur in the US south-east and adjacent states, there are also individual cases on the Pacific coast (such as El Bayou in California and Schmitts Bayo in Oregon).

² For discussion of another idiosyncratic place naming practice in tradition in Louisiana, concerning so-called 'land islands', see Hayward (2016).

³ Indeed, the bald cypress is the official state tree of Louisiana.

⁴ Such as Hank Williams' 'Jambalaya (on the Bayou)' (1952), Roy Orbison & Joe Melson's 'Blue Bayou' (1963) and John Fogerty's 'Born on the Bayou' (1969). While these songs were not written by Louisiana residents, they were influential in promulgating notions of the bayou in US popular culture and have also featured in the repertoires of popular Louisiana performers, such as Clifton Chenier and Dr. John. ⁵ See, for instance, the New Orleans Museum of Art's 2019 show 'Inventing Acadia: Painting and Place' and the range of Louisiana themed material available through Fine Art America (2022).

⁶ It should also be noted that there is a popular cultural tradition, particularly prominent in cinema and television, that casts Louisiana's bayous as a treacherous, violent and lawless 'backwaters' – see for instance the 1957 feature film *Bayou* (directed by Harold Daniels), the first season of the TV series *True Detective* (2014) and the real-life crime documentary series *Murder in the Bayou* (2019). However, these darker associations do not appear to accrue to inner-city bayous such as BSJ.

Much of New Orleans is built on ground that lies well below sea level. Both the Mississippi River, at its front door, and Lake Ponchartrain, at its rear, rise above New Orleans. Water literally looms above the city, peering down into New Orleans like a voyeuristic neighbor. Add to that a high water table - New Orleans is basically a floating city – and drainage becomes a nightmare.

Along with the Mississippi, there are around 20 waterways⁷ that run (approximately) northsouth from Pontchartrain into northern and central New Orleans between Duncan Canal. to the west of Louis Armstrong International Airport, at the western edge of the city, to Blind Lagoon at the city's north-eastern edge. These include artificially constructed canals and bayous that have be subjected to some degree of modification, with several being cut off from Pontchartrain and remaining as isolated stretches of stagnant water while some are connected with other waterways by sections of canal.⁸ While these do not have the same cultural associations and regional iconicity as rural bayous - and, indeed, BSJ is the only bayou in urban New Orleans that has retained a that designation in common usage⁹they are an integral part of New Orleans' contemporary cityscape and have been subject to various debates concerning the necessity of their maintenance and their relationship to public health and flood security matters. In the case of BSJ and its associated Lafitte Greenway, constructed on an abandoned canal route (Figure 1), the bayou and green corridors have formed the central features of distinct neighbourhoods in the manners discussed in the main body of this article.

The discussions offered in this article identify the transitions around the function and related perceptions of bayous, canals and of waterside residential developments in New Orleans with particular regard to a twin case study. We take our cue from the intersection of two, disciplinary areas: 1) the study and related policy, planning and development of waterways/waterscapes as cultural landscapes with particular heritage values and residential and tourism appeal; and 2) urban planning with particular regard to redeveloped terrestrial routeways. As various contributors to the recent anthology *Waterways and the cultural landscape* (Vallerani and Visentin, Eds., 2019) discuss, waterways have long had cultural as well as utilitarian functions. In the 20th and 21st centuries, in particular, they have often been repurposed in ways that capitalise on earlier (often industrial) uses through processes of heritagisation and development to provide desirable living and visiting spaces. The Abandoibarra industrial area on Bilbao's inner estuary (at the junction of the Cadagua, Ibaizabal and Nervion rivers) and Gdansk's imperial shipyard are prime examples (see del Cerro Santamaria, 2007, and Schneyder, 2022, respectively) but there are also many more modest ventures. Greenways are a related type of development, in that they have been designed to be scenic, but are significantly different in that they been specifically established to enable pedestrian and/or cycle transit through scenic areas (and may include landscaping designed to enhance participant

⁷ Precise numbering is difficult as some are fragmented but credible figures range from 18-21.

⁸ The Bayou Metairie was modified into an ornamental waterway in Central Park in the 1890s, with the former designation now obsolete. Another waterway, the New Basin Canal, was also in-filled in the early 1950s and a substantial section of its former course is now occupied by the New Basin Canal Park. ⁹ Indeed, as a Google Maps (7th March 2022) name search indicates, there are few locations in New Orleans that now include 'bayou' in their names, the designations for waterways such as Bayou Gentilly, Bayou Menchac and Bayou Metairie having fallen into disuse. The main exceptions to the characterisation are Bayou Road, that runs north-south from Gentilly Boulevard to Esplanade Avenue, and commercial establishments such as the Bayou Beer Garden and Bayou Wine Garden that use the name to conjure up the (previously discussed) association with idealised, relaxed bayou lifestyles.

experience). With specific regard to the United States, Little (1990) has identified several different types of greenway, including new routes constructed through areas of scenic and/or historical interest and others that foster new uses for disused transport routes, most particularly railways or canal towpaths. New York's High Line is perhaps the best-known example (see David and Hammond, 2011), but there are many other examples and many more under construction, such as Washington's 11th Street Bridge Park (BBARDC, 2022) One element common to these is that they have the effect of gentrifying areas adjacent to them (see, for instance, Black & Richards, 2020 and Checker, 2020).



Figure 1 - The south shore of Lake Pontchartrain (top), Bayou St. John (centre) and Lafitte Greenway (bottom right).

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The heritagisation of BSJ, New Orleans and, indeed, any city is fundamentally related to gentrification. The latter can be characterised the process through which neighbourhoods with a low socio-economic profile and sometimes - but by no means always - with deteriorating housing stock and amenities are purchased or otherwise invested in by high socio-economic status agents who transform the social make-up of the area as a result of rising rents and/or property purchase prices. As Neal Smith asserted in his seminal 1982 essay 'Gentrification and uneven development,' the process can be best understood as a rehabilitation of existing built structures (rather than the clearance and reconstruction implicit in the term redevelopment). As he also asserted, such a process should not necessarily be understood as a revitalising one, since "it is often true that very vital working-class communities are *de*-vitalized through gentrification" (Smith, 1982, p. 139). While much work on gentrification has focussed on the mid-late 20th and early 21st centuries, Richard Campanella (2013) has identified that gentrification "arrived rather early to New Orleans, a generation before the term was coined", with "writers and artists settled in the French Quarter in the 1920s and 1930s, drawn by the appeal of its expatriated Mediterranean atmosphere, not to mention its cheap rent, good food, and abundant alcohol despite Prohibition," leading to "initial restorations of historic structures" in a process that spread to adjacent areas in the 1930s and 1940s. As he also asserts:

Gentrification in New Orleans is spatially regularized and predictable. Two underlying geographies must be in place before better-educated, moremoneyed transplants start to move into neighborhoods of working-class natives. First, the area must be historic. Most people who opt to move to New Orleans envision living in Creole quaintness or Classical splendor amidst nineteen-century cityscapes. (Campanella, 2013)

As the following section demonstrates, this characterisation is highly apposite for the neighbourhoods around BSJ.

The characterisations and analyses of BSJ and Lafitte Greenway offered in the following sections derive from traditional scholarly research but – aware of the manner in which humans' everyday interactions with their places of residence, work, transit and recreation are crucial to understanding those places – we also complement this with perambulant methods of observation and inquiry. The latter are often referred to as 'walking methodologies' when restricted to terrestrial activities (Springgay & Truman, 2017; Finlay & Bowman, 2017) but can also be undertaken by paddling through waterscapes (Hayward, 2021). We also draw on Toso, Spooner-Lockey and Hetherington (2021, p.1) and their approaches to tracing "the ghostly forms of past histories in present-day urban places through the multi-sensorial experience of walking." While aware of characterisations of this approach as over subjective and "non-" or "*softly* scientific" (Kowalewski & Bartolomiejski, 2020), we use this approach (with care and caution) in order to consider senses of being in and traversing the linear landscapes we explore, providing us with insights into placemaking, mobility and urban aesthetics that can inform and contextualise the historical and environmental perspectives we draw on most extensively.

I. Bayou St. John

Due to its historical significance and its status as picturesque and attractive area to reside in or visit, BSJ's history has been well documented, most notably by Campanella (2006),

Pruyn (2017) and Christovitch, Jumonville & Veneziano (Eds.) (2018). Campanella (2006, p. 59) has described BSJ at the time of initial European settlement as a "narrow, clogged, slack-water inlet through which tidally influenced brackish lake water intruded into the marshes." The bayou was frequented by several indigenous groups and was significant for offering access between Lake Pontchartrain and the Mississippi by means of canoeing six kilometres south from Pontchartrain to the end of BSJ and then engaging in portage, hauling canoes four kilometres south-east over to the Mississippi.¹⁰ By the early 1700s BSJ was home to a number of plantations that were closely implicated with the embryonic city, located to its south-east, on the north shore of the Mississippi. Indeed, as Pruyn has characterised, "Bayou St. John and its slender, radiating plantations exemplified this spatial reality, with the portage route (present-day Bayou Road) as the all-important connecting thread to the city" (Pruyn, 2017, pp. 33-34). Around this time, a small fishing community with a tavern and restaurant also became established close to BSI's junction with Lake Pontchartrain. The transfer of Louisiana from France to Spain under the terms of the Treaty of Fontainebleau in 1762 led to a shift in use of and settlement in the area with officially freed and escaped slaves residing there and in the adjacent woodlands, where they could evade detection and/or pursuit. The period of Spanish rule also saw the construction of what became known as the Carondelet Canal, running from the south end of BSJ to a boat turning basin to the north of the French Quarter, a project that aimed to improve the speed and ease of movement of goods around the city by obviating the need for portage. Despite its advantages, the canal was inadequately maintained and was little used by the late 1790s (see Section II for further discussion)

Following Louisiana's return to France in 1800 and its subsequent sale to the US in 1803, the population of New Orleans expanded considerably, with a growth in settlement around BSJ, which was increasingly used as a recreational area for promenading, boating and picnics, particularly around its point of entry into Lake Pontchartrain, and in a series of bayou-side pleasure gardens that operated in the 1840s-1860s. Following the American Civil War (1861-65), railways and a network of drainage canals were established across the city, leading to a further increase in both residential development and recreation in the area. In the 1890s, for instance, Bayou Metairie, located just to the east of BSJ, became transformed into a landscaped water feature within the newly established City Park (bordered on its eastern side by the northern portion of BSJ). By the early 1900s, BSJ was subject to contrasting use patterns. It was still used by commercial craft traveling between Lake Pontchartrain and the city centre (see Section II) but its waters were increasingly shared by pleasure craft. Its northern shores also housed boatsheds, moorings, shacks and more solid residential developments. Despite the regular passage of commercial craft, a lack of maintenance saw BSJ become shallow, polluted and clogged with plant life. This situation led to moves to tidy up and beautify the space, led by the property owners' association, the Bayou St. John Commission, in the 1920s and 1930s.

The post-War period saw major changes in New Orleans' urban infrastructure, with new roads being constructed across the western part of the city and with the redevelopment of a number of existing residential areas. This resulted in various counter-initiatives such as the formation of the Louisiana Landmarks Society (LLS) in 1950, established with the aim of preserving historic buildings and landmarks and promoting material heritage more broadly (Stokes, 2018). In the mid 1960s the LLS successfully intervened to preserve a number of

¹⁰ Then, as now, it is possible to travel between Lake Pontchartrain and the Mississippi by water, but the route east from Pontchartrain, through Lake Borgne, through Chandeleur Sound and then south to the Mississippi mouth is long (around 200 km) and treacherous to navigate.

key early buildings around BSJ from demolition and set the basis for the area's subsequent rise as a de facto residential heritage precinct (an aspect celebrated in the LLS's lavish historical catalogue of the area's notable buildings – Christovitch, Jumonville, & Veneziano, [Eds.], 2018). Despite various fluctuations in the housing market and the regional and national economy, efforts to preserve historic residences gained traction as property values increased in the 1970s and 1980s and as well-maintained heritage buildings became a signature element of an increasing upscale and affluent neighbourhood. These developments also led to the area around the south-east of BSJ acquiring a name that consciously embodied 18th century Francophone heritage: Fauborg St. John (*fauborg* being the French term for suburb) and to the formation of an organisation dedicated to maintaining heritage values and quality of life for its residents in 1977, the Fauborg St. John Neighborhood Association. The fruits of the Association's campaigning can be seen in the present streetscapes around the bayou, where both older heritage homes and newer constructions are well maintained and (mostly) harmoniously integrated with each other.

The bayou continues to be a central feature of the area. While paddlers and other watercraft cannot move between the bayou and Lake Pontchartrain due to the sluice gates at Lakeshore Drive bridge, those starting their route south of the gates can travel to its far end, close to the junction with Lafitte Greenway (unless flooding has raised the water levels to a height where paddlers cannot easily pass under the series of small bridges that span it). Those who wish to follow the bayou's west bank on foot can proceed relatively unhindered for most of its course on the western side along Wisner Trail (Figure 2), which runs along the water side of Wisner Boulevard, along the eastern edge of New Orleans City Park all the way down to its intersection with Esplanade Avenue. By contrast, the north-eastern bank of the bayou comprises a residential area, with properties, including some raked apartment blocks, whose gardens run to the banks, preventing public access for walkers (Figure 3). Opposite the central area of the park, just north of Harrison Avenue, lies the low-lying Demourelles Island," separated from the eastern bank of the bayou by a narrow channel and linked to it by Park Island Drive. The stretch south of the island down the east bank to Esplanade Avenue is a mixed-use area, comprising residential blocks, small areas of grassy foreshore park, a youth and youth justice complex¹² and retail and administrative buildings. The environment changes significantly south of Esplanade Avenue, where the Faubourg Bayou St. John neighbourhood is located. Both banks of this section are grassy park spaces whose upper trails are frequently used by walkers and cyclists and whose lower slopes are used as picnic and recreation spaces (Figures 4 & 5). Similarly, the Norman C. Francis Greenway that follows on from the direction of the lower bayou offers a green route through a residential neighbourhood down to its junction with Tulane Avenue. Broadly speaking, the shoreline neighbourhoods around the bayou can be characterised as relatively stable. There has, for instance, been little change to these areas since the secondnamed author of this article began researching BSJ in 2016 (with the exception of the establishment of the BSJ Urban Marsh, discussed below)¹³.

 $^{^{11}}$ The island was created in the early 1860s by depositing material dredged from the bayou to 'correct' a sharp bend known as the Devils Elbow.

¹² Comprising the Louisiana Center for Children's Rights, the Parish Juvenile Court and New Orleans Youth Study Center.

¹³ The most likely area for developments that would change its present character is the section south of Demourelles Island and north of Esplanade Avenue, on the eastern bank, which has a number of blocks that could be reassigned for new residential, civic or commercial purposes. At time of writing (early 2022), no such plans are active.



Figure 2 - Wisner Trail on Bayou St. John (photo by Mallum, 2022).



Figure 3 – Homes and kayakers on the north-eastern banks of Bayou St. John (photo by Mallum, 2022).



Figure 4- The lower part of Bayou St John, at dusk (photo by Hayward, 2016).



Figure 5 – A social gathering on Magnolia Bridge, lower Bayou St John (photo by Hayward, 2016).

The bayou's banks – particularly in the section below Esplanade Street – have been increasingly maintained as a well-groomed, bayou-side park and have proven highly attractive to locals and visitors for relaxing, picnicking and partying on (Figure 5). These developments have intertwined with a related cultural initiative, the Bayou Boogaloo festival, first held in 2006 as the "signature program" of the Friends of Bayou St. John (FBSJ), an organisation established to "help revitalize a neighbourhood and support musicians, artists and community businesses in the wake of Hurricane Katrina" (FBSJ, n.d.). The festival, held each May,¹⁴ provides an opportunity for locals and visitors to hear live

¹⁴ But suspended in 2020 and 2021 due to COVID.

music, eat and drink and enjoy the waterway in a convivial and largely safe environment. Returning to the discussions of the associations accruing to the term bayou raised in the Introduction, the different inflections of 'bayou-ness' and cultural traditions present in the festival's annual poster designs is notable. The 2006 and 2018 ones, in particular, provide striking illustrations of this (Figures 6a & 6b). The 2006 design (Figure 6a) evokes regional traditions and, most particularly with regard to its foreground imagery, playfully alludes the well-known 19th Century regional song 'The Lakes of Pontchartrain'¹⁵ and combines this imagery with representations of the lively socialisation that occurred in the northern stretches of the bayou in the early 20th Century. Utilising the comic device of a woman dancing with an alligator, the poster celebrates the area's rich and hedonistic past. By contrast, the 2018 poster (Figure 6b) represents the heritage houses that line the bayou's contemporary shores, combining these with oyster imagery and a bordering motif that recalls the oyster middens clustered along the bayou when early settlers arrived and the ovster boats that operated from the northern end of the bayou until the early 10th Century (Wicker, 1979), the two elements being linked by the banner text in the branches of the tree "Celebrating Bayou St. John: Past, Present and Future." These differing evocations of bayou-ness enacted on the banks of BSJ are also interesting for focussing on terrestrial elements rather than the spontaneous watery carnival that has often accompanied the onshore concerts and refreshments at Bayou Boogaloo (Figure 7).



Figures 6a and 6b – promotional posters for the Bayou Boogaloo Festival (2006, artist unknown; 2018, Emma Flick).

¹⁵ A song that celebrates rural Louisiana hospitality, typified by the "pretty Creole girl" whose "hair upon her shoulders/ in jet black ringlets fell" and references the alligators "out in the wood." The songwriter is unknown – see Smith (2020) for discussion of the song's origins. The full lyrics of the song are online at: https://www.lyrics.com/lyric/990920/Planxty/The+Lakes+of+Pontchartrain



Figure 7 - Festivities on the bayou (Bayou Boogaloo Facebook page, 2020).

The willingness of Bayou Boogaloo participants to float (and occasionally immerse themselves) in the bayou's waters reflects the sustained efforts that have been made to improve the quality of the bayou's water, complementing local residents' address to the built bayou-side environment. These began in earnest 87 years ago, when local campaigning led the city's Works Progress Administration (WPA) to repair the bayou and clear and beautify its banks, with BSJ being declared non-navigable for commercial vehicles shortly after. By the 1950s the bayou had transitioned to a waterway whose northern end was increasingly populated by houseboats and shore shacks. Demonstrating the emergence of gentrification, concern about the desirability of such abodes led to a series of interventions to clear the upper area. Further concern arose from what Pruett has summarised as "the tension between cost-effective flood protection and adequate circulation between the bayou and the lake," with city authorities concerned that BSJ could become a "storm surge highway... shooting water straight into the city's heart" (Pruett, 2017, p. 102). This concern resulted in the construction of culverts at the north end of BSJ in 1962, reducing water movement into the bayou, and a subsequent plan, announced by the city's Levee Board in 1979, to construct a dam-like structure with lengthy culverts to further regulate flow. BSJ residents and environmentalists opposed these measures on the grounds that they would effectively cut the bayou off from Lake Pontchartrain and lead to its increased stagnation and waterweed infestation. Local activists also opposed the plan on the grounds of BSJ's heritage value and were buoyed by recognition of BSJ as a "scenic river" by the Louisiana Senate in 1982 under the terms of the Louisiana Natural and Scenic Rivers System (LNSRS), established in 1970.

The LNRS was established to "preserve, protect and develop the quality and aesthetics of a natural or scenic stream;¹⁶" "to preserve scenic, recreational, fish, wildlife, ecological, historic, archaeological, botanical and cultural values," and to remedy pollution (1970, p. 1). Recognising potentially conflictual state policies concerning the stabilisation of waterways through clearing, canalisation and channel realignment, the Act emphasised that any such planned interventions into recognised scenic rivers should take into account their official recognition and should consider aesthetic values as well as monetary values" (1970, p. 3), specifying that:

No agency of the state government shall authorize or concur in plans of local or federal agencies that would detrimentally affect whether, directly or indirectly, a natural or scenic river or upon which the full and equal consideration of the stream's potential as a natural or scenic area with aesthetic values has not been discussed ¹⁷ and evaluated; or except as specifically authorised by the state legislature or by the system administrator. (1970, p. 3-4)

The Act went on to declare that the evaluation of "projects affecting natural or scenic streams shall rest upon an agency other than the construction agency", specifying the Louisiana Office of State Planning and the Louisiana Recreation Council and any advisory bodies appointed by them as appropriate agencies (1970, p. 4).

Despite the scheme being mainly geared to preserving rural "instantaneous natural and scenic rivers" (1970, p. 4) (identifying thirty one in its first iteration), BSJ was recognised for its historic and scenic qualities in 1982. While this official acknowledgement did not provide an impermeable safeguard against engineered disruptions, the listing and local campaigning around BSI's heritage aspects appear to have influenced the Levee Board, which dropped the dam and culvert proposal in 1983 and instead constructed floodgates at the north end of BSJ (Figure 8). Despite the latter, floodwater inundated New Orleans parks, lagoons and greenways during Hurricane Katrina in 2005, and many properties around Mid-City, Gentilly and neighbourhoods adjacent to BSJ were severely water damaged (Lake Pontchartrain Basin Foundation [LPBF], 2006). In the aftermath of the disaster, protracted discussions took place involving local community groups, environmentalists and state and national bodies that resulted in the modification of old flood control apparatus at the north end of the bayou, the dredging of the bayou's central channel and the deposit of dredged material on its northern stretches to create new marshlands. While the bayou is still not subject to regular through-flushes from Pontchartrain, and still has weed issues, the enhanced cleanliness of the waterway has led to its increased use by recreational paddlers. Complementing the LNRS's acknowledgement that multiple agencies should be involved in decision making about scenic rivers, various agencies are involved in maintaining BSJ's water quality. Stormwater can also be a problem and the Flood Protection Authority (FPA) works with New Orleans Sewerage and Water Board (SWB) to facilitate stormwater drainage whenever the need arises. The SWB regulates the bayou hydrology via valves and culverts that allows water to drain into stormwater pumping facilities. Depending on water levels and pressure, a valve at Lafitte Street and culverts at Moss Street and Florida Avenue draw the water down. FPA also communicates with the New Orleans City Park about the bayou's water levels and related

¹⁶ The reference to a "stream" here appears to represent and interchangeable use of the terms "stream" and "river" in the provisions of the act (rather than any distinction between the two as entities).

¹⁷ The italicised emphasis on "has" – rather than "not" – is presumably an error.

drainage decisions. Louisiana Wildlife and Fisheries (LAWF) and the Pontchartrain Conservancy (PC) provide information to FPA about BSJ's water quality and its ecology and the information is then used for decision making about the management of the bayou's overflow gates. Despite such endeavours, the waterway has a very high risk of flooding. An analysis by Flood Factor (2022) has shown that 711 properties located in the vicinity of the bayou have a greater than 26% probability of being severely flooded over the next 30 years, representing 50% of properties within the BSJ neighbourhood (Figure 9) – casting substantial shadow over the future of the area at a time of profound climate change and rising sea levels (Balan & Bordelon, 2021).



Figure 8 - Floodgates at the northern end of BSJ (photo by Mallum, 2022).

	Ē	Residential (i)	Extreme, increasing
Overall risk level	\langle	Road (i)	 Extreme, increasing
Minimal Minor Moderate Major Severe Extreme		Commercial (1)	 Extreme, increasing
Bayou St. John has an extreme risk of flooding over the next 30 years.	${}^{\oplus}$	Infrastructure (i)	 N/A
	ព័ត្	Social	 Extreme, increasing

Figure 9 - Flood Risk Level at BSJ (Flood Factor, 2022).

Pollution arising from various factors is also a significant issue. As Colten (2005, pp. 16-46) identified, New Orleans' location and its construction upon a swamp has led to a particular precarity with regard to water supply and fluid waste disposal. Water samples taken after Hurricane Katrina indicated the presence of lead and arsenic in the water in quantities higher than the U.S. Environmental Protection Agency (EPA) drinking water standards (Pardue et al., 2005). Many contaminants found in the water were associated with storm runoff. Suspended sediment samples from Lake Pontchartrain have been found with lead and arsenic levels that are over the EPA standards for clean drinking water. This is

consistent with long term accumulation that results from broken sewer pipes in the city that routinely discharge faecal matter into waterways surrounding it (Houck et al., 1989).¹⁸ Additionally, Mowat and Bundy (2001) found the presence of polycyclic aromatic hydrocarbons (PAH) in the sediments of the bayou and identified the PAH as having high correlation to incomplete automobile combustion attributable to high traffic on the bridges that cross the bayou that finds its way to BSJ through stormwater runoff from the bridges. Litter and illegal dumping has also impacted the water quality and aesthetics of the bayou and although there are annual cleaning exercises conducted by stakeholders, much more needs to be done.

The factors outlined above impinge on the estuarine and freshwater fish species that are critical for the ecological health of the BSJ and are also important for attracting waterfowl and for the control of unwanted algae growth (LPBF, 2006). Native plants that sprout on the banks of the bayou support animal communities, provide aesthetic appeal and shade for users and also create buffers from urban impacts. According to LPBF (2006), urbanisation and other human impacts, such as manipulation of the hydrology of the bayou, have continuously changed natural vegetation, making the restoration of the bayou flora to its natural form almost impossible. But improving the diversity of plant ecology and productivity through rehabilitation can help maintain its compatibility with the urban environment while providing aesthetic allure. Since 2002, group of stakeholders led by the City Park have worked to replace non-native plants with native species along the shoreline of the bayou. There have also been efforts to restock fish since 2002. A scientific survey of fish stocks conducted in 2002 shows that the most common species were largemouth bass (Micropterus salmoides) and bluegill (Lepomis macrochiru) (LPBF 2006). Others include large black crappies (Pomoxis nigromaculatu) and big redear sunfish (Lepomis microlophus) along with many non-game fish like the silversides (Menidia menidia) and gizzard shad (Dorosoma cepedianum). The LPBF report also concluded that allowing a natural flow of fish from the lake is by far the best means of restocking fish in the bayou, a process aided by the periodic opening of the flood control gates there. To improve the hydrological and ecological functions of the bayou, in 2013 the New Orleans Levee District began dredging the bayou to improve water flow when the floodgate is open (Hillman, Baker & Lopez, 2020). The project presented an opportunity to use the sediments for marsh creation, a task undertaken by the Pontchartrain Conservancy (PC) in collaboration with the New Orleans Levee District. A working team built retaining walls on both sides of the bayou at its mouth and placed dredged material behind them to create two marsh areas. Planting was undertaken in these areas in 2014 and the area is now called the called the BSJ Urban Marsh (Figure 9). Hillman et al. (2020) noted that while the marsh is still young, it appears resilient and in a fair condition, and the cordgrass species (Sparting patens and Spartina alterniflora) and California bulrush (Schoenoplectus californicus) planted there have thrived, which has created a habitat for fish, invertebrates, birds, and other animals, thereby improving the ecological conditions of the area and restoring some vestiges of the diverse habitats that characterised the bayou before its multiple modifications into an urban waterway.

¹⁸ However, Schroeder (2011) contends that increased tidal mixing between the lake and the bayou might be more beneficial than harmful in terms of managing salinity, normalizing the temperature, and improved flow of marine organisms.



Figure 9 – Bayou St. John Urban Marsh (photo by Mallum, 2022).

Lafitte Greenway

At its southern end, where it is crossed by Lafitte Avenue, the direction of BSJ is continued by green corridor, originally known as the Jefferson Parkway until its re-designation in 2020 as the Norman C. Francis Parkway.¹⁹ This runs 2 kilometres south-west from BSJ until it is crossed by the multi-lane Route 90, with another 0.7 kilometre section continuing south of Route 90 until it is truncated by Earhart Boulevard (Figure 10). The corridor's designation indicates its original purpose. Parkways began to be developed (and so-named) in the United States in the 1910s-1930s and were designed to provide speedy and pleasant driving experiences between urban centres and national parks and/or other areas of natural beauty in a period when car ownership was increasing exponentially (Davis, 2005). While many of these routes, such as the famous Blue Ridge Parkway through the Appalachians (discussed in detail by Whisnant, 2006) were lengthy roads that connected urban areas to regional parks, others were shorter, suburban, often tree-lined routes that led traffic to newly established city parks. The (then) Jefferson Parkway was originally intended as a direct, tree-lined route between New Orleans' Audubon and City parks (Hémard, 2017) but subsequent road developments superceded this plan and blocked off the northern end of the route, leaving it as a pleasant but unremarkable²⁰ green break in the city's built environment and as a walk- and cycle-way for locals. Intersecting with the Norman C. Francis Parkway at its northern point is another corridor that merits extended discussion for serial changes in use over the last two centuries, The Lafitte Greenway.

The present-day Lafitte Greenway has evolved over two centuries, transitioning from a muddy path to a shipping corridor, to a railroad and, finally to a bicycle and pedestrian route, with these sequential developments helping to reshape the neighbourhoods it runs

¹⁹ After originally being announced as Hagan Avenue – in tribute to its developer, John Hagan – the route was renamed Jefferson Davis Parkway, in honour of the president of the Confederate States from 1861-65, in 1910. This name was retained until 2020 when it was replaced by its current designation, in tribute to the first African-American president of Xavier University.

²⁰ With its only distinct aspect being the 'wishing tree' in its north-western corner which individuals have affixed written wishes and messages to since (at least) the mid-2000s.

through. Lafitte Greenway traverses nine New Orleans neighbourhoods; Central Business Area, French Quarter, Marigny, Seventh Ward, Treme-Lafitte, Tulane Gravier, Bayou St. John, Mid-City, and the City Park (Figure 10). These are distinct areas with unique demographic contexts reflecting their different racial, socio-economic, and educational levels. The current, 4.2 kilometre long Lafitte Greenway was one of the major revitalisation projects undertaken after Hurricane Katrina (Culbertson, 2014). The corridor traverses a 556 hectare area consisting of the greenway and mixed-use residential, retail, and industrial developments, providing a linear transportation and recreation corridor for bicycle and pedestrian users and connecting neighbourhoods directly to the parks in the city. There are, thereby, multiple factors that directly impact the quality of life of local residents and other users concerning access, mobility, environmental sustainability, resilience, and place making.



Figure 10 - Lafitte Greenway and surrounding suburbs.

Today's Lafitte Greenway started as the Carondelet Canal. In the aftermath of the ruinous Good Friday fires of 1788, new developments started to sprout around the central area of New Orleans. These developments led to the creation of a new suburb upriver named Santa Maria (today's Central Business District). It also ushered the centralisation of organised food retailing in the form of the place that evolved into today's French Market (Campanella, 2017). These developments coincided with the appointment of a Spanish colonial governor, Francisco Luis Hector Baron de Carondelet, in 1792. At the time, the city of New Orleans faced major challenges, with the two biggest problems involving the management of stormwater runoff and the issue of how to create efficient transportation corridors. In 1794, Governor Carondelet announced plans to develop a canal to link the muddy Bayou Road to BSJ and to provide a drainage system for the central city. By 1796, the 4.6 metre wide Carondelet Canal opened, allowing boats to move goods and people from Lake Pontchartrain down through BSJ and into the French Quarter (FLG 2022).

Spanish Louisiana was transferred to the French in 1800 and subsequently sold to the U.S. in 1803, with the city's first mayor, James Pitot, being appointed in 1805. Pitot established the New Orleans Navigation Company (NONC) to clean debris from BSJ and expand the adjoining Carondolet Canal. As detailed by Campanella (2017), the city got entangled in a legal battle over the privatisation of a public asset that lasted for more than a decade and the canal fell into a state of disrepair during the legal tussle. But in 1817, the NONC was back in business and aesthetically appealing properties and gardens developed around the area. The Carondelet Walk, a dirt road that ran alongside the canal from BSI to the French Quarter, proved a popular recreation space for New Orleanians. But the construction of the Pontchartrain railroad in 1831 and the New Basin Canal in 1838 (which linked Lake Pontchartrain to the city's emerging CBD via another route) provided significant competition for the Carondelet Canal, with water traffic significantly decreasing. The Carondelet Walkway persisted into the mid-1800s before it was repurposed as a railroad corridor. Another significant blow came in 1913 when the Louisiana Conservation Commission ruled that oysters harvested in Lake Pontchartrain could only be shipped into the city through the state-owned Basin Canal. By 1920 the Carondelet Canal had become something of an evesore for the city because it was clogged with water hyacinth (Pontederia crassipes) from lack of proper maintenance and was also the scene of frequent accidents and drownings. This led to the canal being declared as un-navigable and being filled-in and landscaped in stages between 1925 and 1938 (Picou, 2022). Similarly, the rail traffic shifted to other lines. The city purchased the right-of-way and turned it into a sunken park area. But while a children's playground was developed, what became known as the Lafitte Street Corridor effectively became a weed-strewn, vacant lot (Sims, 2017). After decades of neglect, the City of New Orleans proposed converting the 54-acre corridor into a bike and pedestrian trail in 2010, kicking-off a design process that was led by landscape architect Kurt Culbertson of Design Workshop. The Lafitte Greenway was opened in November 2015 with features reinterpreting the historic layers of the area: a park similar to Carondelet's vision from 1794, with green and grey drainage infrastructure that helps manage stormwater (substituting for runoff drainage systems as formerly provided by the canal) and with a corridor that provides a throughput for bicycles and pedestrians instead of ships or trains (TCLF, 2022).

In the wake of Hurricane Katrina, the Lafitte Greenway has been a contentious project especially for the citizens that live in the neighbourhoods that border the district. The major themes around the rebuilding of New Orleans in the aftermath of the disaster were the creation of more liveable and sustainable neighbourhoods. Many neighbourhoods were suspicious of the catch phrases of 'liveability' and 'sustainability' because they associate these processes with gentrification or the wholesale erasure of existing neighbourhoods and the neglect of race and equity in planning processes and implementation (Bullard & Wright, 2019, pp. 28-30). Drawing on data published in National Community Reinvestment Coalition's (NCRC's) Gentrification and Disinvestment 2020 report (Richardson, Mitchell and Edlebi, 2020), the Louisiana Fair Housing Action Center (LFHAC) (2020) reported that New Orleans was the fifth-fastest gentrifying city in the United States, with 13 gentrifying neighbourhoods - including parts of Mid-City and Tremé - and with 15 others showing signs of gentrification. As the LFHAC report also emphasised, families of colour are disproportionately impacted since their low average socio-economic status makes them vulnerable to rent increases arising from gentrification. Similarly, Rigolon and Németh (2020) found that greenway parks that are an integral component of active transportation infrastructure trigger gentrification. They also establish that parks with proximate location to city centres foster gentrification compared to parks located beyond city peripheries. As a result, many developers have been drawn to the Lafitte Greenway because of the increased

property values, and new developments are proposed around lower income neighbourhoods, thereby making them further prone to gentrification (Melton, 2021). Indeed, in 2019 the Landscape Architecture Foundation identified "an estimated 60% increase in average residential real estate sales prices within 6 blocks of the greenway."

Since property values rise in gentrified areas, this factor may incline other low-lying communities to resist similar developments, even though they are advantageous for the enhancement of environmental resilience and liveability. In order to ensure general quality of life it is necessary for cities to create a mix of plans that consider sustainability, resilience, liveability, and most of all equity. The current Mayor of New Orleans, LaToya Cantrell, supports this cause and announced the implementation of a mandatory inclusionary zoning housing policy on July 1st 2021 that requires developers to build affordable housing units in neighbourhoods that have highest cost within the city (Glass, 2021). This may go some way to alleviating the fears of residents of neighbourhoods that might be susceptible to rising costs.

Unlike the shores of BSJ, the recently established Lafitte Greenway Corridor and the neighbourhoods along it are still in flux and, as discussed later, may be about to undergo further change if current development proposals proceed. To get a sense of its current nature – as of ear; y 2022 – Mallum (the first named author of this article) slowly walked the 4.2 kilometre strip of the Lafitte Greenway from its north-western point at Carrollton Avenue down to Congo Square, in the French Quarter, taking multiple photographs, some of which are reproduced here. While this experiential 'snapshot' of the Greeenway cannot express the variety of experiences and impressions that can be gained in multiple seasons, weather and social circumstances, it nevertheless provides an overview of an area that was designed for perambulation and is frequently used for this purpose. Walking the Lafitte Greenway Corridor informed by the research into the history detailed above, it is possible to glimpse its evolution over the last two centuries. Once a canal facilitating water-based commerce, stormwater management and walkability along its flanks, today's Lafitte Greenway retains the latter two uses and can thereby be understood as a modern iteration of the original Carondelet Canal/Walk.

As I began my walk, I was excited to actively explore it, attempting to grasp the historical background of the greenway, juxtaposed with my perception of its present state and of the potential future that might await it. As an urbanist, I welcomed the opportunity to be fully immersed in an impressive urban form and to be aware of the human ingenuity required to engineer natural landscapes for social purposes. The variety of urban scenery in mixed-used neighbourhoods, varying in terms of social strata and demography, was obvious from the housing types. The urban development style blended residential, retail/commercial, entertainment, and social/cultural institutions in one linear space, with all the functions and elements interacting with one another in what might be regarded as a "jambalaya"²¹ for resilient urban living that integrates elements that improve liveability and quality of life. These include green and blue spaces for recreation, playgrounds for children, fitness zones including yoga spots, shopping, access and non-motorised mobility, resilient infrastructure, restaurant and bars. As Shannon Sims contended when the Greenway was launched:

²¹ A distinctive Louisiana dish blending various elements.

in a city known for barhopping, endless festivals, and even a little debauchery, a bike path isn't the likeliest place for a budding social scene. But in a narrow strip of New Orleans, the 2.6-mile Lafitte Greenway is poised to become a new hub of activity- a commuter path that is a destination in its own right. (Sims, 2017: 2).

The greenway is bounded by two junctures, one - to the south-east - where the modern, designed space gives way to the declining infrastructure and transitional use patterns of the Mid-City area, and the other - to the north-west - where it links to the southern part of BSJ. The greenway peters out at its south-eastern point by Carrollton Avenue, with the remnant of abandoned rail line (Figure 11). On the left is a warehouse with containers and industrial materials piled up, while on the right is an old factory or warehouse. These facilities are still in use but the space they occupy seems disproportionate to the commercial activity enacted in a part of the central city whose cleared blocks and car parks suggest an area awaiting re-designation. By contrast, at the far end of the greenway, at the intersection of Norman C. Francis Parkway, Lafitte Avenue and the mouth of the BSJ (Figures 12a and 12b), the scene is very different, with recreational areas, residential blocks and a cluster of businesses including the renown Parkway Bakery (Johnson, 2022). At the same time, the impact of Katrina lingers around the same intersection in the form of the abandoned Lindy Boggs Medical Center (LBMC) (formerly known as Mercy Hospital), founded in the 1920s but now a reminder of the scars that Hurricane Katrina has left in the city (Figure 13). As the hurricane hit on August 29, 2005, employees and patients' families took shelter in the hospital but when the city's levee system failed many people were trapped inside with no communication with the outside world or updates on the disaster and possible rescue options (Rohde & Abelson, 2005) and with 45 people eventually dying there. Subsequent plans for the building have included refitting it as a cardiovascular hospital or a retirement care facility but have not eventuated. In dramatic juxtaposition, behind this urban ruin are high-end apartment buildings and across the other side of the facility are a beer garden, a wine garden and a few restaurants. There are several such blighted commercial and industrial properties dotted along the trail that are awaiting being overhauled or redeveloped and that sit somewhat uncomfortably with their increasingly gentrified surroundings.



Figure 11 – The remaining abandoned rail line at the south-eastern end of the Lafitte Greenway (photo by Mallum, 2022).



Figures 12a and 12b – North-eastern corner of Lafitte Greenway at southern point of Bayou St. John (photo by Mallum, 2022).



Figure 13 - Abandoned Lindy Boggs Medical Center (photo by Mallum, 2022).

Just as the Carondelet Corridor once served as a drainage system for the city, the Lafitte Corridor serves a similar purpose. The drainage system within the corridor consists of a mix of grey and green infrastructure. On one side of the trail is a small canal that drains storm run-off from Broad Street (Figure 14a). There are also huge pipes that pump water away from the neighbourhood (Figure 14b). Homeland Security and Preparedness officers regularly monitor such drainage facilities, emphasising the critical nature of this infrastructure to the city. The city of New Orleans also has a robust green infrastructure (GI) plan which is implemented in earnest, helping complement the functions of the core drainage system, while improving on urban resiliency (Mallum, 2022). On opposite side of the trail are a mixture of catch basins and GI fixtures. Catch basins are a primary part of landscape drainage systems that act as a pre-treatment system to prevent the downstream pipeline from clogging. Stormwater that drains through catch basins does not undergo a filtration process before reaching local lakes or streams, but the basins are designed to keep out solid debris (e.g. leaves, paper, and plastic bags) so that they do not obstruct the main drainage system. By contrast, GI is the most noticeable infrastructure on the corridor. GI facilities mimic the natural process involved in stormwater drainage systems (Figure 15a) by allowing it to sink into the ground, evaporate, runoff, or be stored in a water capture facility, and they help restore the natural features of a water-absorbent environment (Ferguson, 2016). GI helps mitigate flooding and reduces heat island effects through providing shade and cooling of the environment (in contrast to concrete or asphalt structures). Other advantages include an improvement in urban aesthetics and placemaking. The bioswale, which consists of a mixture of native plants (Figure 15b), filters stormwater before it drains to other water bodies and helps recharge groundwater through retention. There appears to be some level of local appreciation of these. One resident I spoke to, for instance, stated, "I love the fact that they are using these things [i.e. bioswales] to manage stormwater, rather than the mundane looking canals."



Figures 14a and 14b - Storm run-off canal and pumping station (photos by Mallum, 2022).



Figures 15a and 15b - Drain and bioswale (photos by Mallum, 2022).

New Orleans has quickly gained a reputation as a cycling city because of the considerable investments in bicycle infrastructure and the continuous improvement of cycling policies by the city government. The city only had 18 kilometres of bikeways at the time Hurricane Katrina struck in 2005 but the number has multiplied tenfold since then (Sims, 2017) and in the PeopleForBikes ranking of 2020 (City of New Orleans, 2020), New Orleans jumped from number 27 to number 17 for best cities for bicycling. The Lafitte Greenway is often referred to as something of a 'jewel' for city bikers because of its multifunctional amenities and varied social scenery. Cycling is encouraged and supported by facilities such as bicycle racks mounted at various points, Blue Bike stations (supporting a bike share program with fleet of bikes available at an affordable fee) and a renown bicycle shop. Other impressive features of the trail are the visible surveillance and emergency facilities mounted at intervals within the corridor. Security operatives are also readily visible. In a city with a high crime rate, these features encourage users to utilise the trail and other amenities with some peace of mind. A resident I spoke with mentioned that the key things that bring the

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neighbourhood together are issues of security and the redevelopment of some areas or properties. He stated, "even though we do not always agree on some issues, vibrant community engagement processes organised by some institutions have made it possible to achieve so much together as a community." Neighbourhoods within the corridor are known to come together on decisions that affect the entire community despite the differences in demography. It was also interesting to see charrette (active design and planning) activities within the corridor (Figures 16a & 16b), encouraging community engagement and knowledge sharing.



Figure 16a and 16b – Signs of community engagement through charrette activities (photo by Mallum, 2022).

One particularly contested area is Clairborne Expressway (Figure 17), located at the intersection of Lafitte Avenue and North Claiborne, an elevated bypass that that cuts through a historically vibrant Black community. The expressway was built fifty years ago, disconnecting a major Black neighbourhood and negatively impacting businesses and quality of life. There are presently discussions about removing the expressway and restoring the community it has devastated. President Biden supports this (Ferrand, 2021)

and when asked about the matter, Mayor Cantrell has emphasised that, "the process for the initial creation of the elevated bypass was not collaborative, and any new process must be focused on equity and community engagement to avoid repeating the mistakes of the past" (Ferrand, 2021). While no concrete steps have yet been taken to achieve that aim, hopes are high after the US Congress passed the 2022 Infrastructure Bill.



Figure 17 - Elevated section of Clairborne Expressway (photo by Mallum, 2022).

Passing through this core urban neighbourhood on the way to Congo Square, within the French Quarter, one can easily associate the history of the square with that of Clairborne Expressway. Branley (2012) narrates that in the 18th and 19th centuries, during the Spanish era, slaves were allowed to congregate and socialise on Sundays in a place just outside of the city confines. It was the only place that they could be Africans again. The place was commonly known as Place Congo. By the time Americans took over Louisiana, New Orleans had grown past that spot, and it was later referred to as Congo Square – the place where distinct styles of American music and dance were nurtured. In today's New Orleans, the space just underneath the elevated expressway is a meeting place for people, especially Blacks, a place mostly full of life, music, dance, and commerce, providing social scenery akin to historical congregation in the Congo Square. Again, this same place is one that was fostered by inequitable policies.

And transition is still in the air. As part of the Greater New Orleans Water Plan, Waggonner & Ball Associates, the architectural firm charged with overseeing it, have proposed turning the Lafitte Greenway into the Lafitte *Blueway* (Figure 18). Waggonner and Ball (2013) have argued that the existing drainage system is insufficient to efficiently disperse stormwater in times of heavy downpours, leading to flooding around the neighbourhood. They also note that there is an absence of an adequate groundwater recharging source to balance groundwater levels in the area, leading to subsidence and subsequent property losses. Once/if implemented, the project would entail excavating soil from the artificial ridge of the Lafitte Corridor and creating a new water channel, with BSJ as the source. The new canal is intended to facilitate recreational activities, such as

canoeing and kayaking, and aims to create an ecosystem for aquatic life, birds and other animals in the middle of the city. The intention is that integrating blue infrastructure into the Lafitte Corridor will improve its usefulness, creating multiple recreational spaces, improved place-making, enhanced transportation access, improved resiliency and general liveability. It also, of course, suggests a further gentrification of the former canal space that is likely to displace older families and thereby accelerate the socio-economic realignment of the inner city in a manner that has been referred to as "greentrification" (after Smith, 1982).



Figure 18 - Visualisation of proposed Lafitte Blueway (Waggonner & Ball Architects, 2013).

Conclusion

The history and analyses presented in this article outline the manner in which a "narrow, clogged slack-water inlet" (Campanella, 2006, p.59) and a disused, in-filled industrial canal have been modified in manners that have capitalised on their heritage and, more latterly, have been accompanied by various attempts to enhance their natural environments. As a result, attractive inner-city suburbs have developed around BSJ and Lafitte Greenway that have also attracted tourists to walk (or paddle) their routes and to enjoy the scenic and commercial amenities that adhere to them. Gentrification has played a significant role in these processes and also looms large as continuing factor while inner city New Orleans rebounds from the impact of Hurricane Katrina by developing in a manner that is not necessarily beneficial for long-term residents and, particularly, communities of colour. As prominent New Orleans politicians, such as current mayor, LaToya Cantrell, have acknowledged and sought to ensure (Ferrand, 2021), socio-economic and associated racial equity have to be factored into greening and infrastructural revitalisation plans in order to preserve remnants of the 'human heritage' of the city *in situ* (with an estimated 33% of black New Orleanians not having returned to the city in the decade following the

catastrophic flooding – Rivlin, 2016). In this manner, the models of development offered by BSJ and Lafitte Greenway are aesthetically, infra-structurally and – to some extent – ecologically successful but, at the same time, socio-economically problematic. To return to a previous comparison, there are similarities to the impact of New York's High Line, in that while the green walkway that has come to fill the old space of the elevated railway has undoubtedly been a success with New Yorkers and tourists alike, its 'spill-over' into adjacent streets and neighbourhoods has seen property prices rise and significant modifications to the demographics of areas such as Chelsea, with poorer families being increasingly squeezed out. In both instances, it is not the projects and designs of repurposed inner-city routeways that are at fault, more the lack of vision to offset the impact of gentrification with affordable housing and other amenities. The preservation of (some semblance) of 'bayou culture' in the heart of New Orleans is notable in heritage terms but bayous – and Bayou St. John in particular – have complex histories, including as places where escaped slaves sought refuge, that are not as well served in recent developments as architectural heritage and gardened water banks have been.

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