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Why Rebuild on Toxic, Sinking Ground?: The Challenges for Disaster Recovery in Southeast Louisiana

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ABSTRACT

As southern Louisiana is experiencing one of the highest rates of sea level rise in the world, it is not uncommon for residents to hear that it is "too late" to save their homes from the impacts of climate change. Particularly, in the wake of disaster events such as hurricanes and oil spills, heavily damaged areas are often left behind in the recovery process as few developers are willing to take the capital risk to rebuild a sinking neighborhood. Still, some of these residents refuse to be moved and their resilient spirit is widely celebrated. Cultural resilience alone, however, is not enough to resist the onslaught of climate disasters nor counter systemic disinvestment in their communities. Through combining historical and ethnographic insights from the Black residents in Cancer Alley, the Vietnamese refugee community in New Orleans East, and the Indigenous tribal members of the Grand Bayou Village, this article argues that marginalized landscapes and livelihoods have been structurally made to become untenable within the economic bounds of disaster recovery. Under these circumstances, Louisiana's coastal communities continue to assert survivance within precarious environments, offering alternative narratives to blind optimism or defeatism for living in an age of climate crisis.

Keywords: disaster recovery, community resilience, sacrifice zones, climate change, Louisiana

In Louisiana, where flooding disasters are routine, a new change to the National Flood Insurance Program will raise premiums up to 129 percent for roughly half of insurance holders (Smith 2022). The updated pricing mechanism can be interpreted as part of a federal climate adaptation strategy to move people away from highly vulnerable floodplains (Peralta and Scott 2024). For many Louisianans, however, moving is not an option. Instead, many people, especially low-income homeowners already struggling to pay their mortgages, are dropping their insurance at a time when it is more important than ever to secure financial protection against natural disasters (Younes 2022). Ultimately, the insurance policy update reveals a harsh truth about Louisiana's coastal future: rebuilding a damaged home is getting costlier as storms become more frequent and severe. Living along the Gulf Coast is becoming increasingly unstable, unaffordable, and unsafe.

In this study, I am interested in understanding why certain communities in coastal Louisiana are choosing to remain in a landscape that is growing inhospitable, even when market economics and climate science are clearly to their disadvantage. The most obvious assumption is that people who remain are without a choice, as resettlement incurs significant financial investment and disrupts long-standing social networks. However, this explanation would be incomplete without considering the circumstances that have embedded certain communities so deeply in Louisiana's most vulnerable floodplains, which are anything but incidental.

This paper seeks to contextualize the current predicament of climate vulnerability facing the Black residents along the stretch of the Mississippi River infamously named "Cancer Alley," the Vietnamese refugee community in New Orleans East, and the Atakapa-Ishak/ Chawasha tribe of the Grand Bayou Village. These are communities who have ended up in the polluted, flood-prone land across Louisiana's margins as a result of a recurring pattern of dispossession. Today, they are asserting the right to their livelihood in the bayou in defiance of multiple disaster threats, including subsiding soil, sea level rise, and rapidly intensifying hurricanes. Others have characterized their stories as achievements of human resilience. I intend to complicate this narrative by drawing attention to the structural conditions that enshrine the resilience of certain populations as a cultural expectation instead of understanding their mobilization as a political strategy to rise above state neglect.

Each of these communities are products of distinct historical trajectories and are located in different parishes of Louisiana. My goal with this comparative study is not to flatten those differences for the sake of generalizing a cross-cultural claim about community resilience. Instead, I am adopting the approach of critical juxtaposition, which is "the deliberate bringing together of seemingly different historical events in an effort to reveal what would otherwise remain invisible" (Espiritu 2014, 21). Situating the Black, Vietnamese, and Indigenous communities as regional neighbors in the bayou serves the purpose of identifying a particular "logic of displacement" located at the intersection of colonization, transatlantic slavery, petrocapitalism, and neoliberal economics (Oslender 2007, 762).

Oftentimes, acute catastrophes like hurricanes eclipse the chronic disasters of instability and inequality that have been woven into the fabric of the mundane. This is the kind of "slow violence" that occurs "gradually and out of sight… dispersed across time and space" (Nixon 2011, 2). It is only by drawing these connections that we see how certain harms and choices, which appear inevitable, are designed to be that way. This requires a practice of seeing disasters in the multiple and avoiding dichotomies such as nature and culture, and start and end (Choi 2013). By stretching the temporal and spatial dimensions of disaster in southeast Louisiana, I aim to illustrate how certain landscapes and

livelihoods are structurally made to become unviable within the current triaging dilemma in climate adaptation: when resources to save everyone do not exist, who do we try saving and who do we let sink (Craig 2023)? Rebuilding on toxic, sinking ground can therefore be understood as resistance against a genealogy of dispossession imposed onto populations whose lives have been warped by a centuries-long project of natural resource exploitation.

Theoretical Contributions

Community Resilience and Disaster Recovery

In disaster management, resilience is the "ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events" (National Research Council 2012, 16). The concept of resilience has become ubiquitous in disaster scholarship because of its applicability across multiple levels, such as psychological, ecological, and institutional resilience (Cutter et al. 2008).

Community resilience refers to "a process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance" (Norris et al. 2008, 130). This definition, which is one out of many across policy and academic literature, emphasizes that community resilience is a *process*, not an outcome nor an inherent characteristic, that leads to *adaptability*, not a return to pre-disaster stability. The core elements, or adaptive capacities, that constitute community resilience include community networks and relationships, communication, governance and leadership, preparedness, and mental outlook (Patel et al. 2017). Moreover, the process of social recovery is rarely linear and can be interrupted or stalled for extended periods (Tierney and Oliver-Smith 2012).

Central to recovery is the question of "rebuilding back to what?" (Barrios 2016, 30). The paradigm that understands resilience as "bouncing back" to a status quo ante privileges established social structures that have been shaped by unequal power relations and injustice, while closing off possibilities for systemic transformation (MacKinnon and Derickson 2013). Each disaster event is experienced by populations differently based on class, race, gender, disability, and geography. Recovery measures that do not interrogate the structural conditions of underdevelopment, endemic poverty, racism, gender inequality, and environmental degradation may risk reproducing uneven, socially created patterns of vulnerability. These patterns predispose certain communities to more severe disaster impacts than others, in addition to prolonging their quality and speed of recovery (Olshanky 2005).

Furthermore, depoliticized resilience discourses "figure disaster victims as the primary site of intervention," effectively placing the onus of recovery on affected communities to activate their capacities and resources for resilience (Barrios 2016). Co-opted resilience rhetoric promotes the resilience of the poor and disadvantaged in alignment with the principles of neoliberal self-governance (Humbert and Joseph 2019). Effectively, this induces adaptation to and regulation of conditions of deprivation. The mounting critique of resilience-thinking has led to the emergence of "anti-resilience" or "resilience justice," concepts that identify the roots of vulnerability inequality in systemic violence and maintain the pursuit of justice amid conditions of disturbance and change (Baker 2019; Arnold 2021).

Post-Katrina New Orleans has dominated the focus of disaster resilience studies in the region (Colten, Kates, and Laksa 2008; Gotham and Campanella 2013; Burton 2015). I aim to contribute to the understanding of the cumulative effect of repetitive disaster losses on community recovery, taking into account the range of disasters, and disastrous events, that have taken place before and after Hurricane Katrina in 2005.

Multiple Disasters Research

A disaster can be understood as a process of social and environmental change which occurs when hazards, or "forces, conditions or technologies that carry a potential for social, infrastructural, or environmental damage," fail to be mitigated, causing a disruption to the perceived social order (Hoffman and Oliver-Smith 2002, 4). In this context, a hazard can be a hurricane, an oil spill, a pandemic, or it could be a socioeconomic practice with unintended

negative consequences such as wetland dredging.

Increasing attention is being paid to the ways disaster impacts overlap with one another. Scholars have offered various terms to describe these phenomena, such as convergent disasters, cascading disasters, compound disasters, and recurrent disasters (Moseley 2019; Pescaroli and Alexander 2015; Cutter 2018; Machlis et al. 2022). Rather than categorizing the disasters that this paper will explore as one type or the other, I find it more fruitful to explore the indirect and interlocking factors that create landscapes in which disasters of various kinds proliferate. The human impacts of multiple disasters have primarily been studied as a public health issue (Adams, Van Hattum, and English 2009; Leppold et al. 2022). I aim to go beyond this scope to understand the ramifications of multiple disasters on intergenerational community formation. Social groups who have experienced successive, multi-generational disasters are in a constant state of emergence as a result of the politically and epistemically charged processes of multiple recoveries (Barrios 2014). This paper addresses how the legacies of past disasters came to influence current disaster responses.

Methodology

I spent June to August 2022 interning part-time with two non-profit organizations in New Orleans. The Water Collaborative identifies water management as a tool for social and economic liberation. Their programs in education, policy, and community development seek to improve water access, affordability, and quality, and strengthen climate resilience in the Greater New Orleans Region. I was involved in their floating planter box design competition and their Mississippi River water testing project through which I was able to visit the Grand Bayou Village and St. John the Baptist Parish where I conducted participant observation.

VAYLA was founded in the post-Katrina reconstruction period of New Orleans East to fight environmental racism. Since then, VAYLA has focused on building Asian American Pacific Islander youth leadership to address intersectional social inequities in New Orleans and beyond. During my time with VAYLA, I researched and produced content for their social media platforms and conducted semi-structured interviews with team members. My association with these groups opened up access to other local actors and organizations involved in disaster response.

Cancer Alley

Living with toxic water

Long, slender pipes rose from behind the levees, reaching above and over the road we were driving on, and planted their feet firmly within the gated facility on the other side of the Great River Road. This is where offshore oil reaches the shore, travelling through a network of undersea pipes from the oil rigs in the Gulf of Mexico, up the Mississippi River, and then to their first stop out of many in their processing journey: the refineries located along the Industrial Corridor of Louisiana. Alarmingly, this 85-mile stretch of riverfront land between Baton Rouge and New Orleans is colloquially known as Cancer Alley. This is the oil and gas core of the United States where over two hundred petrochemical complexes are interspersed around houses, schools, churches, and cemeteries. Cancer Alley residents are among the top five percent in the nation at risk for cancer from toxic air pollution (Terrell and St. Julian 2022).

In 2022, the Water Collaborative tested Mississippi River water samples for toxic chemicals with the aim of addressing the data gap in water quality monitoring (TWC 2022). While the government maintains an inventory for air pollution, there is no testing or reporting done for aquifers and riverways. We were at the community library in St. John the Baptist Parish to update residents on the study's progress.

Six chemical facilities are located within a 10-mile radius of St. John the Baptist (EPA 2013). The average annual wage in the parish is about $17,000, in contrast to the billions of dollars of profit generated by neighboring industrial activity. Around 90 percent of residents are African-American (Justiniano, Williamson, and Bathige 2021). The quality of drinking water is undermined by multiple threats: waste disposal from boats, chemical release from industry sources, and seepage of fertilizers and pesticides from agricultural production (Singer

2011). During the meeting, residents indicated that they no longer used tap water for drinking or cooking, instead opting for bottled water. While it was common knowledge that the groundwater was contaminated, there was a lack of information on which chemicals were present and in what quantities.

Despite the devastating reality of industrial pollution, there is limited epidemiological data linking cancer rates to environmental exposure (Singer 2011). Even less research has demonstrated the interactions between toxic exposure, health outcomes, poverty, and race, which has allowed state regulators and politicians to dismiss concerns regarding Louisiana's unequal pollution burden (Terrell and St. Julian 2022). Residents in St. John the Baptist, along with others in Cancer Alley, are living in a condition of "toxic uncertainty," caused by the "intrinsic complexity of environmental contamination" and the "labor of confusion performed by powerful actors" (Auyero and Swiston 2008, 374). From Natchez to New Orleans along the Mississippi River, the petrochemical industry has corrupted the possibilities for safe and secure livelihoods, all the while profiting from the oppressive economy of plantation slavery.

Figures 1 and 2: Cancer Alley is the heart of petrochemical production in the U.S. Photos by author.

From plantations to petroleum

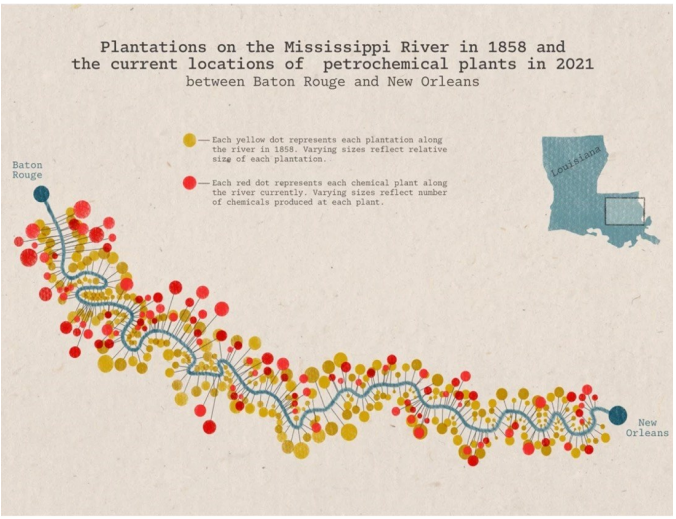
In the eighteenth century, fertile soils and river access made the Mississippi River banks ideal for plantation agriculture and the slave trade. The river supplied a source for both irrigation and imported African people and it allowed easy export for the lucrative cash crops cultivated by slave labor. By the eve of the Civil War in 1860, Louisiana produced one-sixth of all the cotton and almost all the sugar grown in the United States (Bardes 2023). At the same time, New Orleans was the largest slave market in the nation, serving as the site for the purchase and sale of more than 135,000 people (Rothman 2021). Sugar, cotton, and enslaved peoples propelled Louisiana's economy into the second-richest state per capita at a time when half of its residents lacked legal ownership of their bodies (Groner 2021).

Following the Civil War, the federal agency Freedmen's Bureau allocated parcels of plantation land to newly freed Black Americans. As a result, Black property ownership in Louisiana became much higher than other states, and many formerly enslaved persons remained on or near the same lands on which they had previously worked (Allen 2003).

The discovery of oil in Louisiana at the turn of the twentieth century attracted petroleum companies to plantation land along the Mississippi River. In 1914, the Mexican Petroleum Company was established on the Destrehan Plantation, which was then acquired by British Petroleum, now known as BP, in the mid-1950s. Shell Oil Company obtained 366 acres through a similar process (Richoux, Becnel and Friloux 2013). The cheap acreage of former plantations offered oil companies ample space to construct large oilfields while the proximity to the river gave them easy access to shipping lanes.

Since the 1950s, subsidies for offshore oil development and generous property tax exemptions have facilitated the accumulation of industrial wealth in Louisiana with a disregard for environmental and social integrity (Priest 2007). Today, despite ranking top in the nation

for crude oil refining, chemical production, and foreign direct investment, Louisiana consistently remains at the bottom of the list for poverty, reading scores, and life expectancy (Together Louisiana 2018). While the early days of offshore oil production brought investment in local community institutions, the wave of corporate financialization in the 1990s shifted oil companies' priority from ensuring workers' well-being to maximizing shareholder value, leaving southern Louisiana communities behind as no more than supply points for labor and services (Austin, McGuire, and Higgins 2006). The chemical facilities in Cancer Alley no longer support local employment as the majority of the community lacks the technical background required for the available roles (Allen 2003). Oil wealth has soared to the benefit of political elites and capitalists while everyday Louisianans



Figures 3: Plantations overlayed with chemical plants along the Mississippi River (Auerbach 2021).

have been locked out of socioeconomic development.

Resilience in a sacrifice zone

Through a 200-year process, Cancer Alley has been transformed into a sacrifice zone. In environmental justice literature, sacrifice zones refer to the communities living adjacent to heavy industry or military bases who are at the frontlines of toxic chemical exposure (Lerner 2010). Particularly, Cancer Alley is an *energy* sacrifice zone where the extraction of energy natural resources is valued over people's health and livelihood (Maldonado 2019). In the circular logic of sacrifice zones, historically exploited populations are ensnared in recurring patterns of exploitation because the persistent extraction of their labor and wealth has rendered their voices less powerful to defy industrial expansion. Evidence of this logic can be seen in Louisiana, where the number of toxic -releasing plants has increased by 25 percent over the past three decades, in contrast to the steady de-industrialization across the rest of the country (Baurick 2019).

Energy sacrifice zones are not simply neighborhoods that get "left behind," nor are they products of an illicit process. In fact, the creation of sacrifice zones is constitutive to the project of American prosperity. Through the enduring logic that premises profits over people, Cancer Alley became a legal, state-sanctioned sacrifice zone out of sight of the American public at large. This invisibility — contrived from absent data, forgotten histories, and peripheral geography — is precisely what perpetuates the system of recurring suffering. Today, the ever-present threat of climate disaster presents another layer of injustice for Cancer Alley residents. The concentration of hazardous industrial activity along the coast exacerbates the destruction caused by extreme climate events, such as in 2005, when Hurricanes Katrina and Rita damaged 13 offshore oil rigs, and 15 plants, and caused a 670,000-gallon crude oil spill in Meraux, Louisiana (Colten 2006).

What does community resilience look like in the context of a sacrifice zone? The resilience challenge in Cancer Alley involves overcoming the material adversity caused by pollution spills and storm surges while pushing back against structural unemployment, toxic entrenchment, and hyper-industrialization. The immensity of the challenge is not lost on its residents who are claiming their right to a safe, healthy livelihood. The Water Collaborative's water testing project produces scientific data and promotes systems knowledge as tools for self-advocacy. Executive Director Jessica Dandridge writes,

> Learning about our water systems, institutions, agencies, and quality… is also the most holistic gateway toward communal autonomy and self-governance. We are pushed toward radical change when we learn more about how water moves, and the levers

> that control it. When we better understand how corporate power and profiteering contaminate our waterways, which in-turn leads to ecological and human destruction, we are more prepared to seek out the correct answers and demand change (TWC 2022, 4).

When regulatory agencies fail to acknowledge the impacts of toxic contamination in Cancer Alley, community organizations are taking the initiative to test the Mississippi River for industrial chemicals, thus reclaiming the power to decide what constitutes livability on the terms set by residents themselves. Water literacy can equip those affected by water injustice with the scientific and political knowledge to make more informed decisions about their public health, as well as to make more informed demands of their elected leadership. In a context of toxic uncertainty, this project and others in the region are working towards disentangling the knotted motley of undefined and unknown chemicals that have infiltrated their waterways.

New Orleans East

A village called Versailles: seventeen years later

Across the highway from the Folgers coffee plant stands a cross-section of a red-tiled pagoda welcoming, without words, anyone who made the journey from the Mekong to the Mississippi. In the aftermath of the Vietnam War, one thousand refugees from southern Vietnam relocated to the Versailles Arms Apartments in New Orleans East, a federally subsidized housing complex which gives the neighborhood its colloquial name. By the 1990s, chain migration grew the Versailles population to five thousand (Leong et al. 2007).

Alternatively named Village de L'Est, the Versailles of New Orleans boasts a block of Vietnamese supermarkets, pharmacies, and beauty salons, behind which stand rows of single-story residences. Pushed up against the southern coast of Louisiana, these streets are the first to flood during storm surges.

When the levees breached after Hurricane Katrina's landfall in 2005, the Vietnamese population scattered to surrounding states (Leong et al. 2007). Remarkably, through the leadership of the Vietnamese Catholic church, 90 percent of Versailles residents returned by 2007 and took charge of cleaning up and rebuilding their homes when the city and state failed to provide adequate assistance (Leong et al. 2007). Father Vien Nguyen personally visited dispersed parish members to rally their return to New Orleans East, invoking the Vietnamese community's collective experience in migration and resettlement.

Versailles was able to recover so efficaciously after Katrina because of the group's faith-based cohesion, the strength of social networks, and the shared memory of war-induced displacement. The successful Vietnamese-led recovery garnered significant media attention, but instead of situating their recovery outcomes in the specific historical processes that facilitated Father Nguyen's leadership, their story was celebrated as a model minority achievement. The narrative exalted the self-sufficiency and hard work of the New Orleans Vietnamese refugees to overcome the sociopolitical disadvantages as marginalized peoples in the United States (Leong et al. 2007).

Seventeen years later, however, Village de L'Est hardly looks like a success model for rebound and recovery. Under display signs with missing characters, several storefronts along the main plaza were boarded up. People returned, but "businesses never really came back after Katrina" lamented Thuy Le, an environmental lawyer who grew up in New Orleans East. Insurers are pulling out of flood-prone areas, and without flood insurance, few developers are willing to take the capital risk to rebuild a sinking neighborhood. The financial crisis of 2008, the BP oil spill in 2010, and the COVID-19 pandemic only exacerbated economic insecurity. Young people are leaving to pursue opportunities elsewhere, and the first generation of Vietnamese remain insular due to language barriers. The situation has become so despairing that Thuy's father jokes about returning to Vietnam for retirement.

Even the refugees who fought to return in the wake of Katrina are now considering New Orleans East a lost cause. This is an act of refugee refusal. Thuy's father's desire to leave

suggests that refugeehood is a strive for livability, not bare life (Espiritu et al. 2022). Rather than take his refusal as a statement on the futility of sustaining Versailles' recovery beyond Katrina, I understand it as an indictment of the assumption that community recovery is possible by virtue of people's resilience alone. When disaster recovery does not yield the desired outcomes, it is often not because of an absence of adaptive capacities on the part of the affected populations, but the result of systemic violence that would undermine any community's ability to recover (Barrios 2016). As Marguerite Nguyen (2021) writes, "Vietnamese American New Orleans East attests not to the transcendent power of resilience but to the fact of ongoing precarious life and displacement trauma for many in Louisiana today." Community-driven recovery work may only be as effective as the institutional landscape allows it to be. The Louisiana government remembers the story of Katrina as "America's greatest recovery" from which Louisiana's "people, businesses, governments, organizations and entire communities are more resilient than ever before" (GOHSEP.com, n.d.). However, the fallacy of this narrative came to the forefront when Hurricane Ida struck Louisiana's coast exactly sixteen years after Hurricane Katrina made landfall.

Figures 4 and 5: Entrance to Versailles opposite the coffee factory. Photos by author.

Disaster recovery as a leaking bucket

On August 29, 2021, Hurricane Ida became the strongest hurricane ever to hit Louisiana. The Category 4 hurricane collapsed all eight transmission lines that delivered power to New Orleans, leaving more than a million people in blackout for up to three weeks in the sweltering Louisiana summer (Cohen 2021).

A year later, around twenty community members involved in hurricane evacuation and sheltering gathered to lay out their shared goals for the 2022 hurricane season. "No deaths," suggested someone, remembering the twenty-six lost lives in the wake of Ida (Louisiana Department of Health 2021). Another person added, "Nobody left behind," recognizing that many senior citizens, medically dependent, and disabled folks were unable to evacuate pre- and post-storm because of mobility issues.

Over the past few years, New Orleans has been through a slew of disasters. There was the record-breaking hurricane season in 2020, where two major storms, Hurricanes Laura and Cristobal, wrought severe damage across Louisiana, then the prolonged COVID-19 pandemic crisis, and most recently Hurricane Ida. Providing relief for basic necessities, such as food, shelter, and medical care, took priority to ensure survival against the compounded threats of flooding, forced relocation, and joblessness among others.

Being stuck in emergency response is also symptomatic of a disaster management system ill-equipped to mediate the escalation of storm potency in an era of climate crisis. Fueled by warmer oceans, Ida became a rapidly intensifying storm, defined as having wind speeds increase by at least 35 miles per hour within twenty-four hours. Ida strengthened that much in just six hours. Since 1980, the number of rapid intensification events has steadily increased (Fountain 2021).

Forecast models are less accurate when storms develop under such a short timeframe. On top of that, there is less lead time to prepare for the hurricane's arrival. The city issues a shelter-in-place order when storms are small enough to ride through, but larger storms invoke a mandatory evacuation order for residents' safety. Under this scenario, the City-wide Assisted Evacuation plan was developed to provide support to residents without the means to evacuate on their own. However, the plan depends on having at least 72 hours of lead time before landfall. While the strength of Ida warranted an evacuation order, the city was unable to do so because of insufficient time (Berlin and Parker 2022).

In disaster management, response efforts are characterized by urgency and an ad-hoc nature. In principle, the threat passes and people are able to take stock of the long-term actions needed to recoup losses, rebuild their homes, and restructure the systems that perpetuate vulnerability. However, the multiple disasters that have hit New Orleans in recent years have prevented the city from moving ahead in the disaster management cycle. To meet the needs gap left by ineffectual state-led disaster management, people's financial, labor, and emotional reserves have become depleted from consistently engaging in high-stakes emergency response. "It's like a leaking bucket," described Miriam Belblidia, one of the meeting's facilitators, "and we never have the chance to plug the hole because we're constantly trying to keep the water out." A proactive and justice-oriented approach to disaster management must attend to not only the day-to-day contingent needs of disaster response but also address the underlying systems of vulnerability.

Storytelling and transformative change at VAYLA

Returning to Versailles, by April 2006 the city-wide clean-up in Katrina's wake had produced between 2.6 and 6.5 million tons of potential toxic hurricane debris that had nowhere to go. To resolve the waste issue, the Louisiana Department of Environmental Quality authorized the opening of the Chef Menteur landfill less than two miles away from Village de L'Est (Weaver 2007). The proposed landfill threatened to unravel the progress of rebuilding Versailles that Father Nguyen had initiated only a short while ago. In response, a group of young Vietnamese organizers formed the Vietnamese American Young Leaders Association (VAYLA) to combat the environmental racism that was at the heart of the landfill siting decision. Their cross-cultural and intergenerational political organization successfully prevented the landfill from becoming operational.

Stopping the Chef Menteur landfill was a decisive victory for the Vietnamese community, although it should be understood as a moment of exception within the context of the systemic spatial marginalization of New Orleans East. Initially, the area was designed as a middle-class suburb for African-Americans during the 1930s. This vision failed to materialize as homeowners soon found their houses, sidewalks, and garages sinking unevenly due to soil subsidence along the surrounding wetlands (Nguyen 2015). Black families moved out and, in their absence, industrial activity expanded. By the time the Vietnamese arrived in the 1970s, New Orleans East had fallen victim to blight. Over the years, the Vietnamese arrivals cultivated garden plots, started vegetable co-operatives, and contributed significantly to the fishing industry (Airress and Clawson 1994).

In spite of the renewed vibrancy the Vietnamese brought to New Orleans East, the city's post-Katrina redevelopment commission deemed Village de L'Est, among other hardest hit, low-value neighborhoods, "unviable" for reconstruction, instead proposing that they were better suited as parks and green spaces (Lamb 2020). Although the infamous "green dot map" was eventually repealed due to public backlash, it revealed that the city-led recovery effort was premised on profit maximization rather than assisting the people most in need. When figured into the kind of disaster recovery economics premised on future returns, restoring the majority Vietnamese and Black neighborhood of New Orleans East was considered spatially and economically undesirable.

It is against this decades-long effort to undermine New Orleans East's survival that VAYLA continues to empower young Asian

American leaders to make their voices heard. While VAYLA initially began as an anti-landfill campaign, in the years since the organization has shifted towards an intersectional, anti-imperial, and identity-centered praxis for social change. Executive Director Jacqueline Thanh notes that "we don't live single-issue lives," reflecting on the turbulence that has afflicted the New Orleans East community since 2006. The BP oil spill in 2010 and the contested construction of a natural gas power plant in 2017 severely degraded the environment of New Orleans East (Sasser 2010; Dermansky 2018). The Vietnamese were also affected by the Trump administration's motion to deport all refugees in 2018 and by the surge of anti-Asian hate crimes in 2020 (Woodward 2018; Schioppo 2020). Through each hurdle, VAYLA and their collaborators helped maintain a culture of self-advocacy, political activation, and mutual aid among the community.

"To me, that's not true community work," Thanh says, "that's emergency work, that's survival work. And the shift in leading VAYLA, [for me,] has really been focused on how do we move away from reactivity and anchor this work in a place of pleasure and joy?" The shift, Thanh describes, aims to create space for intentional healing and community restoration in a disaster-prone landscape suffused with grief, trauma, and loss. Psychological distress in the aftermath of disasters tends to be understood as an individual phenomenon (Leppold et al. 2022). However, cataclysmic events also imprint themselves onto the social fabric of a community, influencing collective memory and group identity construction (Hirschberger 2018). The Versailles community carries suffering from multiple environmental disasters, as well as the intergenerational trauma of immigration, assimilation, and discrimination. Addressing these cumulative impacts requires a more creative, collaborative, and culturally grounded approach.

One of Thanh's earliest initiatives was organizing a Juneteenth celebration for elder Vietnamese residents and their African-American neighbors. Many first-generation Vietnamese were not aware of the significance of Juneteenth, a commemoration of the ending of slavery in America, despite living in a heavily Black neighborhood. The stories shared at the event reflected upon what the American promise of freedom meant for descendants of slaves, refugees, and immigrants alike. More recently, VAYLA released a zine centered on AAPI diasporic stories of family, food, and resilience titled "Ginger Roots." Alec Devaprasad, the Community Outreach Coordinator at VAYLA, reflects that "Ginger Roots has been so powerful because it is a celebration of our stories and our healing within a landscape that makes it feel like there is no room for it" (Kapoor 2023). Storytelling encourages people to cultivate a personal and collective narrative that makes sense of the disruption around them. "These stories are meant to affect actual change," Thanh emphasizes, through nurturing the inter- and intra-cultural relationships that have a stake in the future of New Orleans East. Strong community bonds help reduce disaster vulnerability. More fundamentally, these acts of placemaking in spite of dispossession and disruption insist on AAPI belonging to the past, present, and future of the bayou.

Grand Bayou

Flooding the bayou to save it

From downtown New Orleans, it takes less than an hour along the highway to reach Plaquemines Parish, located at the southern tip of Louisiana as the Mississippi River disperses into the Gulf of Mexico. The Water Collaborative team was visiting the Grand Bayou Village to understand their needs for food security. The Grand Bayou Village forms the ancestral lands of the Atakapa-Ishak/Chawasha and is now facing rapid land loss. The village is only accessible by boat. Each stilt house is surrounded by an expanse of open water and marshes with no boardwalk to connect them. As the land has become submerged over the years, the tribe's estimated four hundred members have relocated elsewhere (Yeoman 2020). About fourteen homes remain though several houses we passed were clearly abandoned. The resilient planter box competition is an initiative led by the Water Collaborative in search of planter designs that could be installed in the Grand Bayou village for communal use. The main design consideration was for the planter box to float on water in order to allow tribe members to continue

growing vegetables and medicinal herbs in their backyards.

"When I was a kid growing up, this was solid ground—you could walk in the marsh," recalled Mr. Benny, a retired pastor who moved back to the Grand Bayou eight years ago. "I remember when we used to be able to grow potatoes, carrots, and vegetables right here on the ground. You can't do that anymore." Since the 1930s, the Louisiana coastline has lost over 2,000 square miles of wetlands (USGS 2017). In 2013, 31 Plaquemines place names were removed from the official government map because they no longer exist above water (Horowitz 2020).

There are several drivers of land loss in the region. Due to climate change, sea levels in coastal Louisiana are expected to increase between 1.5–2 feet by 2050 (Schleifstein 2022). Climate-intensified hurricanes can also trigger drastic land loss events as Hurricane Ida did by wiping out 106 square miles of wetlands in only a matter of days (Schleifstein 2021).

The heavy engineering of the landscape also contributes to sinking ground. In the 1920s, the U.S. Army Corps of Engineers began construction on an extensive levee system along the Mississippi River to prevent flooding in riverine communities. However, building resilience against the river inadvertently made the delta region more vulnerable to intrusion from the sea. Historically, the Mississippi River replenished the surrounding wetlands every time it flooded by depositing sediment along its banks. For thousands of years, this process built the land that became Louisiana. The levee system obstructed routine flooding. River sediment gradually subsides as part of the delta cycle, and without new sediment to replenish this loss, soft wetland soil has been disappearing at an escalating rate. Carving thousands of miles of pipeline and navigation canals into these wetlands for oil and gas transport further opens the wetland up to saltwater intrusion and coastal erosion by boat traffic.

To counter the land loss crisis, the Louisiana Coastal Protection and Restoration Authority (CPRA) has proposed opening a two-mile gate along the Mississippi River levees in an effort to re-establish river flow into the delta. When fully operational, the Mid-Barataria Sediment Diversion (MBSD) program will reduce wetland loss by 17.4 percent (USACE 2022). The project began construction in November 2023 and will take an estimated five years to reach completion.

Wetland restoration is necessary to preserve the delta. However, large-scale sediment diversion will substantially affect the livelihoods and ecologies of the Barataria Basin. While the Orleans and St. Bernard Parishes will benefit from reduced storm surge, communities that lay outside of levee protection, such as Myrtle Grove and Grand Bayou, will face accelerated tidal flooding (Louisiana Trustees 2022). The severed connection between the river and the basin has made the estuary become more saline for almost a century. The sudden influx of freshwater through the MBSD is expected to dramatically reduce salinity and decline the abundance of key species such as dolphins,

Figures 6 and 7: Grand Bayou Village and the impacts of Hurricane Ida. Photos by author.

brown shrimp, and oysters that have moved further into the estuary (Le and Mastin 2021).

Coastal restoration as Indigenous dispossession and erasure

Ms. Rosina Philippe, a Tribal Elder of the Atakapa-Ishak/Chawasha, is adamantly opposed to the project, along with many coastal residents, commercial fishermen, shrimpers, oyster farmers, and crabbers. By drastically altering the habitats and landscapes of Plaquemine's Parish, the MBSD will upend parish members' place-based attachment and social identity (McCall and Greaves 2022). The current plan has limited accommodations for how the Grand Bayou and other Indigenous tribes will survive this transition. In the past, the community hunted muskrats, raccoons, and deer from the surrounding woodlands, but land loss has limited subsistence to marine sources. Already seafood stock has suffered severely since the BP oil spill released 134 million gallons of oil into the Gulf of Mexico in 2010 (NOAA, n.d.).

As Philippe explained how their village would be decimated by this plan, a project planner at the Coastal Protection Restoration Authority, who was swaying in the boat with us, appeared surprised to hear Philippe's indignation. Curiously, he appeared to be hearing about her opposition for the first time. Grand Bayou residents are facing displacement of their livelihood, culture, and economy, yet they have not been involved in the decision-making process.

Scholars in Indigenous climate change studies have heaped substantial criticism on climate adaptation projects which fail to consider the implications of habitat change, climate vulnerability, and climate-induced displacement for Indigenous self-determination (Whyte 2017). Daniel Wildcat (2009) argues that Indigenous climate relocation today is part of

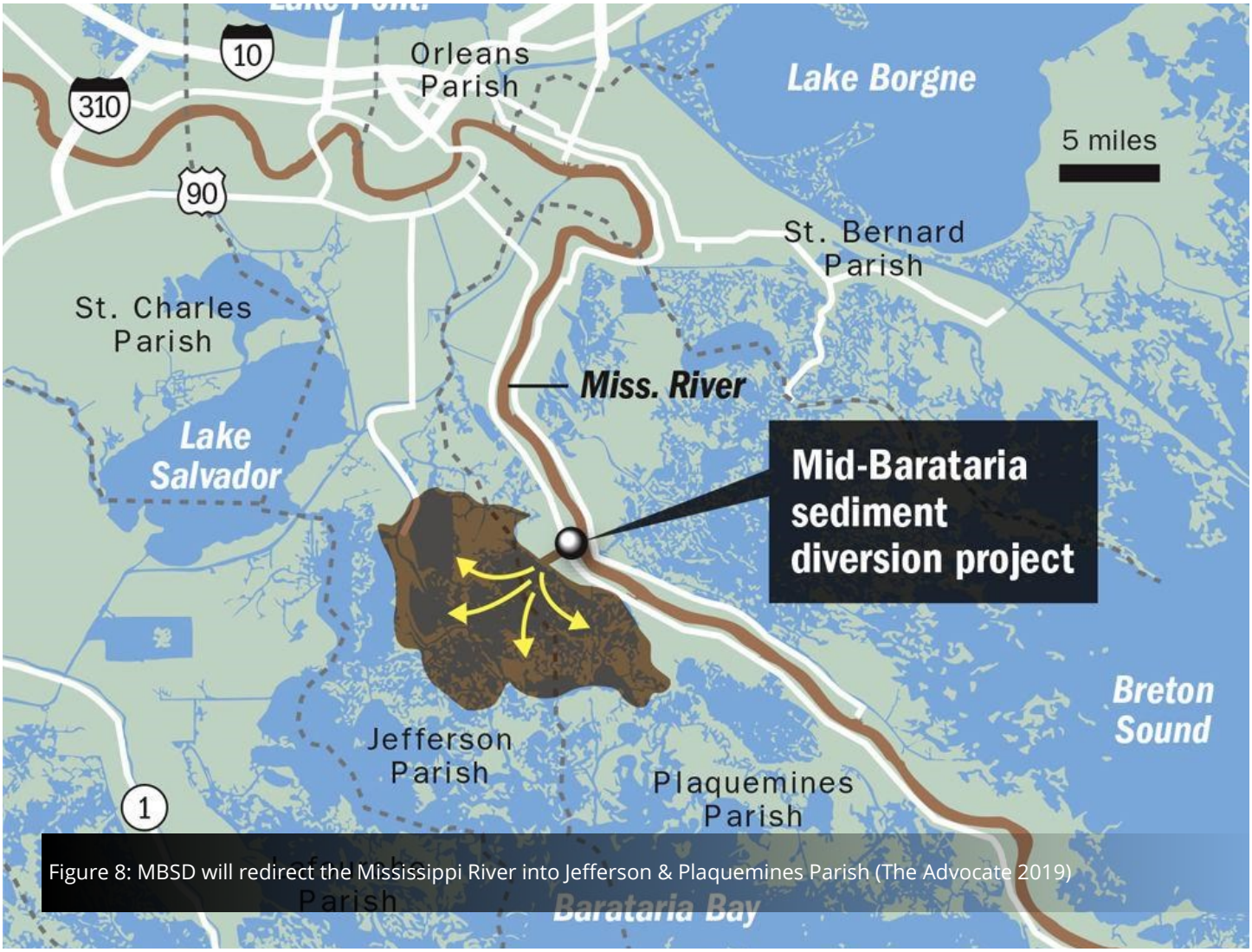


Figure 8: MBSD will redirect the Mississippi River into Jefferson & Plaquemines Parish (The Advocate 2019)

three removals occurring as part of U.S. colonial, capitalist, and industrial expansion. The first removal was geographic, involving the physical displacement into reservations. The second removal was social and psycho-cultural through removing children from their homes to boarding schools. Now, the impacts of melting ice sheets and eroding seacoasts are forcing Indigenous peoples to relocate once again as a consequence of the carbon-intensive energy base of the global economy.

Prior to French colonization, the Native American peoples living in present-day Louisiana could be distinguished into six linguistic and cultural groups: the Atakapa, the Caddo, the Tunica, the Natchez, the Muskhogean, and the Chitimacha (Wall and Rodrigue 2014). The Atakapa group included four major tribes and lived in the far southwest of Louisiana. In 1699, a group of French sailors and soldiers sailed into Biloxi Bay and declared the region French territory. Native nations in central Louisiana were forced to leave their land and ventured south to the lower reaches of coastal Louisiana where the density of cypress swamps proved effective at deterring colonial intrusion (Altemus-Williams 2018). As a result of this shared history of persecution and migration, the Grand Bayou Village, while primarily linked to the Atakapa-Ishak/ Chawasha, is home to a multitude of Native American communities (First People's Conservation Council 2013).

The history of the Atakapa-Ishak and the Chawasha becoming one originates from the 1730 Chawasha Massacre. In 1729, more than two hundred Frenchmen were attacked in a revolt led by Natchez Native Americans, sparking fear across the Louisiana colony of further uprisings (Ouchley 2014). To squash the fear of rebellions, the French governor sent Black slaves to attack the Chawasha village (Iberville 1991). "The history of New Orleans says that they were all murdered, that there were no survivors," recounts Philippe, "but there were survivors" (Ashe Cultural Arts Center, n.d.). Many Chawasha had escaped by crossing over from the east to the west side of the Mississippi River to join other Native tribes such as the Ishak, Houma, and Chitimacha (Iberville 1991).

The violence of colonization fractured Indigenous lineages but new associations were formed through dispersal. However, the lack of documentation on how separate and distinct tribes transformed has left some of Louisiana's original inhabitants unrecognized, such as the Atakapa-Ishak Nation, Avoyel-Taensa Tribe, and the Chahta Tribe among others (Norton 2023). Without federal recognition, the Atakapa-Ishak/ Chawasha are not eligible for hurricane recovery assistance. Without state recognition, the CPRA did not invite the Atakapa-Ishak/ Chawasha to their community focus groups on the MBSD plan (Yeoman 2020). Notwithstanding the prejudice faced by federally- and state-recognized tribes, gaining official tribal status is still a crucial step in affirming tribal sovereignty (Collins 2008).

The current restoration strategy for Louisiana safeguards environmentally viable urban centers along the coast. Structural protections for sparsely populated, remote coastal areas are considered untenable (Hemmerling, Barra, and Bond 2019). Decisions adhering to cost-benefit analyses must prioritize the majority over the costs to the minority. The context of colonial displacement and political disenfranchisement which produced minority populations has no room in this calculus. This logic denies Native American peoples, whose livelihoods are tethered to the coast, a place in the future, thereby consigning their lifeways to the past (Teuton 2018).

The Grand Bayou Village is testimony of Indigenous resistance to an imposed history of disappearance. Philippe stressed that their tribal presence will always remain in these ancestral homelands, even if only one person remains, to maintain their tradition of kinship with the land. The joining of the Atakapa-Ishak/ Chawasha, Ms. Rosina's persistence — these are acts of survivance which assert an "active sense of presence, the continuation of native stories, not a mere reaction, or a survivable name" (Vizenor 1999, vii).

Promise of a floating garden

During the planter box competition, the Water Collaborative team member Keree Blanks interviewed Ms. Rosina to ask her what she expected to see from the winning design. She stressed a few points: nontoxic materials to

ensure the plants are food-safe, accessibility for older folks in the village, resilience against the environmental extremities of the bayou, and community-centric design, for gardening collaboratively are the keys to success. Afterwards, Blanks told us how she expressed her deep gratitude for this partnership. "We hope that these floating boxes will help us to continue to give to the future, so it's that kind of innovation… we're looking to partner with," Philippe said (TWC 2022, 0:44).

The competition positions the Atakapa-Isha/Chawasha as collaborators for a community-led solution. Unlike the CPRA, the Water Collaborative is involving them from the first step to the last. Ultimately, this competition is not going to save the bayou — but neither is the MBSD, quite frankly, based on the modest predictions for restored wetland acreage. The planter box may be a limited intervention but it will promote food security, the preservation of native plants, and adaptation to a changing

Figure 9: Winning design for the edible planter box competition (Water Flows Forward 2022).

environment –addressing the community's needs for right now, even if not for good.

Conclusion

The communities in Cancer Alley, New Orleans East, and the Grand Bayou Village face localized challenges that are connected through a central logic of displacement. This logic naturalizes and even justifies the dislocation of marginalized peoples on the basis that they are "resilient" enough to weather the uprooting. Their stories do not offer a straightforward solution to the challenge of rebuilding on toxic, sinking ground. Instead, they depict the messy reality of living in landscapes enduring multiple disasters where the recovery challenge is three-fold. First, coastal Louisianans must overcome the unprecedented onslaught of climate-intensified hurricanes, a phenomenon that the current disaster management infrastructure is ill-equipped to handle. Second, marginalized communities have to resist the structural disinvestment and environmental racism that increases their social and physical vulnerability to climate disasters. Third, and perhaps most crucially, residents living in floodplains need to insist that recovery is possible and rebuilding is worthwhile, even when the logics of climate adaptation deem their livelihoods too remote, too peripheral, or too inconsequential to save from rapidly rising waters.

Throughout this essay, I have been captured by the idea of logics. Being logical is not the same as thinking (Tsing 2015). Logics are endemic to the status quo, which is marred by all types of anthropogenic violence resulting in logical conclusions that impinge on human dignity. Thinking within these logics also forecloses the possibilities for alternative solutions beyond the binary — to flourish or perish — when in reality, people in New Orleans are already living below sea level. There are ways to live amid environmental ruin that are neither grounded in disillusioned optimism nor consumed by the fear of imminent climate destruction. Instead, those who stay draw on a history of resistance in southeast Louisiana and continue to assert survivance in that spirit.

To end, I wish to share some insight from Keree Blanks who graduated from the University of New Orleans in 2021 and then joined the Water Collaborative as a Project Manager. While many of his peers have left New Orleans for jobs in Texas or Georgia, he has decided to stay in his hometown, at least for the meantime. As an environmental science major, Blanks is well informed about the accelerated changes happening along the Gulf Coast. "I'm twenty-three. I could buy a house five years from now and that house could be underwater in twenty years," he pondered, "why would anyone waste their time growing roots here if it's not going to be around in twenty years? Why would you invest in a place

that's not a good investment? It keeps me up all night."

The uncertainty embedded in Blanks' statement captures perfectly the challenges of placemaking in a place that is confronting its disappearance. Blanks and others I had the fortune to encounter during my research reject feel-good resilience narratives and recognize that multigenerational patterns of social exclusion, environmental degradation, and land dispossession maintain conditions of subjugation in which disaster inequities persist. In defiance, they are working to rebuild the sinking wetlands of Louisiana, not in naiveté, but with a conviction in alternative futures. It is a process marked by precarity but kept alive by possibility.

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