THE "DISPOSABLE OTHERS": SETTLER COLONIAL PROCESSES OF INDUSTRIAL POLLUTION IN CANCER ALLEY, LOUISIANA, 1964-2023

by

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ABSTRACT

ALYSSA MARTIN. The "Disposable Others": Settler Colonial Processes Of Industrial Pollution In Cancer Alley, Louisiana, 1964-2023. (Under the direction of DR. KRISTINA SHULL)

This thesis uses the lens of settler colonialism to bring memory, place-making, space, and history into the discussion of environmental racism in Louisiana. The effects of environmental racism are most obviously seen through higher rates of health problems or death. Less obvious are the effects that environmental racism has on the history and culture of people of color. To address this historiographical gap, this thesis explores how residents of Cancer Alley, Louisiana, have experienced emotional, generational, and physical erasure. The proliferation of industrial plants in poor Black communities has led to an alarming rise in mortality rates among Black Americans. Cancer Alley is one of the worst examples of this, as the parishes in this area rank in the top 5 percent nationally for cancer risk from toxic air pollution.

Although there have been historical works published on environmental history, the history of race and environment, and environmental racism in Louisiana, Cancer Alley itself has not yet been subject to historical scrutiny, despite its uniquely high levels of pollution and large presence of community activism. This thesis seeks to answer the following questions: How have these residents organized and been ignored by local, state, and federal governments? To what extent have historical and cultural elements been affected by the increased presence of petrochemical plants? How has the increasing threat of climate change impacted the history and culture of these communities?

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INTRODUCTION

The proliferation of industrial plants in poor Black communities has led to an alarming rise in mortality rates among Black Americans. One of the worst instances of this has occurred in an area of Louisiana known as Cancer Alley, which has also been called the Industrial Corridor or Death Alley. The area was given its nickname by residents of St. Gabriel Parish in 1987, when they began noticing that many in the neighborhood had cancer. Eventually, the name was passed on to cover the entire eighty-mile stretch of land including the parishes between Baton Rouge and New Orleans, and the majority of those who live there are Black. The parishes in this area rank in the top five percent nationally for cancer risk from toxic air pollution. This is an instance of what Robert Bullard, known as the "father of environmental justice," has termed "environmental racism." According to Bullard, "environmental racism refers to any policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color."

Historians have established that America's landscape has been shaped by race and racism. Race and land are deeply entwined with each other. Cedric Robinson, a former professor of Black Studies and Political Science coined the term "racial capitalism" in 1983 to explain "the historical development of world capitalism [which] was influenced in a most fundamental way by the particularistic forces of racism and nationalism." In his book *Black Marxism*, Robinson critiqued Marx and others who have not properly considered the role of race and racism in the shaping of capitalistic societies. Robinson contends that capitalism is "a modern world system of

¹ Kimberly A. Terrell, and Gianna St. Julien, "Air Pollution is Linked to Higher Cancer Rates Among Black or Impoverished Communities in Louisiana," *Environmental Research Letters* 17, no. 1 (2022): 2.

² Robert D. Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (Boulder: Westview Press, 2000), 98

³ Cedric J. Robinson, *Black Marxism: The Making of the Black Radical Tradition* (Chapel Hill: University of North Carolina Press, 2000), 9.

'racial capitalism' dependent on slavery, violence, imperialism, and genocide." Specifically, in the context of the United States, capitalism grew out of entwined Black chattel slavery and genocide of Indigenous peoples. The result is a system where capitalism is naturally exploitative of non-white groups.

The concept of racial capitalism was later extended to the field of environmental history by social scientist Laura Pulido. Pulido argued in 2000 that Black neighborhoods became overpopulated with polluters as a direct result of historical racial discrimination in the form of redlining, suburbanization, and white opposition to integration. Stemming from the legacies of slavery, the system of racial capitalism is deeply rooted in U.S. history and institutions and operates differently than individual racism or racialized policies. Racial capitalism relies on the expendability of communities based on their predominant racial value, which has long been tied to land use, private property, and ownership. After emancipation, the Jim Crow era of legal segregation and redlining practices, in effect, rendered Black communities immobile and expendable. After civil rights reforms of the 1960s when redlining and racial discrimination were outlawed, racial capitalism persisted in US financial and legal institutions through other means, such as discriminatory and predatory mortgage and lending practices.

In addition to the complicated relationship between place and race, another important relationship comes into play in discussions of place. Place, memory, and belonging are crucial elements of any community. As the anthropologist Paul Connerton argued in 1989, "our experience of the present very largely depends upon our knowledge of the past." People often

⁴ Robinson, *Black Marxism*, xiii.

⁵ Laura Pulido, "Rethinking Environmental Racism: White Privilege and Urban Development in Southern California," *Annals of the Association of American Geographers* 90, no. 1 (2000): 16.

⁶ Keeanga-Yamahtta Taylor, *Race for Profit: How Banks and the Real Estate Industry Undermined Black Homeownership* (Chapel Hill: The University of North Carolina Press, 2019): 3.

⁷ Paul Connerton, *How Societies Remember* (Cambridge [England]: Cambridge University Press, 1989), 2.

develop bonds with the areas and land that they grew up in and use past experiences connected to land to make decisions about their future. This kind of emotional attachment is known as "place attachment," and it is a term used often in social sciences. "Place attachment" is a general term that refers to more specific categories of attachment that people develop with their environment: place identity and place dependence. Historic preservationist Jeremy C. Wells defines place identity as "the process by which an individual values him/herself in relation to a place." Essentially, a person's connections to the people and experiences they have in a certain place have a great influence on the formation of their identity. Wells defines place dependence as "whether or not a particular place could substitute for another place."

As a group suffering under both historical and contemporary discrimination, Black people often find the belonging they lack elsewhere within their own communities. Although place is defined differently from person to person — be that a hometown, neighborhood, or family — scholars argue that, within the Black community, the idea of place is crucial to establishing the social ties necessary for them to cope with the traumatizing reality of being Black in America. ¹⁰ Several have also argued that the significance of place among Black communities can be linked to the African American tradition of oral storytelling. Kate Medeiros and Gwendolyn Etter-Lewis claim that "African Americans… convey their own stories within the context of their lived experiences," and that "the construction of place is not singular, but a

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⁸ Anna A. Adevi, and Patrick Grahn, "Attachment to Certain Natural Environments: A Basis for Choice of Recreational Settings, Activities and Restoration from Stress?" *Environment and Natural Resources Research* 1, no. 1 (2011): 38.

⁹ Jeremy C. Wells, "The Affect of Old Places: Exploring the Dimensions of Place Attachment and Senescent Environments," in *Place Meaning and Attachment: Authenticity, Heritage and Preservation*, eds. Dak Kopec and Annamarie Bliss (New York: Routledge, 2020): 5; See also Lee Cuba, and David M. Hummon, "A Place to Call Home: Identification with Dwelling, Community, and Region," *The Sociological Quarterly* 34, no. 1 (1993): 112. ¹⁰ Kate Medeiros, and Gwendolyn Etter-Lewis, "Place' in the Small Stories of African American Elders: A Narrative Case Study," *Gerontologist* 60, no. 5 (2020): 827; William J. McAuley, "History, Race, and Attachment to Place Among Elders in the Rural All-Black Towns of Oklahoma," *Journal of Gerontology* 53, no. 1 (1998): 35.

reciprocal process wherein '...spaces become human places partly through talk, and the meanings of places shape how people talk.""¹¹ So, because stories are integral to Black communities, and often these communities have been located in a specific place for so long, those stories and places become intertwined. Therefore, both become important aspects of their identity.

Others stress that some of the most important values in Black culture are community and collective identity. Forms of collective resistance during slavery extended beyond emancipation, underscoring the importance of collectiveness to the survival of Black communities in the postemancipation years and beyond. Elsa Barkley Brown argues that when newly-freed Black people in Richmond, Virginia, constructed communities — through actions such as reuniting families, taking in fellow former enslaved people, and considering each other brothers and sisters — they proved that "their fates were intimately tied together; individual freedom could be achieved only through collective autonomy." Such collective identity continues to shape Black contemporary political and cultural identity. Leaving the places they have always known and removing that sense of collective identity only ensures isolation and further oppression.

The industrial plant pollution in Cancer Alley is a prime example of all of these dynamics and relationships at play in the United States today. Although there have been historical works published on environmental history, the history of race and environment, and environmental racism in Louisiana, Cancer Alley itself has not yet been subject to historical scrutiny. It is crucial for more historians to examine areas such as Cancer Alley, with such high environmental

¹¹ Barbara Johnstone, "Language and Place," in *The Cambridge Handbook of Sociolinguistics*, ed. Rajend Mesthrie (Cambridge: Cambridge University Press, 2011): 211, quoted in Medeiros and Etter-Lewis, "'Place' in the Small Stories of African American Elders," 827.

¹² Elsa Barkley Brown, "To Catch the Vision of Freedom: Reconstructing Southern Black Women's Political History, 1865-1880," in *African American Women and the Vote, 1837-1965*, ed. Ann D. Gordon (Amherst: University of Massachusetts Press, 1997), 67-9.

¹³ Alexander C. Diener and Joshua Hagen, eds. *The City as Power: Urban Space, Place, and National Identity* (Lanham: Rowman & Littlefield, 2019), 157.

risks, to learn how environmental racism directly erases Black history and culture. This thesis will address this gap in the historiography by investigating the ways that Black citizens living in Cancer Alley have been affected by environmental racism and documenting the way inequity manifests through three forms of environmental erasure: physical and cultural, generational, and emotional.

Physical erasure refers to the systemic inequalities that have left Black communities in Louisiana uniquely vulnerable to the consequences of the environment. Cultural erasure is the structural damage done to physical places of history, such as churches, museums, or monuments. Generational erasure pertains to the early deaths and displacement of Black people from the area. Finally, emotional erasure concerns the gaslighting — or the psychological manipulation that causes one to question their reality — that Black residents experience when trying to bring attention to the issues that they are facing.

Cancer Alley is an important geographical location for this type of historical study for two main reasons. First, it is one of the areas in the U.S. that is unique in its high levels of pollution as well as its large presence of community activism. According to a 2019 report from the Environmental Protection Agency, "more pounds of industrial toxic air pollution are released annually in Louisiana than in any other state." Second, despite the significant amount of pollution and the existence of so many activist organizations, it has still not garnered a significant amount of national attention.

This thesis will explore the dynamics of place, race, and memory in Cancer Alley,
Louisiana. In addition to examining environmental erasure in Cancer Alley's Black
communities, it will also address how, when faced with both natural and manmade disasters,

¹⁴ United States Environmental Protection Agency, "2014 EJScreen National Air Toxics Assessment," Accessed April 28, 2022. https://ejscreen.epa.gov/mapper/.

these communities continue to emphasize collective identity and the significance of place as reasons not to leave. Before diving into the research, however, there are a few overarching themes that should be laid out to contribute to a better understanding of the context surrounding the subjects addressed in this thesis.

White Privilege

Discussions of environmental racism face various problems. Not only does recognizing environmental racism present challenges to people who refuse to believe that racism still exists in 21st-century America, but also to those who do not believe that the environment poses any sort of threat. One of the first arguments made by those who feel this way and become involved in debates over environmental racism is that white people face the consequences of these large polluting companies, too. This is true. There are neighborhoods with both Black and white residents who are subject to large-scale pollution because of the siting of petrochemical plants near their communities. However, this argument can be dismantled by examining academic conversations about white privilege.

The experiences of white and Black citizens who face environmental pollution are vastly different. This is because, even when the two groups live in the same area, white people still benefit from their white privilege. According to the philosopher Shannon Sullivan, white privilege refers to the "unseen, invisible, even seemingly nonexistent" habits of our everyday lives that reinforce the idea that white people are more valuable than people of color. ¹⁵ White people are able to advocate for themselves unbarred, voice their needs through elections, and take advantage of opportunities to move into less polluted neighborhoods. As Pulido demonstrates in her study of white privilege in southern California, Black people are prevented

¹⁵ Shannon Sullivan, *Revealing Whiteness: The Unconscious Habits of Racial Privilege* (Bloomington: Indiana University Press, 2006), 1.

from making the same choices as white people because of the structural barriers that result from living in a society built upon the very idea of creating a racialized society.¹⁶

Settler Colonialism

The environmental racism issue in the United States is not a new one. Racialized minorities have been subject to poor environmental conditions ever since the Europeans' arrival. After two centuries of war and un-honored treaties and countless campaigns of forced removal, including the Trail of Tears in 1831, the U.S. reservation system was created in 1851. This process of removing and replacing groups from their land has since become known as "settler colonialism." According to historian Patrick Wolfe, settler colonialism is "premised on displacing indigenes from (or *re*placing them on) the land." Essentially, settler colonialism is when the settler (someone who is not originally from that location — usually white) attempts to completely replace the original population of a location.

Recently, more scholarship has explored the United States as a settler colonial state. Scholars such as Evelyn Nakano Glenn and Roxanne Dunbar-Ortiz have identified settler colonialism as an ongoing process and set of structures rather than a singular event. Dunbar-Ortiz's 2021 book, *Not "A Nation of Immigrants"*, argued that upholding America as a "nation of immigrants" has been used to erase the history of settler colonialism in the United States. Glenn's 2015 article defined U.S. settler colonialism as being "driven by the impulse to gain sovereignty over land, bodies, and labor by turning them into private property that can be bought,

¹⁶ Pulido, "Rethinking," 13.

¹⁷ Patrick Wolfe, Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event (London: Cassell, 1999), 1.

¹⁸ Roxanne Dunbar-Ortiz, *Not "A Nation of Immigrants": Settler Colonialism, White Supremacy, and A History of Erasure and Exclusion* (Boston: Beacon Press, 2021), xxii.

exploited, and sold."¹⁹ She argued that "simultaneously, settlers conceived of themselves as more advanced and evolved, bringers of progress and enlightenment to the wilderness."²⁰

Analogous strategies of settler colonialism are seen today in Cancer Alley, although they are not often analyzed as such since they do not occur in "traditional" form. By this, I mean that typically, the "settlers" who perpetuate settler colonialism are typically seen and studied as real, individual human beings that physically come and remove an indigenous community to replace them with a new community. For this thesis, I am utilizing the arguments of Wolfe, Dunbar-Ortiz, and Glenn, that settler colonialism is an ongoing process and applying that to the idea that industries can be settlers, too. The stakeholders of the chemical industries that are built in Cancer Alley are constantly referring to them as wonderful economic opportunities, expansions of employment and wealth for the state, and for the greater good of all residents. However, as we will see, these promises do not pan out in reality for Black communities, and they are ultimately pushed to the margins while the industries are allowed to thrive.

Slow Violence

Industrial pollution can be considered a form of slow violence. This concept, established by Rob Nixon, is "a [type of] violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all." Climate change researchers often use the term to describe the complex set of violent forces that are less visible, and often more slow-moving, than the onset of natural disasters that draw media attention to climate change.

¹⁹ Evelyn Nakano Glenn, "Settler Colonialism as Structure," Sociology of Race and Ethnicity 1, no. 1 (2015): 59.

²⁰ Glenn, "Settler Colonialism as Structure," 58.

²¹ Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011): 2.

Due to the almost fantastical nature of climate change and natural disasters, these issues tend to remain in fuller focus than instances of industrial pollution. While climate change and natural disasters are certainly an important element of the environmental justice conversation, this more silent type of slow violence deserves just as much attention for its effects on minoritized communities. For this thesis, I will touch on climate change and major natural disasters, such as Hurricane Katrina, because they are necessarily concurrent with pollution. However, I will not be spending too much time providing background, context, or arguments about these issues as they are not my primary focus. Instead, they will be used to add context to the issue of industrial pollution, which is the primary focus of this thesis.

Methodology & Sources

My research will build upon the work previously done by scholars such as Robert Bullard, Patrick Wolfe, Evelyn Nakano Glenn, and Roxanne Dunbar-Ortiz. These scholars have looked at the environmental injustices that Black communities — in both Louisiana and across the United States — face and how their activism has been silenced, but they have yet to look at how these injustices and silences have directly contributed to the erasure of Black history and culture in Cancer Alley. It is crucial for history to be written about how environmental hazards can contribute to the erasure of entire groups, especially in a world that is recently gaining awareness of the extent to which the environment presents a danger.

Within the larger story of Cancer Alley, the dislocation of Black communities as well as the erasure of Black history can be attributed to two major causes: environmental factors, ranging from manmade industrial pollution to natural disasters, and political factors, such as the government's poor response after a disaster and their silencing of Black voices. The historical connections between these factors have not been explored much, and there has not yet been a

historical work solely focused on Cancer Alley. However, the area has various unique statistics that make it an interesting case study.

To demonstrate this, Chapter 1 looks at some of those statistics and examines the history of petrochemical plants in the area. Chapter 2 analyzes how Black residents of Cancer Alley are connected to the place where they live and the reasons why they remain despite the everincreasing pollution levels. Finally, Chapter 3 surveys the government responses at all levels—local, state, and federal—to see how these residents have been historically ignored and even gaslighted into believing that what they are experiencing is not real.

CHAPTER 1: POLLUTED PLACES

On January 8, 1811, Charles Delondes, a trusted slave driver on Manuel Andry's plantation outside of LaPlace in St. John the Baptist Parish, turned the plantation owner's trust in him on its head. Inspired by the success of the Haitian Revolution, Deslondes gathered fellow enslaved people on the plantation and attacked the Andry family, wounding Manuel and killing his son. From there, the group marched along the Mississippi River, recruiting more into their numbers and attacking plantation owners along the way. Although Deslondes had dreams of replicating the Haitian Revolution and creating a new Black republic, the uprising was stifled just a few days later when Deslondes and his co-conspirators were caught and killed on January 11, 1811. Despite the rebellion's bleak ending, it remains historically significant as one of the largest slave rebellions in United States history, although there is only one historical marker commemorating the event in the entire country.²²

Deslondes worked on and is associated with the Andry Plantation; however, he was only on loan to Manuel. He was actually born on another plantation, owned by Jacques Deslondes and his son André. That plantation is now known as Belle Pointe, and where there once stood a large plantation there now stands Pontchartrain Works — a chemicals factory owned by one of the largest chemical producers in the world, DuPont.²³ In a place where it may be more appropriate to construct a memorial to these enslaved people who sacrificed their lives in an extraordinary

²² "Charles Deslondes, Abolitionist born," *African American Registry*, Accessed February 7, 2023, https://aaregistry.org/story/charles-deslondes-born/; Leon A. Waters, "Jan. 8, 1811: Louisiana's Heroic Slave Revolt," *Zinn Education Project*, Published July 1, 2013, https://www.zinnedproject.org/news/tdih/louisianas-slave-revolt/; "1811 Slave Revolt," *St. Charles Parish Virtual Museum*, Published 2010, https://scphistory.org/slave-revolt/.

²³ Oliver Laughland, and Jamiles Lartey, "First slavery, then a chemical plant and cancer deaths: one town's brutal history," *The Guardian*, accessed November 6, 2022, https://www.theguardian.com/usnews/2019/may/06/cancertown-louisiana-reserve-history-slavery.

act of bravery, Louisiana's government has instead chosen to construct a monument of destruction.

This story demonstrates just one way that the structures of plantation life, racism, and white supremacy continue to linger throughout Louisiana, especially in the parishes along the Mississippi. The essences of structural racism are prominent all around the United States, but this is especially true in Cancer Alley. The unique relationship between land ownership, segregation, and the oil industry in its history contributes to the physical and cultural erasure of Black history in Cancer Alley by ensuring that Black people are pushed to the margins of society, deprived of legal autonomy, and subjected to the worst effects of petrochemical pollution.

This chapter will reveal three primary ways that structural racism in Louisiana has been perpetuated by analyzing government documents, primarily legislative actions and petitions. First, it will reveal how the structure of land ownership in Louisiana has shaped the placement of petrochemical plants near Black neighborhoods. Second, it will illustrate how oil companies have continued to thrive in Louisiana specifically, despite pushback from residents. Finally, it will explain the ways that Louisiana has been and remains segregated. Additionally, this chapter will contribute to the niche category of scholarship written on Cancer Alley by adding historical context to the land and drawing connections between Cancer Alley's relationship with settler colonialism and racial capitalism.

Although few in number, there have been works written specifically about environmental racism and its effects on Black communities in Louisiana. In one work, Robert Bullard, along with New Orleans-born environmental justice scholar Beverly Wright, exposed the failures of local, state, and federal governments to assist citizens of color in the aftermath of disaster events in various states, Louisiana being one of them. Aside from Wright's impactful firsthand account

of the floods destroying all memories of her mother and brother — who had died of cancer and kidney failure, respectively, only four months prior — the book also compared the disparity between government responses to these events in Black versus white neighborhoods and the severity of damage to those neighborhoods.²⁴

Other important pieces of scholarship that have shaped this chapter include works published by science professionals. Ernest Zebrowski and Mariah Zebrowski Leach questioned chemical plants' promise of increased job availability and argued that petroleum is so valuable to our existence that those who do support these companies should not want so much of it to be wasted through pollution processes.²⁵ Barbara L. Allen wrote a comprehensive and straightforward account of the tactics employed by chemical plants in Cancer Alley that have allowed them to thrive, convincing state and local governments that their economic and job opportunities are well worth any environmental risks that they pose. Allen does touch on the history of African American land ownership in the area but does not spend a substantial amount of time on it.²⁶

All of these works examined different topics of environmental justice issues in Louisiana and Cancer Alley, but none brought them all together. Furthermore, none of them explicitly connected these issues to settler colonial processes and the system of racial capitalism.

Examining the three contributing factors of physical and cultural erasure — land ownership, segregation, and the oil industry in Louisiana — will demonstrate how they have worked together to construct a landscape that unequally disadvantages Black communities.

²⁴ Robert D. Bullard and Beverly Wright, *The Wrong Complexion for Protection: How the Government Response to Disaster Endangers African American Communities* (New York: New York University Press, 2012), 8.

²⁵ Ernest Zebrowski and Mariah Zebrowski Leach, *Hydrocarbon Hucksters: Lessons from Louisiana on Oil, Politics, and Environmental Justice* (Jackson: University Press of Mississippi, 2014), 7.

²⁶ Barbara L. Allen, *Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes* (Cambridge: The MIT Press, 2003): 7.

Land Ownership

Some scholars have compared Cancer Alley to other places where elevated pollution levels exist in Black communities, such as Houston, Texas — a place that has been extensively researched by Robert Bullard. However, the history of land ownership is very different in Houston than it is in Cancer Alley. One of the first groups of settlers to live in Cancer Alley, other than a few early French settlers, were the Acadians, who were deported from Nova Scotia in 1785.²⁷ Upon their arrival, they were given strips of land along the Mississippi River, where many of their descendants remained for years.²⁸

Acadians lived in the area that would become Cancer Alley long before any industrial plans were made. In Houston, however, it was the opposite. Industries in Houston were originally constructed in rural areas that were only converted to residential areas later, as Black communities were pushed to the margins of society. In contrast, Cancer Alley was a residential area first, and an industrial area afterward. In the early 19th century, to support Louisiana's agricultural society, many of these lands were built into plantations, creating a high concentration of plantation land along the Mississippi River.²⁹

Besides the high number of Black enslaved people living along the Mississippi River on plantations, there was also a uniquely high number of free Black people who owned land in that area. In fact, in the mid-nineteenth century, there were slightly more free Black people who owned land in Louisiana than white men, and two times more free Black people who owned land than foreign-born Americans. An even more intriguing statistic is that "over half of the black

²⁷ Jean-François Mouhot, "The Emigration of the Acadians from France to Louisiana: A New Perspective," *Louisiana History: The Journal of the Louisiana Historical Association* 53, no. 2 (Spring 2012): 133.

²⁸ Allen, *Uneasy Alchemy*, 7.

²⁹ Laura Kilcer VanHuss, "Construction and Construct: Architecture of the Louisiana Plantation," in *Charting the Plantation Landscape from Natchez to New Orleans*, ed. Laura Kilcer VanHuss (Baton Rouge: Louisiana State University Press, 2021), 15.

rural land owners in the eight states comprising the lower South were in Louisiana, and their numbers were concentrated along the river parishes."³⁰ Black people have historically been present in high numbers along the Mississippi River, so there is no reason to believe that future stakeholders would not know that industrializing that area would mean industrializing Black neighborhoods.

Following the end of the Civil War in 1865 and the abolition of slavery, Louisiana transitioned away from an agricultural, plantation-based economy. As a result, the property value of the land in these rural areas plummeted. This created two problems that Louisiana's government needed to solve: finding land for newly-freed Black people to move to and finding ways to recreate wealth for white communities that had previously thrived off the plantation lands. The federal government's Freedmen's Bureau took care of the first issue by mandating that enslaved people be given farmland for them and their families to live on. Usually, that land was on the edge of the plantations where they had formerly worked and those new settlements were known as "freetowns." As generations went on, those families retained the land and often split it up among family members, eventually creating their own small towns. These towns, however, were unincorporated, meaning they were unable to govern themselves and were instead governed by the parish in which they resided. As nearby white communities began to rebuild, they were able to utilize the land that Black people now lived on to their own advantage, mimicking the times of slavery in an eerie way.

Oil Industry

³⁰ Allen, *Uneasy Alchemy*, 8.

³¹ Ibid., 8

³² Julia Mizutani, "In the Backyard of Segregated Neighborhoods: An Environmental Justice Case Study of Louisiana," *The Georgetown Environmental Law Review* 31, no. 363 (2019): 373.

White communities were able to reclaim their wealth lost by the destruction of the plantation economy beginning in the early 20th century, when successful oil explorations in Louisiana began attracting large oil refineries to Baton Rouge. This reclamation was a process of action and reaction between the state government and citizens that developed throughout the century, beginning with the construction of ExxonMobil's first site in Baton Rouge in 1909 and continuing into the 21st century. Currently, Baton Rouge "represents the only site in the world where every chemical product in ExxonMobil's portfolio is manufactured." Considering Baton Rouge was composed of 50 to 62 percent Black residents at the time of the plant's construction in 1910, there would have been undeniable inequity in who was being affected the most by these chemical plant constructions. As the state continued to transition away from an agricultural economy, the Mississippi River continued to attract more chemical companies — such as Denka and Shell — because of the availability of natural gas resources and the capability to dispose of chemical waste quickly and easily thanks to the Mississippi River.

In Louisiana's 1964 gubernatorial election, John McKeithen was on the ticket. In his campaign, he promised to "clean up the mess in Baton Rouge," if he was elected. Although McKeithen did not specify what "mess" he was referring to, it is rather easy to conclude when one considers the political and social atmosphere in Baton Rouge at the time. In the 1960s, Louisiana — like much of the United States — was at the height of its Civil Rights Movement. Protests, both nonviolent and violent, were disrupting the idyllic lives of white southerners. In Baton Rouge specifically, where industrial expansion was also at its height, white leaders were especially concerned with how the movement might impact the city's economic development.

³³ "Louisiana Process Industries," Louisiana Economic Quarterly, 2016.

³⁴ U.S. Bureau of the Census, "Thirteenth Census of the United States Taken in the Year 1910: Statistics of Louisiana," 587.

Because of this, industry stakeholders employed a heavy public relations campaign where they partnered with peaceful civil rights ambassadors and negotiated with them on small changes, such as promising to employ more Black people in their workforce.³⁵ However, non-peaceful protesters still presented problems for the city's image by continuing their protests. In 1961, twenty-three protestors from the Congress of Racial Equality (CORE) were arrested in Baton Rouge for illegal picketing. Their arrest sparked public outcry in the city, and up to 3,800 more protesters demonstrated during their trial.³⁶

Perhaps McKeithen's reference to a "mess" in Baton Rouge was unrelated to the civil rights unrest happening in the city at the time — but, perhaps it was. Although McKeithen was running on the Democratic ticket and made promises of cooling racial tensions, he was still a politician in a city that was heavily dependent on the success of industry. He, and other Baton Rouge political leaders, had every reason to place economic development over racial equity and justice. McKeithen went on to win his gubernatorial election in 1964, and shortly after he introduced the Industrial Inducements Program, which offered generous tax exemptions to chemical companies that might expand into Louisiana.

As a result of McKeithen's program, in just ten years Louisiana's portion of the Mississippi River had attracted nearly 136 petrochemical plants.³⁷ The program has faced criticism and pushback, from both citizens and other politicians, over the years. In 1990, the Louisiana Coalition for Tax Justice issued a report claiming that over a third of the industrial tax exemptions given since the program's conception had not created any new jobs. A year later,

³⁵ Mary Jacqueline Hebert, "Beyond Black and White: The Civil Rights Movement in Baton Rouge, Louisiana, 1945--1972," (PhD diss., Louisiana State University, 1999), 117.

³⁶ "Cox v. Louisiana." Oyez. Accessed March 15, 2023. https://www.oyez.org/cases/1964/24.

³⁷ "Surviving Cancer Alley: The Stories of Five Communities," Deep South Center for Environmental Justice, Published August 21, 2020, https://fluxconsole.com/files/item/211/109412/SurvivingCancerAlleyReport.pdf, 3.

Governor Buddy Roemer attempted to alter the program in response to the report's findings, by limiting the number of tax exemptions that were given out. Roemer's new bill required any company seeking tax exemptions to be reviewed and graded based on the amount of pollution they produced. Based on that grade, the company could then apply for a certain amount of tax exemptions. This revocation of blanket exemptions was not groundbreaking — other states had done it before — but, for Louisiana's industries, it was still a shock.³⁸ Unfortunately, these reforms did not last, and eventually the program reverted back to offering unchecked tax exemptions to companies regardless of their pollution output.³⁹

In 2016, another year of significant political and social unrest due to the controversial presidential election, Louisiana Governor John Bel Edwards signed an executive order upholding the tax exemption program, with a few amendments from McKeithen's original plan. 40 Bel Edwards' plan required industries to include two "exhibits" in their tax exemption applications. Exhibit A was an agreement between the state of Louisiana, the Louisiana Department of Economic Development, and the applicant promising that jobs would be either created or retained for a certain period of time that the company benefitted from exemptions. Exhibit B was approval from the parish police, the municipal county, and the school board — which sounded great, until the Governor specified that the Secretary of Economic Development would be present at these approval meetings to "provide guidance to the local parties" (read: influence the conversation and decision-making). Today, the program is known as the Industrial Tax Exemption Program, and it provides an 80 percent property tax abatement for five years with the

³⁸ Keith Schneider, "Louisiana's New Environmental Tool: Using Taxes to Discourage Pollution," *The New York Times*, February 27, 1991, 24.

³⁹ "Proceedings of the National Governor's Conference 1968," *The National Governor's Conference*, 1968, C-2. https://www.nga.org/wp-content/uploads/2021/03/1968NGAAnnualMeeting.pdf.

⁴⁰ State of Louisiana, "Amended and Restated Conditions for Participation in the Industrial Tax Exemption Program," Executive Order Number JBE 2016-73. https://gov.louisiana.gov/assets/ExecutiveOrders/JBE16-73.pdf.

ability to renew for five more years.⁴¹ Such generous numbers explain why the number of chemical plants in Louisiana now sits at over 150.

Aside from the disputed tax exemption program, government officials and plant owners have also made controversial decisions about where to place new plants. Not only were many plants being built on former plantations, but residents also became increasingly concerned about plants being constructed on sacred burial sites that were used for enslaved people from these plantations. For example, in 2019, the construction of a new Formosa Plastics plant in St. James Parish came to a screeching halt when residents found out that it was to be built on the former Buena Vista Plantation cemetery. And Many residents of St. James Parish are descendants of those who are buried in the cemeteries, and they petitioned to halt the construction of Formosa Plastics.

One activist group in particular, RISE St. James, led the charge in protesting Formosa Plastics and brought awareness to what they saw as a constitutional violation. According to article XII, section 4 of the Louisiana Constitution, citizens have the right to "preserve, foster, and promote" their cultural history. ⁴⁴ The founder and president of RISE St. James, Sharon Lavigne, requested to visit the cemetery and lay flowers at the grave sites in early May 2020, but was denied access by Formosa officials who cited COVID-19 concerns. In response, Lavigne's attorney sent a letter to Formosa asking them to explain exactly how laying flowers constituted a COVID-19 safety concern. A month later, Lavigne organized a Juneteenth celebration on

⁴¹ "Industrial Tax Exemption," Louisiana Economic Development, 2018, https://www.opportunitylouisiana.gov/business-incentives/industrial-tax-exemption.

⁴² Anna Groner, "Louisiana Chemical Plants Are Thriving Off of Slavery," *The Atlantic*, accessed November 6, 2022, https://www.theatlantic.com/culture/archive/2021/05/louisiana-chemical-plants-thriving-off-slavery/618769/. ⁴³ Center for Constitutional Rights, Letter to Louisiana Department of Environmental Quality, written December 18, 2019,

https://ccrjustice.org/sites/default/files/attach/2019/12/RISE%20St.%20James%20DEQ%20Comments%20Dec.%2018%20%20w%20attachments.pdf.

⁴⁴ La. Const. Art. XII, §4.

Formosa's property where the cemetery was located, where she stood in front of a crowd and declared, "Formosa's not gonna come here and dig up our ancestors and put them in a new location... because we are gonna stand together and fight Formosa."⁴⁵ Her words resonated with the small crowd gathered around her, and proved that Cancer Alley's Black communities would be persistent in fighting against these plants' exploitation and erasure.

In response to the community pushback, Formosa commissioned an archeological survey of the property. Consultants found and fenced off the Buena Vista cemetery before uncovering four sets of human remains in unmarked graves believed to belong to enslaved people. Reports reveal that, upon making this discovery, Formosa officials began suggesting that they exhume the bodies and move them to another location, since changing the planned location of their plant would be "very difficult." However, the community continued to push back against Formosa and, led by RISE St. James, was eventually successful in pausing the construction of the plant — which was expected to be the largest plastic production facility in the world. 47

Although St. James Parish's residents experienced a win by pausing Formosa's new complex construction, the war was not won. Currently, there is no indication of any plans to memorialize or further protect the Buena Vista cemetery. Additionally, residents have accused Formosa of failing to thoroughly search for what is believed to be another five cemeteries located nearby, each housing potentially dozens of bodies.⁴⁸ The number of chemical plants in Cancer Alley has rapidly increased since the introduction of the tax exemption program in the

⁴⁵ RISE St. James, "Juneteenth Observance," Facebook video, published June 30, 2020, https://www.facebook.com/watch/?v=197538941622765.

⁴⁶ Center for Constitutional Rights, Letter to Louisiana Department of Environmental Quality, p. 2, https://ccrjustice.org/sites/default/files/attach/2019/12/RISE%20St.%20James%20DEQ%20Comments%20Dec.%20 18%20%20w%20attachments.pdf.

⁴⁷ Lisa Friedman, "In 'Cancer Alley,' Judge Blocks Huge Petrochemical Plant," *The New York Times*, September 15, 2022, https://www.nytimes.com/2022/09/15/climate/louisiana-judge-blocks-formosa-plant.html.

⁴⁸ Center for Constitutional Rights, RISE St. James – The Fight to Protect Burial Sites of Enslaved People, https://ccrjustice.org/home/what-we-do/our-cases/rise-st-james-fight-protect-burial-sites-enslaved-people.

1960s, and those plants have largely been concentrated along the Mississippi River in the Cancer Alley corridor. As they have been built, they have continuously undermined and even destroyed sites of Black history and then neglected residents' concerns by refusing requests to protect sacred burial sites. In slavery's wake, the ongoing exploitation of the land has been highly racialized and also economically incentivized, showcasing the effects of racial capitalism and settler colonialism, which rely on the destruction and neglect of Black history and emotion. The segregation of Louisiana has only further exacerbated the effects of racial capitalism.

Segregation

Louisiana has been shaped by racialized public works since the 19th century. Black people have always been highly concentrated along the water in Louisiana — first due to the number of enslaved people delivered to the coastal city of New Orleans during the slave trade, and then in the 19th century when formerly enslaved people created freetowns along the Mississippi River. Since many of Louisiana's cities are barely above sea level, living near water creates a higher risk for destructive flooding. ⁴⁹ For this reason, houses constructed on high grounds have been the ideal choice for living in Louisiana. However, that high ground was usually only attainable by wealthier white people. Black people, in the meantime, were relegated to the areas of the cities with poorer drainage systems and were more susceptible to flooding. ⁵⁰ This unattainability of high ground housing is due to a couple of reasons.

First of all, the Jim Crow era in Louisiana was especially harsh. After the abolition of slavery, during the period of Reconstruction, Black people experienced relatively high levels of successful integration into society. In Louisiana, New Orleans had one of the highest populations of Black elites during Reconstruction, and therefore Black people were more empowered to

⁴⁹ See Appendix A.

⁵⁰ Mizutani, "In the Backyard of Segregated Neighborhoods, 374-375.

protest when whites attempted to impose segregation laws upon them.⁵¹ When white people in New Orleans tried to impose stricter laws that legalized racial discrimination, which came to be known as Jim Crow laws, Black people were "proud [and] articulate" in protesting against it.⁵² As a result of this, when Reconstruction ended and the Jim Crow era began in 1877, the white Democrats who then controlled state politics in Louisiana passed especially harsh laws because, as historian Roger Fischer said, "they alone among white southerners had sampled the frightening fruits of black power before 1877."⁵³ This backlash is what Carol Anderson has called "white rage" — a reaction that "is not about visible violence, but rather it works its way through the courts, the legislatures, and a range of government bureaucracies."⁵⁴ Often, when faced with Black progress, this white rage consumes the ideas, policies, and legislation of a community in an attempt to control them and maintain the racial hierarchy.

During the Jim Crow era in Louisiana, legislators implemented what were known as "black codes," a series of laws that criminalized Black people's actions. Some of the codes included that no Black person could move between parishes "without a special permit in writing from his employer." Additionally, it stated that every Black person needed to be "in regular service of some white person." This essentially replicated the slave laws, where Black people's movements were restricted by white people. If any Black person was caught having broken one of these codes, they could be arrested and sentenced to prison labor, which was another replication of white people controlling Black bodies and exploiting their labor. Louisiana was also an important player in the national segregation debate. Homer Plessy, a civil rights activist

⁵¹ Roger A. Fischer, *The Segregation Struggle in Louisiana*, 1862-77 (Chicago: University of Illinois Press, 1974), xii.

⁵² Fischer, Segregation Struggle, 29.

⁵³ Ibid., 157.

⁵⁴ Carol Anderson, White Rage: The Unspoken Truth of Our Racial Divide (New York: Bloomsbury, 2017): 3.

⁵⁵ "An Ordinance relative to the police of negroes recently emancipated within the parish of St. Landry," *Louisiana Code Noir*, 1865, https://lasc.libguides.com/c.php?g=254608&p=1697981.

from New Orleans, was involved in the infamous *Plessy v. Ferguson* case instituting a new era of legal segregation in 1896, in which the Supreme Court ruled that separate accommodations for Black and white people were constitutional, as long as those accommodations were equal.⁵⁶

Plessy v. Ferguson was overturned by the Supreme Court in 1954, but that did not mean that segregation was over. In the 1930s, the U.S. government tried to lift the country out of the Great Depression. President Franklin D. Roosevelt launched the New Deal, a series of programs intended to strengthen the federal government and provide relief to the American public. Part of the New Deal included government homeownership programs, which were meant to offer federally-insured mortgages to homeowners and prevent massive foreclosures. As time went on, however, the program began to take a different form. The federal government began categorizing neighborhoods to determine which ones would qualify for these loans. They used color-coded maps to rank neighborhoods from least risky to most risky — with the least risky neighborhoods being labeled "green" and the most risky neighborhoods being labeled "red" — and a majority of the neighborhoods labeled as most risky were Black neighborhoods. This included neighborhoods that had been integrated, indirectly encouraging further segregation. 58

These maps were not public record until the 1970s when a historian named Kenneth T.

Jackson discovered them accidentally while researching other types of housing maps. The policy became known as "redlining" among civil rights activists and scholars, and it had serious impacts on Black homeowners. Certain types of loans were restricted to homeowners in "green"

⁵⁶ Nikki Brown, "Jim Crow & Segregation," *64 Parishes*, January 21, 2015, https://64parishes.org/entry/jim-crowsegregation; "Plessy vs. Ferguson," Judgement, Decided May 18, 1896, Records of the Supreme Court of the United States, Record Group 267, Plessy v. Ferguson, 163, #15248, National Archives.

⁵⁷ "President Franklin Delano Roosevelt and the New Deal," Library of Congress, accessed March 18, 2023, https://www.loc.gov/classroom-materials/united-states-history-primary-source-timeline/great-depression-and-world-war-ii-1929-1945/franklin-delano-roosevelt-and-the-new-deal/; Candace Jackson, "What is Redlining?", *The New York Times*, August 17, 2021, https://www.nytimes.com/2021/08/17/realestate/what-is-redlining.html#:~:text=The%20origins%20of%20the%20term,the%20wake%20of%20the%20Depression.

⁵⁸ Candace Jackson, "What is Redlining?"

neighborhoods, which would incentivize residents with more money to move out of "red" neighborhoods and into "green" ones. These residents were more often white, which meant white people were moving into already racially restrictive white neighborhoods while Black people remained relegated to Black neighborhoods. While redlining did not create segregation, it perpetuated it through housing and lending discrimination and helped solidify and accelerate wealth inequality that already existed as a result of slavery and Jim Crow. ⁵⁹ Redlining also contributed to cycles of oppression through gentrification, which is a process where real estate entities purchase land or buildings in devalued areas (usually historically communities of color) and reconstruct them. These new residences are usually drastically marked up in price and marketed primarily to white audiences, furthering the racial divide within communities.

Manmade or Natural Disasters?

In 2005, Hurricane Katrina hit the Gulf Coast, devastating parts of Mississippi and Louisiana, and killing 1,833 people across the region. Louisiana alone accounted for 1,170 of those deaths. ⁶⁰ At the time, conversations about environmental justice were exploding, and this deemed natural disaster became a cornerstone for the environmental justice movement. Although the issue of environmental justice was fought long before the phrase existed, particularly in Native American communities, the term itself was born in the Black community. A former chemistry major and Black Student Union co-founder at the University of North Carolina at Charlotte, Benjamin Chavis, Jr., originally coined the term "environmental racism" in 1982 after

⁵⁹ Ibid.

⁶⁰ Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, 109th Cong., 2nd sess., 2006, Report 109-377, pt. 4, 73-74; "Extremely Powerful Hurricane Katrina Leaves a Historic Mark on the Northern Gulf Coast," *The National Weather Service*, accessed November 7, 2022, https://www.weather.gov/mob/katrina.

leading protests against toxic landfill waste being dumped in Warren County, North Carolina. ⁶¹ Also in the 1980s, Robert Bullard published groundbreaking books on the subject that investigated the environmental inequalities in Black communities in Texas and various states near the Mississippi River, the same area that he grew up in. ⁶²

Historically, those who have spearheaded major environmental justice movements have come from the affected communities themselves. Robert Bullard has defined environmental justice as "the principle that all people and communities have a right to equal protection and equal enforcement of environmental laws and regulations." When Katrina hit, it sparked conversation and research around the inequitable distribution of aid in the aftermath — after it was discovered that 70 percent of federal aid funding went to the Republican state of Mississippi, although the Democrat-run state of Louisiana suffered over 75 percent of the damage. Considering the racial makeup of the parties at that time — 78 percent of registered Democrats were Black — it is difficult to separate this political difference from its racial undertones.

Toxic pollution is not the only crisis facing Black residents in Cancer Alley. Numerous studies have proven unequivocally that "emissions of pollutants into the air can result in changes to the climate," which ultimately threatens all life on Earth. ⁶⁶ According to the EPA, the average surface temperature in the United States has risen by approximately 0.55°F since 1979. ⁶⁷ The

⁶¹ "A Movement is Born: Environmental Justice and the UCC," *United Church of Christ*, accessed November 6, 2022. https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/a_movement_is_born_environmental_justice_and_the_ucc/.

⁶² Robert D. Bullard, *Invisible Houston: The Black Experience in Boom and Bust* (College Station: Texas A&M University Press, 1987); Bullard, *Dumping in Dixie*, 1.

⁶³ "About Environmental Justice," Dr. Robert Bullard: Father of Environmental Justice, accessed March 20, 2023, https://drrobertbullard.com/.

⁶⁴ James C. Cobb, *The South and America Since World War II* (New York: Oxford University Press, 2012), 276.

^{65 &}quot;Party Identification Trends, 1992-2014," Pew Research Center, April 7, 2015,

https://www.pewresearch.org/politics/2015/04/07/party-identification-trends-1992-2014/#race-and-ethnicity.

⁶⁶ "Air Quality and Climate Change Research," United States Environmental Protection Agency, last updated March 30, 2022, https://www.epa.gov/air-research/air-quality-and-climate-change-research.

⁶⁷ "Climate Change Indicators: U.S. and Global Temperature," United States Environmental Protection Agency, last updated August 1, 2022, https://www.epa.gov/climate-indicators/climate-change-indicators-us-and-global-

National Oceanic and Atmospheric Administration (NOAA) believes that people can expect an increase in both the frequency and intensity of hurricanes and tropical storms, as well as flooding caused by these events.⁶⁸ Considering Louisiana's history with the chemical industry — such as ExxonMobil, which is one of the top polluters — and its racial geography, one that is historically structured and upheld, it is natural to conclude that these effects would be most harsh in places such as Cancer Alley's Black neighborhoods.⁶⁹

Natural disasters are arguably the biggest — and most visible — perpetrators of physical Black erasure in Cancer Alley. After all, they take form in the most obvious ways. However, the racial disparities in Louisiana remained evident post-Katrina. A survey conducted ten years after the tragedy revealed that 70 percent of white Louisianans felt that the state had fully recovered from the disaster while only 44 percent of Black Louisianans agreed. Clearly, there was not only a racial gap in who was most affected by the disaster, but also a gap in how aware white communities were of how much Black communities had been affected by it. Katrina's devastation brought more attention to the issue of environmental justice than ever before. People started to see how certain communities were more susceptible to the severe damage of natural disasters than others, which perhaps was one contributing factor to the increased interest in environmental justice as a subject of academic research in the 21st century.

temperature#:~:text=Data%20%7C%20Technical%20Documentation-

[,]Key%20Points,F%20per%20decade%20since%201979).

⁶⁸ "Global Warming and Hurricanes: An Overview of Current Research Results," United States National Oceanic and Atmospheric Administration, last updated February 9, 2023.

⁶⁹ Gordon Russell, "Polluter's Paradise: In 'Cancer Alley,' Toxic Polluters Face Little Oversight from Environmental Regulators," *ProPublica*, December 19, 2019, https://www.propublica.org/article/in-cancer-alley-toxic-polluters-face-little-oversight-from-environmental-regulators.

⁷⁰ Carroll Doherty, "Remembering Katrina: Wide racial divide over government's response," *Pew Research Center*, accessed November 7, 2022, https://www.pewresearch.org/fact-tank/2015/08/27/remembering-katrina-wide-racial-divide-over-governments-response/.

Both pollution and natural disasters such as Katrina have contributed to the growing number of those displaced from Louisiana's Cancer Alley parishes. Over a million people in the Gulf Coast region were displaced as a result of Katrina, and most of them were from Louisiana.⁷¹ Additionally, the effects of pollution have caused an increase in people leaving the state. Research has shown that, after Katrina, white people were quicker to return to their homes than Black people.⁷² As a result, scholars have recently noticed a process that they call "climate gentrification." According to the *Environmental Research* journal, climate gentrification is "a recently described phenomenon whereby the effects of climate change, most notably rising sea levels and more frequent flooding and storm surges, alter housing values in a way that leads to gentrification."⁷³ After Katrina, city-rebuilding efforts attracted large numbers of city planners and even graduate students who sought to contribute to disaster recovery efforts, but ultimately just contributed to higher property rates and therefore fewer numbers of returning Black residents.⁷⁴

Climate gentrification is one example of how pollution and climate change destroying Black communities have contributed to settler colonial processes. Black communities that have existed in Louisiana since the 18th century have been slowly pushed out due to their unlivable environment, and then kept out by an influx of white communities and rising housing prices. A plethora of digital and physical databases and archives were created following Katrina in order to

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⁷¹ Allison Plyer, "Facts for Features: Katrina Impact," *The Data Center*, August 26, 2016, https://www.datacenterresearch.org/data-resources/katrina/facts-for-impact/.

⁷² "Who Returned to New Orleans After Katrina?," Population Reference Bureau, July 11, 2010, https://www.prb.org/resources/who-returned-to-new-orleans-after-hurricane-katrina/.

⁷³ Kyle T. Aune, Dean Gesch, and Genee S. Smith, "A spatial analysis of climate gentrification in Orleans Parish, Louisiana post-Hurricane Katrina," *Environmental Research* 185 (2020): 1.

⁷⁴ Richard Campanella, "Gentrification and Its Discontents," NewGeography, February 28, 2013, https://www.newgeography.com/content/003526-gentrification-and-its-discontents-notes-new-orleans; Sam Melton, "Climate Gentrification in New Orleans: Past, Present, Future," ArcGIS, December 16, 2021, https://storymaps.arcgis.com/stories/ba1036582aef448daab494d21607c178.

preserve the experiences and feelings of the survivors. One poem exemplified the helplessness that many in Louisiana felt while they waited for help, asking, "Why do they act as if we aren't affected by it? / Why do they think we are nothing? / ... Why haven't they come?" Nearly twenty years later, Louisiana native Colette Pichon Battle gave a TED Talk where she shared flood maps from the U.S. Geological Survey. These maps showed how flooding along the coast of Louisiana had wiped out several communities since the 1930s. Her hometown was one predicted to vanish by 2050 if the forecasted amount of flooding and sea level rise continued. ⁷⁶

Battle's presentation showed that Katrina's initial effects — flooding, destruction, and displacement — were only the beginning. The potential increase in both frequency and intensity of these types of events may continue to threaten minority communities such as Cancer Alley. Yet chemical plants, one of the top contributors to that increase, have been placed in those same communities, forcing them to live with disaster on multiple levels. In addition to the structural weaknesses that exist, the government has been more focused on funding industrial plant construction than funding Black communities. As a result, not only were they driven from their land, but their land was also physically destroyed. After Katrina, historian Dan Pomeroy discovered that museums located in majority-Black neighborhoods, such as the National Guard Museum in the Lower Ninth Ward, had been almost completely destroyed. Meanwhile, museums in white neighborhoods, such as the Louisiana State Museum in the French Quarter, were overall untouched. Because of a lack of political representation through Jim Crow and ongoing

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^{75 &}quot;Why," Hurricane Digital Memory Bank, Accessed March 29, 2021.

http://hurricanearchive.org/items/show/26512.

⁷⁶Colette Pichon Battle, "Climate change will displace millions. Here's how we prepare," TED talk presented at TEDWomen 2019,

 $https://www.ted.com/talks/colette_pichon_battle_climate_change_will_displace_millions_here_s_how_we_prepare? \\ utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare.$

⁷⁷ Dan Pomeroy, "Dan Pomeroy HK2856K.mp3," Interview by Sarah Elizabeth Hickman. *Hurricane Digital Memory Bank*, April 21, 2006.

gerrymandering, Black communities are not able to advocate for proper funding and protection of their artifacts. The unabated destruction of Black historical artifacts allows the government neglect to serve as a form of oppression on Black people continually and creates a vicious cycle of exploiting their land for private profit.⁷⁸

This historical problem continues today. In 2021, on the eleventh anniversary of Hurricane Katrina, Louisiana faced another devastating natural disaster in the form of Hurricane Ida. Ida killed 26 Louisianians when it touched down as a Category 4 hurricane. Aside from the loss of human life, Ida also destroyed many historical landmarks that were especially important to the Black community. Specifically, the Whitney Plantation located in St. John the Baptist Parish — Louisiana's "only museum dedicated to the lives of enslaved people" — suffered a great deal of damage. While the museum itself was able to re-open to the public a few months later, several of the exhibits and historical structures on the site remained closed for more than a year, including a church built by emancipated men and women that had been gifted to the museum. This museum also houses the country's only monument dedicated to Charles Delondes, the leader of Louisiana's historic slave revolt. These pieces of Black history and culture — some that are the only ones of their kind in the state or country — are placed in areas where they are more likely to be destroyed due to historical structures of racism, and then they are not properly preserved by the local and state governments. At every turn, Louisiana's

⁷⁸ Laura Pulido, "Flint, Environmental Racism, and Racial Capitalism," *Capitalism Nature Socialism* 27, no. 3 (2016): 8.

⁷⁹ "LDH: Hurricane Ida storm-related death toll rises to 26," Louisiana Department of Health, September 8, 2021, https://ldh.la.gov/news/6308.

⁸⁰ Livia Gershon, "Hurricane Ida Damages Whitney Plantation, Only Louisiana Museum to Focus on the Enslaved," *Smithsonian Magazine*, September 3, 2021.

⁸¹ Charisse Gibson, "Whitney Plantation restoration continues, historic site reopens," *4WWL*, August 29, 2022, https://www.wwltv.com/article/weather/hurricane/whitney-plantation-restoration-continues-historic-site-could-reopen-soon-hurricane/289-8fa8acd8-94b7-47df-9728-c3cff1e7663f.

government officials have found ways to discount and discourage the preservation of Black history and culture.

The histories of land ownership, segregation, and the oil industry in Cancer Alley have contributed to the severe underfunding and poor infrastructure in Black neighborhoods. Rather than invest time and money into ensuring better living situations and proper healthcare, the parish governments continue to invite more chemical plants into Black neighborhoods. Between 2015 and 2019, seven new chemical plants were approved for construction in Cancer Alley, with five more awaiting approval. Because of the connections between industrial pollution and the intensity of climate change, this exacerbates the impacts of natural disasters such as Hurricanes Katrina. This extends beyond neighborhoods as cultural artifacts often meet the same fate.

Petrochemical plants' existence in Cancer Alley has been extractive for this very reason.

The plants — and the state government that advocates for them — took advantage of devalued land in Black neighborhoods, which was a result of racial capitalism. They constructed their plants on sites of historical significance to Black communities — such as burial sites — against the residents' wishes and pumped excessive amounts of cancer-causing pollutants into the air and water.

Here a companies, with state government approval, effectively erased the history of that land and ignored the voices of those who tried to raise awareness. A writer for *The Atlantic* succinctly summarized this cycle: "Like a time capsule, the graves link the petrochemical industry to the plantation economy, revealing how Louisiana's petroleum industry profits from

⁸² See Appendix B.

⁸³ Tristan Baurick, "Welcome to 'Cancer Alley,' Where Toxic Air is About to Get Worse," *ProPublica*, October 30, 2019, https://www.propublica.org/article/welcome-to-cancer-alley-where-toxic-air-is-about-to-get-worse.

⁸⁴ See Appendix C.

exploiting historic inequalities and showing how one brutal system gave way to another."⁸⁵ Some may wonder why, in the face of such oppression, the people of Cancer Alley do not simply move away to find somewhere safe, where they may be less ignored. However, such a solution is not so simple.

Many Black communities have a strong sense of place attachment, meaning their connections to the people and experiences of a particular place have a great influence on the formation of their identity. Reaving their home would mean leaving behind parts of their identity and history behind. In a place like Cancer Alley, where many residents' families have lived for generations, people are faced with two options: continue to live in the place they call home or move elsewhere. Choosing the first option — or rather, being forced into this option due to poverty — is surely a death sentence, since they must continue to endure the consequences of their environment, often leading them to an early grave. Choosing the second, however, is a life sentence — one where they risk losing their place identity and living with the guilt of leaving others behind.

⁸⁵ Groner, "Louisiana Chemical Plants Are Thriving Off of Slavery."

⁸⁶ Wells, "The Affect of Old Places," 5.

CHAPTER 2: POLLUTED PEOPLE

Every day, Alice and Booker T. Cage would leave their small home and walk a few steps down the road to open their convenience store in St. Irma Lee in East Baton Rouge Parish. It was 1989, and their store was a staple in their community. Located just a few blocks away was one of Louisiana's largest pollution-producing companies, Rollins Environmental Services. Rollins had been in the area for about twenty years, with its job consisting primarily of disposing of chemical waste. Since the 1970s, Rollins had been allowed to burn toxic chemicals and release them into the air, mainly because the EPA decided that it was safer to incinerate toxic waste rather than dump it into landfills. The excessive release of these chemicals created health issues for many of the St. Irma Lee residents, including the Cages.

Booker complained in 1989 that he had suffered from symptoms such as a sore throat, itchy eyes, and dry coughing fits for the last eight years. The timeline of Rollins' permissive incineration methods lines up almost exactly with the timeline of Booker's health concerns. The thick smoke produced by these chemical incinerations not only impacted residents' health, but also the everyday functions of their lives. Booker's wife, Alice, claimed that some days, she could not even see outside because the fog produced by the burning chemicals was so thick. Despite these concerning health issues and even the pleas from neighbors to leave the area, the couple had no plans to move. "I'm not going nowhere else. They can leave itself," said Booker adamantly, "Why? Because I been here all my life." Booker's seniority in St. Irma Lee,

⁸⁷ United States Environmental Protection Agency, "Recommended Procedures for the Disposal of PCB-Containing Wastes (Industrial Facilities)," December 22, 1975, p. 7. https://cdn.toxicdocs.org/yr/yr0naj9o9yyg3n028gmLZ38v6/yr0naj9o9yyg3n028gmLZ38v6.pdf.

⁸⁸ Folks, "Toxic Pollution," hosted by Sonya Masingale (1989; East Baton Rouge Parish: Louisiana Educational Television Authority), https://www.youtube.com/watch?v=A5BLhGAlVIA.

compared to Rollins, proved to him that if anyone should leave, it should be the company. Here, Booker is exhibiting place identity and dependence.

Historic preservationist Jeremy C. Wells defines place identity as "the process by which an individual values him/herself in relation to a place." When a person's identity is shaped by their connections to the people and experiences they have in a certain place, that is considered place identity. Similarly, Wells defines place dependence as "whether or not a particular place could substitute for another place." In this case, a person's place identity would be so strong that they would literally depend on that place for their identity. Without the place — without the community — there would be no identity. This was certainly the case in St. Irma Lee. Residents such as the Cages refused to abandon their home and their community because that was just how it was, no questions asked. Without hesitation, people who suffered from terrible health issues were not hurrying to find a new place to live, but rather demanding change.

This same sentiment was demonstrated by newly-emancipated African Americans in the late 19th century. Community members felt a sense of responsibility for each other, even those who were not family members. Because they had had similar experiences in life, once emancipated they shared similar struggles still. Now, they created communities built upon a sense of shared responsibility for one another. This included providing shelter, food, money, and resources for anyone who needed it. This sentiment was reinforced in every aspect of their lives — in the household, in church, in secret societies, and other community institutions. ⁹⁰ This phenomenon, known as collective identity or collective responsibility, is a well-researched topic in mainstream U.S. histories. Its connection to land specifically, however, is less so.

⁸⁹ Wells, "The Affect of Old Places," 5; See also Lee Cuba, and David M. Hummon, "A Place to Call Home: Identification with Dwelling, Community, and Region," *The Sociological Quarterly* 34, no. 1 (1993): 112. ⁹⁰ Elsa Barkley Brown, "To Catch the Vision of Freedom," 67-9.

Place identity and dependence are most often associated with communities of color because of histories of colonialism and capitalism and their attendant narratives. Combining this with the history of petrochemical plant development in historically Black areas has proven to create a vicious cycle. Since emancipation, Black people have sought to establish a place identity in their community, which has become overrun with pollution that has been detrimental to their health. They have been forced to choose to either separate themselves from that place in order to live, thus abandoning their place and their identity, or remain in place and suffer slowly towards eventual or premature death. Thus, the overpollution of Black neighborhoods contributes to generational erasure in two ways: by negatively impacting people's health and slowly killing them (in life and in death), or by forcing them to leave their homes and their communities in search of better lives (from place to place).

Through an examination of residents' experiences from the 1970s to the 21st century, this chapter demonstrates how generational erasure has been perpetuated in Cancer Alley. There are many sources that help document this generational erasure, including digital content such as interviews used for news videos and websites. This is because there has not been much archival data collection in Cancer Alley, perhaps because the topic of environmental justice is still relatively new in academia. Additionally, because there has been no historical study of the area yet, the archival data that does exist comes largely from other academic fields, usually the sciences. This makes it difficult to locate historical records, such as oral interviews conducted by historians or any letters or family papers from residents. For this reason, this chapter relies heavily on these less formal internet sources. However, utilizing these sources can have another benefit: when people speak to news outlets, it gives insight into what they really want the world

to know. This chapter also examines EPA records, newspaper articles, and medical data sites to add context to these other sources.

The purpose of this chapter is twofold. First, it aims to demonstrate how Black people in Cancer Alley have been erased generationally as a result of the petrochemical industry. This happens through premature deaths and the displacement of people as a result of chemical pollution. It will also point to how this contributes to settler colonial processes and cycles of racial trauma. Second, it attempts to explain the significance of place identity to the Black community in Cancer Alley and how the displacement that industry causes in the area only further contributes to a sense of erasure across generations. To do this, this chapter will analyze medical and EPA reports to show how chemical pollution has negatively impacted residents' health before moving to how it has impacted their death rates. It will additionally discuss scholarship that has proven the cycle of trauma that early deaths create in Black communities. It will conclude with an examination of Louisiana's buyout programs, stories from residents and activists whose neighborhoods have been bought out, and the state's migration rates how to demonstrate how people are displaced as a result of chemical pollution, as well as how displacement disrupts people's place identity and dependence.

In Life: How Pollution Deteriorates Health

Considering many Black residents' long history living in Cancer Alley, it is no surprise that those such as Alice and Booker Cage remained committed to staying put until their deaths in 2019 and 2009, respectively. Another long-time resident of Cancer Alley, Geraldine Watkins, lived in St. John the Baptist Parish for forty years. Watkins expressed her desperation for change, saying through tears, "You gotta live here to try and breathe the air, drink the water, see the children so sick, watch your people die. If you don't live in the area, you can say anything and

everybody's supposed to believe that." Despite her strong feelings, Watkins never once mentioned the thought of moving away. St. John the Baptist had been her home for forty years, and she intended it to remain her home for the rest of her life, despite its unhealthy environment. 91

It is certainly an unhealthy environment. A study conducted by the University Network for Human Rights in 2018 found that cancer rates among those who lived near the DuPont chemical plant in St. John the Baptist Parish were 71 percent higher than the national average. P2 This is not surprising, since many of the chemicals emitted from these plants are known carcinogens. One of the greatest examples of this is chloroprene, a chemical that has been of increasing concern among residents. Pontchartrain Works, a chemical company in LaPlace, Louisiana, is the sole producer of chloroprene in the United States. According to the EPA, "Chloroprene is a chemical used in the production of Neoprene[, which] is a synthetic rubber used for many chemical and weather-resistant products such as wet suits[,] orthopedic braces[,] adhesives, electrical insulation and coatings." In 2010, the EPA officially declared chloroprene to be a carcinogen and that the acceptable limit of exposure to chloroprene should be 0.2 micrograms per cubic meter.

Despite this recommendation, air monitoring stations in LaPlace have regularly reported far higher levels of pollution. Fifth Ward Elementary School, where the student body is 75

⁹¹ CNN, "Toxic Tensions in the Heart of 'Cancer Alley'," YouTube, 6:03, October 21, 2017, https://www.youtube.com/watch?v=nNTHIy0Dtdo.

⁹² University Network for Human Rights, "'Waiting to Die:' Toxic Emissions and Disease Near the Louisiana Denka/DuPont Plant," July 2019, https://www.epa.gov/sites/default/files/2019-12/documents/waiting to die final.pdf.

⁹³ United States Environmental Protection Agency, "LaPlace, Louisiana — Background Information," last updated January 23, 2023, https://www.epa.gov/la/laplace-louisiana-background-information.

⁹⁴ United States Environmental Protection Agency, "EPA's Integrated Risk Information System (IRIS) Assessment of Chloroprene," May 25, 2016, https://www.epa.gov/sites/default/files/2016-06/documents/memo-iris-chloroprene052516.pdf; United States Environmental Protection Agency, "Preliminary Risk-Based Concentration Value for Chloroprene in Ambient Air," May 5, 2016, https://www.epa.gov/sites/default/files/2016-06/documents/memo-prelim-risk-based-concentrations050516.pdf.

percent Black, sits only 1,000 feet away from Pontchartrain Works. From February 2020 to February 2022, the air monitoring station closest to the school reported an average chloroprene concentration level of 2.22 micrograms per cubic meter, well above the limit set by the EPA. ⁹⁵ Robert Taylor is a resident of Reserve, Louisiana, which is a town right next to LaPlace. He attended Fifth Ward Elementary as a child, and has watched as almost every member of his family has been diagnosed with cancer. "It's a terrible thing to watch people die of cancer," he says, "... and to realize that you could be next." Taylor's childhood neighborhood has been virtually erased by the massive growth of the petrochemical industry. Today, all that is left of it is one cemetery, surrounded on all sides by industry-owned land. In order to visit his buried friends and family, Taylor must stand and look from across the street. ⁹⁷

In Death: How Pollution Increases Deaths

Unfortunately, Taylor's story is not unique. Cancer is the second leading cause of death in the United States, and considering the high cancer rates in Cancer Alley it is not surprising that the death rates in the area are also high. ⁹⁸ The average annual cancer mortality rate for all races in the United States is about 150 per 100,000 people. That same number in Louisiana is up to 182 per 100,000 people. For Black people in the United States versus Louisiana, that difference is even starker. Nationally, Black people die of cancer at an average rate of 174 per 100,000 people, while in Louisiana it is up to 219 per 100,000 people. ⁹⁹ Based on the 2014

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⁹⁵ United States Environmental Protection Agency, "Letter of Concern," October 12, 2022, p. 3, 15, 26. https://www.epa.gov/system/files/documents/2022-

^{10/2022%2010%2012%20} Final%20 Letter%20 LDEQ%20 LDH%2001 R-22-R6%2 C%2002 R-22-R6%2 C%2004 R-22-R6.pdf.

⁹⁶ AJ+, "Why This Town is Dying from Cancer," YouTube, 0:55, August 25, 2018, https://www.youtube.com/watch?v=ZB8CbDG7gpk.

⁹⁷ See Appendix D.

⁹⁸ Center for Disease Control and Prevention, "Leading Causes of Death," last updated January 18, 2023, https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm.

⁹⁹ National Cancer Institute, "State Cancer Profiles," 2016-2020.

https://state can cerprofiles.cancer.gov/map/map.withimage.php?00&state&001&001&28&0&02&0&1&5&0#results.

National Air Toxics Assessment from the EPA, the risk of getting cancer is largely consolidated around the Mississippi River in Cancer Alley. ¹⁰⁰ This creates another problem in the Black communities of Cancer Alley: high death rates further the racial disparities that already exist between white and Black communities.

Studies have proven that the loss of a family member has a negative impact on mental and physical health. When a child suffers a loss at a young age, in the future, they are more likely to have experiences that may harm them — such as homelessness or participating in illegal behavior. Black children are "at three times greater risk than whites of losing a mother, more than twice the risk of losing a father..., 20% more likely to have lost a sibling by age 10[, and] 2.5 times more likely to [lose their own] child by age 20," which means that the chances of a Black person experiencing loss at an early age are already extremely high. When adding that to the context of elevated pollution levels in their community, the repercussions of a disproportionate health impact on Black communities are striking. 102

In Cancer Alley, scholars and activists alike have already drawn connections between the high death rates and the racial demographics. In the eight metro-area parishes in New Orleans (Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, and St. Tammany), the life expectancy of residents falls over two years behind the national metropolitan average. Among those parishes, the population is over 58 percent Black, meaning that a majority of those residents with short life expectancies are likely Black. The residents are aware of this, too. The news show *Folks*, which was an informative TV show on the Louisiana Public

¹⁰⁰ See Appendix E.

¹⁰¹ Debra Umberson et al., "Death of family members as an overlooked source of racial disadvantage in the United States," *Proceedings of the National Academy of Sciences* 114, no. 5 (2017): 915.

¹⁰² Umberson et al., "Death of family members," 916.

¹⁰³ Robert Habans, Jenna Losh, Rachel Weinstein, and Amy Teller, "Unpacking Neighborhood Differences in Life Expectancy," *Data Research Center*, August 13, 2020, https://www.datacenterresearch.org/placing-prosperity/chapter-1.html.

Broadcasting Network from 1981 to 1990, produced an episode in 1989 that focused on the pollution in Cancer Alley. The show was "dedicated to highlighting issues of importance to African Americans and other minority groups in Louisiana." The episode included an interview with Richmond Burrow, a neighbor of the Cages, who said, "It's dangerous. It's unhealthy. And I know it because I worked with petrol processors for seven years... What's got me awful worried is the DEQ... they are our only hope. And the judge... if they take the side of Rollins, they are digging our graves." People like Burrow fully understand the gravity of the situation — that people's lives are literally on the line when it comes to discussions of the petrochemical industry in Cancer Alley.

Iris Carter, a resident of Norco, Louisiana, in St. Charles Parish, has roots in the area that go all the way back to the time of Charles Deslondes' slave revolt. She emotionally recalled helping her mother as she slowly suffered and eventually died from "a 'question mark' disease." Carter's home was located between two plants: a chemical plant and a refinery. After her mother's death, the neighborhood rallied around Carter's family to try to fight Shell and raise awareness for the diseases that these companies were spreading. Despite their hard work, Shell eventually bought out the neighborhood, forcing the residents to relocate. Although Carter acknowledged the relief that came when her and her daughter's rashes vanished after the move, she still lamented the loss of her home and community. 106

From Place to Place

¹⁰⁴ "45 Years of LPB," Louisiana Digital Media Archive, August 31, 2020, http://ladigitalmedia.org/home/45-years-of-lpb.

¹⁰⁵ Folks, "Toxic Pollution," 9:45.

¹⁰⁶ Iris Carter, "That Place Was Home," Louisiana Bucket Brigade, 2019,

https://climatesofinequality.org/project/that-place-was-home-iris-carter-women-of-cancer-alley-series/.

Carter's story reveals another way that Black communities in Cancer Alley experience generational erasure. While both the Cages and Geraldine exemplified strong feelings of place identity, which is often a strong determining factor in many of Cancer Alley residents' lives, it is not the case for everyone. Some residents are forced out like Carter's family was. Beginning in the 1990s, when residents were starting to become concerned about pollution levels and possible disease, chemical companies came up with a solution: to buy out neighborhoods surrounding their company site in order to create "safe zones." While the buyout programs have been hailed as "a sensible approach to moving people out of harm's way," they have often done little to nothing to improve the lives of Louisiana's Black communities. 107

At times, these buyout programs have not only failed to improve the lives of Black communities, but they have directly contributed to destroying them. The most prominent example of this is in the former town of Mossville, Louisiana. Mossville was an unincorporated African American community in Calcasieu Parish, which is west of Cancer Alley. It was founded in the late 18th century by Black freepeople and remained there until, in 2016, the chemical company Sasol bought it out from the state in order to construct a \$21 billion industrial complex. Most of Mossville's residents decided to accept Sasol's offer and move away, but there was one man who did not. Stacey Ryan was a direct descendant of one of the seven families that established Mossville. Ryan turned down Sasol's offer of \$2,000 for his family

November 15, 2017, https://www.nola.com/news/business/closing-costs-as-a-chemical-plant-expands-mossville-louisiana-vanishes/article_f478381c-ff36-57b3-adc2-2116c35982d9.html.

¹⁰⁷ Keith Schneider, "Chemical Plants Buy Up Neighbors for Safety Zone," *The New York Times*, November 28, 1990, https://www.nytimes.com/1990/11/28/us/chemical-plants-buy-up-neighbors-for-safety-zone.html.

¹⁰⁸ Katherine Sayre, "Closing Costs: As a chemical plant expands, Mossville, Louisiana, vanishes," Nola.com,

November 15, 2017, https://www.nele.com/news/hysiness/closing-costs as a chemical plant expands.

home, and in 2017 he was one of the last residents of Mossville. "I wasn't ready to give up everything that my parents worked so hard for," he said. 109

Sasol was a state-owned energy company established in South Africa after Great Britain refused to continue shipping oil during apartheid. The first Sasol complex was built in Zamdela Township, where the indigenous Basutu people lived before being bought out by the chemical company. Black South Africans were drawn to Zamdela for work at Sasol, but now the area is so polluted that it is causing health problems for the residents. When Governor Bobby Jindal announced the "important" and "exciting" news about "Louisiana's largest economic development project," he made Sasol's business sound like a great opportunity. But residents knew this was not the case. "Most of the people moved out of this area," Ryan said, "it's just I elected to stay behind because there's no other place for me." Additionally, in a home video that Ryan shows of his sick parents pleading for help, his dad said, "They hurt me real bad.

Everything I had left, they done took it." This was not the testimony of someone who had experienced a great economic opportunity.

Samson Mokoena, an activist working against Sasol in South Africa, blamed the environmental justice problems playing out with Sasol, both in South Africa and in Louisiana, on the concept of "disposable others." He said that the idea of disposable others comes from the concept "that if people have a different skin color, you can treat them as if they are not human. So they can live in the smoke, they can live in the pollution, they can be the fenceline communities." The disposability of Black communities in the eyes of chemical companies has

¹⁰⁹ Mossville: When Great Trees Fall, directed by Alexander Glustrom (Mossville, Louisiana: Collective Eye Films, 2019), https://video-alexanderstreet-com.eu1.proxy.openathens.net/watch/mossville-when-great-trees-fall/details?context=channel:black-studies.

¹¹⁰ Mossville: When Great Trees Fall.

¹¹¹ Ibid.

¹¹² Ibid.

been evidenced by their measly buyout offers to the communities living where they want to build. Again, Stacey Ryan was only offered \$2,000 for his property, and another Mossville resident, Erica Jackson, said that even after accepting Sasol's offer, "we're gonna be in debt after we move." Even after holding off as long as he could, when Ryan finally gave in and accepted Sasol's offer in 2017, he spent most of the money they gave him on medical bills as a result of being hospitalized over a dozen times due to unknown health concerns. 113

What is worse is that studies have shown that there were even racial disparities in the payout that Sasol provided to homeowners in and around Mossville. A study conducted by the University Network for Human Rights in 2021 found that, on average, Sasol paid Black homeowners 40 percent less for their property than they paid white homeowners. He white homeowners were also given the chance to negotiate the prices that they sold their homes for while Black homeowners were not given the same opportunity. So, even in this instance where a company is claiming that they are doing something for the good of a community, they are ultimately hurting that community. It was a lose-lose situation all around. Mossville, a historically Black town, was destroyed, the residents were displaced and discriminated against in their payouts, and no facility was ever built in that location.

For others who leave, there is more of a choice involved. There are residents who decide for themselves that the health risks are too severe to remain in place. Robert Taylor III (unknown relation to Robert Taylor), a resident of St. John the Baptist Parish, suffered from chronic kidney disease his entire life. After high school, he decided to move away, where he stayed for twenty

¹¹³ Ibid.

¹¹⁴ University Network for Human Rights, "'They Didn't Pay Us for Our Memories': Environmental Racism, Forced Displacement, and the Industrial Buyout of Mossville, Louisiana," November 2021, https://static1.squarespace.com/static/5b3538249d5abb21360e858f/t/61982a3fdc635f094c042e4d/1637362243271/ Mossville_FINAL_upload+PDF.pdf.

¹¹⁵ Sneath, "A chemical firm bought out these Black and white US homeowners — with a significant disparity."

years. For that entire period, Taylor experienced no further problems with his kidneys. At the end of those twenty years, he moved back, and within six months of returning his kidneys failed. 116 Considering the high mortality rate of those who experience kidney failure, Taylor is lucky to have survived. 117

Eve Butler of St. James Parish also chose to move away. She had lived in St. James for her entire life after her grandfather purchased a home for himself in the 1930s. She recalled childhood memories of the gardens that her family used to grow, the school that she attended, and even the post office that provided the community with the vital resource of communication. After college, Butler left St. James to serve her country in the Navy, where she remained for fourteen years. Upon retirement, she returned home to find that all of those memories — the precious monuments of her childhood — were gone. They had been turned into chemical plants. Butler began to suffer from pollution-related symptoms, she experienced skin peeling from acid rain, and eventually was diagnosed with thyroid and breast cancer. Although Butler never expressed regret for having moved back to her childhood home, she did express her frustration with the chemical companies' nonchalant attitude towards what had happened to her community. 118

Between 1980 and 1989, around the time when residents such as the Cages began noticing suspicious health symptoms, Louisiana's population growth went from 1.2 percent to negative 0.6 percent per year. These numbers indicate not only a stunt in immigration to the state

¹¹⁶ CNN, "Toxic Tensions in the Heart of 'Cancer Alley'," YouTube, 1:35.

¹¹⁷ "The Kidney Project: Statistics," University of California San Francisco School of Pharmacy, accessed February 16, 2023,

 $https://pharm.ucsf.edu/kidney/need/statistics\#:\sim: text=Mortality\%20 rates\%20 vary\%20 depending\%20 on, about\%2080\%25\%20 after\%205\%20 years.$

¹¹⁸ Eve Butler, "No Gardens," Louisiana Bucket Brigade, 2019, https://climatesofinequality.org/project/eve-butler-in-mt-triumph-baptist-church-still-from-no-gardens-women-of-cancer-alley/.

but also, potentially, an increase in residents moving out of the state. ¹¹⁹ The unregulated pollution of companies like Rollins sometimes leaves people no choice but to leave behind their homes, their communities, and — for many Black residents — part of their own identities. All of these risks to Black public health in Cancer Alley have not gone unnoticed. Many activists in the area have tried to bring attention to the issue at hand in search of help from the public to find a solution.

Cancer Alley's residents have tried to make their voices heard. They have participated in interviews, written blogs, given TED talks, and more. They certainly have not been silent.

Rather, they have been silenced. Black people in Cancer Alley face constant risks of generational erasure. Whether it be from the disease and eventual death that befalls anyone who remains in place, or from the devastating effects of having to leave behind their homes and communities that often go back hundreds of years, these people are victims of generational erasure in various ways. Yet, despite their best efforts, the conditions and even the existence of Cancer Alley are not known to many outside of those who work in the environmental justice movement.

The issue, however, is that the erasure does not end at the generational stage. Rather, the silencing of Black voices extends to a form of emotional erasure, where officials at various government levels have collaborated with petrochemical plant stakeholders to belittle the environmental consequences of the plants' pollution and silence the voices of community activists. These criticisms often come from stakeholders in the petrochemical plant industry, such as government officials or representatives of the chemical corporations themselves. These people have a vested interest in the success and growth of the petrochemical industry, so it is no surprise

¹¹⁹ United States Department of Commerce, Economics and Business Administration, Bureau of the Census,

[&]quot;Population Trends in the 1980s," Current Population Reports Series P-23, no. 175,

https://www2.census.gov/library/publications/1992/demographics/p23-175.pdf.

that they would want to turn these victims' narratives on their heads. As a result of this gaslighting, Black communities in Cancer Alley face the invalidation of their feelings and reality – the erasure of their emotions.

CHAPTER 3: POLLUTED POWER

As a prominent environmental activist in Louisiana in the 1990s, Damu Smith spent most of his time driving around the parishes between New Orleans and Baton Rouge. He was an organizer for Greenpeace USA, founder of the National Black Environmental Justice Network, and responsible for community rallies against the construction of several petrochemical plants in Cancer Alley, including Shell and Shintech. Beginning in 2001, Smith experienced pain in his stomach and abdomen. Despite advice from friends to seek medical attention, Smith refused, citing his fear of doctors. In April of 2005, Smith finally saw a doctor, received a diagnosis, and began chemotherapy for his rectum, liver, and colon cancer. By May, he had passed. 120

Damu Smith's story is one of many examples of the troubled relationship between Black people and the American medical system — one that has deep roots in American history. Since the days of slavery, Black bodies have been used and abused by white employers and white doctors. ¹²¹ Instances of medical abuse are not some distant memory in American history. From 1932 to 1972, 128 Black men died from syphilis as part of a medical experiment in which doctors allowed the disease to go untreated in order to study it. Although the few surviving victims and their families were later offered reparations in the form of health care, the emotional trauma endured — less than half of the wives of the male victims actually took advantage of the government's offer due to their distrust of the medical system. ¹²² Just fifty years ago, when many of today's grandparents and great-grandparents were in their prime, the federal government was condoning and funding the destruction of Black bodies.

¹²⁰ Darryl Fear, "His Last, Best Cause; Activist Who Neglected His Health Warned Other Black Men in Final Days," *Washington Post*, October 6, 2006.

¹²¹ Todd L. Savitt, "The Use of Blacks for Medical Experimentation and Demonstration in the Old South," *Journal of Southern History* 48, no. 3 (1982): 331.

¹²² "Families Emerge as Silent Victims of Tuskegee Syphilis Experiment," New York Times, May 12, 1997, 1.

Often, those like Smith do not seek medical attention because of this long-established history of distrust of the government and the systems that the government funds. Why should Black people place their lives in the hands of doctors when the past has provided them with clear reasons not to? Although Smith's experience took place in the late 1990s and early 2000s, looking at physician statistics in Louisiana in nearby years can provide a glimpse into why he and other Black people may have been hesitant to seek medical assistance. In 2000, there were over 11,000 licensed and practicing physicians in Louisiana. That number most likely increased in the following years, and as of 2008 it was reported that less than 1,000 physicians in Louisiana were Black. Looking at these statistics, it is no wonder why Black patients — in the past or present — may not feel comfortable going to a doctor that may not understand them. The historical segregation of the American healthcare system has guaranteed that access to Black-owned healthcare is limited, and where it does exist it is often underfunded.

In addition to medical abuse and distrust, Black people have often been exploited by their employers as well. In post-war Louisiana, after the abolition of slavery, a new form of Black labor exploitation was created in the form of sharecropping. Sharecropping allowed a landowner to loan out some of their land to a tenant who would pay the landowner back with a share of the crops produced on that land. From the outside, sharecropping seemed to be a compromise between formerly rich plantation owners and poor formerly enslaved people. However, in reality the sharecropping system was just a new way for white people to exploit and oppress Black

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¹²³ David Johnson, "U.S. Population and Physician Data for 1990-2000," *Journal of Medical Licensure and Discipline* 88, no. 2 (2002): 89.

¹²⁴ Laura Castillo-Page, "Diversity in the Physician Workforce: Facts & Figures 2010," Association of American Medical Colleges, 2010, p. 41, https://www.aamc.org/media/8046/download.

¹²⁵ Association of American Medical Colleges, "Percentage of all active physicians by race/ethnicity," 2018, https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018.

¹²⁶ Brian D. Smedley, Adrienne Y. Stith, and Alan R. Nelson, eds., *Unequal Treatment Confronting Racial and Ethnic Disparities in Healthcare* (Washington: National Academies Press, 2002), 103.

people. The tenents (usually Black) would often sink further and further into debt to the landowner (usually white) and therefore become ensnared into a never-ending work contract. There were countless other negative consequences that the sharecropping system had on Black sharecroppers, such as a lack of access to education or healthcare, but ultimately it exemplifies the fact that land and labor exploitation go hand-in-hand. As Louisiana developed and eventually transitioned from an agricultural to a commercial economy, that land and labor exploitation evolved with it.

Residents of Cancer Alley have consistently suffered at the behest of local, state, and federal governments, as well as corporations since the first rumbles of activism in the 1980s. This chapter will trace how officials at various government levels have collaborated with petrochemical plant stakeholders from the 1980s to the present day and argue that these officials and stakeholders seek to accomplish two goals: belittling the environmental consequences of the plants' pollution and silencing the voices of community activists. In an attempt to gaslight both community members and outsiders, they make either one or a combination of three main arguments: other factors are the real cause of health problems in Cancer Alley, the pollution levels and cancer risks in Cancer Alley are not unique, or there is no evidence proving that there even is a problem in Cancer Alley. All of these arguments are problematic for different reasons. And, at all stages, government and plant officials have argued that the benefits of the petrochemical plant business far outweigh the consequences — a familiar argument from narratives of settler colonialism and racial capitalism.

Analysis of a series of health surveys, EPA reports, public television broadcasts, and various news reports from both ends of the debate will reveal two things. First, how the state

¹²⁷ Matthew Reonas, "Sharecropping," *64 Parishes*, published January 27, 2011, https://64parishes.org/entry/sharecropping.

government, local government, and stakeholders have crafted a multi-layered defense against accusations of overpollution. Second, how testimonies and independent studies from community members have mounted against that defense. Although community stories have gained more traction in recent years, they still have yet to make significant progress in disrupting the control that the petrochemical industry has over the state of Louisiana and, especially, the parishes of Cancer Alley.

This chapter focuses primarily on the 1990s through the 2000s. This is because several important shifts — politically, culturally, and socially — took place during the 1980s and developed throughout the 1990s and 2000s that add helpful understanding to this history.

Mainly, these shifts include the rise of environmental justice organizing, including climate awareness, and the rise and triumph of Reaganomics neoliberalism. Specifically, environmentalism became a partisan issue in the 1990s and 2000s, with conservatives supporting the deregulation of industry while liberals advocated for stricter regulations of environmental toxins. This concept of environmental neoliberalism — applying the principles of economic neoliberalism to the environment — is promoted by mostly white conservatives but deals the most harm to communities of color.

Power in Louisiana

Before breaking down the arguments that government officials and stakeholders make, we will first review how power structures have operated in Louisiana, particularly in Cancer Alley. Chapter One of this thesis already discussed the history of land ownership along Louisiana's portion of the Mississippi. There is a high concentration of Black communities there as a result of the freetowns that were built after the abolition of slavery. It also mentioned that many of these towns were unincorporated, or governed by a town other than itself. In the 21st

century, that remains the case. Of the 270 total towns that comprise the seven parishes of Cancer Alley, only 27 of them were incorporated as of 2005. 128 This means that there were still 243 towns in Cancer Alley that were unable to self-govern. Instead, they were at the mercy of government officials whom they did not elect to make decisions for their best interests.

However, incorporation does not equal representation. Louisiana, not unlike many other southern states, has a history of voter disenfranchisement. In 1870, the United States Congress ratified the Fifteenth Amendment, which stated that "the right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude." However, white supremacy still ran rampant in the South and therefore many southern state governments found ways to create loopholes in their state constitutions to avoid breaking this new federal law while still ensuring that Black people could have no political power. Louisiana was no different. The state's 1898 Constitution contained a long list of requirements that voters must meet in order to be eligible, including the ability to read and write, own at least \$300 worth of property, and owe no debt. 130

At the time Louisiana's state constitution was drafted and then ratified, illiteracy rates among white Americans were between eight and ten percent. Determined only to exclude Black people, many state governments enacted what is known as a "grandfather clause" in their new constitutions. Again, Louisiana was among these. Louisiana's grandfather clause stated that no one who was eligible to vote prior to the enactment of the new constitution — or anyone whose father or grandfather was eligible to vote prior to the enactment of the new constitution —

¹²⁸ Lori L. Smith, "Louisiana Directory of Cities, Towns, and Villages," State Library of Louisiana, published July 2005, http://www.state.lib.la.us/empowerlibrary/LA%20Cities%20and%20Towns.pdf.

¹²⁹ U.S. Const. Art. 15, § 1.

¹³⁰ La. Const. Art. 197, § 3 & 4.

¹³¹ "Percentage of Persons 14 years old and over who were illiterate (unable to read or write in any language), by race and nativity: 1870 to 1979," National Center for Education Statistics, accessed March 16, 2023, https://nces.ed.gov/naal/lit_history.asp.

could be denied voting rights, even if they did not meet the requirements stated previously. ¹³² So, even though it appeared on the surface that Louisiana would be following new federal legislation and allowing Black people to vote, the reality was much different.

In the 21st century, this pattern has continued. In 2011, members of the Louisiana NAACP sued the Louisiana Secretary of State, alleging that Louisiana state and local officials had violated the National Voter Registration Act (NVRA). The NVRA requires that voter registration services be offered along with any application for public assistance, which is supposed to ensure that lower-class citizens are still given an equal opportunity to vote. The NAACP, however, claimed that Louisiana had failed to do so, and they took the Secretary of State to court over it. Although the NAACP won its lawsuit, the judge gave no clear guidelines as to how to reform the situation moving forward. Louisiana's electoral process continued to have several flaws, and the Legal Defense Fund took up the cause of helping voters navigate a complicated legal system. 134

Whether incorporated or not, all of these towns relied on government officials to act on their behalf. This becomes complicated when the best interests of the community do not align with what the government officials see as their own best interests. For Louisiana's officials, their best interests have been tied to legacies of industry and exploitation of land and labor by allowing chemical industries to grow and thrive in their state. This is because the amount of wealth that these industries pump into the state, and therefore into the pockets of state and local legislators, has been so significant that no politician has seen shutting it down to be the best

¹³² La. Const. Art. 197, § 5.

¹³³ "Scott v. Schedler," The United States Department of Justice, March 6, 2012, https://www.justice.gov/crt/case-document/si-scott-v-schedler.

¹³⁴ Ella Wiley, "On Democracy's Front Lines: Louisiana's Voting Rights Defenders in Action," Legal Defense Fund, November 18, 2022, https://www.naacpldf.org/louisiana-elections-voting-laws/.

option. According to the *Louisiana Economic Quarterly*, the total value of chemical shipments from Louisiana in 2016 was over \$206 billion — which ranked only third in the United States, behind Texas and California. ¹³⁵ Furthermore, the amount of taxes that the state collected from having these industries located there was another attractive reason for politicians to protect their business. A report from the Louisiana Chemical Association in 2018 found that out of eight parishes that had the highest number of Industrial Tax Exemptions (many of which were located in Cancer Alley), they "all ranked in the top third of parishes in terms of property tax collections per capita." ¹³⁶

Thus, two factors have historically played a role in determining how power has operated in Louisiana: Black disenfranchisement and politicians' desire for wealth. First, Louisiana's long history of voter disenfranchisement and its expansive list of Black towns that have been unable to self-govern, have ensured that Black citizens remained at the margins of history. Second, state and local government officials have been so incentivized through economic prosperity to allow these industries to grow, that they have shown no real intention of slowing them down. In 2018, when the new Formosa complex in St. James was first announced — which was expected to be the largest plastic production facility in the world — Governor John Bel Edwards described it as a "bridge into a brighter economic future for Louisiana." In order to maintain this status quo, state and local officials had constructed a public image that the chemical industry in Louisiana

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¹³⁵ "Louisiana Process Industries: Strong History. Vibrant Future," *Louisiana Economic Quarterly*, 2016, https://www.opportunitylouisiana.gov/eq/q2-2016/louisiana-process-industries#:~:text=Collectively%2C%20the%20state's%20refineries%2C%20chemical.to%20current%20U.S.

 $industries\#: \sim : text = Collectively \% 2C\% 20 the \% 20 state's \% 20 refineries \% 2C\% 20 chemical, to \% 20 current \% 20 U.S.\% 20 census \% 20 data.$

¹³⁶ Louisiana Chemical Association, "The Economic Impact of the Chemical Industry on the Louisiana Economy: An Update," April 2018, https://lca.org/aws/LCA/asset_manager/get_file/542037?ver=1.

¹³⁷ Lisa Friedman, "In 'Cancer Alley,' Judge Blocks Huge Petrochemical Plant," *The New York Times*, September 15, 2022, https://www.nytimes.com/2022/09/15/climate/louisiana-judge-blocks-formosa-plant.html; "Formosa Selects St. James Parish for \$9.4 Billion Louisiana Project," Louisiana Office of the Governor, April 23, 2018, https://gov.louisiana.gov/news/sunshine-project.

has more positive than negative consequences. To do so, they employ a strategy of denial, where they attack the causes, uniqueness, evidence, and consequences that community members have pointed to as reasons why the chemical industry is so harmful and should be stopped.

Denying the Causes

One of the earliest arguments that government officials presented in defense of the chemical industries in Louisiana was that the health issues that Cancer Alley residents were experiencing could be attributed to other causes. This narrative contributes to harmful racial stereotypes. The earliest evidence of Cancer Alley residents protesting the chemical industry was in 1987. 138 In that year, a pharmacist from St. Gabriel parish — part of the Baton Rouge metropolitan area — named Kay Gaudet announced that she had been studying chemical deposits from the air since 1986, after she noticed a spike in miscarriages among women in her neighborhood — 63 women, to be exact. The numbers produced in her study translated to a onein-three chance of miscarriages in her neighborhood since 1983. Considering the boom of chemical industry growth in Cancer Alley since Governor McKeithen's tax exemption implementation, Gaudet and her neighbors concluded that there was a correlation between the chemicals being emitted by the plants and side effects that could potentially cause miscarriages. 139 This study was likely one of the factors that contributed to the community giving Cancer Alley its name in 1987, which sparked an influx of government-commissioned studies and reports that sought to counter the arguments that Gaudet and others presented.

Many of these reports were published in the few years following the community's outcry in 1987. In 1989, a Louisiana Chemical Association (LCA) spokesperson questioned that study

¹³⁸ Lisa Martin, "St. Bernard residents blame pollution for cancer," *Times-Picayune*, April 11, 1987

¹³⁹ David Maraniss and Michael Weisskopf, "Jobs and Illness in Petrochemical Corridor; In Louisiana, Pollution Is Familiar but Pattern of Disease Is New," *Washington Post*, December 22, 1987.

by arguing that there was no way to know if the increase in miscarriages that Gaudet had observed was a result of the pollution from the plants or, rather, a result of too much sex. ¹⁴⁰ This kind of statement is especially harmful coming from an official spokesperson. Someone with an official title will automatically generate more credibility in the public eye and, therefore, be more likely to be believed. Historically, Black people have been hyper-sexualized in public discourse. In the days of slavery, the Jezebel stereotype — one that suggested that Black people, especially Black women, were naturally sexually promiscuous — was used by slave owners to justify the sexual abuse and exploitation of African American female slaves. ¹⁴¹ This narrative was continually pushed during the 20th century — one famous example is the 1915 film, *Birth of a Nation*, which was the first film ever to be shown at the White House. Later, during the Jim Crow era, this stereotype continued to fuel white fear of Black integration. Political leaders conjured images of demonic Black men who were "out to get" white women. The desperation to protect the purity and innocence of white women served to stoke racial anxieties and strengthen justifications for segregation. ¹⁴²

The LCA has been notoriously involved in campaigns to diminish the concerns of Cancer Alley residents. Another report they published in 1989, commissioned by the Scientific Advisory Council, was an independent investigation "to critically review the existing cancer epidemiology literature in Louisiana and synthesize this information by type of study and by the location of cancer in the body." The individuals who conducted the report came from a variety of fields, including doctors, toxicologists, and industrial hygienists. The LCA reported that "several"

¹⁴⁰ J. Michael Kennedy, "'Chemical Corridor' By 'Old Man River,' New Health Fear," *Los Angeles Times*, May 9, 1989, 2.

¹⁴¹ Deborah G. White, *Ar'n't I A Woman?: Female Slaves in the Plantation South* (New York: W.W. Norton, 1999), 61; Ferris State University, "The Jezebel Stereotype," last updated 2012, https://www.ferris.edu/HTMLS/news/jimcrow/jezebel/index.htm.

¹⁴² See Appendix F.

investigations [indicating] that certain types of cancer are high in Louisiana, particularly in South Louisiana," were what prompted the report. 143 The report ultimately suggested that there were a number of alternative causes of health issues in Cancer Alley, and the air and water pollution produced by petrochemical plants were not listed. Instead, they cited "that smoking is the most important contributor to lung cancer in Louisiana. Diet was also identified as a lung cancer risk factor although the impact is much smaller than smoking. Exposure to asbestos in the cement, shipbuilding and related industries has been shown to be a significant occupational risk factor for lung cancer. Sugarcane farming was also an occupational lung cancer risk." 144

Much of the findings of the report were problematic. First, its writers never specified their methodology. For example, they stated that smoking was "the most important contributor" to lung cancer, but it was unclear how they came to that conclusion. The report offered no citations, no statistics, and no hard evidence. The only element that gave the report any type of credibility was its repeated reminders that credible people had contributed to it (doctors, hygienists, and other science professionals). Additionally, the report concluded by arguing that the authors had found that cancer rates among white citizens in Louisiana were either lower than or on par with cancer rates of the same type in the United States overall. This conclusion overlooked two important elements. First, it never mentioned that the inequalities of America's highly-racialized healthcare system were taken into account. Second, choosing to examine the state of Louisiana as a whole rather than at Cancer Alley specifically ignored the fact that nearly half of the chemical plants located across Louisiana were concentrated in Cancer Alley. 145

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¹⁴³ Louisiana Chemical Association, "A Review of Cancer Epidemiology in Louisiana," June 1, 1989, p.3, https://cdn.toxicdocs.org/DM/DMB85JrkGn84LzkGERk8amXMO/DMB85JrkGn84LzkGERk8amXMO.pdf.

¹⁴⁴ Louisiana Chemical Association, "A Review of Cancer Epidemiology in Louisiana," p.4.

¹⁴⁵ "Louisiana Process Industries: Strong History. Vibrant Future," *Louisiana Economic Quarterly*, 2016, https://www.opportunitylouisiana.gov/eq/q2-2016/louisiana-process-industries#:~:text=Collectively%2C%20the%20state's%20refineries%2C%20chemical,to%20current%20U.S.%20C

The report's failure to consider racial health inequalities in America, both in its healthcare system and its food availability, was a major oversight. As previously mentioned, America's healthcare system has a discrepancy between white and Black physicians, which may make it difficult for some Black people to feel comfortable seeking healthcare. When it comes to diets in Black communities, there have been plenty of studies about the existence of food deserts and their prevalence in Black neighborhoods. In 2014, a study published by Johns Hopkins University found that "as neighborhood poverty increased, supermarket availability decreased and grocery and convenience stores increased, regardless of race/ethnicity. At equal levels of poverty, black census tracts had the fewest supermarkets, [and] white tracts had the most." 146 Due to the severe underfunding that already exists in Black neighborhoods because of redlining and segregation, Black neighborhoods are naturally more predisposed to experiencing food deserts. 147 Scholars have discussed various other terms that can be used to explain this phenomenon — food apartheid or food mirage, to name a few — but ultimately they all indicate the same disadvantage that many Black communities face in access to equitable health care.

Additionally, the report's tendency to generalize statistics by evaluating cancer rates in the state of Louisiana, rather than just in Cancer Alley, was another downfall. A majority of the petrochemical plants in Louisiana were concentrated within the 85 miles that make up Cancer Alley, which means that most of the chemicals released into the air were concentrated in those communities. By focusing on all of Louisiana, parishes that had no chemical plants located nearby were calculated into the LCA's reports, which meant they were able to balance out any abnormally high numbers from the parishes in Cancer Alley. The report used specific language

¹⁴⁶ Kelly M. Bower, Roland J. Thorpe, Jr., Charles Rohde, and Darrell J. Gaskin, "The Intersection of Neighborhood Racial Segregation, Poverty, and Urbanicity and its Impact on Food Store Availability in the United States," *Preventive Medicine* 58, (2014): 33.

¹⁴⁷ See Appendix G.

to suggest that complaints were arising from all of Louisiana — referring to the investigations of high cancer rates "in Louisiana" — which would have justified a state-wide study, but in reality much of the public complaints came specifically from Cancer Alley residents.

Among all of this vague evidence and generalized language, LCA officials once again contributed to harmful racial stereotypes. Despite the seemingly qualified committee of researchers that worked on the report, they still failed to consider the historical structures that contribute to racial inequalities in two areas: types of diet and types of work. Historically, a higher percentage of white people have worked in white-collar jobs, such as office jobs, while a higher percentage of Black people have worked in blue-collar jobs, such as the ones that the LCA report listed. Apart from sugarcane farming, the LCA mentioned "cement, shipbuilding and related industries" as being contributors to lung cancer. What the LCA did not mention, however, is that "related industries" could include work in petrochemical plants since they are all factory or plant jobs. And, in fact, it likely does, since Louisiana's economic development has historically pushed Black people into those types of jobs and exploited their labor.

Even if all of the health issues that Black people in Cancer Alley experienced were solely due to the other causes that the LCA pointed out, they were still the result of political and social constructions that disenfranchised Black communities. And, if these causes did disproportionately impact Black communities, then that would have only exacerbated the effects of pollution levels in these places. But the LCA's report did not even suggest this. Instead, they shifted the blame entirely onto the victims themselves and, as mentioned before, their status as official spokespeople of a professional organization automatically granted them more credibility in the public eye. Additionally, even if the LCA's claims that there was no evidence linking the pollution to specific health issues, that did not mean that there was no potential for it to become

harmful. After the LCA published its report, the *Los Angeles Times* published an article about Cancer Alley, in which the author mentioned that there was still evidence that the chemicals being produced in the plants were harmful. ¹⁴⁸ So, even if the LCA denied that there were links between pollution and deteriorating health in 1989, there was no way for them to say assuredly that the link could never develop.

Denying the Uniqueness

While protests in Black communities did not necessarily increase as a result of the LCA report, they did continue at a steady rate. Community members were joining and creating environmental groups in large numbers, and a group of chemical company employees even went on strike and constructed a billboard along a Baton Rouge highway labeling it the "Gateway to Cancer Alley."¹⁴⁹ The overgeneralization that the LCA used in their report became another popular argument upheld by industry stakeholders. In addition to, or sometimes instead of, denying the causes of poor health in Cancer Alley, some officials argued that the health risks that the pollution causes were not unique to Cancer Alley. Some even went as far as to argue that the cancer rates in Cancer Alley were not elevated at all, usually by referencing the fact that the gap between state versus national rates has been slowly decreasing over the years. ¹⁵⁰ The main issue with this type of argument is that it is often based on overgeneralized evidence.

As mentioned previously, the LCA report also touched on this briefly. The results published indicated that "residential proximity to industries in Louisiana was not found to be associated with any significant cancer risk" and that Louisiana's cancer rates were comparable to

¹⁴⁸ Kennedy, "'Chemical Corridor' By 'Old Man River,' New Health Fear," 2.

¹⁴⁹ Ibid., 2.

¹⁵⁰ Louisiana Legislative Auditor, "Monitoring and Enforcement of Air Quality," Department of Environmental Quality, January 20, 2021, p. 5,

https://app.lla.state.la.us/PublicReports.nsf/0/4F3372ABDDF0F271862586630067C25D/%24FILE/00022660A.pdf? OpenElement&.7773098.

that of the rest of the United States.¹⁵¹ This study attempted to discredit residents by obfuscating the reality of the racial disparity in Cancer Alley. Another example comes from a study published in 1993, which claimed that cancer rates among white Louisianians were actually higher than that of Black Louisianians.¹⁵² However, this study was based on old data that may not have been an accurate reflection of the chemical industry's health impacts.

The study was conducted by an Associate Professor at the Louisiana State University Medical Center. According to an article published by *Chemical Week* about the study, it had been based on "data [that was] at least five years old... because the tumor registry is 'chronically underfunded.'" That means that the data the study was based on was from 1986, which was only sixteen years after the EPA had begun allowing plants to incinerate their chemicals. ¹⁵³ This was only five years after many residents in Cancer Alley had begun to notice their symptoms, and still three years before they would even name their community "Cancer Alley." Because this data came from such an early time in the development of the pollution's side effects, it is possible that the side effects of pollution had not yet been fully realized. Thus, its findings may have been skewed as a result. If the study had been conducted using more recent data, perhaps the results would have been different.

Individuals also contributed to the argument that Cancer Alley was not unique. Willie Fontenot worked as the Environmental Specialist in the Citizen's Access Unit of the Attorney General's Office for twenty-seven years. In 1989, he was interviewed on *Folks* alongside Tim Hardy, an Attorney and Assistant Secretary in the Office of Solid and Hazardous Waste in the

¹⁵¹ Louisiana Chemical Association, "A Review of Cancer Epidemiology in Louisiana," p.4.

¹⁵² Elisabeth Kirschner, "Louisiana Is No 'Cancer Alley," *Chemical Weekly* 152, no. 23 (June 1993): 21.

¹⁵³ United States Environmental Protection Agency, "Recommended Procedures for the Disposal of PCB-Containing Wastes (Industrial Facilities)," December 22, 1975, p. 7.

https://cdn.toxicdocs.org/yr/yr0naj9o9yyg3n028gmLZ38v6/yr0naj9o9yyg3n028gmLZ38v6.pdf.

Department of Environmental Quality about the effects of petrochemical pollution. When asked if the situation in Cancer Alley was unique, Fontenot said that it was not, but that it only seemed that way because community activism in the area was more active than in other areas. He also remarked that Cancer Alley's activist groups could be more effective, but the residents did not have the proper legal or media training to effectively engage with the groups that they need to. He said that most of these activists "have never been involved with city hall or the legislature, [and] don't know who their elected officials are." Hardy compared the situation in Cancer Alley to a witch hunt, stating that while the DEQ was committed to enforcing new regulations, he thought some of the reactions in the community were harsh. This type of victim-blaming is another common rhetorical tactic employed by chemical plant stakeholders.

The uniqueness argument is not technically false. Depending on the area that it is compared to, Cancer Alley does stack up to other cities that suffer from excessive industrial pollution. Take Houston, Texas, for example. Like in Cancer Alley, studies conducted in Houston have indicated that there is an elevated cancer risk among Houston residents. ¹⁵⁶ In both places, the excess lifetime cancer risk among residents is up to fifty times the EPA's acceptable risk. ¹⁵⁷ In Houston, most of the petrochemical plants are located near largely Hispanic neighborhoods as well as some near Black neighborhoods. However, the main issue with the uniqueness argument is not that it is totally untrue. Rather, it is because it is often used as a tool to divert attention away from the voices of Black activists in Cancer Alley. Other cities are important in this conversation, too, but that does not take away from the fact that what has been

¹⁵⁴ Folks, "Toxic Pollution," 18:30.

¹⁵⁵ Ibid., 17:15.

¹⁵⁶ Texas Department of State Health Services, "Assessment of the Occurrence of Cancer East Harris County, Texas 1995-2012," June 19, 2015, http://s3.documentcloud.org/documents/2107698/assessment-finds-elevated-cancer-rates-in-parts.pdf.

¹⁵⁷ Al Shaw, and Lylla Younes, "The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S.," *ProPublica*, November 2, 2021, https://projects.propublica.org/toxmap/.

happening in Cancer Alley is also important. By refusing to acknowledge the severity of the issue in Cancer Alley because "it is not unique," government officials and organizations continue to undermine the experiences of victims.

Denying the Evidence

The final argument perpetuated by government officials and organizations in defense of petrochemical companies is denying the evidence. Usually, this has happened when officials or representatives were directly confronted about the pollution levels in Cancer Alley. Rather than outrightly denying the existence or uniqueness of the situation, they instead suggested that the evidence presented was not reliable enough to be certain about the severity of the situation. Once again, in these arguments, officials ignored the historical structures that made Black communities more vulnerable to the harsh effects of pollution and they continued to tip the scale in favor of the "credible" government and plant officials over the "mistaken" residents and victims.

Environmental regulators have long denied the claims of a racial bias in the petrochemical industry. The LCA studies mentioned earlier are evidence of this, as they drew attention to high rates of cancer among white people or nationwide in an attempt to divert attention away from what was happening in Cancer Alley. Regulators in Louisiana have maintained that the decisions to build chemical plants along the Mississippi River have not been discriminatory. In a more recent example, a spokesperson for Denka — a chemical plant located in St. John the Baptist Parish — said in 2021 that the issues that residents complained about "simply [do] not exist." Additionally, the Louisiana Department of Environmental Quality (LDEQ) told the EPA in 2022 that the decisions have been based solely on the fact that

¹⁵⁸ Michael Phillis, "Civil rights law targets 'cancer alley' discrimination," *AP News*, September 26, 2022, https://apnews.com/article/louisiana-discrimination-race-and-ethnicity-racial-injustice-fafd08c5dbbda68250b916709dc18ef9.

"companies want to locate in the region because key infrastructure already exists [t]here." ¹⁵⁹ That same year — despite having known about the high levels of carcinogenic chemicals being released into the air in Cancer Alley (particularly chloroprene) since 2015 — the EPA announced that it would be officially opening a civil rights investigation into the allegations of industrial overpollution in Cancer Alley. However, residents remained skeptical that anything would change. Angelo Bernard, a resident of Reserve, Louisiana, said, "If this was California, maybe they would shut it down. But this is Louisiana – no way." ¹⁶⁰

In October 2022, the EPA published a summary of its investigation into LDEQ. ¹⁶¹ Their goal was "to assess whether LDEQ's methods of administrating its air permitting program and LDH's actions/inactions related to its duty to inform and make recommendations to the public about prevention and reduction of health threats and air toxics exposures, have an adverse disparate impact on the basis of race." They concluded that "Louisiana residents who identify as Black and are living and/or attending school near the Denka facility have been subjected to adverse and disparate health impacts as a result of LDEQ's decisions." ¹⁶² Now, an official EPA report had contradicted everything that local government and stakeholders had said for years.

Although the LDEQ has not released any official response or any plans to make changes to its regulation policies as a result of the EPA report, it is likely that they will not go down without a fight. After the EPA published its 2010 report announcing that chloroprene was a likely carcinogen, stakeholders and officials at Denka began pushing back hard. Jorge Lavastida,

¹⁵⁹ Phillis, "Civil rights law targets 'cancer alley' discrimination."

¹⁶⁰ Ibid.

¹⁶¹ "LaPlace, Louisiana – Background Information," United States Environmental Protection Agency, updated January 23, 2023, https://www.epa.gov/la/laplace-louisiana-background-information.

¹⁶² Letter of Concern," United States Environmental Protection Agency, October 12, 2022, https://www.epa.gov/system/files/documents/2022-

^{10/2022%2010%2012%20} Final%20 Letter%20 LDEQ%20 LDH%2001 R-22-R6%2 C%2002 R-22-R6%2 C%2004 R-22-R6.pdf.

an executive officer and manager at Denka, was adamant that the EPA was wrong and chloroprene was not actually a carcinogen as they had claimed. "We have looked at the study they did with NATA and how they came up with that .2 [chloroprene limit], and we have found gaps in the science of it," he said in an interview. ¹⁶³ The company even requested that the EPA change chloroprene's classification from "likely a carcinogen" to "possibly a carcinogen," and that they change the allowed 0.2 micrograms per cubic meter limit for emitting the chemical to 31.2 micrograms per cubic meter. ¹⁶⁴ The secretary of the Louisiana Department of Environmental Quality supported this decision, saying, "We've got a protocol in place that our data shows us there is no imminent threat." ¹⁶⁵ But there was no explanation of what that protocol was, how it functioned, or where their data came from.

Denying the Consequences

Regardless of the argument — denying the causes, uniqueness, or evidence — eventually, they all point to the same overarching argument: denying the consequences. A consequence denial argument usually includes three points. First, indicating that the benefits of having chemical industries in Cancer Alley outweigh the consequences. Second, arguing that the panic over chemical pollution in Cancer Alley is blown out of proportion. Finally, adding that these industries provide great economic opportunity for the state of Louisiana. Both the LCA and the Office of the Governor have made statements about the tremendous economic growth that these chemical companies produce, as well as the job opportunities they create. ¹⁶⁶

¹⁶³ CNN, "Toxic Tensions in the Heart of 'Cancer Alley'," 4:50.

¹⁶⁴ Ibid., 5:00.

¹⁶⁵ Ibid., 5:30.

¹⁶⁶ Loren Scott, "The Economic Impact of the Chemical Industry on Louisiana's Economy," Louisiana Chemical Association, accessed February 22, 2023, https://www.lca.org/aws/LCA/asset_manager/get_file/542008?ver=1; Office of the Governor, "Gov. Edwards, Origin Materials Announce \$750 Million Sustainable Materials Facility in Ascension Parish," February 16, 2022, https://gov.louisiana.gov/index.cfm/newsroom/detail/3564.

Members of some counter-activism groups — right-wing organizations aiming to dismantle beliefs in climate change and the harm of pollution — have complained about the "exaggerated" response to chemical pollution. In 2019, Sharon Galicia, a white insurance broker and Republican activist in Cancer Alley, gave a brief interview where she indicated that she was more concerned about the government's interference in the lives of citizens than she was about the potential side effects of industrial pollution. "Thirty cars came to take a picture of a little diesel spill," she lamented, "I just think there's too many people, too many bureaucrats." She compared the issue to another controversial topic: the gun debate. She stated that once the government became involved in one thing, they would become involved in everything and she did not want them taking her guns. Therefore, the government needed to stay out completely. ¹⁶⁸

In 2018, Formosa Plastics entered a contract for a \$9.4 billion chemical manufacturing complex on 2,400 acres along the Mississippi River. Although residents of St. James Parish, where the plant was meant to be built, were successful in pausing the construction in 2019, that is not the story that the state of Louisiana is publicizing. ¹⁶⁹ Governor John Bel Edwards has hailed the complex as an opportunity for "tremendous industrial growth and thousands of new jobs along both sides of the Mississippi River in Louisiana." Additionally, the Louisiana state government offered Formosa a \$12 million grant along with the ability to utilize the state's Industrial Tax Exemption program. ¹⁷⁰ However, historically, it has been proven that these companies do not actually bring jobs to residents — and the residents know it. Richmond Barrow

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¹⁶⁷ PBS NewsHour, "Why Louisianans blame government, not corporations, for pollution problems," March 21, 2019, 7:50, https://www.youtube.com/watch?v=v4qQWoDCsEA.

¹⁶⁸ Folks, "Toxic Pollution," 6:00.

¹⁶⁹ Center for Constitutional Rights, Letter to Louisiana Department of Environmental Quality, written December 18, 2019,

https://ccrjustice.org/sites/default/files/attach/2019/12/RISE%20St.%20James%20DEQ%20Comments%20Dec.%2018%20%20w%20attachments.pdf.

¹⁷⁰ "Formosa Selects St. James Parish for \$9.4 Billion Louisiana Project," Office of the Governor, published April 23, 2018, https://gov.louisiana.gov/news/sunshine-project.

worked in a chemical plant for seven years and said that he knew firsthand that the chemicals were extremely dangerous to human health.¹⁷¹ Two available studies, from 1995 and 1997, show that petrochemical plants in St. Gabriel Parish employed only 9 percent of locals, while plants in St. Bernard Parish employed anywhere between 4.2 and 19.4 percent.¹⁷²

While, on the higher end of that scale, these plants might employ a decent number of local employees, ultimately the residents have made it clear that those jobs are not worth the destruction of their homes and bodies. Long-time St. John the Baptist Parish resident Geraldine Watkins said in a 2017 interview, "I don't want anybody to lose their job, but we can no longer live in these emissions." State and industry officials constantly try to rationalize the risk of having so many petrochemical plants in one place by portraying an image to the public of economic success. However, by ignoring the complaints and experiences of residents who are living on the front lines of these environmental justice issues, they are only furthering the destruction and disenfranchisement of Black communities.

This process of lying and denying is how they have gotten away with it for so long. Melvin "Kip" Holden, mayor of Baton Rouge from 2005 to 2016, said in 1989, "Right now there are a lot of people who have indicated a concern with the environment, but that has to be translated... into more of a public outcry... If we do not get that kind of outcry from the public, then when it comes to the legislature, it'll be a matter of status quo." ¹⁷⁴ It cannot be just the victims themselves who speak out about these issues. Those who are unaffected must join them if there is to be any real change.

¹⁷¹ Folks, "Toxic Pollution," 9:45.

¹⁷² Baurick, "Welcome to 'Cancer Alley,' Where Toxic Air is About to Get Worse;" Gregory R. Berry, "Organizing Against Multinational Corporate Power in Cancer Alley: The Activist Community as Primary Stakeholder," *Organization & Environment* 16, no. 1 (March 2003): 14.

¹⁷³ CNN, "Toxic Tensions in the Heart of 'Cancer Alley'," 6:03.

¹⁷⁴ Folks, "Toxic Pollution," 10:25.

CONCLUSION

Since the turn of the century, more people have become aware of what is happening in Cancer Alley. This is perhaps due to the fact that many people are paying more attention to environmental issues and are growing more concerned about how humans might be negatively affected by the environment. Especially within the last decade, a lot of people have developed a new sense of urgency regarding environmental issues and climate change. A Gallup poll conducted in 2017 reported that there had been an eight percent increase in Americans who saw global warming as a concern since the year prior. More recently, a study from Pew Research Center in 2021 found that there had been between a six and nineteen percent increase in climate change concerns from people across seven countries since 2015. Many of the interviews, reports, and web publications cited in this thesis were published within the last decade, reflecting this increased public attention to environmental issues across the globe.

Yet, the citizens of Cancer Alley are still struggling to be heard. While their plight has entered more into public knowledge in recent years, this thesis has shown that there have been really no significant changes to the conditions of Cancer Alley. As mentioned before, these residents cannot and should not be expected to fight this battle alone. This has been proven in other places as well. Take Flint, Michigan, for example. After the city's water crisis in 2016, Flint became a household name. Activists were able to bring attention to the water crisis on social media, which helped the news spread quickly. Although public outcry about Flint did not solve all of its problems in a timely manner — the city was still on a boil water advisory as of

¹⁷⁵ Lydia Saad, "Global Warming Concern at Three-Decade High in U.S.," *Gallup*, March 14, 2017, https://news.gallup.com/poll/206030/global-warming-concern-three-decade-high.aspx.

¹⁷⁶ James Bell et al., "In Response to Climate Change, Citizens in Advanced Economies are Willing to Alter How They Live and Work," *Pew Research Center*, September 14, 2021,

https://www.pewresearch.org/global/2021/09/14/in-response-to-climate-change-citizens-in-advanced-economies-are-willing-to-alter-how-they-live-and-work/.

February 2023 — it did help in creating plans for change. Flint's officials are replacing the city's residential water pipes. Although this is an expensive endeavor, costing the city nearly one billion dollars, residents at least know that they will have clean water by the project's completion in August 2023.¹⁷⁷

Conversely, Cancer Alley's officials have not set into motion any plans to improve its citizens' living conditions. However, the residents are still making progress toward changing that. In March 2023, residents of St. James parish filed a federal lawsuit against parish officials, claiming that they "intentionally directed industry toward Black residents and away from white residents." Additionally, the lawsuit is calling for a permanent moratorium on chemical plants. Multiple environmental groups in Louisiana filed this lawsuit, including RISE St. James. One representative from RISE said, "Over and over, the St. James Parish Council has ignored us and dismissed our cries for basic human rights. We will not be ignored. We will not sacrifice our lives."

The lawsuit has been hailed for its ambition and approach. According to the Center for Constitutional Rights and the Tulane University Environmental Law Clinic, which are both counsels for the plaintiffs, "the parish's land use system violates the Thirteenth Amendment as a vestige of slavery as well as the Fourteenth Amendment's Equal Protection Clause, which bars discrimination." In this way, this new lawsuit is the first to use Civil Rights statutes and Constitutional provisions to challenge environmental practices. Other lawsuits in the past have addressed individual local land-use practices, but this lawsuit is for the first time challenging the

¹⁷⁷ "Progress Report on Flint Water," City of Flint, Michigan, accessed April 11, 2023, https://www.cityofflint.com/progress-report-on-flint-water/.

¹⁷⁸ James Bruggers, "Citing 'Racial Cleansing,' Louisiana 'Cancer Alley' Residents Sue Over Zoning," *Inside Climate News*, March 21, 2023, https://insideclimatenews.org/news/21032023/louisiana-cancer-alley-lawsuitzoning/?utm_source=InsideClimate+News&utm_campaign=412ea9c3c9-

 $EMAIL_CAMPAIGN_2023_03_25_04_00\&utm_medium = email\&utm_term = 0_29c928ffb5-412ea9c3c9-328540784.$

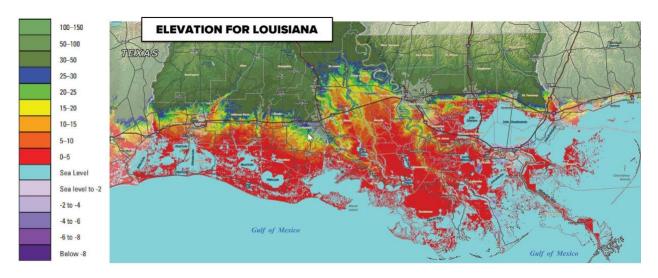
entire history of land-use practices in Louisiana, arguing that these have been intentional, racially-motivated processes.¹⁷⁹

Legal experts have admitted that proving intent will not be an easy feat, but they are doing everything they can to trace decisions that the parish officials have made. Some of the evidence that the legal team working on this lawsuit have already brought up include the same evidence presented in this thesis, such as buffer zones. Regardless, the community is hopeful that the lawsuit will be successful in enacting some kind of long-lasting change. At the very least, they hope that it will inspire other lawsuits of a similar nature. But, again, significant progress will be difficult to achieve without outside intervention.

St. James' notable lawsuit is in large part due to the help of places like the Center for Constitutional Rights, which is based in New York. Without their help, a lawsuit of this nature may have never existed. This is not to say that Cancer Alley's residents are incapable of producing change or bringing attention to their own communities. However, they have been leading this charge since the 1970s, and still nothing has been done. Often, national outrage is the only way to ensure capturing the government's attention and enacting change. Outsiders should not take over the Cancer Alley movement — it should continue to be led by those who have lived in the front lines of these experiences for generations. What should happen, though, is that outside communities should educate themselves about Cancer Alley's situation, elevate those stories, and assist community members where it is needed. Educate, elevate, and assist: three steps to advocating for others. Hopefully, this thesis has contributed to those steps in some way.

¹⁷⁹ Bruggers, "Citing 'Racial Cleansing,' Louisiana 'Cancer Alley' Residents Sue Over Zoning."
¹⁸⁰ Ibid.

Appendices



Appendix A: Louisiana Coast Elevation

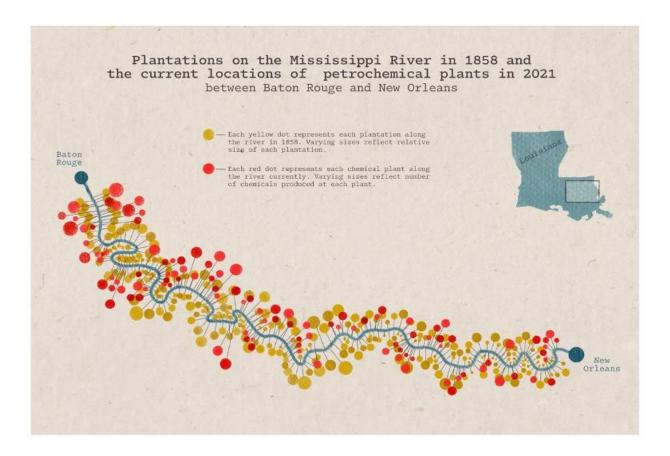
A map showing the elevation levels of the coast of Louisiana.

https://sites.law.lsu.edu/coast/2015/02/topographic-map-showing-louisiana-risks-from-sea-level-rise/.



Appendix B: Fifth Ward Elementary School

Fifth Ward Elementary School in St. John the Baptist Parish is less than half a mile away from the Denka chemical plants, which produces synthetic rubber. The production of this product emits chloroprene, a known carcinogen. https://apnews.com/article/louisiana-discrimination-race-and-ethnicity-racial-injustice-fafd08c5dbbda68250b916709dc18ef9.



Appendix C: Plantations Versus Plants

Locations of plantations along the Mississippi River in 1858 (yellow) versus locations of chemical plants along the Mississippi River today (red).

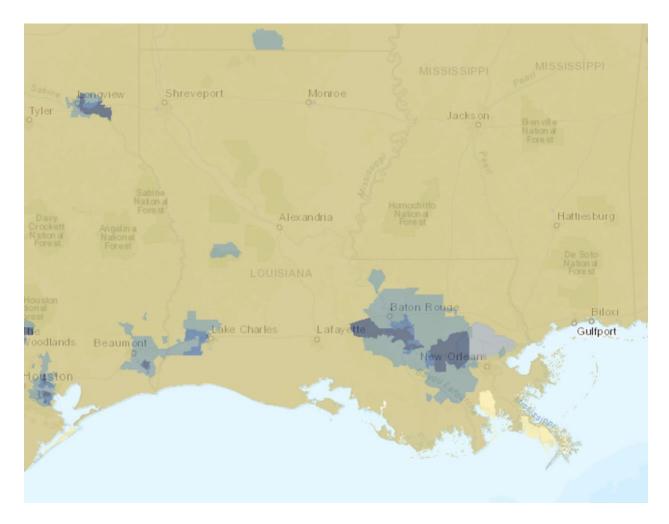
https://www.theatlantic.com/culture/archive/2021/05/louisiana-chemical-plants-thriving-off-slavery/618769/.



Appendix D: Reserve Cemetery

This cemetery (center) is the last remaining piece of a neighborhood in Reserve, Louisiana. It is surrounded on all sides by land owned by petrochemical companies, and anyone who wishes to visit it must do so from across the street.

https://www.youtube.com/watch?v=ZB8CbDG7gpk.



Appendix E: EPA National Air Toxics Assessment Emissions Monitoring

This map shows the level of cancer risk based on the EPA's National Air Toxics Assessment Emissions Monitoring. The darker the color, the higher the risk of cancer. The lightest color indicates a cancer risk level of 6-25 per one million people, while the darkest color indicates a cancer risk level of over 100 per one million people.

https://gispub.epa.gov/NATA/

The News and Observer.

VOL. XLV. NO. 17.

RALEIGH, N. C., FUESDAY MORNING, SEPTEMBER 27, 1898.

PRICE FIVE GENTS.

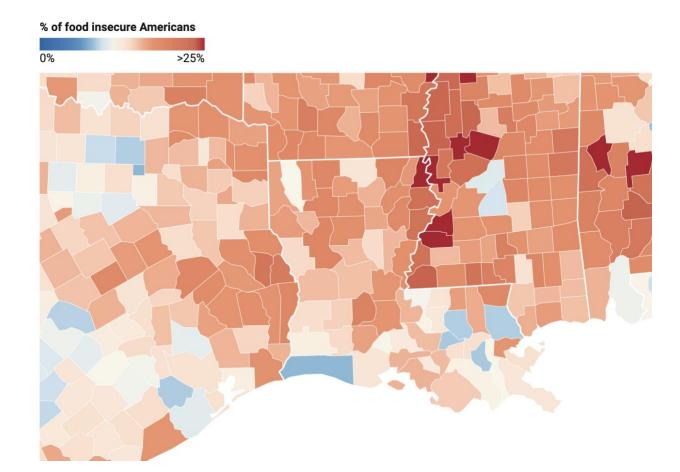
LEADS ALL NORTH CAROLINA DAILIES IN NEWS AND CIRCULATION.



The Vampire That Hovers Over Morth Carolina.

Appendix F: Raleigh News and Observer Cartoon

This cartoon, run in the *Raleigh News and Observer*, depicts a demonized image of a Black man and the threat of "Negro Rule." The man can be seen reaching for a crowd of white people, mainly white women, enforcing the stereotype that Black men are "out to get" white women. https://ibw21.org/editors-choice/american-pogrom-1898-massacre-of-black-voters-wilmington-nc/attachment/negro-rule-nc-newspapper-september-27-1898-910x760/



Appendix G: Food Insecurity in Louisiana

This map shows the percentage of food-insecure Americans by county/parish. In the state of Louisiana, almost every parish is significantly food insecure. socialpolicylab.org/post/grow-your-blog-community

Bibliography

Introduction

Books:

- Allosso, Dan. *American Environmental History*. Minnesota: Minnesota Libraries Publishing Project, 2019.
- Anderson, Carol. *White Rage: The Unspoken Truth of Our Racial Divide*. New York: Bloomsbury Publishing, 2016.
- Barton, Craig Evan, ed. *Sites of Memory: Perspectives on Architecture and Race*. New York: Princeton Architectural Press, 2001.
- Bullard, Robert D. *Dumping in Dixie: Race, Class, and Environmental Quality*. Boulder: Westview Press, 2000.
- ——. *Invisible Houston: The Black Experience in Boom and Bust.* College Station: Texas A & M University Press, 1987.
- Bullard, Robert D., and Beverly Wright. Race, Place, and Environmental Justice after Hurricane Katrina: Struggles to Reclaim, Rebuild, and Revitalize New Orleans and the Gulf Coast. New York: Routledge, 2009.
- ———, eds. The Wrong Complexion for Protection: How the Government Response to Disaster Endangers African American Communities. New York: New York University Press, 2012.
- Bullard, Robert D., ed. *The Quest for Environmental Justice: Human Rights and the Politics of Pollution.* San Francisco: Sierra Club Books, 2005.
- ———, ed. *Unequal Protection: Environmental Justice and Communities of Color*. San Francisco: Sierra Club Books, 1994.
- Cobb, James C. *The South and America Since World War II*. New York: Oxford University Press, 2012.
- Connerton, Paul. *How Societies Remember*. Cambridge [England]: Cambridge University Press, 1989.
- Davis, Mike. Planet of Slums. London: Verso, 2007.
- Davis, Patricia G. *Laying Claim: African American Cultural Memory and Southern Identity*. Tuscaloosa: The University of Alabama Press, 2016.

- De Jong, Greta. *A Different Day: African American Struggles for Justice in Rural Louisiana,* 1900-1970. Chapel Hill: The University of North Carolina Press, 2002.
- Diener, Alexander C., and Joshua Hagen, eds. *The City as Power: Urban Space, Place, and National Identity*. Lanham: Rowman & Littlefield, 2019.
- Dunbar-Ortiz, Roxanne. Not "A Nation of Immigrants": Settler Colonialism, White Supremacy, and A History of Erasure and Exclusion. Boston: Beacon Press, 2021.
- Erll, Astrid, ed. *Cultural Memory Studies: An International and Interdisciplinary Handbook.*Berlin: De Gruyter, 2008.
- Fairclough, Adam. *Race & Democracy: The Civil Rights Struggle in Louisiana*, 1915-1972. Athens: University of Georgia Press, 1995.
- Feld, Steven, and Keith H. Basso, eds. *Senses of Place*. Santa Fe: University of Washington Press, 1996.
- Fiege, Mark. *The Republic of Nature: An Environmental History of the United States*. Seattle: University of Washington Press, 2012.
- Fischer, Roger A. *The Segregation Struggle in Louisiana*, 1862-77. Chicago: University of Illinois Press, 1974.
- Frankland, Peggy, and Susan Tucker. *Women Pioneers of the Louisiana Environmental Movement*. Jackson: University Press of Mississippi, 2013.
- Frystak, Shannon. *Our Minds on Freedom: Women and the Struggle for Black Equality in Louisiana*, 1924-1967. Baton Rouge: Louisiana State University Press, 2009.
- Glave, Dianne D., and Mark Stoll. *To Love the Wind and the Rain: African Americans and Environmental History*. Pittsburgh: University of Pittsburgh Press, 2006.
- Kein, Sybil. *Creole: The History and Legacy of Louisiana's Free People of Color*. Baton Rouge: Louisiana State University Press, 2000.
- Lane, Charles. The Day Freedom Died: The Colfax Massacre, the Supreme Court, and the Betrayal of Reconstruction. New York: Henry Holt and Company, 2008.
- McKittrick, Katherine. *Demonic Grounds: Black Women and the Cartographies of Struggle*. Minneapolis: University of Minnesota Press, 2006.
- McNeill, John Robert. Something New Under the Sun: An Environmental History of the Twentieth-Century World. New York: W.W. Norton & Company, 2000.

- Merchant, Carolyn. *The Columbia Guide to American Environmental History*. New York: Columbia University Press, 2005.
- Moore, Leonard N. Black Rage in New Orleans: Police Brutality and African American Activism from World War II to Hurricane Katrina. Baton Rouge: Louisiana State University Press, 2010.
- Ricoeur, Paul. *Memory, History, Forgetting*. Translated by Kathleen Blamey and David Pellauer. Chicago: University of Chicago Press, 2004.
- Robinson, Cedric J. *Black Marxism: The Making of the Black Radical Tradition*. University of North Carolina Press, 2000.
- Rodrigue, John C. Reconstruction in the Cane Fields: From Slavery to Free Labor in Louisiana's Sugar Parishes, 1862-1880. Baton Rouge: Louisiana State University Press, 2001.
- Rothstein, Richard. *The Color of Law: A Forgotten History of How Our Government Segregated America*. New York: Liveright Publishing Corporation, 2017.
- Sackman, Douglas Cazaux, ed. *A Companion to American Environmental History*. Malden: Wiley-Blackwell, 2010.
- Sartain, Lee. *Invisible Activists: Women of the Louisiana NAACP and the Struggle for Civil Rights*, 1915–1945. Baton Rouge: Louisiana State University Press, 2007.
- Spears, Ellen. Rethinking the American Environmental Movement Post-1945. Routledge, 2019.
- Sullivan, Jas M., and Jonathan Winburn. *The Louisiana Legislative Black Caucus: Race and Representation in the Pelican State*. Baton Rouge: Louisiana State University Press, 2011.
- Sullivan, Shannon. *Revealing Whiteness: The Unconscious Habits of Racial Privilege*. Bloomington: Indiana University Press, 2006.
- ——. *White Privilege*. Cambridge: Polity Press, 2019.
- Vidal, Cécile, ed. *Louisiana: Crossroads of the Atlantic World*. Philadelphia: University of Pennsylvania Press, 2014.
- Vincent, Charles. *Black Legislators in Louisiana During Reconstruction*. Carbondale: Southern Illinois University Press, 1976.
- Wolfe, Patrick. Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event. London: Cassell, 1999.

Zebrowski, Ernest, and Mariah Zebrowski Leach. *Hydrocarbon Hucksters: Lessons from Louisiana on Oil, Politics, and Environmental Justice*. Jackson: University Press of Mississippi, 2014.

Articles:

- Adams, Tracy, and Jill A. Edy. "How the Past Becomes the Past: The Temporal Positioning of Collective Memory." *The British Journal of Sociology* 72, no. 5 (2021): 1415–1429.
- Arp, William III. "A Triad of Environmental Concern: Race, Party Affiliation and Political Ideology." *The Western Journal of Black Studies* 18, no. 3 (1994): 121-131.
- ——. "Environmental Justice for Black Americans: A Question of Fairness." *The Western Journal of Black Studies* 23, no. 2 (1999): 125-131.
- Assmann, Jan, and John Czaplicka. "Collective Memory and Cultural Identity." *New German Critique* 65, no. 65 (1995): 125–133.
- Barnier, Amanda J., and John Sutton. "From Individual to Collective Memory: Theoretical and Empirical Perspectives." *Memory* 16, no. 3 (2008): 177–182.
- Frazier, Cleothia. "It's More Than Just News: Print Media, the Tuskegee Syphilis Study and Collective Memory Among African Americans." *Journal of Historical Sociology* 33, no. 3 (2020): 280–296.
- Glenn, Evelyn Nakano. "Settler Colonialism as Structure." *Sociology of Race and Ethnicity* 1, no. 1 (2015): 52-72.
- Hirsch, Arnold R. "(Almost) A Closer Walk with Thee: Historical Reflections on New Orleans and Hurricane Katrina." *Journal of Urban History* 35, no. 5 (2009): 614-626.
- Hunter, Andrea G., and Alethea Rollins. "We Made History: Collective Memory and the Legacy of the Tuskegee Airmen." *Journal of Social Issues* 71, no. 2 (2015): 264–278.
- Inwood, Joshua F. J. "Constructing African American Urban Space in Atlanta, Georgia." *The Geographical Review* 101, no. 2 (2011): 147–163.
- Kasbarian, John Antranig. "Mapping Edward Said: Geography, Identity, and the Politics of Location." *Environment and Planning* 14, no. 5 (1996): 529–557.
- Merchant, Carolyn. "Shades of Darkness: Race and Environmental History." *Environmental History* 8, no. 3 (2003): 380-394.
- Nora, Pierre. "Between Memory and History: Les Lieux de Mémoire." *Representations* 26, no. 1 (1989): 7–24.

- Porterfield, Marie K. "Economics, environment on collision path." *Indian Country Today*, May 10, 1999.
- Pulido, Laura. "Flint, Environmental Racism, and Racial Capitalism." *Capitalism Nature Socialism* 27, no. 3 (2016): 1-16.
- ——. "Rethinking Environmental Racism: White Privilege and Urban Development in Southern California." *Annals of the Association of American Geographers* 90, no. 1 (2000): 12-40.
- Schuman, Howard, and Jacqueline Scott. "Generations and Collective Memories." *American Sociological Review* 54, no. 3 (1989): 359–381.
- Taylor, Dorceta E. "Blacks and the Environment: Toward an Explanation of the Concern and Action Gap Between Blacks and Whites." *Environment and Behavior* 21, no. 2 (1989): 175-205.
- Terrell, Kimberly A., and Gianna St. Julien. "Air Pollution is Linked to Higher Cancer Rates Among Black or Impoverished Communities in Louisiana." *Environmental Research Letters* 17, no. 1 (2022): 1-15.
- Trotter, Joe W. "Hurricane Katrina: Urban History from the Eye of the Storm." *Journal of Urban History* 35, no. 5 (2009): 607-613.

Chapter One

Primary Sources

- "Air Quality and Climate Change Research." United States Environmental Protection Agency. Last updated March 30, 2022, https://www.epa.gov/air-research/air-quality-and-climate-change-research.
- Battle, Colette Pichon. "Climate change will displace millions. Here's how we prepare." TED talk presented at TEDWomen 2019.

 https://www.ted.com/talks/colette_pichon_battle_climate_change_will_displace_millions _here_s_how_we_prepare?utm_campaign=tedspread&utm_medium=referral&utm_sourc e=tedcomshare.
- Baurick, Tristan. "Welcome to 'Cancer Alley,' Where Toxic Air is About to Get Worse." *ProPublica*. October 30, 2019. https://www.propublica.org/article/welcome-to-cancer-alley-where-toxic-air-is-about-to-get-worse.
- Center for Constitutional Rights. Letter to Louisiana Department of Environmental Quality. Written December 18, 2019, https://ccrjustice.org/sites/default/files/attach/2019/12/RISE%20St.%20James%20DEQ%20Comments%20Dec.%2018%20%20w%20attachments.pdf.

- Center for Constitutional Rights, RISE St. James The Fight to Protect Burial Sites of Enslaved People, https://ccrjustice.org/home/what-we-do/our-cases/rise-st-james-fight-protect-burial-sites-enslaved-people.
- "Climate Change Indicators: U.S. and Global Temperature." United States Environmental Protection Agency. Last updated August 1, 2022, https://www.epa.gov/climate-indicators/climate-change-indicators-us-and-global-temperature#:~:text=Data%20%7C%20Technical%20Documentation-,Key%20Points,F%20per%20decade%20since%201979).
- Doherty, Carroll. "Remembering Katrina: Wide racial divide over government's response." *Pew Research Center*. Accessed November 7, 2022, https://www.pewresearch.org/fact-tank/2015/08/27/remembering-katrina-wide-racial-divide-over-governments-response/.
- "Extremely Powerful Hurricane Katrina Leaves a Historic Mark on the Northern Gulf Coast." *The National Weather Service*. Accessed November 7, 2022. https://www.weather.gov/mob/katrina.
- Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina. 109th Congress, 2nd session, 2006, Report 109-377, Part 4.
- Friedman, Lisa. "In 'Cancer Alley,' Judge Blocks Huge Petrochemical Plant." *The New York Times*, September 15, 2022. https://www.nytimes.com/2022/09/15/climate/louisiana-judge-blocks-formosa-plant.html.
- Gershon, Livia. "Hurricane Ida Damages Whitney Plantation, Only Louisiana Museum to Focus on the Enslaved." *Smithsonian Magazine*. September 3, 2021.
- Gibson, Charisse. "Whitney Plantation restoration continues, historic site reopens." *4WWL*. August 29, 2022. https://www.wwltv.com/article/weather/hurricane/whitney-plantation-restoration-continues-historic-site-could-reopen-soon-hurricane/289-8fa8acd8-94b7-47df-9728-c3cff1e7663f.
- "Global Warming and Hurricanes: An Overview of Current Research Results." United States National Oceanic and Atmospheric Administration. Last updated February 9, 2023.
- "Industrial Tax Exemption." Louisiana Economic Development. 2018. https://www.opportunitylouisiana.gov/business-incentives/industrial-tax-exemption.
- La. Const. Art. XII, §4.
- "LDH: Hurricane Ida storm-related death toll rises to 26." Louisiana Department of Health. September 8, 2021. https://ldh.la.gov/news/6308.
- "Louisiana Process Industries." Louisiana Economic Quarterly, 2016.

- "Party Identification Trends, 1992-2014." Pew Research Center. April 7, 2015. https://www.pewresearch.org/politics/2015/04/07/party-identification-trends-1992-2014/#race-and-ethnicity.
- "Plessy vs. Ferguson." Judgement. Decided May 18, 1896. Records of the Supreme Court of the United States. Record Group 267. Plessy v. Ferguson, 163, #15248. National Archives.
- Plyer, Allison. "Facts for Features: Katrina Impact." *The Data Center*. August 26, 2016. https://www.datacenterresearch.org/data-resources/katrina/facts-for-impact/.
- Pomeroy, Dan. "Dan Pomeroy HK2856K.mp3." Interview by Sarah Elizabeth Hickman. *Hurricane Digital Memory Bank*. April 21, 2006.
- "Proceedings of the National Governor's Conference 1968." *The National Governor's Conference*. 1968. https://www.nga.org/wp-content/uploads/2021/03/1968NGAAnnualMeeting.pdf.
- RISE St. James. "Juneteenth Observance." Facebook video. Published June 30, 2020. https://www.facebook.com/watch/?v=197538941622765.
- Schneider, Keith. "Louisiana's New Environmental Tool: Using Taxes to Discourage Pollution." *The New York Times*, February 27, 1991. https://timesmachine.nytimes.com/timesmachine/1991/02/27/618891.html?pageNumber= 24.
- State of Louisiana. "Amended and Restated Conditions for Participation in the Industrial Tax Exemption Program." Executive Order Number JBE 2016-73. https://gov.louisiana.gov/assets/ExecutiveOrders/JBE16-73.pdf.
- "Surviving Cancer Alley: The Stories of Five Communities." Deep South Center for Environmental Justice. Published August 21, 2020. https://fluxconsole.com/files/item/211/109412/SurvivingCancerAlleyReport.pdf.
- U.S. Bureau of the Census. "Thirteenth Census of the United States Taken in the Year 1910: Statistics of Louisiana." https://www2.census.gov/prod2/decennial/documents/41033935v15-21ch3.pdf.
- "U.S. Hurricane Strikes by Decade." National Oceanic and Atmospheric Administration. Hurricane Center and Central Pacific Hurricane Center, https://www.nhc.noaa.gov/pastdec.shtml.
- "Who Returned to New Orleans After Katrina?" Population Reference Bureau. July 11, 2010. https://www.prb.org/resources/who-returned-to-new-orleans-after-hurricane-katrina/.

"Why." *Hurricane Digital Memory Bank*. Accessed March 29, 2021. http://hurricanearchive.org/items/show/26512.

Secondary Sources

- "A Movement is Born: Environmental Justice and the UCC." *United Church of Christ*. Accessed November 6, 2022. https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice_and_the_ucc/.
- "About Environmental Justice." Dr. Robert Bullard: Father of Environmental Justice. Accessed March 20, 2023. https://drrobertbullard.com/.
- Allen, Barbara L. *Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes*. Cambridge: The MIT Press, 2003.
- Anderson, Carol. White Rage: The Unspoken Truth of Our Racial Divide. New York: Bloomsbury, 2017.
- Aune, Kyle T., Dean Gesch, and Genee S. Smith. "A spatial analysis of climate gentrification in Orleans Parish, Louisiana post-Hurricane Katrina." *Environmental Research* 185 (2020): 1-9.
- Brown, Nikki. "Jim Crow & Segregation." *64 Parishes*. January 21, 2015. https://64parishes.org/entry/jim-crowsegregation.
- Bullard, Robert D. *Dumping in Dixie: Race, Class, and Environmental Quality*. Boulder: Westview Press, 2000.
- ———. *Invisible Houston: The Black Experience in Boom and Bust*. College Station: Texas A&M University Press, 1987.
- Campanella, Richard. "Gentrification and Its Discontents." NewGeography. February 28, 2013. https://www.newgeography.com/content/003526-gentrification-and-its-discontents-notes-new-orleans.
- "Charles Deslondes, Abolitionist born." *African American Registry*. Accessed February 7, 2023. https://aaregistry.org/story/83effers-deslondes-born/.
- Cobb, James C. *The South and America Since World War II*. New York: Oxford University Press, 2012.
- "Cox v. Louisiana." Oyez. Accessed March 15, 2023. https://www.oyez.org/cases/1964/24.

- Groner, Anna. "Louisiana Chemical Plants Are Thriving Off of Slavery." *The Atlantic*. Accessed November 6, 2022. https://www.theatlantic.com/culture/archive/2021/05/84efferson-chemical-plants-thriving-off-slavery/618769/.
- Hebert, Mary Jacqueline. "Beyond Black and White: The Civil Rights Movement in Baton Rouge, Louisiana, 1945—1972". PhD diss., Louisiana State University, 1999.
- Jackson, Candace. "What is Redlining?" *The New York Times*. August 17, 2021. https://www.nytimes.com/2021/08/17/realestate/what-is-redlining.html#:~:text=The%20origins%20of%20the%20term,the%20wake%20of%20the%20Depression.
- Laughland, Oliver, and Jamiles Lartey. "First slavery, then a chemical plant and cancer deaths: one town's brutal history." *The Guardian*. Accessed November 6, 2022. https://www.theguardian.com/us-news/2019/may/06/cancertown-louisiana-reserve-history-slavery.
- Melton, Sam. "Climate Gentrification in New Orleans: Past, Present, Future." ArcGIS. December 16, 2021. https://storymaps.arcgis.com/stories/ba1036582aef448daab494d21607c178.
- Mizutani, Julia. "In the Backyard of Segregated Neighborhoods: An Environmental Justice Case Study of Louisiana." *The Georgetown Environmental Law Review* 31, no. 363 (2019): 363-390.
- Mouhot, Jean-François. "The Emigration of the Acadians from France to Louisiana: A New Perspective." *Louisiana History: The Journal of the Louisiana Historical Association* 53, no. 2 (Spring 2012): 133-167.
- "President Franklin Delano Roosevelt and the New Deal." Library of Congress. Accessed March 18, 2023. https://www.loc.gov/classroom-materials/united-states-history-primary-source-timeline/great-depression-and-world-war-ii-1929-1945/franklin-delano-roosevelt-and-the-new-deal/.
- Pulido, Laura. "Flint, Environmental Racism, and Racial Capitalism." *Capitalism Nature Socialism* 27, no. 3 (2016): 1-16.
- Robinson, Cedric J. *Black Marxism: The Making of the Black Radical Tradition*. Chapel Hill: University of North Carolina Press, 2000.
- Rothstein, Richard. *The Color of Law: A Forgotten History of How Our Government Segregated America*. New York: Liveright Publishing Corporation, 2017.
- Russell, Gordon. "Polluter's Paradise: In 'Cancer Alley,' Toxic Polluters Face Little Oversight from Environmental Regulators." *ProPublica*. December 19, 2019.

- https://www.propublica.org/article/in-cancer-alley-toxic-polluters-face-little-oversight-from-environmental-regulators.
- Smith, Chris. "15 years later, Hurricane Katrina fiction remains popular at the Jeff Library." *Nola.com.* Accessed November 7, 2022. https://www.nola.com/news/communities/east_jefferson/article_2252e98e-e285-11ea-a5ce-0bba5f2c50dd.html.
- VanHuss, Laura Kilcer. "Construction and Construct: Architecture of the Louisiana Plantation." In *Charting the Plantation Landscape from Natchez to New Orleans*, edited by Laura Kilcer VanHuss, 14-48. Baton Rouge: Louisiana State University Press, 2021.
- Waters, Leon A. "Jan. 8, 1811: Louisiana's Heroic Slave Revolt." *Zinn Education Project*. Published July 1, 2013. https://www.zinnedproject.org/news/tdih/louisianas-slave-revolt/.
- Wells, Jeremy C. "The Affect of Old Places: Exploring the Dimensions of Place Attachment and Senescent Environments." In *Place Meaning and Attachment: Authenticity, Heritage and Preservation*, edited by Dak Kopec and Annamarie Bliss, 1-15. New York: Routledge, 2020.
- "1811 Slave Revolt." *St. Charles Parish Virtual Museum*. Published 2010. https://scphistory.org/slave-revolt/.

Chapter Two

Primary Sources

- AJ+. "Why This Town is Dying from Cancer." YouTube. August 25, 2018. https://www.youtube.com/watch?v=ZB8CbDG7gpk.
- Butler, Eve. "No Gardens." Louisiana Bucket Brigade. 2019. https://climatesofinequality.org/project/eve-butler-in-mt-triumph-baptist-church-still-from-no-gardens-women-of-cancer-alley/.
- Carter, Iris. "That Place Was Home." Louisiana Bucket Brigade. 2019. https://climatesofinequality.org/project/that-place-was-home-iris-carter-women-of-cancer-alley-series/.
- Center for Disease Control and Prevention. "Leading Causes of Death," Last updated January 18, 2023. https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm.
- CNN. "Toxic Tensions in the Heart of 'Cancer Alley'." YouTube. October 21, 2017. https://www.youtube.com/watch?v=nNTHIy0Dtdo.

- Habans, Robert, Jenna Losh, Rachel Weinstein, and Amy Teller. "Unpacking Neighborhood Differences in Life Expectancy." *Data Research Center*. August 13, 2020. https://www.datacenterresearch.org/placing-prosperity/chapter-1.html.
- Masingale, Sonya, host. *Folks*. "Toxic Pollution." Aired 1989 on Educational Television Authority. https://www.youtube.com/watch?v=A5BLhGAlVIA.
- Mossville: When Great Trees Fall. Directed by Alexander Glustrom (Mossville, Louisiana: Collective Eye Films, 2019) https://video-alexanderstreet-com.eu1.proxy.openathens.net/watch/mossville-when-great-trees-fall/details?context=channel:black-studies.
- National Cancer Institute. "State Cancer Profiles." 2016-2020. https://statecancerprofiles.cancer.gov/map/map.withimage.php?00&state&001&001&28&0&02&0&1&5&0#results.
- Sayre, Katherine. "Closing Costs: As a chemical plant expands, Mossville, Louisiana, vanishes." Nola.com. November 15, 2017. https://www.nola.com/news/business/closing-costs-as-a-chemical-plant-expands-mossville-louisiana-vanishes/article_f478381c-ff36-57b3-adc2-2116c35982d9.html.
- Schneider, Keith. "Chemical Plants Buy Up Neighbors for Safety Zone." *The New York Times*, November 28, 1990. https://www.nytimes.com/1990/11/28/us/chemical-plants-buy-up-neighbors-for-safety-zone.html.
- Sneath, Sara. "A chemical firm bought out these Black and white US homeowners with a significant disparity." *The Guardian*. November 17, 2021. https://www.theguardian.com/us-news/2021/nov/17/this-communitys-black-families-lost-their-ancestral-homes-their-white-neighbors-got-richer.
- "The Kidney Project: Statistics." University of California San Fransisco School of Pharmacy.

 Accessed February 16, 2023.

 https://pharm.ucsf.edu/kidney/need/statistics#:~:text=Mortality%20rates%20vary%20depending%20on,about%2080%25%20after%205%20years.
- University Network for Human Rights. "They Didn't Pay Us for Our Memories':
 Environmental Racism, Forced Displacement, and the Industrial Buyout of Mossville,
 Louisiana." November 2021.
 https://static1.squarespace.com/static/5b3538249d5abb21360e858f/t/61982a3fdc635f094
 c042e4d/1637362243271/Mossville_FINAL_upload+PDF.pdf.
- University Network for Human Rights. "Waiting to Die:' Toxic Emissions and Disease Near the Louisiana Denka/DuPont Plant." July 2019. https://www.epa.gov/sites/default/files/2019-12/documents/waiting_to_die_final.pdf.

- United States Environmental Protection Agency. "EPA's Integrated Risk Information System (IRIS) Assessment of Chloroprene." May 25, 2016. https://www.epa.gov/sites/default/files/2016-06/documents/memo-iris-chloroprene052516.pdf.
- United States Environmental Protection Agency. "LaPlace, Louisiana Background Information." Last updated January 23, 2023. https://www.epa.gov/la/laplace-louisiana-background-information.
- United States Environmental Protection Agency. "Letter of Concern." October 12, 2022. Pages 3, 15, 26. https://www.epa.gov/system/files/documents/2022-10/2022%2010%2012%20Final%20Letter%20LDEQ%20LDH%2001R-22-R6%2C%2002R-22-R6%2C%2004R-22-R6.pdf.
- United States Environmental Protection Agency. "Preliminary Risk-Based Concentration Value for Chloroprene in Ambient Air." May 5, 2016. https://www.epa.gov/sites/default/files/2016-06/documents/memo-prelim-risk-based-concentrations050516.pdf.
- United States Environmental Protection Agency, "Recommended Procedures for the Disposal of PCB-Containing Wastes (Industrial Facilities)," December 22, 1975, p. 7. https://cdn.toxicdocs.org/yr/yr0naj9o9yyg3n028gmLZ38v6/yr0naj9o9yyg3n028gmLZ38v6.pdf.
- United States Department of Commerce. Economics and Business Administration. Bureau of the Census. "Population Trends in the 1980s." *Current Population Reports* Series P-23, no. 175. https://www2.census.gov/library/publications/1992/demographics/p23-175.pdf.

Secondary Sources

- Brown, Elsa Barkley. "To Catch the Vision of Freedom: Reconstructing Southern Black Women's Political History, 1865-1880." In *African American Women and the Vote,* 1837-1965, edited by Ann D. Gordon, 66-99. Amherst: University of Massachusetts Press, 1997.
- Cuba, Lee, and David M. Hummon. "A Place to Call Home: Identification with Dwelling, Community, and Region." *The Sociological Quarterly* 34, no. 1 (1993): 111-131.
- Umberson, Debra, Julie Skalamera Olson, Robert Crosnoe, Hui Liu, Tetyana Pudrovska, and Rachel Donnelly. "Death of Family Members as an Overlooked Source of Racial Disadvantage in the United States." *Proceedings of the National Academy of Sciences* 114, no. 5 (2017): 915–920.
- Wells, Jeremy C. "The Affect of Old Places: Exploring the Dimensions of Place Attachment and Senescent Environments." In *Place Meaning and Attachment: Authenticity, Heritage and*

Preservation, edited by Dak Kopec and Annamarie Bliss, 1-15. New York: Routledge, 2020.

Chapter Three

Primary Sources

- Association of American Medical Colleges. "Percentage of all active physicians by race/ethnicity." 2018. https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018.
- Baurick, Tristan. "Welcome to 'Cancer Alley,' Where Toxic Air is About to Get Worse." *ProPublica*. October 30, 2019. https://www.propublica.org/article/welcome-to-cancer-alley-where-toxic-air-is-about-to-get-worse.
- Castillo-Page, Laura. "Diversity in the Physician Workforce: Facts & Figures 2010." Association of American Medical Colleges, 2010, p. 41. https://www.aamc.org/media/8046/download.
- Center for Constitutional Rights. Letter to Louisiana Department of Environmental Quality. Written December 18, 2019, https://ccrjustice.org/sites/default/files/attach/2019/12/RISE%20St.%20James%20DEQ%20Comments%20Dec.%2018%20%20w%20attachments.pdf.
- CNN. "Toxic Tensions in the Heart of 'Cancer Alley'." YouTube. October 21, 2017. https://www.youtube.com/watch?v=nNTHIy0Dtdo.
- "Families Emerge as Silent Victims of Tuskegee Syphilis Experiment." *New York Times*. May 12, 1997.
- Fear, Darryl. "His Last, Best Cause; Activist Who Neglected His Health Warned Other Black Men in Final Days." *Washington Post*. October 6, 2006.
- "Formosa Selects St. James Parish for \$9.4 Billion Louisiana Project." Office of the Governor. Published April 23, 2018. https://gov.louisiana.gov/news/sunshine-project.
- Friedman, Lisa. "In 'Cancer Alley,' Judge Blocks Huge Petrochemical Plant." *The New York Times*. September 15, 2022. https://www.nytimes.com/2022/09/15/climate/louisiana-judge-blocks-formosa-plant.html.
- Kennedy, J. Michael. "Chemical Corridor' By 'Old Man River,' New Health Fear." Los Angeles Times. May 9, 1989.
- Kirschner, Elisabeth. "Louisiana Is No 'Cancer Alley." *Chemical Weekly* 152, no. 23 (June 1993): 21.

- "LaPlace, Louisiana Background Information," United States Environmental Protection Agency, updated January 23, 2023, https://www.epa.gov/la/laplace-louisiana-background-information.
- Letter of Concern," United States Environmental Protection Agency, October 12, 2022, https://www.epa.gov/system/files/documents/2022-10/2022%2010%2012%20Final%20Letter%20LDEQ%20LDH%2001R-22-R6%2C%2002R-22-R6%2C%2004R-22-R6.pdf.
- Louisiana Constitution Article 197, § 3, 4, & 5.
- Louisiana Chemical Association. "A Review of Cancer Epidemiology in Louisiana." June 1, 1989.
 https://cdn.toxicdocs.org/DM/DMB85JrkGn84LzkGERk8amXMO/DMB85JrkGn84LzkGERk8amXMO.pdf.
- Louisiana Chemical Association. "The Economic Impact of the Chemical Industry on the Louisiana Economy: An Update." April 2018. https://lca.org/aws/LCA/asset_manager/get_file/542037?ver=1.
- Louisiana Department of Health. "LDH: Hurricane Ida storm-related death toll rises to 26." September 8, 2021. https://ldh.la.gov/news/6308.
- Louisiana Legislative Auditor. "Monitoring and Enforcement of Air Quality." Department of Environmental Quality. January 20, 2021. https://app.lla.state.la.us/PublicReports.nsf/0/4F3372ABDDF0F271862586630067C25D/%24FILE/00022660A.pdf?OpenElement&.7773098.
- "Louisiana Process Industries: Strong History. Vibrant Future." *Louisiana Economic Quarterly*. 2016. https://www.opportunitylouisiana.gov/eq/q2-2016/louisiana-process-industries#:~:text=Collectively%2C%20the%20state's%20refineries%2C%20chemical,to%20current%20U.S.%20Census%20data.
- Maraniss, David, and Michael Weisskopf. "Jobs and Illness in Petrochemical Corridor; In Louisiana, Pollution Is Familiar but Pattern of Disease Is New." *Washington Post*. December 22, 1987.
- Masingale, Sonya, host. *Folks*. "Toxic Pollution." Aired 1989 on Educational Television Authority. https://www.youtube.com/watch?v=A5BLhGAlVIA.
- Office of the Governor. "Gov. Edwards, Origin Materials Announce \$750 Million Sustainable Materials Facility in Ascension Parish." February 16, 2022. https://gov.louisiana.gov/index.cfm/newsroom/detail/3564.
- PBS NewsHour. "Why Louisianans blame government, not corporations, for pollution problems." March 21, 2019. https://www.youtube.com/watch?v=v4qQWoDCsEA.

- "Percentage of Persons 14 years old and over who were illiterate (unable to read or write in any language), by race and nativity: 1870 to 1979," National Center for Education Statistics, accessed March 16, 2023, https://nces.ed.gov/naal/lit_history.asp.
- Phillis, Michael. "Civil rights law targets 'cancer alley' discrimination." *AP News*. September 26, 2022. https://apnews.com/article/louisiana-discrimination-race-and-ethnicity-racial-injustice-fafd08c5dbbda68250b916709dc18ef9.
- Schleifstein, Mark. "Air Quality Regulators in 'Cancer Alley' Have Fallen Dangerously Behind." *ProPublica*. January 29, 2021. https://www.propublica.org/article/deqlouisiana-pollution.
- Scott, Loren. "The Economic Impact of the Chemical Industry on Louisiana's Economy." Louisiana Chemical Association. Accessed February 22, 2023. https://www.lca.org/aws/LCA/asset_manager/get_file/542008?ver=1.
- "Scott v. Schedler," The United States Department of Justice, March 6, 2012, https://www.justice.gov/crt/case-document/si-scott-v-schedler.
- Shaw, Al, and Lylla Younes. "The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S." *ProPublica*. November 2, 2021. https://projects.propublica.org/toxmap/.
- Smith, Lori L. "Louisiana Directory of Cities, Towns, and Villages." State Library of Louisiana. Published July 2005. http://www.state.lib.la.us/empowerlibrary/LA%20Cities%20and%20Towns.pdf.
- Texas Department of State Health Services. "Assessment of the Occurrence of Cancer East Harris County, Texas 1995-2012." June 19, 2015. http://s3.documentcloud.org/documents/2107698/assessment-finds-elevated-cancer-rates-in-parts.pdf.
- United States Census Bureau. Selected Counties in Hurricane Katrina Affected Area. 2000.
- United States Environmental Protection Agency. "Recommended Procedures for the Disposal of PCB-Containing Wastes (Industrial Facilities)." December 22, 1975. https://cdn.toxicdocs.org/yr/yr0naj9o9yyg3n028gmLZ38v6/yr0naj9o9yyg3n028gmLZ38v6.pdf.
- U.S. Constitution. Article 15, § 1.
- "45 Years of LPB," Louisiana Digital Media Archive, August 31, 2020, http://ladigitalmedia.org/home/45-years-of-lpb.

Secondary Sources

- Berry, Gregory R. "Organizing Against Multinational Corporate Power in Cancer Alley: The Activist Community as Primary Stakeholder." *Organization & Environment* 16, no. 1 (March 2003): 3-33.
- Bower, Kelly M., Roland J. Thorpe, Jr., Charles Rohde, and Darrell J. Gaskin. "The Intersection of Neighborhood Racial Segregation, Poverty, and Urbanicity and its Impact on Food Store Availability in the United States." *Preventive Medicine* 58, (2014): 33-39.
- Ferris State University. "The Jezebel Stereotype." Last updated 2012. https://www.ferris.edu/HTMLS/news/jimcrow/jezebel/index.htm.
- Johnson, David. "U.S. Population and Physician Data for 1990-2000." *Journal of Medical Licensure and Discipline* 88, no. 2 (2002): 88-91.
- Pulido, Laura. "Flint, Environmental Racism, and Racial Capitalism." *Capitalism Nature Socialism* 27, no. 3 (2016): 1-16.
- Reonas, Matthew. "Sharecropping." *64 Parishes*. Published January 27, 2011. https://64parishes.org/entry/sharecropping.
- Savitt, Todd L. "The Use of Blacks for Medical Experimentation and Demonstration in the Old South." *Journal of Southern History* 48, no. 3 (1982): 331-348.
- Smedley, Brian D. Adrienne Y. Stith, and Alan R. Nelson, eds. *Unequal Treatment Confronting Racial and Ethnic Disparities in Healthcare*. Washington: National Academies Press, 2002.
- White, Deborah. Ar'n't I A Woman?: Female Slaves in the Plantation South. New York: W.W. Norton, 1999.
- Ella Wiley, "On Democracy's Front Lines: Louisiana's Voting Rights Defenders in Action," Legal Defense Fund, November 18, 2022, https://www.naacpldf.org/louisiana-elections-voting-laws/.

Conclusion

- Bell, James, Jacob Poushter, Moira Fagan, and Christine Huang. "In Response to Climate Change, Citizens in Advanced Economies are Willing to Alter How They Live and Work." *Pew Research Center*. September 14, 2021. https://www.pewresearch.org/global/2021/09/14/in-response-to-climate-change-citizens-in-advanced-economies-are-willing-to-alter-how-they-live-and-work/.
- Bruggers, James. "Citing 'Racial Cleansing,' Louisiana 'Cancer Alley' Residents Sue Over Zoning." *Inside Climate News*. March 21, 2023. https://insideclimatenews.org/news/21032023/louisiana-cancer-alley-lawsuit-

 $zoning/?utm_source=InsideClimate+News\&utm_campaign=412ea9c3c9-EMAIL_CAMPAIGN_2023_03_25_04_00\&utm_medium=email\&utm_term=0_29c928ffb5-412ea9c3c9-328540784.$

- "Progress Report on Flint Water." City of Flint, Michigan. Accessed April 11, 2023. https://www.cityofflint.com/progress-report-on-flint-water/.
- Saad, Lydia. "Global Warming Concern at Three-Decade High in U.S." *Gallup*. March 14, 2017. https://news.gallup.com/poll/206030/global-warming-concern-three-decade-high.aspx.