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Coastal Fortresses: A Cross-Case Analysis of Water, Policy, and Tourism Development in Three Gulf Coast Communities

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Coastal Fortresses: A Cross-Case Analysis of Water, Policy, and Tourism Development in Three Gulf Coast Communities

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Abstract

As a result of development pressures and water resource struggles, once rural, spatially segregated coastal commercial fishing villages along the U.S. portion of the Gulf of Mexico are increasingly tourist frontiers for elites and the emergent businesses that cater to them. Over the course of the twentieth century, water events, from coastal land loss to hurricane destruction to natural disaster, have fast-tracked development projects that have allowed for the expansion of the tourism sector, and relaxed policies to encourage bold new economic development initiatives that often put poor coastal communities and their environment in jeopardy. This outcome is not universal across the northern Gulf Coast, but contingent on a number of local factors overlooked in the literature on coastal tourism and water policy development. This paper investigates the local nuances that have emerged as responses to global and regional development pressures by focusing on the ways in which local values and policy decisions have influenced the spread of coastal urbanization. An intensive analysis will examine the layered effects of changing land-use patterns and tourism growth pressures on three at-risk coastal communities in Louisiana, Mississippi and Florida, in the United States. This paper will test the hypothesis that coastal communities affected by a similar set of development pressures respond to these forces in different ways, depending on complex local and regional variabilities. The paper's focus is centered on Northern Gulf Coast tourism growth patterns from post-World War II through 2018, and employs a mixed method, multiple-sited case-study design.

Keywords

Gulf Coast; coastal communities; Bayou Petit Caillou; Chauvin; Cocodrie; Terrebonne Parish; Biloxi; Back Bay; East Biloxi; Harrison County; Apalachicola; Franklin County; cross-case analysis; policy; tourism; fishing; environment; casino gambling; economic development; conflict; adaptation; Louisiana; Mississippi; Florida

Preface

I had my laptop open, finishing this manuscript, on a recent evening flight from Tampa to Pensacola, when I happened to look down and see the Florida Panhandle on fire. From above, the orange streetlights hugged the shoreline, tiny soldiers in neat formations of grids and semicircles, beads of light between sea and forest. I recognized where I was in the faint pink of the setting sun: Apalachicola, a walkable "city" of less than 3,000 whose charm I had fallen for more than twelve years before. The city was breathtaking on this particular weekday night. There were no blue tarps covering roofs caved in by Hurricane Michael, the Category 4 storm that had just made landfall near Mexico Beach, breaking yet another record as the third most-intense hurricane to strike the United States. You would never be able to see from above the misery and misfortune felt below. It looked like the idyllic fishing community of postcards and Polaroids.

When I first visited Apalachicola, I had no idea I would one day live in its vicinity, but I knew I would never be too far away. The Gulf Coast has been the place I've called home since January 19, 2002, the day I changed my address from Trenton, New Jersey to Thibodaux, Louisiana, and, six months later, to Houma, Louisiana, where I lived until Hurricanes Katrina and Rita pushed me into the bowl of New Orleans. It's hard to say what drew me to relocate 1,319 miles away from my birth state. I had been a full-time newspaper journalist since junior year of college. I covered the goings-on of a suburban school district, a protest against sprawl, a summer theater program for inner-city youth, and the closing of a factory before I was thrust onto the front lines of 9/11, a 22-year-old reporter with a new college degree who had just learned how to read a budget. The experience of covering September 11th and its aftermath of anthrax attacks

showed me who my neighbors were. The disaster made people afraid, suspicious, but it also forced a human connection I hadn't known existed.

I witnessed the same falling of the veil when I moved to Houma all those years ago. It was the middle of the night during Tropical Storm Isidore and I'll never forget waking up to the moan of my neighbor. "Oh my goodness!" she wailed into the darkness, standing by her doorstep, the water inches away. My mother and sister were visiting, and they heard the cry too. We opened the door to my trailer home, just a few blocks from Terrebonne General Medical Center, and my mother joined the nighttime chorus with her less mannered, slightly *Sopranos*-sounding string of curses. The water was waist-deep and rising. I remember trying to make sense of it, because my colleagues at *The Courier* had just rolled their eyes in the newsroom the day before. The tropical storm in the middle of the Gulf quickly spinning its way toward Houma? That's nothing in a region the *National Geographic* had just named a "hurricane hotspot" of America, a region that just a few months before had placed its future into the hands of a massive hurricane protection project called Morganza to the Gulf.

My house didn't flood, but my neighbors' did. We evacuated, my mother losing a sock when she climbed onto the shoulders of the National Guardsman from the top step of my stoop. Years later, I wrote a story about my rescuer, Armand Frickey, after a roadside bomb killed him in Afghanistan in January 2005. He was 20 years old when he died, meaning he had just turned 18 when he hoisted me onto his back and carried me to the deuce-and-a-half. Our destination was the Houma-Terrebonne Civic Center, which had transformed into an evacuation shelter in under two hours. Lucky for me, the Civic Center was across the street from my newspaper office. Suddenly our evacuation took on

a new dimension, and I began interviewing sockless, shivering survivors like us, scribbling their stories on the back of my checkbook because I forgot to grab a notebook. It was there, in the parking lot of the civic center, when I realized something was peculiar, perhaps even remarkable, about the Gulf Coast. Here I was, thinking I had escaped the disaster of 9/11, only to have disaster follow me to south Louisiana, straight to the heart of a community whose very identify and meaning seemed to be shaped by disaster. I interviewed people in the parking lot that morning who reminded me of family members at an annual reunion. It could have been a wedding had it not been for the Red Cross trucks. Community members told stories of Betsy, Camille, Juan, Andrew, then raised an eyebrow about Isidore, a tropical storm whose 16 inches of rainfall set new records.

One week later, after my mother and sister had returned to New Jersey, Hurricane Lili struck just west of Houma. I learned we were on the "good side" of the storm, but the one-two punch of Isidore and Lili was legendary enough that the entire newspaper staff got a T-shirt, "I survived Isidore and Lili." I had been in Louisiana for eight months.

Over the next seventeen years, I would experience fourteen more disasters, each more familiar than the last, until, like the old-timers in the civic center parking lot, I, too, was dropping knowledge to newcomers. Working and learning on the disaster front lines of coastal Louisiana meant learning a new language and building a deep sensitivity to local knowledge. The sociocultural and ethnic histories of the people of the Gulf Coast are not easy to discern, as these pages will show. The experience of hurricanes can be unifying in its seemingly location-blind path of destruction, but also discriminatory in its aftermath of winners and losers.

Each of my children was born in a hurricane, so to speak. My first hurricane baby, Lorelei, was conceived in the aftermath of Hurricane Katrina and became part of the infamous post-Katrina baby boom of infants who entered the world in 2006. From the time she was born until the day we left New Orleans, my Katrina Baby was in fierce competition with her 2006-ers, from pediatricians and child care centers to preschool, ballet, and kindergarten.

My middle child, J.J., was five weeks old when we evacuated from New Orleans to escape Hurricane Gustav. It was my fault we didn't leave earlier; Gustav was my first evacuation and I hated to leave the epicenter after so many years in its spin. It took seventeen hours to get to Jackson, Mississippi, which had one room available for one night. It took another twelve hours the next day to get to Auburn, Alabama, where we stayed for two nights before traveling to Mobile and then Biloxi, where we rode out the storm until Mayor Ray Nagin opened the city. We spent over $1,200 on that evacuation, and it just about broke us. The experience sobered me. I no longer wanted to trade disaster stories in the civic center parking lot.

My last hurricane baby, Maida, is the only child to be born during an actual hurricane, a fact she wears well. Like most storms, Hurricane Isaac took everyone by surprise. New Orleans didn't flood, but the rain seemed to have no beginning and no end. The entire city lost power, except for the French Quarter, where I walked for hours in the heat before finally giving into the temptation of an air-conditioned hospital on generator power. Maida was born on September 1, 2012, right around the time residents in flooded St. John the Baptist Parish started connecting the dots, accusing high and dry New

Orleans, with its ring of steel and earthen levees, of saving itself at the expense of its low-lying, less influential, rural, and unprotected neighbors.

I learned more about St. John's story the following year, when I left my position in development at Tulane University to work for a food bank whose coverage area spanned the entire Louisiana Gulf Coast from Mississippi to Texas. As chief impact officer, I was responsible for finding solutions to hunger within 23 parishes spread across 24,000 square miles. I thought I knew Louisiana well from my newspaper days, and later from my on-the-ground investigations as a master's and doctoral student, but my experience at the food bank put me on the front lines of a different kind of Louisiana. I encountered a bitter, entrenched, neglected, and hopeless kind of poverty that seemed to endure forever. Working in this area from 2013-2017, I witnessed first-hand the socioeconomic effects of 16,000 job layoffs, sparked by low crude prices and work slowdowns throughout the oil industry. When nearly one of every five adults is no longer working, in a community that is already ground zero for coastal erosion and sinking land, issues I'd been studying for a long time, such as second home ownership and coastal tourism development, became even more prescient.

In December 2016, my family moved from New Orleans to Pensacola, Florida, a city whose three-hour radius includes my three beloved coastlines. Florida is three states away from Louisiana, but it may as well be three continents; it is a different country, for complex reasons I try to unpack in the following pages. The experience of commuting to Louisiana but living in Florida helped bring authenticity to my dissertation. For a long time, the edges of my manuscript had tapered edges. In trying to say so much, I feared I was saying too little. The core of my argument crystallized during those long commutes

from northwest Florida through the Mississippi Gulf Coast to the south-central Louisiana bayous. I realized my research, combined with nearly two decades of lived experience, had not only come full circle, but perhaps also benefited from time.

It is my greatest joy to be finishing this manuscript in January 2019, on the seventeen-year anniversary of my journey from New Jersey to the Gulf Coast. Soon after I moved to Louisiana, I bought a T-shirt at a tourist shop in Cocodrie that made me laugh out loud. “London. Paris. Cocodrie,” it said. Not too long ago, I bought another T-shirt from a downtown Pensacola artist. Reflecting my own journey across the Gulf Coast, the shirt’s point of view was less tongue-in-cheek, more sobering, but just as spirited. Printed atop a blue wave, it said, “I sold my soul to the Gulf of Mexico.”

Chapter One: Understanding Gulf Coast Communities

Introduction

This dissertation draws upon three case studies of coastal development to provide new insight into the U.S. Gulf Coast's significance in the history of the U.S. Sunbelt and American sun, sand, and sea tourism. As recently as seventy-five years ago, most coastal communities along the northern Gulf of Mexico were considered wastelands—remote, worthless, and culturally backward. It was not until the rise of tourism and the Sunbelt economy in the 1960s and 1970s that coastal outposts from Brownsville, Texas, to Key West, Florida, experienced rapid urbanization and economic change. Emerging tourism networks extending to the Midwest and Northeast succeeded in transferring Gulf South patterns of leisure and coastal recreation to the rest of the country. The case studies in this research—Terrebonne Parish, Louisiana; Harrison County, Mississippi; and Franklin County, Florida—represent typologies of how the Gulf South region became inextricably linked to the Atlantic and Midwestern economies as tourism spread along America's "third coast" after World War II (Gramling and Laska, 2014: 226). Each case study offers a lens into the dynamics of coastal change along America's increasingly populated shores at the beginning of the twenty-first century, illuminating the importance of local contexts, patterns of transition, and urban networks. The Gulf Coast tourism experience contributes to broader national debates and theories concerning coastal development, tourism gentrification, and the globalization process.

Several factors have spurred the rapid conversion from working to recreational waterfronts along the Gulf Coast. They include an increasing regional emphasis on cultivating a broader economic base beyond commercial fishing; the growth of the

coastal tourism industry; reconstruction surges following damaging coastal storms and environmental disasters; the growth of consumerism, the service economy, and the leisure class; and the globalization of the aquaculture industry, workplace, food production, and marketing systems. This dissertation examines these factors while investigating how other social, political, economic, and ecological changes have influenced government planning, land use patterns, and policy making—and by extension community values, attitudes, and interests in water, policy, and tourism expansion—in three northern Gulf Coast fishing communities from the early twentieth century through today.

The hypothesis guiding the research is that coastal communities affected by a similar set of external tourism and growth pressures respond to these forces in different ways that depend on a complex array of local and regional variabilities. These local nuances often are oversimplified, overlooked or ignored in the literature. The celebration and explanation of globalization masks the existence of regional variations in political-economic and socioeconomic values and priorities that affect and influence local decision-making. Research that emphasizes globalization also overlooks its profoundly uneven effects at the local level, particularly within the context of coastal communities experiencing rapid change. This dissertation questions how globalization comes into play and interacts with national, regional, and local forces within the context of how water and policy have shaped Gulf Coast maritime communities over the course of a century.

To test the hypothesis that urbanizing Gulf Coast towns and villages react in dynamic, varied, locally-dependent ways to external development pressures and ecological threats, this project employs a cross-case analysis of three coastal communities

that represent typologies of coastal development across time and space. This particular case study method allows for inductive and deductive analysis to compare and contrast a range of local variabilities and to highlight major themes. The United States Government Accountability Office (GAO) extensively uses case studies in their evaluations. GAO defines case study as "a method for learning about a complex instance, based on a comprehensive understanding of that instance obtained by extensive description and analysis of that instance taken as a whole and in its context" (GAO, 1990, p. 15). This study employs GAO's exploratory case study methodology in an effort to discover linkages and investigate causal relationships. The study will identify differences between individual cases with a view of potentially generating a classificatory framework (Gerring, 2004).[1]

Case studies allow for confirmatory (deductive) as well as explanatory (inductive) findings (Hyde, 2000; Yin, 2009), can be based on single or multiple cases, and can include qualitative or quantitative data (Gerring, 2004). They can be exploratory, descriptive, or explanatory, and they have been described as the preferred research method when "how" and "why" questions are posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within a real-life context (Yin, 2009, p. 9). According to Yin, "how" and "why" questions are better answered through case studies as such questions "deal with operational links needing to be traced over time, rather than mere frequencies or incidence" (Yin, 2009, p. 9). On the other hand, surveys are more appropriate when answering questions like who, what, where, how many, and how much (Dane, 2010). The northern Gulf Coast is a logical site

[1] The GAO defines exploratory case studies as descriptive case studies aimed at generating hypotheses for later investigation rather than for illustrating.

for such close analysis because its history since the 1950s has been heavily shaped by the interplay of economic changes, environmental threats, and tourism pressures. These forces have been at the center of local political debates ever since, yet the area continues to remain understudied, with such a scarcity of scholarship that, as Stanonis remarks in his case study of African American Biloxi (2014, p. 9), "a meticulous reading of newspapers was essential given the scarcity of scholarship about these communities." While they may "often depict a rosy image of their hometown, newspapers also identified blighted areas and problems that hindered tourism" (Stanonis, 2014, p.9).

Methodology and Research Design

As commercial fishing loses its occupational appeal, pressures grow to transform transitioning working waterfronts into tourist hubs, and the power balance shifts as elites gain control of the coast. While this phenomenon is broadly understood, what is more nuanced and less clear in the research literature is the specific coastal transformation process and outcome varieties at the local level. To better grasp the local process of change based on Gulf Coast tourism development patterns, the following research questions emerge: (1) How are coastal communities experiencing economic transitions caused by coastal tourism interests? (2) How are external development interests able to influence local economic, political, social and environmental conditions to promote their agendas? (3) What are the outcomes of these gentrification and development interests on local coastal communities? (4) What is characteristic of fishing communities' responses to coastal land-use pressures that makes them different from other places?

To answer these questions, this project employs a multiple case-study design using primary qualitative and quantitative secondary data to chronicle the processes affecting the transformation of rural coastal fishing communities into networked vacation zones for tourists and investors. The case study approach will be instrumental to this project because of its abilities to describe, illustrate and explore the scope of issues at hand. These issues – globalization, coastal land use changes, hurricanes, population loss – are affecting Gulf Coast communities in ways that have not been considered at a holistic, political economic, qualitative and quantitative level. The explanatory case-study method, which emphasizes the production of findings that generalize beyond the instance and circumstances in which a study is conducted, is ideal for this project because of its ability to explain the complex, layered, causal links in real-life interventions that are too detailed for the survey or experimental strategies to uncover (Creswell, 1998; Yin, 1993, 1994, 2014).

Case Study Selection Process

My study was borne out of a desire to examine different and competing versions of the coastal urbanization phenomenon within the context of the northern Gulf of Mexico.In the first stage of my case study selection process, from 2006-2007, I embarked on an exploratory search to establish the selection criteria. First, I considered the geography of the Gulf Coast from Brownsville, Texas, to Key West, Florida, a geography that according to my analysis spans 56 counties and parishes, a few large metropolitan areas, hundreds of municipalities, five states and a 1,631-mile shoreline. The Gulf Coast has experienced a population boom during the latter half of the twentieth century; from

1970 to 2000, the population of coastal zone counties nearly doubled (Jordan and Benson, 2013).

Using a multi-phase sampling process, I narrowed down the selection of the case study communities from a maximum of 1,198 possibilities (the number of coastal ZIP codes in the five-state Gulf Coast zone) to a sample size of 330 (the number of fishing communities within these ZIP codes). I used the "fishing community" criteria identified in 2006 by National Marine Fisheries Service social scientists based on the nature of each community's links with commercial and/or recreational fishing ("Fisheries" 2012, p. 63). Another selection criterion in the first phase was annual landings revenue; on average, the Gulf of Mexico accounted for 21% of U.S. annual landings revenue from 1997-2006. I wanted at least one of the case study communities to be a port city with an economy that actively contributed to this broader economic picture. In 2006, fourteen of the United States's top fifty ports by landings revenue were located in the Gulf Coast region, including Bayou La Batre, Alabama; Dulac-Chauvin, Empire-Venice, Golden Meadow-Leeville, Intracoastal City, and Laffitte-Barataria, Louisiana; Brownsville, Port Isabel, Port Arthur, Galveston, and Palacios, Texas; and Apalachicola, Fort Myers, Key West, Tampa Bay, and St. Petersburg, Florida ("Fisheries" 2012, p. 63). Finally, in the first stage, my search strategy included reviewing the literature in the five-state region to determine not just context and history, but what additional contributions I should consider in choosing my case studies. Early on, I decided to eliminate the Texas Gulf Coast as a case study focus area, in part because of geographic and funding constraints, and in part because the Texas coast has been the focus of intensive study for decades.

Instead, I chose to focus my research on a lesser studied, narrower section of the Gulf Coast roughly between central Louisiana and the tip of the northwest Florida panhandle.

The second stage occurred between 2007-2009. During this phase, I followed up on the references, citations, and indicators selected in the first stage and narrowed down the sample size from 330 to approximately 100. The process of eliminating possible case study sites in the second part of the selection process involved a deeper examination of how Gulf Coast communities in the targeted zone have experienced coastal changes and hurricane impacts during the bounded time frame of approximately forty years (late 1960s through 2009), coinciding with the population boom referenced earlier. The screening process involved collecting sufficient data to decide whether a case met a set of pre-established criteria, including data related to hurricane damages; population change; experience with land use planning and coastal zoning; and commercial fishing revenues. Because this project is focused on coastal gentrification pressures in rural, urban and suburban settings, as aided by the presence of hurricanes and the growth of tourism and recreational fishing, and the complex ways communities and their respective states have reacted to natural disasters and development pressures, I narrowed down the candidate cases from 100 to 14 in four states. I accomplished this using a typological approach to identify communities to study. I placed the 100 coastal communities into three categories using a framework identified by Steve Jacob, Michael Jepson, and Frank Farmer in their 2005 analysis in the journal *Human Organization* (p. 380):

1. Gulf Coast- gained commercial fishing employment
2. Gulf Coast-lost commercial fishing employment
3. Gulf Coast-neutral

This categorization helped me assess whether fishing employment was growing, declining, or holding steady in the time period of 1960 to 2018. Several communities from each of the categories were chosen for intensive case study, with secondary data analysis as well as site inspection used to select the communities for the in-depth study. In early 2009, I visited seven communities in Mississippi, Alabama and Florida to gain qualitative insight about each place; I did not visit the Louisiana communities during this phase as I already had extensive knowledge of them. I felt that it was necessary to select communities from different regions throughout the Gulf Coast in an attempt to capture the diversity of how fishing has evolved into tourism in rural, urban, and suburban settings. The case study sites were chosen on the following criteria: 1) maximizing geographical distribution within the state of Florida; 2) maximizing variation in population size; and 3) maximizing variation in economic structure (recreational/commercial fishing).

After the site visits, and using this criteria from Jacob, Jepson, and Farmer, 2005), I settled on four former or current commercial fishing communities in four Gulf Coast states that, among them, had two port cities in common and represented an urban, suburban, and rural typology of coastal development. One of the original four case study sites, Orange Beach, Alabama was later abandoned due to time constraints.

I wanted a group of three cases across multiple states because I thought they would add a diversity of experiences to the Gulf Coast story of change. Ethnically, racially, culturally, economically, and socially different communities do not usually respond to change in the same way, and in my mind Louisiana, Mississippi and northwest Florida were quite different from each other. My developing theory during the second

phase was that there are several responses to global coastal gentrification pressures, or a typology of types, that can effectively capture the range of coastal community outcomes along the northern Gulf of Mexico. According to Yin, in multi-case studies, each case should be selected so that it either predicts similar results (literal replication), or predicts contrasting results but for anticipatory reasons (theoretical replication). If multiple cases lead to contradictory results, the preliminary theory should be revised and tested with another set of cases (Yin, 2009). Both single and multiple-case designs can be either holistic (one unit of analysis per case) or embedded (multiple units of analysis per case). After conducting the two-phase case study selection process, I decided to use embedded case study methodology as a means of integrating both the quantitative and qualitative methods in which I was engaging into a single research study (Scholz and Tietje, 2002). In this study, I embrace what Gotham and Faust (2019, n.p.) term an "encompassing comparative approach to explain how local" responses to development pressures along the Gulf Coast "reflect, share characteristics with, and contribute to broader socioeconomic and political trends in the United States." As Gotham and Faust write, "encompassing comparison" is a term coined by Charles Tilly (1984, p. 83) to place "different instances at various locations within the same system, on the way to explaining their characteristics as a function of their varying relationships to the system as a whole."

It is my hope that the identification of multiple units of analysis within each case study chapter succeeds in providing a more detailed level of inquiry than if I had chosen a single-case methodology. In my research, the primary unit of analysis is current or former coastal fishing communities, as defined by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. There are three subunits of analysis, all of

which emerged during the fieldwork phase of the research project that began in 2009. These include: (1) market, housing, demographic, and other archival indicators of Gulf Coast hurricane damages and impacts since the 1960s; (2) tourism and real estate infrastructure advancements over the approximate one hundred-year timeframe; and (3) the evolution of external fisheries pressures, including the implementation of regional and federal fishing quotas, land use changes, and other related state and regional policies as well as global factors such as price competition and industry consolidation. The time boundaries of the case span the beginning of the twentieth century through the end of 2018.

Within the cross-case analysis itself, I use a theoretical replication strategy in an attempt to identify consistent patterns of change and to uncover new and/or divergent themes within the three typologies. While most case study research focuses on a single case, often chosen because of its unique characteristics, the multiple-case study design aims for replication. The question here is whether it is possible to compare and contrast common factors resulting in different outcomes. I am hypothesizing that, in my study, a case study of three communities can effectively capture many of the varied outcomes of coastal community change related to tourism growth and post-disaster reconstruction within the context of U.S. coastal regions and, perhaps, other similarly developed shorelines, such as Australia. The hypothesis, if true, could generate the possibility of replication by using these cases to develop a richer theoretical framework that builds on coastal tourism and globalization models as well as disaster trajectories and geopolitical scenarios. The hypothesis then, questions whether the theoretical framework in this

chapter, and the cross-case analysis in Chapter Five, together can provide a vehicle for generalizing to new cases (Seawright and Gerring, 2008; Yin, 2014).

Four substantive research questions frame the study's inquiry at the multiple-case study level. The questions support the case-study approach, which depends on examining year after year of official statistical reports over decades to show patterns rather than collecting and analyzing numbers for a year or two. The multiple sources of data allow us to see patterns over time, widening the coverage not only in space beyond a small community but also in time beyond the narrow slice of time a researcher can observe. The questions are listed in Appendix D, followed by a list of sources of evidence. In general, the documents that form the basis of this chronicle of Gulf Coast economic change include letters, pamphlets, newspaper stories, Census documents, government documents, maps, workplace studies, investigative reports, survey data, organizational records, and memoirs.

Finally, a brief note is needed on data collection and analysis methods. As stated, the multiple-case study design demands a rigorous approach to collecting and analyzing data. Evidence from the case studies in this dissertation primarily comes from six highly complementary sources: archival records, interviews, direct observation, participant observation, and physical artifacts. Document collection, field work, and analysis were completed in several phases over the course of nearly 13 years. During the exploratory phase, I finalized the communities to be studied and collected and analyzed preliminary data. This data includes, but is not limited to, documentary information such as administrative documents, newspaper and other media articles, and formal studies or evaluations of the same "sites" under study; archival records such as maps and charts of

the geographical characteristics of each place; survey data such as census records; and data previously collected about each site.

In the second phase of the fieldwork, which occurred on and off for a decade, long-form interviews were conducted with key respondents and informants, and a series of direct observations occurred at each site. The foremost goal during this period was data collection, with more data collected during each site visit or observation and the scheduling of people to interview. Beyond gathering archival materials, the major task in data collection for this project was gaining access to key organizations and interviewees. Interviews were an essential source of information for several reasons. The subject matter demands insights that in some cases only insiders can provide. Because of the depth of material under review, interviews also helped provide shortcuts to the prior history of a situation, helped identify other relevant sources of evidence and other players to interview. All interview data was corroborated with information from other sources.

Altogether, I conducted sixty-four semi-structured, focused interviews, or about 20 for each in of the communities selected in Louisiana, Mississippi, and Florida. About half the interviews were with locals – residents or former residents of each community, local real estate brokers, local developers – and the other half were with non-resident recreation fishers, tourists and/or second home owners and outside experts. The purpose of these interviews is to develop a holistic, thorough understanding of the schemas and cultural models being used by area residents and tourists to influence their decisions to live, abandon, invest and/or recreate in vulnerable Gulf Coast communities. All interviews were digitally recorded, downloaded to a computer and saved on a remote hard drive, then transcribed and coded.

Direct observations were conducted periodically throughout the duration of nearly five years of field work. During this period, I spent the equivalent of one year working full-time collecting field data, interviewing and observing. Together these interviews and observational data provide the means to assess the micro and macro dimensions of the coastal urbanization processes in relation to storm and environmental damages, with the result of being able to identify the roles disasters, developers, local, regional and state governments, and the real estate industry each play in the coastal gentrification process.

Lastly, the analysis occurred in two phases. From 2008-2010, the analysis included interpretations of results through the first decade of the twenty-first century. These results were presented in reports as required in the stipulations of a research grant from the RAND Gulf States Policy Institute, which funded the field work. A pause in the dissertation required a second phase of analysis to include coastal community changes and events from 2010-2018.

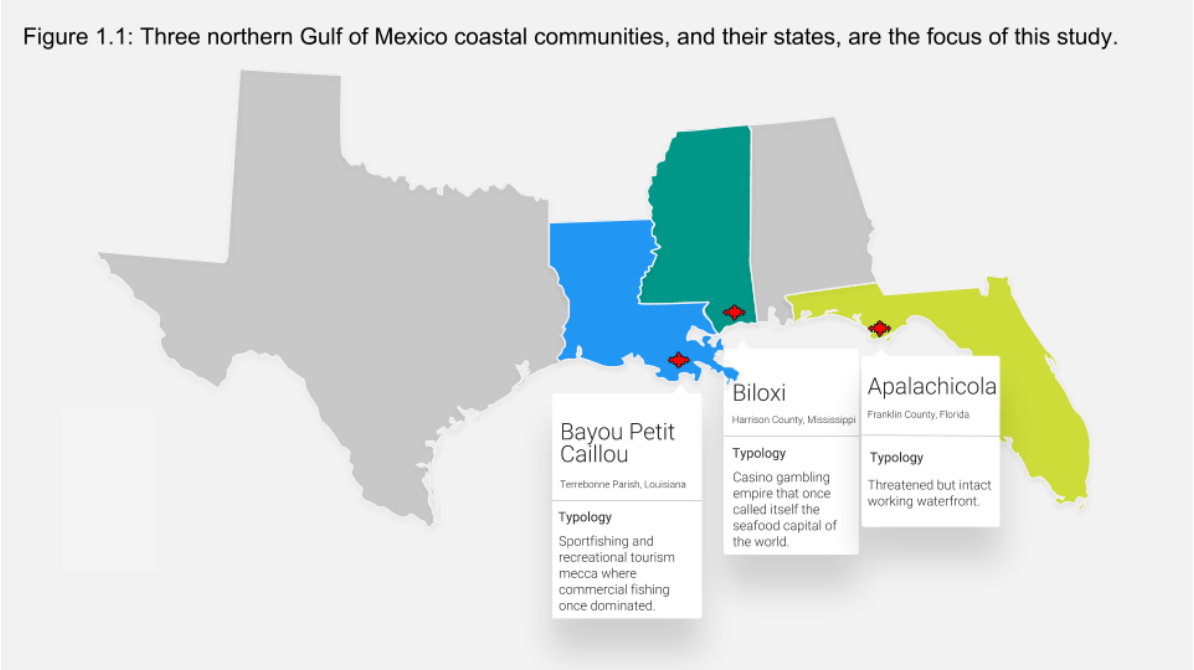
The case study analysis has grown richer and more informed as a result of this second phase. While the gap in the research work plan was unintended, in the end I would argue that it benefitted the dissertation project. It not only helped clarify and condense the material, but also to build a better explanation of how each case, as a typology of coastal development, fits into the larger argument of coastal change along the northern Gulf Coast during a tumultuous time in its human history.

The three typologies chosen for this study include a gentrified coast of gated communities amid the oilfields of south Louisiana's "sportsman's paradise" (Terrebonne Parish, Louisiana); an historic Florida Panhandle fishing village with some nature-based ecotourism along an ecologically threatened working waterfront (Franklin County,

Florida); and a full-blown, urban beach resort town that epitomizes global capital flows in the gambling economy (Harrison County, Mississippi). The research draws upon these three case studies to understand the web of factors that have influenced coastal urbanization, real estate development, and what might be called tourism gentrification since the early twentieth century. While Cocodrie, a fishing mecca in lower Terrebonne Parish, Louisiana, identifies as a sportfishing mega-village today, as early as twenty-five years ago commercial shrimpers, crabbers, and oyster harvesters still dominated the landscape. In Franklin County, Florida, Apalachicola is among the last working waterfronts on Florida's Gulf Coast, but the 2012 collapse of the town's historic oyster industry and the 2018 direct hit of Hurricane Michael symbolize the fragility of its bay to external growth pressures in metropolitan Atlanta and the agricultural powerhouse of southwest Georgia. Marking the halfway point between Louisiana's commercial coast and the Florida Panhandle is the casino capital of the Deep South: Harrison County, Mississippi, where the county seat of Biloxi is home to a near-extinct shrimp and oyster fishing fleet, a hub of Mississippi's seafood industry before gambling became legal in 1992.

The cross-case analysis of these sites in Chapter Five will account for the effects of practices and pressures to change state regulation; alter land uses; and adjust zoning policy to control the flow of water and accommodate the spread of tourism, and how local communities have responded to these forces over time. The analysis will compare local responses to external development pressures, and open the way for theoretical replicability of the change model proposed. In more detail, the case studies and their typologies are summarized in Figure 1.1 below.

Figure 1.1: Three northern Gulf of Mexico coastal communities, and their states, are the focus of this study.



Typology 1: Bayou Petit Caillou, Louisiana

The first prototypical response is marked by the near-complete absence, removal or relocation of the formerly dominant industry of commercial fishing; in its place, though, is not a new economy of resort tourism but the economic domination of the recreational fishing tourism industry. The ideal type of a commercial fishing community that has been almost completely overtaken by recreational sports fishers and recreational tourism is Cocodrie,[2] Louisiana which tourism boosters call the sports fishing capital of Louisiana and the Gulf Coast. Located at the southernmost point of Bayou Petit Caillou (or Bayou Little Caillou), Cocodrie is home to thousands of recreational second-home camps on sinking land where cattle grazed at the turn of the early twentieth century. The meandering waterway of Bayou Petit Caillou is one of five bayous extending like an

[2] The name "Cocodrie" is an alternate spelling of the Old French word "cocodril," which means "crocodile." The word "Cocodrie" was also the nickname for the "unmixed black man, who lighted 'les belles Milatraisses' through the dark, muddy waters, by the rays of his hand lantern, but was not allowed to go further than the door of the hall," according to New Orleans writer Rosalie M. Jonas (1911).

outstretched hand down the spine of Terrebonne Parish, situated about an hour southwest of New Orleans. Bayou Petit Caillou contains two communities, Cocodrie and Chauvin. Cocodrie is a sports fishing mega-community that was once dominated by commercial shrimpers, crabbers and oyster harvesters, who now operate out of Chauvin, a marsh community ten miles north.

In 2016, my analysis shows that Cocodrie was home to more than 1,425 second-home recreational fishing camps and more than sixty-four charter boat operators. Tourism boosters began marketing the unincorporated town as the "sports fishing capital of the southern United States" in 2002. Since then, Cocodrie has been flooded more than ten times, according to interviews, newspaper reports, and Federal Emergency Management Agency records. In the disaster decade between 2002 and 2012, each succeeding storm sent unprecedented amounts of floodwaters into the upstream commercial fishing community of Chauvin. Like the rest of Terrebonne Parish, both marsh communities lack hurricane protection levees and suffer from economic outmigration, population loss, and extreme wetland loss, the natural buffer against storm surge.

Typology 2: Biloxi, Mississippi

The second prototypical response is the near-complete absence, removal or relocation of the formerly dominant industry of commercial fishing; in its place is a new economy based almost exclusively on coastal tourism, involving growth in real-estate interests and sweeping changes in planning and land use regulations. The ideal type of a commercial fishing community that has transformed into a densely developed resort

mecca as a result of hurricane destruction and declining market conditions, tourism interests, and a rise in recreational fishing is Biloxi, Mississippi and the nearby section of the Alabama coast known locally as the Cajun Bahamas or the Redneck Riviera, a term that applies to a larger region of the coast from Mobile, Alabama to Apalachicola, Florida. While city elites in the aftermath of Hurricane Katrina rebuilt the Back Bay of Biloxi, long a working waterfront, into a "seafood village" that combines berthing space for the commercial fishing fleet and commercial processing with seafood restaurants and retail outlets, the expansion of casino gambling continues to encroach on Biloxi's now-tiny, mostly part-time commercial fishing industry.

The Back Bay of Biloxi Bay is home to a tiny fishing community, but it once bore the title of seafood capital of the world. In the two decades before Hurricane Katrina, Back Bay shrimpers and seafood factories were experiencing drastic changes due to the spread of gambling casinos following legalization in the early 1990s and an influx of people and capital. Like Bayou Petit Caillou and Apalachicola, Biloxi Bay was most recently affected by Hurricane Katrina in 2005 and the Deepwater Horizon oil spill in 2010; rebuilding plans after each crisis or disaster event have diminished the commercial fishing industry and welcomed the spread of casino-based tourism, encouraging hotels, restaurants and shops to seize or take over traditional working waterfronts.

Typology 3: Apalachicola, Florida

The third response is a commercial fishing community that has remained relatively intact despite development pressures and hurricane-related destruction; it has managed to resist, for the most part, the influences of tourism and recreational fishing and

sustain its commercial fleet, but it is uncertain how long that resistance to change can be maintained. The ideal type is Apalachicola Bay, Florida, which is home to an endangered commercial fishing community that is showing signs of eroding due to environmental, economic, regulatory, social, and political factors. While recent legislation in Florida encourages coastal communities to alter their development rules to preserve recreational and commercial waterfront land, commercial fishing in Apalachicola Bay is threatened by environmental forces outside its control. Unprecedented attention is currently being given to the status of oyster resources in Apalachicola Bay because this fishery has become central to the decision making related to multistate water disputes in the southeastern United States, as well as millions of dollars in funding for restoration programs related to the Deepwater Horizon oil spill, the world's largest accidental oil spill.

Home to an historic commercial fishing community and one of the most productive estuaries in Florida, the Apalachicola Bay area yielded 90 percent of the oysters consumed in Florida and 10 percent consumed nationally before the ecological collapse of the Apalachicola oyster industry in 2012 that continues to this day. While the origins of the oyster collapse can be found upstream, its causes also are a byproduct of a thirty-year geopolitical "water war" between Georgia, Alabama and Florida. Apalachicola was a Hitchitee community that was considered the capital of the Creek Nation during the seventeenth and eighteenth century in the southeastern United States. Now the endangered traditional coastal fishing community is among the last working waterfronts on Florida's Gulf Coast. Prior to the most recent oyster collapse, Apalachicola was severely affected by Hurricane Elena in 1985, Hurricane Ivan in 2004,

and Hurricane Dennis in 2005. The bay area also suffers from a number of development and environmental pressures due to metropolitan Atlanta sprawl and a string of record-breaking U.S. Southeast water shortages.

Theoretical Framework

The Gulf Coast is understudied in the literature, yet it contains a rich history of interaction with the outside world and a long history of extraction of natural resources. Its post-World War II trajectory has been heavily shaped by the interplay of political-economic changes, global forces, tourism pressures, and steady drumbeat of natural and manmade disasters. These forces have been at the center of planning debates in Bayou Petit Caillou, Biloxi and Apalachicola for more than seventy five years, but little is known about them. I suggest that this gap has been caused, in part, by the tendency of existing research to focus on highly developed urban and coastal areas, where awareness of, and vulnerability to, impacts such as hurricane disasters and climate change are highest, and thus where more active support for local policy to address these issues may exist. Far less research has investigated planning in locations with larger numbers of smaller communities and fewer central urban locations, such as the sections of the Gulf Coast that frame this study. Although people live locally, their economic fates are not simply local peculiarities or solely of local interest. People are part of an intricate web of transformations. This is important to understanding the understudied Gulf Coast as it continues to shift from an agricultural, extraction economy to a service economy dependent on attracting new wealth to a region long "mired in poverty" (Stanonis, 2014, p. 16).

Since the 1950s, economic census and fisheries data show a rapid growth in Gulf Coast tourism in volume and value. During the same timeframe, the northern Gulf Coast has been hit by more than three dozen hurricanes or floods, the number one source of disaster loss and damage worldwide. Further, the role of the state in permitting the expansion of Gulf of Mexico petroleum and natural gas industries cannot be overemphasized in the context of the region's overall political-historical-ecological footprint. In 2016, federal Gulf of Mexico offshore leases accounted for 23 percent of U.S. crude oil production; the region is home to more than 40 percent of the country's petroleum refining capacity and 30% of its natural gas processing plant capacity. As the case study chapters will show, oil and gas development began in Texas and Louisiana in the 1930s before moving east to include Mississippi by the 1970s and Alabama by the 1980s, with Florida thus far largely "not involved with" the phenomenon of Gulf Coast petroleum industry expansion (Abbott-Jamieson, 2015, p. 1), a finding that will be explored more in depth in Chapter Three.

The intersection between tourism growth, oil and gas development, the role of the state, and water policy is not insignificant. Polluted estuaries, along with damaging floods, droughts and storms, pave the way for fast-tracked reconstruction projects that allow for the expansion of the tourism sector and policies, at both the local and state level, that encourage new economic development initiatives. As a result of these and other forces, once isolated, peripheral, and spatially segregated commercial fishing villages in coastal waterfront areas along the Gulf Coast are becoming near-total touristic frontiers for professional elites and the emergent businesses that cater to them. As

damages from tristate "water wars"[3] and environmental disasters have multiplied, the commercial fisheries that have historically been at the center of coastal maritime economies have been crushed. The situation is neither unique to the Gulf Coast, nor to the United States. Over the past few decades, commercial fisheries in industrialized countries around the world have lost social, political, and economic importance as recreational fishing, coastal tourism, and aquaculture have grown in economic might and political clout. The literature on coastal gentrification and tourism, while emergent, is clear in its struggle to understand the pronounced spatial dichotomies that exist in most coastal areas around the world between lucrative tourist centers and the struggling, underprivileged margins surrounding tourism centers (Agarwal, 2005; Lopez-Lopez et al., 2006; León, 2007; Manuel-Navarette, 2016). Tourism research is also rich in analysis of interpersonal conflicts and social values conflicts between visitors and locals (Graefe and Thapa, 2004; Vaske et al., 2007; Nelson and Matthews, 2018).

However, the motivation for this research is the paucity of empirical investigations analyzing how the tensions between the state, industry, and community manifest themselves over time into a changed landscape. To date few studies have shed insight on the interplay between political, economic, social, environmental, and global factors and policies that give rise to the distinct coastal tourist landscapes we see along the northern Gulf of Mexico. There is likewise scant research on the consequences of Gulf Coast tourism growth on host communities located outside of major cities (Gotham, 2005, 2007), where water struggles and private-property damages are inspiring new

[3] The term "water wars" was coined by law school student Robert E. Vest in 1993 (p. 689). The term is used here to describe water conflicts both between and within Gulf Coast states, communities, and groups over access to both freshwater and saltwater resources. The specific example of Apalachicola, Florida's three-decades-long "water war" with Alabama and Georgia is the subject of Chapter 3.

policies that allow for more flexible tourist and private-market real estate developments that remove or relocate lower income-producing, full-time homes from the picture (Klein, 2007; Freudenberg et al., 2007; Collins, 2012).

Only through further investigation is it possible for the northern Gulf Coast *local* experience to contribute to international conceptual debates and theories concerning coastal gentrification, tourism urbanization, and water resource policy, politics and planning. A number of local factors that often go unnoticed in the literature on gentrification, tourism, and environmental policy have affected each case study community's response to external development pressures.

Local power influences the scale and spread of economic and infrastructure improvements, until that power is usurped by the power of the state as well as other external forces no longer within local control. Critical social theorists studying the current wave of globalization have labeled this increase in local variabilities and fragmentation in the face of external pressures "glocal" (global-local). In strictly economic terms, glocalization can mean minute changes in global products for a particular local market (e.g., McDonald's selling lobster rolls on the Atlantic coast of North America or Maharaja Macs in India), or the selling of local products on a global basis through e-commerce. In broader sociological terms, it signifies "the simultaneity—the co-presence—of both universalizing and particularizing tendencies'' (Robertson, 1997, p. 16). In the context of community development within the Gulf Coast, the "glocal" term places the emphasis firmly on the ability of local communities to co-opt the worst ravages of globalization, or external development pressures, economically, culturally, and ecologically. This research will question how globalization and

glocalization come into play, for how long, and how they interact with national, regional, state, and local forces driving the Gulf Coast economy.

Many aspects of the cultural and environmental plight of Gulf Coast cities, towns and villages are well researched by historians, anthropologists, geographers, sociologists, and environmental scientists. There is rich historical and ethnographic data on the region's Cajun, Creole, American Indian, Islenos, and African-American people that emphasizes their communities' resiliency and vulnerability. Likewise there is in-depth physical science data on the Gulf Coast's susceptibility to flooding, climate change, storms, storm impacts on coastal environmental ecosystems, habitat degradation resulting from wetlands deterioration, and the loss of barrier islands. What is less explored in previous research is *process and power*: the specific ways in which change happens, and the dynamics of who gets to decide the place and pace of change, particularly within those populated regions of the Florida Panhandle, coastal Mississippi, and the flood-prone bayous of Louisiana that have experienced disproportionately higher threats from water, and that have borne a disproportionate brunt of manmade and environmental disasters, including extremely costly storms, oil spills, harmful algal blooms, coastal erosion, and land subsidence, than the rest of the coastal United States in recent years (Dillard, 2015).

By synthesizing a voluminous set of archival, primary, and secondary data, I tell a story of power, privilege and politics along America's Forgotten Coast. The story is fraught with political, economic, race and class tensions that have taken on a different tone and character through the postwar decades but are not yet close to being resolved. What follows is an attempt to untangle the complex webs of change facing Gulf Coast

communities in ways that illuminate the importance of local contexts, regional forces, power dynamics and patterns of transition. This dissertation explores each case study in Chapters Two, Three and Four.

The remainder of this introduction establishes an overarching theoretical framework to contextualize and understand the role of local, state and global spheres of interaction within processes of coastal urbanization, gentrification, water policy, and collective decision-making processes. These multiple levels of reality are in constant tension, reflecting the lived experiences of Gulf Coast residents as players on a broader state, regional, and even global stage. Throughout the case study chapters, findings will be analyzed from sixty-two semi-structured interviews, demographic and economic statistics, direct and indirect observations, and archival research conducted from 2005 to 2018 in each of the three case-study sites. Findings from the data are presented to highlight the local and regional structural frameworks and conditions affecting coastal change during the twentieth and into the early part of the twenty-first century. The conclusion assesses the relevance of the empirical findings in light of the literature presented; considers issues for future studies of coastal change; and expresses hope that the sometimes traumatic struggles of the past sixty years can be leveraged to galvanize communities to press for an invigorated, sustainable, and locally centered Gulf Coast economy.

Taken together, the three case studies offer a new lens into the dynamics of development along America's increasingly populated Gulf Coast shores at the turn of the twenty-first century. Building an understanding of coastal change is an interdisciplinary endeavor. I include a holistic examination of the interacting factors—global, national,

regional, state, local, and personal—that define the political economy of place-based coastal development and conflict (Trouillot, 2003; Baxter and Mann, 1992; Fainstein and Fainstein, 1983; Wolf, 1982). As Lucy Lippard (1997) explained in her sensitive exploration of "the lure of the local," it is inevitable to conflate place and community. They are intricately bound together: "Like the places they inhabit, communities are bumpily layered and mixed, exposing hybrid stories that cannot be seen in a linear fashion, aside from those 'preserved' examples which usually stereotype and oversimplify the past" (24).

Given the depth and breadth of the case study material, a framework is useful to synthesize the implications of each chapter for the research model. The themes and patterns, how they link to each other, and how they connect to the theories framed below will be expanded upon in Chapter Five's cross-case analysis. For the purposes of the theoretical review, findings from the three cases can be categorized into several overarching explanations:

1. The role of the state, with specific attention to the impacts of federal, state and interstate political economy and equity in resource allocation decisions. Within this context is an examination of the capacity of business and industry, tourism, and other pro-development interests to influence the agenda
2. Coastal gentrification and urbanization in terms of resources and willingness to protect or preserve natural resource-dependent economies, including commercial fishing and coastal tourism

3. Disaster theory and the geopolitical economies of reconstruction following natural and manmade crises, particularly Gulf Coast hurricanes
4. The capacities of coastal communities to emerge from adversity

1. The Role of the State

The drive between Bayou Petit Caillou, Louisiana and Apalachicola, Florida is a near-perfect semicircle spanning 469 miles around Interstate 10. By car, the eight-hour journey crosses ten estuaries and four state borders. Driving through each state, one encounters a particular landscape - bayou, manmade beachfront, white-sand shore - that is not natural, but that has been intentionally shaped by a maze of policing and authorizing agencies that, over the course of two centuries, have either heavily regulated or deeply ignored the development and defense of the coastal zone. The layers of decision-making that govern management of the coastal zone can be characterized by the existence or disappearance of policies, regulatory requirements, and capabilities of various agencies, depending upon the context and scale of the decision, as well as which state one is in. Across the Gulf Coast, the many agencies involved in coastal governance "have mandates that can be complementary, overlapping, or conflicting" (Jordan and Benson, 2013, p. 4689).

Within the case study states of Louisiana, Mississippi, and Florida, unraveling the tensions between, on the one hand, state-centered governance from the capitals of Baton Rouge, Jackson, and Tallahassee and, on the other hand, local self-governance, local decision-making, and cross-sector collective action is essential to illustrating the issues that both unify and distinguish each empirically grounded case study chapter, particularly

through the lens of the Gulf Coast as "an environment of risk" (Nichter, 2008). While each case study provides a diversity of situations that are at times idiosyncratic, I argue the cases share a similar reliance on their respective state to provide the technical and financial resources to strengthen local capacity to govern the coast. That is, I am arguing that we need to understand each state's particular coastal policymaking decisions -- how state policies, laws, and regulations shape access to and use of the coast -- in order to understand how, as François Molle, Elena López-Gunn, and Frank van Steenbergen write in their 2018 account of global groundwater overexploitation, "local actors ignore, circumvent, deflect, appropriate, cope with or adjust to state policies" (p. 448). While not all states are the same, they do tend to "underperform" in their regulation attempts at the local level for a variety of reasons, including lack of technical knowledge, lack of financial and human resources to monitor and control illegal activity, a plethora of legal challenges, the interests of "economically powerful and politically connected users," and "a reluctance to face the political cost of antagonizing" certain constituencies such as rural stakeholders (p. 450). In all cases "where governance is centred on the state its regulation and enforcement are found to be lax" (p. 450). I argue that within the Gulf Coast exists a similar relationship between what happens at the state policymaking level and how outcomes play out at the local level. Louisiana, Mississippi, and Florida are states with dynamic histories, compositions, forms of capital, social structures, and capacities, all of which play into local responses and the social dynamics resulting from state policies and their implementation (or resistance).

In terms of protecting or preserving the coast, the remainder of this section explores the conditions that shape the state's role (e.g., pro-environmental statewide

policy adoption, as we see in Florida) and the local factors that may help some coastal communities implement programs and policies that specifically target local concerns, external to the state, at the same time the vast majority of local and regional governments are unable, or unwilling, to do so. I expand on this argument by first orienting it in literature and relevant scholarly debates. Specifically, I explore the role of the state and state-local relations in shaping both coastal policy and on-the-ground local outcomes as they relate to complex interrelationships between environment and social/political/economic contexts. Following this discussion, I provide more detailed accounts of three policies, one from each state, that frame the center of this research.

Uneven outcomes and the state's role in promoting or limiting economic development have long fascinated scholars. Bourdieu's (1985) field theory has been used to explain a range of social processes from organizational change to the emergence of think tanks, yet has only recently been applied to studies of the state that are attempting to understand broader environmental factors that structure alliances between groups, according to Steinmetz (2017) as cited in McPike (2017). According to Evans (1997), "state-society synergy can be a catalyst for development" (p. 178), while social groups who are able to participate, take action and "co-produce" with the state are often more effective in getting the outcomes they seek (Migdal (2001). In *Thinking like a State*, James Scott (1998) argues that one of the first tasks of the modern state was "the administrative ordering of nature and society," i.e., to structure its environment and to characterize and count characteristics of the environment (e.g., to count people, trees, and property values). The creation of land-use maps based on surveys creates what Scott calls "legibility," i.e., enabling the state to "read" the environment, whether natural or urban

(pgs. 44, 50-51). Scott discusses another characteristic of states attempting to impose modernity: an ideology of "high modernism." This is an unbounded confidence in the ability of science and technology to produce progress toward a well-ordered, rational, better world. A key aspect of high modernism is the belief that if a place looks well-ordered, it must function better. Scott links high modernist ideology to twentieth century urban renewal. He is particularly critical of famed city planner Le Corbusier, who proposed the complete replacement of large sections of cities with his geometrically simple, orderly designs in which millions of people would live. While Le Corbusier was never able to complete any of his extravagant designs, his ideas were tremendously influential in the city planning community. Urban redevelopment efforts that stressed the removal of disorder and its replacement with modernist "superblocks" became standard practice in American cities, including in downtown East Biloxi, from the 1930s through the 1970s (Scott, 1998, p. 104-117).

A disconnect exists between Scott's (1998) "high modernist" policies and actual outcomes along the Gulf Coast. The tension provides an opportunity to gain insight on the challenges that emerge with local implementation. When coasts urbanize, the regimes of federal, state, regional, and local governments are in full force. They use infrastructure, investment schemes, and other initiatives in the name of economic development and in line with seminal studies of the city as an urban growth machine (Molotch, 1976). Just as they are the forces most likely to resist globalization pressures when voters become mobilized, local and state governments also are inclined to cater to the tourism and development industries, particularly following moments of crisis. Absent local resistance, or even local presence as disasters disperse full-time residents, officials eager to attract

growth and expand tax revenues jump on the tourism bandwagon with ever-more-permissive planning, zoning, and land use regulations. As Molotch analyzed fifty years ago, a common desire for growth pervades nearly all local activities: beyond the straightforward logic of economics, the pursuit of growth shapes the political system as well as the work of locally dependent socio-cultural organizations such as museums, foundations, media companies, and sports teams (Molotch, 1976; Sant and Simons, 1993; Charlier and Bologa, 2003; Klein et al., 2004; Davenport and Davenport, 2006).

Examining how Bayou Petit Caillou, Biloxi and Apalaciahola are governed and the ways in which policies shape particular forms of governance is of central importance to my research. The issue of "who governs" and to what effect is driven primarily by the ways in which diverse groups of actors organize themselves around use value (land value) and exchange value (cultural, historic and symbolic value) (Logan and Molotch, 2007). The urban growth machine's success is often tied to the existence of an effective state apparatus that can coordinate an agenda with a diverse network of use- and exchange-value actors, bringing value and benefit to both. The dichotomy between landscapes of economic production and landscapes of consumption becomes more pronounced when this relationship is lacking (Mullins, 1994; Dredge, 2001).

The political-economy approach helps make sense of how societal influences have changed government planning and policy making, even infrastructure development, thereby influencing community values, attitudes and interests in tourism. But as historical ecologists such as William Balée make clear, such changes cannot be viewed in isolation from a historical framework that considers, in great detail, local contexts: the how and the why that shape our understanding of the ways people choose to manipulate their

environments within the constraints of state policy and regulation. There is also a difference when the industry in question is tourism, whose economy depends on designing or manufacturing near-seamless landscapes of production and consumption, and when the geography in question is the coast. In their far-reaching study of Gulf Coast ecosystems, Jordan and Benson (2013) observe that "the policy environment of the Gulf Coast is rooted in the federal-state-local government hierarchy," with some overlap occurring at the intermediate governance layer through multi-county/parish or regional partnerships such as planning councils and estuary programs (p. 4695). While localities "are at the bottom of the governance hierarchy," they are "ultimately responsible for vast numbers of decisions that affect the environment and contribute positively or negatively to sustainability" (p. 4694). These decisions include land planning and permitting, infrastructure development, water and waste management, maintenance of seaports, and many other activities affecting coastal resources. It is notable in this context that Louisiana has delegated its coastal zone management program to coastal parishes (Jordan and Benson, 2013).

Three state-centered policy cases and their trickle-down implementation to the study communities frame the remainder of this section. First is the Morganza-to-the-Gulf levee protection system in south Louisiana. The lower bayou communities of south-central Louisiana share a complex system of federal, state and parish/community levees (sometimes called "storm levees" or "drainage levees") that provide varying levels of protection. Levees, and the policies associated with their construction, generate confusion regarding the locus of responsibility for levee construction and community protection, as a number of these structures were built under the jurisdiction of parish levee districts, yet

supervision and standards extend all the way up to federal levels (e.g. The Army Corps of Engineers). The complexity of levee authority and control is illustrated by the Morganza to the Gulf levee project, which is designed to provide comprehensive protection to a number of communities along the Gulf Coast, "but is cobbled together from a number of newly proposed and existing community levees" (McMahan, 2014, p. 143)

Morganza-to-the-Gulf, chronicled in Chapter Two, is a federal, state, and locally funded attempt to bring a more standardized approach to coastal levee protection by aligning a 98-mile stretch of "grass-covered earthen levees, 22 floodgates on navigable waterways, 23 environmental water control structures, nine road gates and fronting protection for four existing pump stations" ("Morganza," 2015, p. 1). Morganza was authorized in the Water Resources Development Act of 2007 based on 2002 and 2003 reports. In the wake of Hurricanes Katrina and Rita, the Army Corps of Engineers altered its design for Morganza to include higher levees and improved guidelines for soil testing, all of which drove up project costs more than 20 percent higher than the costs authorized in 2007. Morganza was reauthorized in 2014, but excluded five communities from its protective enclosure (Lovett, 2017), including Isle de Jean Charles, thereby either ensuring its eventual disappearance or justifying the $48 million cost of relocating its "climate refugees" (Maldonado, 2014; Finnegan, 2018, p. 1). Further, recent criticisms of Morganza and Louisiana's larger $50 billion, fifty-year Master Plan for a Sustainable Coast call into question the state's current approach to its shrinking shoreline, which "rationalized the very practices sinking it. The Working Coast reifies the state's fragile marshlands through metrics that can only be realized through continued extraction" (Randolph, 2018, p. 1-2). The politics of authority, responsibility, and control quickly

blur when the "risks posed by global climate change continue to mount," writes Louisiana legal scholar John Lovett (2017, p. 25). Another case study analysis of the Louisiana Gulf Coast is blunter: "the challenges to sustainability are so great that even the most effective policies may not suffice" (Jordan and Benson, 2013, p. 4699).

One state away in Mississippi, the rise of state-sponsored gambling and the process of choosing casinos over other forms of gambling enable us to understand the broader political economy of a Deep South state that is known today as the "Las Vegas of the South." Writing when Mississippi lawmakers legalized gambling, Dombrink and Thompson (1990, p. 8) named several factors that influence whether a state will allow casinos to operate legally. These include (1) "political environment" factors such as the economy and the state's prior experience with gambling; (2) "political elite and active interest" factors, including business and public officials' opinions on casinos; (3) "campaign sponsorship" factors, such as the credibility and financial commitment of casino proponents; and (4) "campaign issue dominance" indicators, which gets at how successful casino boosters are in reframing gambling expansion away from crime and morality toward economic development. Dombrink and Thompson's study concludes with an observation that if one of the four factors exists in opposition to a casino bid, the measure will fail.

Nelson and Mason (2003-2004) disagree with the Dombrink-Thompson Model as a cut-and-dry interpretation without applicability to the politics of gambling in the South. Mississippi became a "lottery state" as an act of both competition and desperation (p. 649-650). As the 1990 session of the Mississippi Legislature opened in January, 62 percent of respondents to a Jackson *Clarion-Ledger* poll voiced public support for a state

lottery, and the state "seemed set" for its adoption (Nelson and Mason, 2003-2004, p. 650). Nineteen states had adopted lotteries in the previous decade, including Florida in 1986 and Virginia in 1987, while Mississippi's border states of Tennessee and Louisiana were actively considering it. The state was "mired in recession," with "consecutive years of budgetary shortfalls" and a political climate opposed to tax increases (p. 650). Supporters were surprised, then to see the lottery test vote fail, only to witness popular support for legalized gambling rise up to take its place.[4] The Legislature's March 15, 1990 approval of the Gaming Control Act legalized gambling in fourteen of Mississippi's eighty-two counties, including the three counties along the Gulf Coast that had never recovered from the devastation wrought by Hurricane Camille in 1969 (and recently were suffering from declining oil and gas prices and cutbacks from the federal defense budget) and the eleven counties along the state's western Mississippi River delta, which had the lowest per capita income of any county in the nation in 1980. Mississippi was the fifth casino state in the country and the first in the South. Within a few years, the state would count more casinos than any other state except Nevada (Nelson and Mason, 2003-2004).

In their case study of Mississippi casino gambling, Nelson and Mason (p. 651) theorize that "anticipatory diffusion" theory helps explain the "state's enactment of a policy innovation for fear that another state will make that innovation less effective by enacting it first." Competition from nearby New Orleans was enough to compel Mississippi lawmakers to try their hand at attracting casinos first. Over time, "incremental diffusion," which occurs "when one state alters a policy innovation in the course of copying it," resulted in Mississippi removing both the betting limits and,

[4] According to Nelson and Mason's analysis (2003-2004), amending Mississippi's 1890 constitution to permit a lottery would have required two-thirds vote of both houses of the Legislature. Casino gambling requiring a simple majority.

eventually, the limits on casino licenses (p. 652), twin forms of what could be called "tourism enhancement" (p. 654) Finally, the political-economic conditions of the state were historically accepting of illegal casinos, and the Gulf Coast had an infamously lax regulatory climate, as Chapter Four shows. Boosters were able to persuade conservative colleagues that casinos would be private enterprises; that Mississippi had a "better claim to the riverboat gambler tradition" than Midwestern states; and that the casino bill was *of local importance*. The law allowed for a local-option approach in which citizens of each affected county could technically vote to ban the gambling referendum (Nelson & Mason, 2003-2004). In this way, Mississippi Coast residents bought into a state-led campaign that would quickly upend the local economy, and create the conditions for the seemingly limitless spread of the gambling industry. With no restrictions on the number of casino licenses; no limits on bets, losses, or a gambler's days and hours; and a reduced tax rate, the "abbreviated politics of casino adoption" spawned what Nelson and Mason (p. 655) term an "after-politics" of controversy that continues today.

Western Florida's share of the Gulf of Mexico is about half the size of the Louisiana Gulf Coast, yet the state has twice as many "priority areas" within its coastal zone management program (Jordan and Benson, 2013, p. 4691-92). While Louisiana considers coastal use permits, pollution control and wetland mitigation state concerns, it delegates much enforcement authority to local parishes. Florida, in contrast, considers it the state's duty to protect public access; consider the cumulative and secondary impacts of coastal projects; oversee ocean resources including aquaculture, centralize community resiliency issues, including planning for sea level rise; coral and hard bottom ecosystem mapping; and so on. As Jordan and Benson observe:

> "The five states that bound the USA Gulf Coast share interests in maintaining clean beaches, productive fisheries, diverse intact habitats to support fish and wildlife, thriving maritime industries, and community resilience to extreme events and sea level rise. Nevertheless, these and other relevant interests vary from state to state in degree and character, as do governance structures, policy environments, and relative importance of the coast, both geographically and economically" (p. 4693).

Although Florida's 1985 Growth Management Act is cited, one of the policies missing from Jordan and Benson's Florida list is the 2001 Florida Building Code (FBC), a historic piece of legislation that took almost a decade to come to fruition. The state's role in authorizing uniform building codes did not come easy. It took the disaster of Hurricane Andrew in 2001 to bring attention to the fact that inferior "construction practices in place during the 1980s" coupled with poor building code enforcement were insufficient in protecting people and property from such a powerful windstorm, and "unnecessarily magnified the extensive damage" (Simmons, Czajkowski and Done, 2018, p. 156). In their case study analysis of the building code legislation, Simmons, Czajkowski and Done uncover the origins of the movement in the three Florida counties of Broward, Dade, and Monroe that were already complying with the South Florida Building Code standards. Beyond this cluster of counties, some communities scattered across Florida also were taking it upon themselves to adopt stronger local codes. These local grassroots efforts caught the attention of the Florida Building Code Commission, which in 1996 partnered with wind engineers to study whether to recommend statewide building code standards. The Florida legislature accepted the commission's recommendations in 1998 and in 2001 they became one of the strictest building code laws in the state, effectively wrenching control of building code adoption from individual localities.

With full implementation of the statewide building code, the expectations were high that windstorm losses from extreme events such as hurricanes would be significantly reduced moving forward. A few studies following the 2004 and 2005 hurricane season confirmed these expectations. But the long-term impact of the FBC has emerged only recently in Simmons, Czajkowski and Done's (2008, p. 63) analysis of a decade of data following implementation from 2001 to 2010 for all Florida ZIP codes. Based on ten years of paid insured loss data, the researchers found that Florida's universal building codes reduced windstorm losses by up to 72%. Their results also suggest that the building codes pass the benefit-cost analysis - meaning expected benefits exceed cost of implementation by a margin of $6 in full reduced loss to $1 of added cost, with a payback period of approximately eight years. In their concluding comments, the researchers remark how important data like this are "to gauging potential political support, or nonsupport, for enactment of the new codes" (p. 17).

The economic effectiveness of mandatory statewide building codes have implications for ongoing policy discussions from a Gulf Coast and national perspective, but these implications often fall on deaf ears in southern states historically resistant to centralized authority. Florida's experience with centralized state control predates the Florida Building Codes. The state's Growth Management Act of 1985 required that Local Comprehensive Plans include a coastal element to address hazard mitigation and protect coastal environmental resources. Each locality was required to designate a Coastal High Hazard Area, within which development densities would be established in accordance with the capacity of local transportation systems to evacuate the population (Puszkin-Chevlina and Esnard, 2009). The law was not without critics, but, as Puszkin-Chevlina

and Esnard write, “Hurricane Andrew revealed the multifaceted vulnerabilities of South Florida’s coastal communities and incited public support for better building codes and development practices.” It was a “focusing event” at the state level whose repercussions in the aftermath of the 2004 “focusing events” (Hurricanes Charley, Frances, Ivan Jeanne, Dennis) and 2018 “focusing event” (Hurricane Michael) continue to ripple (Puszkin-Chevlina Esnard, 2009, p. 303).

2. Coastal Gentrification and Urbanization

The changes occurring in Gulf Coast communities cannot be understood using a single line of inquiry, theory, or paradigm. The urbanization process in the coastal setting is dynamic, involving complex social, cultural, spatial, economic, political, and ecological relations. Along the northern Gulf Coast, local economic bases are shifting from a reliance on natural-resource extraction to a dependence on the global coastal tourism and agro-food industries that depend upon government support and high-risk, large-investment capital inputs (Marshall, 2009). Within the fishery, a key feature of globalization has been a profound loss of control over every aspect of the production process due to changing fisheries policy, privatization, and aquaculture development. The result is that local fishers no longer “determine what, how much, by what method and for whom” fish are caught (Whatmore, 1995, p. 37). At the same time, as Chapter Two will show, indigenous Gulf Coast citizens are slowly retreating from the increasingly unaffordable, ecologically contaminated, at-risk coast.

While the dynamics of coastal urbanization escape neat categorization, the coastal gentrification approach can help to frame the discussion in its consideration of the hand-

in-glove relationships between economic restructuring and tourism growth. Rather than viewing tourism expansion, suburban growth, and commercial fishing decline as separate happenstances, coastal gentrification sees the collapse of the commercial fishing economy as inextricably linked to tourism growth and development. The two are not mutually exclusive but closely impact each other. When the fishing economy takes a dive, the declining property values of dockside space become attractive investments to new gentrification interests. This finding supports the emerging view of gentrification as a geographically rootless expression of political economy, as a manifestation of the growth of the affluent at the expense of the working class in capitalist society, and as a consequence of economic restructuring. Researchers mostly split into three camps in theorizing gentrification: those who side with geographer Neil Smith's (1979) supply-side analysis; those on the consumption side who think the rent gap is only a partial explanation of the gentrification phenomenon; and those like Collins (2013) who warn that other processes such as counter urbanization and rural restructuring may be at play when considering the situation facing communities experiencing patterns of increasing prices and decreasing affordability.

In these communities, residential development along the coast is more about lifestyle, privileged access to landscapes and amenities, and possibly capital gain, than middle class recolonization of space. Other recent gentrification scholarship favors the consumption approach because it considers gentrification as a multi-faceted phenomenon whose relevance extends beyond the urban inner city (Hines, 2012). Amenity migrations, or the desire of urban people to live in the countryside, not only consume rural landscapes and recreational opportunities, they also contribute to new types of rural production: most

obviously through restoration of historic buildings, but also via artistic creation and performance, and small businesses providing niche goods and services (Guimond and Simard, 2010; Hines, 2012; Collins, 2013; Hurley and Ari, 2018).

This broader conception of gentrification offers a way to understand the changes occurring along the Gulf Coast. The contemporary view of gentrification, divorced from urban inner-city geography, views the process as a change in the social composition of an area and its people as well as a change in the nature of an area's housing stock. Alternately, the classic urban rent-gap theory considers gentrification in the context of long-term shifts of investment and disinvestment in the built environment. Neil Smith's work focuses on the specific relationships between land and property value, and in particular how disinvestment makes capital reinvestment possible. He stresses the production of urban space in terms of the actions of producers (builders, developers, mortgage lenders, government agencies) and consumers (buyers). Smith argues that in the nineteenth century, most cities had a "classical land value gradient," with the highest land values at the center and the lowest values toward the periphery (Smith, 1979, p. 540). Suburbanization made land values in the inner city plummet and suburban property values increase. The devalorization of the inner city provided the basis for subsequent profitable reinvestment. The rent-gap theory hypothesizes that gentrification can occur *only* when the gap is wide enough to ensure a profit (Smith, 1979).

In contrast with Smith and important in the context of coastal urbanization along the Gulf Coast, researchers are increasingly finding that the existence of a rent gap is not a necessary or sufficient condition for gentrification to occur. Instead, the existence of a pool of new middle- and upper-class *potential* gentrifiers is viewed as a necessary

prerequisite for gentrification to take place, as is a group of potentially gentrifiable homes or vacant land where new properties can be built (Rigolon and Nemeth, 2019). The concept of urban inner-city gentrification has relevance to the Gulf Coast setting because of two socioeconomic parallels: locational advantage and the local population's vulnerability to displacement. Rural gentrification, researchers long ago noted, can be remarkably similar to the gentrification process that occurs in inner cities around the world (Parsons, 1980; McLaughlin, 1986; Little, 1987). In rural agricultural or fishing villages, for example, depopulation comes when occupational opportunities in rural areas are removed—such is the case in Gulf Coast commercial fishing communities when the industry takes a downturn. The economic slump alters the housing situation when the original population moves and services disappear (Phillips, 1993, 2004, 2005; Smith, 1979). Similar to what happens in inner cities, rural settings are ready for "gentrification investment" following this period of "de-investment and devaluation" (Phillips, 2005, p. 6).

The view that rural gentrification involves the same tensions as urban inner-city gentrification is relevant to the Gulf Coast because of the impacts of hurricanes and environmental disasters on rural fishing villages and agricultural communities from Texas to Florida. Yet the concept remains unexplored in the literature. Phillips (2004) discusses how disasters in the agricultural and fishing economies can spur rural gentrification because of their socioeconomic impacts on traditional lifestyles, but there are few case studies exploring how this twofold process unfolds at the local level. Gentrification is an undeniable presence along the Gulf. Twenty-five years ago, commercial fishers in Florida were labeled an "endangered species" because decades of

coastal development, tourism, and federal fishing regulations had pushed them to the fringes of the state economy (Smith and Jepson, 1993, p. 40). This critical issue is currently facing Gulf Coast fishing communities that are experiencing varying degrees of environmental degradation and economic restructuring due to the declining value of commercial fishing products and rising value of consumption in the service and leisure economies.

Coastal gentrification and tourism can be seen as one process as coastal areas around the world transform from quaint fishing villages into privatized spaces for tourists and the elite. A major driver of increasing coastal gentrification pressures along the Gulf Coast is the marketing and promotion of tourism led by business leaders, realtors, and developers, and the policy changes they successfully influence. The gentrification literature is beginning to consider the roles tourism marketing and tourism-friendly policy changes play in the gentrification process. When examining why residents in changing coastal communities have had mixed success battling the development of tourism in their backyards, it is useful to consult tourism theories that focus on conflict between permanent residents and vacationers, and how this conflict can restrict or expand tourism growth, depending on who holds the power to influence policy. By framing the discussion in terms of tourism gentrification and political economy, we can begin to understand the fuller picture of who wins and who loses when change happens in Gulf Coast communities.

Tourism gentrification as a new urban form is an emerging field of study that attempts to critically frame an understanding of leisure in the context of changes in land use, policy issues, and development, and these impacts on host communities and class

relations (Mullins, 1991, 1992, 1994; Paniagua, 2002; Urry, 2002; Gotham, 2005; Gladstone 1998, 2006). Historically, tourism growth can be traced to changes in touristic behavior beginning in the postwar era when vacations became increasingly individualized as well as shorter, more frequent, and activity-based (Jacobsen, 1997; Sharpley and Sharpley, 1997; Müller, 2002). The research on tourism patterns during the 1960s and 1970s focused mostly on touristic motivations, patterns of second-home ownership, and planning issues. In recent years, tourism scholars have interpreted the trend as an effect of the globalization process and post-industrial economic restructuring. The arrival of greater economic prosperity in most industrial economies has led to higher disposable incomes, fewer working hours, and longer periods of leisure time (Sharpley and Telfer, 2002). Greater affluence and more leisure time encourage second home ownership. As tourism spreads, so does class polarization. Relations imposed by regime changes in the global, post-industrial economy have fragmented and divided social relations and civil society and led to many contemporary discourses on social divisions within urban society (Wilson, 1987; Zukin, 1991; Sassen, 1991; Hornsby, 1993; Room, 1995; Jargowsky, 1997; Buck, 2001; Gerometta et al., 2005).

In the contemporary tourism literature, one of the most controversial conflict issues concerns exclusion and displacement, the question of whether tourism demands force permanent residents from their homes. Within the field of second-home tourism and displacement studies, researchers argue that permanent residents are displaced due to high demand for tourism development, especially in exclusive locations (Jordan, 1980; Sharpley and Sharpley, 1997; Fountain and Hall, 2002; Folkesdotter, 2003; Gallent et al., 2003, 2005; Visser, 2004; Henderson, 2018). This argument relates to gentrification

theory because the transnational tourism development boom is based on the local price inflation of dwellings, generated mainly by external demand for second homes (ranging from condominiums to time-shares to, increasingly, vacation rental by owner) in the area. As tourism expands, locals are priced out of the region. At the same time, there also tends to be a movement to eliminate locals from working in formal tourism establishments. An accompanying privatization of space worsens inequalities among social classes in spatially segregated tourist destinations (Tosun et al., 2003; Bianchi, 2004; Gladstone, 2006). The influx of outsiders in the form of second-home owners Anglicizes traditional fishing communities and destroys local customs and culture through forced depopulation (Bollom, 1978; Phillips and Thomas, 2001). This is the case in many attractive rural, mostly mountainous or coastal areas where price levels have recently skyrocketed. However, other researchers have argued that the depopulation trend in these locations is caused by a more general restructuring of the rural economy than the might of gentrification-oriented real-estate boards and developers (Clout, 1972; Shucksmith, 1983; Barke, 1991; Keen and Hall, 2004; Müller, 2004; Müller et al., 2004; Selwood and Tonts, 2004). These researchers argue that a decline in traditional agriculture, fishing, and manufacturing has resulted in rural unemployment and out-migration, leading to empty dwellings and new uses as second homes or tourism developments (Müller et al., 2004).

The debate underscores the issue of perspective. Fearing a slump, village boosters seek to feed the growth machine by attracting new economies. But what goes unnoticed in much of the gentrification literature is the trickle-down effect such restructuring has on locals, who tend to be much more cautious and wary of change because of the ways in which new land uses impact their property taxes and services. Neil Smith's view of

gentrification as taking on the character of the French "revanchist city" of the late nineteenth century is apropos here. Smith (1996, p. 60-65) contends that, more than anything, "*revenge"* exemplifies contemporary gentrification efforts as marginalized groups distinguished by race, class, and gender, are blamed for the squalor of the American city, resulting in punitive and regressive policies (italics are mine). In this way, elites investing in Gulf Coast communities can attribute waterfront squalor to the actions of commercial fishers who lack pride of place rather than to a shoddy and haphazard municipal trash pickup system or just another side effect of the latest Gulf Coast disaster. Gentrification steps in when newcomers take action and seek consequences, such as filing a complaint with the city sanitation department or office that fines blighted property owners against old-timers whom they think are exhibiting undesirable behaviors.

Gentrification, more than anything else, is the materialization of class powers. The phenomenon occurs across the spatial scale, in cities and suburbs and rural settings where relationships are changing between people and where they live and where new limitations are reducing access and promoting exclusion (Butler, 2007). The difference between Neil Smith's gentrifying London of the 1960s and the process as it takes place in exurban, rural, and coastal settings is one of extremes. As more people assume the role of the gentry, they "feel obliged to express who they are by where they live and with whom they share their neighborhood" (Butler, 2007, p. 163).To insist that "upscaling" coastal landscapes are simply reflections of housing changes or broader economic shifts is to ignore the very real class dimensions framing the displacement process, a process that increasingly is taking place beyond the urban working class neighborhoods of the inner

city, and directly impacting our nation's fragile coastlines. In some ways, the term "gentry" has come full-circle and now may be closer to its etymological rural roots in the high society of the rural British countryside. There are various and particular ways in which external tourism gentrification pressures play out over the long run in specific local settings, particularly in the fishing- and/or agriculture-dependent coastal areas that are the focus of this dissertation.

While the gentrification literature is fraught with debate over winners and losers, sociologists largely agree on tourism's benefits. Most researchers believe tourism has the most serious dislocating effects and yields the fewest benefits for locals when large-scale, high standard facilities—such as gated recreational fishing subdivisions and casino gambling franchises—are rapidly introduced by outside developers into an otherwise poorly developed or inequitably divided area. The tourism mindset that follows this influx of newcomers puts pressure on resources whose supply is inelastic, such as food, fish and environment. Thus, while tourism frequently has short-term benefits for locals who are directly involved in its perceived employment and economic opportunities, it can cause longer-term hardships for the rest of the population and the community at large (Cohen, 1984; Williams, 2004; Hall, 2005; Mansfield & Jonas, 2006).

3. Hurricanes, Disaster Theory and the Geopolitical Economy of Reconstruction

Since 1950, nineteen significant hurricanes have struck the Gulf Coast study area between south Louisiana and the Florida Panhandle.[5] As specific types of disasters, hurricanes are intertwined with the intimate histories of each case study community and cannot be disentangled from most of the significant change events that have occurred within the Gulf Coast during the study period. While hurricanes fall under the general risk of "water" identified in the dissertation title, an umbrella category inclusive of hazards related to rising water, saltwater intrusion, floods, tropical storms, mudslides, violent winds, and intense droughts, hazards that can be both chronic and sudden, each hurricane disaster is a singular severe weather event whose lessons and implications endure for decades. Histories of water offer more personal and local insights into histories of climate and climate change, and there are increasing attempts to understand water's role in mediating relationships between climate, weather, and society (Morgan, 2018). Integrating these histories and coming to terms with the factors that distinguish hurricane disasters from socio-technical and other disaster events has shaped the disaster studies field, as well as disaster theory and disaster social science fields, for decades (Killian, 1954; Scott, 1990; Enarson, 1998; Huffman, 1989; Few, 2003; Smith, 2004). Since the 2004 and 2005 hurricane seasons, disasters and crises have gained increasing attention, while scholarly treatment of hurricane disasters has become more critical, more complex, more historical, and more comparative, focusing on the social and political elements that emerge from disaster situations in particular "crisis cities" (Gotham, 2007; Freudenburg, Grambling, Laska, and Erikson, 2008, 2009; Gotham and Greenberg, 2014;

[5] Hilda - 1964; Betsy -1965; Camille - 1969; Agnes - 1972; Eloise -1975; Frederic -1979; Elena -1985; Andrew -1992; Opal -1995; Lili - 2002; Charley - 2004; Ivan - 2004; Dennis - 2005; Katrina - 2005; Rita - 2005; Wilma - 2005; Gustav - 2008; Ike -2008; Isaac - 2012; Michael - 2018

Rohland, 2018), and moving away from the trend in disaster literature to focus on administration, process, and tools (response, planning, preparation, mitigation, and management) (Sementelli, 2007).

In Sentenelli's (2007, p. 499) disaster taxonomy grid, disaster theories are graphed on a two-dimensional quadrant according to whether they have high or low concerns for tools, process, and standard operating procedures. This research is concerned with the socio-historical aspects of disaster and crisis. In this framework, social theories have high concern for process and low concern for tools. They are strategic, abstract approaches with a social and sociopolitical lens, "almost entirely process oriented, focusing on the means and methods of action rather than classical outcomes (mitigation, repair, relief)" (Sentenelli, 2007, p. 499-500). In Sentenelli's scan of the intersection of disaster and social theory literature, he finds a narrowly focused, "case by case strategy" whose parameters include a "specific geography, geopolitical framework, or type of disaster" (p. 504). He also teases out a lack of theory development and need for disaster research to build out Stallings's (2012, p. 283) Weberian observation that disasters reveal "aspects of social structures and processes hidden in everyday affairs."

As Fowlkes and Miller's (1982) brought to light in their report on the social construction of the Love Canal disaster, disasters are opportunities to illuminate and elucidate the inner workings of people, organizations, groups, and communities as much as they are opportunities to assess resilience and uncover the stressors described in Section 4. More than any other disaster theory explored, Stallings argues that critical social theory has the potential to be "one of the most effective means to understand how

issues of marginalization can develop alongside more common issues of class, race, and gender in the context of crises and disaster. *Understanding the processes* of marginalization, alienation, and oppression in the context of disasters and crises could lead to powerful insights into the social, economic, administrative, and political elements of disasters and crisis" (Stallings, 2007, p. 505, italics added for emphasis).

My research is inspired by Stallings's call for approaches that are not shy about revealing the "messy, dynamic, and fundamentally unscientific elements of crisis and disaster" (p. 506). By analyzing history, power, and community response, I hope to fulfill Stallings's demand for research that provides more insights into the wickedly human elements of disaster, the "uncomfortable, possibly irrational, and otherwise sobering questions," (p. 508) from poverty to marginalization, from displacement to loss of livelihood. I find Eleonora Rholand's (2018) recent account of infrastructure and metropolitan New Orleans' history of hurricane adaptation a compelling addition to Stallings's disaster studies call-to-action. Rholand writes about how hydraulic interventions and other efforts to render wetlands dry also provided a means to subdue unruly local populations and extract value from landed property. Rholand's long-term historical perspective centers on "disaster memory." The finding among disaster researchers is that "the average half-life of disaster memory [is] about one to one-and-a-half generations," meaning that knowledge may be one of the most understudied "precondition[s] for adaptation" (p. 6). According to this theory, if natural disasters occur less frequently, risk-awareness and preparedness also decrease and a "disaster gap" ensues (p. 6). They are no longer part of the "cultural fabric" of a community (D'Oney, 2008, p. 21).

> "... adaptation options are embedded in time and, in the case of Louisiana, in a wider local, national, and transatlantic historical context. However, there is no determinism in technological and scientific development with regard to adaptation. … the availability of adaptation options through the interplay of science and technology does not guarantee what has been called successful adaptation. Time and again, political priorities and cultural values got in the way of what with hindsight may appear to have been obvious choices" (Rholand, 2018, p. 6-7).

Rholand's five themes of adaptive practices include levee building, evacuation, disaster migration, disaster relief, and insurance. Each of these themes appears at different points in time in the case study communities presented here, just like they do in Rholand's history of the city of New Orleans's full hurricane chronology.

4. The Capacities of Coastal Communities to Emerge from Adversity

In *Antifragile: Things that Gain from Disorder* (2012), Nassim Taleb writes provocatively of change, uncertainty, and how human systems respond to stress. Written as a critique of the risk management industry, with its pursuit of stability in the face of stress, Taleb's work proposes an alternative approach to the literature on resilience. He argues that it is not possible to plan for uncertainty based on observations of the past—to be *resilient*—for two reasons: future uncertainties are "black swans," unique, unknown, unpredictable, and unwitnessed, and socio-ecological systems are facing complex, multi-sector challenges, or wicked challenges, that have never before been seen. "Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same; the antifragile gets better," Taleb writes at the start of his book (p. 3). In other words, a system (people, things, institutions, and ways of life) that thrives in uncertainty is a system that not only responds well to stress, but also becomes more robust in the face of

threat and adversity. Antifragility is an approach that is not based on complexity theory or traditional systems engineering and complex adaptive systems engineering disciplines; it rejects the premise of solving problems through methods that conform to a certain set of assumptions. “The general assumption in all of these methods is that the stressful events or hazards will result in negative system outcomes” (Johnson and Gheorghe, 2013, p. 159) while antifragility allows for the possibility that some systems might actually get better with stress (Taleb, 2012). Antifragile systems are “counterintuitive” because they benefit from uncertain conditions (Babovic, Babovic, and Mijic, 2018, p. 499).

Scholars and practitioners are increasingly writing about Taleb’s antifragile concept. Some have attempted to develop a framework for analyzing and measuring antifragility attributes or indicators based on complex adaptive systems theories in disaster risk science (Johnson and Gheorghe, 2013; Jebari, 2014; Jurjonas, 2018). Others are applying the concept to guide infrastructure planning and management in cities (Beck, 2013; Babovic, Babovic, and Mijic, 2018) or civic infrastructure systems such as electric power supply, telecommunication, gas, and water distribution (Didier et al., 2018). Others argue for the elevation of the “breakthrough concept” of “antifragility” over “resilience” (Martinetti, Moerman and van Dongen, 2018, p.12; see also Wright et al., 2017; Jurjonas, 2018; Strong Towns, 2018). Jurjonas and Seekamp (2018, p. 139) theorize that antifragility is closer to, perhaps even synonymous with, “adaptive capacity as a place on a spectrum from vulnerable to resilient.” Italian scholars Federica Fotino, Mario Calabrese, and Mattia Lettieri (2018, p. 23) argue that “resilience” denotes the ability to recover or adjust to misfortune or change while returning to the same shape or substance as before. In contrast, “antifragility” means being pliant to change, changing

shape but not identity or essence. “Antifragility allows organisations to cope with shocks and disruptions while leveraging them to become stronger and more creative and better able to adapt to each new challenge to be faced” (Fotino, Calabrese and Lettieri, 2018, p. 23).

Writing about rural coastal community resilience, Jurjonas (2018, p. 137) reflects on the fact that research on resilience and adaptation to sea level rise has produced numerous frameworks that attempt to measure vulnerability and resilience to shocks and exposures of a broad range of coastal urban areas, from beach tourism communities to small island nations and developing countries (e.g., Schwarz et al., 2011, on the Solomon Islands; Moreno and Becken, 2009, on Fiji; and Sales, 2009, on Cavite City, Philippines). Indicators in research on environmental sociology as well as disaster and hazard risk management include population patterns such as outmigration following disaster; poverty levels; average incomes; flood insurance participation; and property value (Jurjonas, 2018). In his Rural Coastal Community Resilience framework, Jurjonas (2018, p. 138) argues for the “need to link resilience and environmental sociology literature to address rural coastal communities in a way that conceptualizes their unique and compounding vulnerabilities and enables capacity-building dialogue.” The Rural Coastal Community Resilience Framework considers physical exposures to both sea level rise and saltwater intrusion while placing rural communities on a spectrum of “opposing forces” between resilience and vulnerability. “The influence of each theme will either pull a community’s adaptive capacity toward resilience or make it more vulnerable to a negative future outcome” (Jurjonas, 2018, p. 139). Put a different way, the rural resilience framework suggests that communities with high vulnerability and low adaptive capacity to the

shocks Taleb describes in *Antifragile* could eventually collapse. Jurjonas goes further than Taleb in operationalizing anti-fragility as a descriptive concept loosely synonymous with adaptive capacity. The rural resiliency framework includes five opposing themes on the vulnerability ("do-nothing scenario") to resilience ("adaptation as a way of life") spectrum (p. 146).

While the tool is specifically designed to enhance community engagement in rural coastal climate adaptation planning efforts, I find it to be a helpful list of indicator variables that, grouped by theme, paints a picture of what adaptive capacity specifically looks like for coastal communities. I adapted and consolidated Jurjonas's findings in the bulleted list below (2018, p. 147-8):

- Theme 1: Livelihood Dependency vs. Livelihood Diversity
    - *Livelihood dependency* indicators include household food security; natural resource dependency; livelihood uncertainty caused by environmental or market changes; and loss of employment after disaster
    - *Livelihood diversity* indicators that can reduce the threat of failure in resource-dependent systems include livelihood portfolio (the presence of choices leads to greater adaptive capacity); crop diversity; and livelihood options for coastal communities exposed to greater risk
- Theme 2: Poverty vs. Prosperity
    - *Poverty* in the aggregate influences disasters in every way (preparedness, impacts, response, recovery, and reconstruction), but specific vulnerability indicators include marginalization, which limits access to services; social and socioeconomic status; and special needs population demographics

(infirm, transient, homeless, and institutionalized populations are disproportionately vulnerable)

    - *Prosperity* indicators include how wealth is spread or transferred in local economies; economic development resources; critical infrastructure including communication, transportation, and energy distribution; tax base; health including mental and social well-being in addition to the absence of disease; and resources including money, information, technology, tools, raw materials, and services to meet community needs

- Theme 3: Unsustainable vs. Sustainable Development
    - *Unsustainable development* indicators include ecosystem fragmentation (as measured by sediment starvation, which reduces coastal resilience); wetland loss; development in floodplains; and agricultural expansion or intensive agriculture practices whose runoff damages the ecosystem
    - *Sustainable development* indicators include ecosystem goods and services that benefit people and protect from natural hazards; storm mitigation; and nursery habitat
- Theme 4: Community Disengagement vs. Cohesion
    - *Community Disengagement* indicators include urban migration (loss of talent and human capital exacerbates disparities and poverty); job loss; unstable populations, high turnover and outmigration; climate migration; and future expectations (hope for the future)

    - *Community Cohesion* indicators include a culture of coastal adaptation; institutional trust; communication connection; place attachment; and frequency of community interaction

- Theme 5: Rigidity vs. Agency
    - *Rigidity* refers to inflexible government institutions that resist or refuse to adapt or respond to change. Indicators include isolation/remoteness (distance from centralized services); lack of trust in planning processes; uncertainty regarding impacts and outcomes, which affect participation; and institutional capability to build adaptive capacity
    - *Agency* refers to the capacity of people or groups to act freely and affect the future. Indicators include self-determination (through perseverance communities can implement programs they design); flexibility in management systems for the "democratization of adaptation"; locus of control; and self-efficacy

Another systems framework from engineering attempts to define antifragility based on complex adaptive systems theories, and clarify what "antifragility attributes" look like when systems respond to hazards, or stress (Johnson and Gheorghe, 2013, p. 159). This is useful to understanding disaster-derived problems, and how communities might develop more effective response and recovery systems. Johnson and Gheorghe define "complex adaptive systems" as (1) "responsive" to dynamic environments where "things are always changing: conditions, constraints, threats, opportunities, technology, knowledge, requirements, and so on. The ability to make internal adjustments in response to, or in anticipation of, external environmental changes, is the essence of being adaptive"

(p. 161); and (2) able to "learn from experiences," meaning that complex adaptive systems are able to adjust, revise, and improve (p. 161). Like Jurjonas (2018), Johnson and Gheorghe characterize the ways in which systems respond to events on a continuum. In their framework, however, the continuum includes three points:

- At one end of the continuum is *fragility*. Stress causes fragile systems, or characteristics of systems, to fail or degrade. While fragility is similar to Jurjonas's (2018) *vulnerability* definition, Johnson and Gheorghe (2013, p. 161) argue that vulnerable systems fail because of their "degree of exposure to stress" while fragile systems fail because they are "easily broken regardless of the nature of stress they are exposed to."
- *Robust* systems are "unchanged by stress"; they are stable, growing more robust or stable even as stress intensifies over a range of time. *Robustness* is loosely similar to *reliability* except that "reliability is remaining unchanged within specified limits while robustness is remaining unchanged outside" those same parameters (p. 161).
- *Antifragile* systems, according to Taleb's (2012) definition, get better with stress through what Johnson and Gheorghe call "smaller doses" of stress. Rather than weakening systems, regular exposure to small stressors can actually strengthen and protect from extreme events. Examples of antifragility include biology; forest fires; tragic events like airplane crashes that inspire continuous improvement in industry and technology; and software like "Chaos Monkey," the media company Netflix's software application that intentionally generates failures in order to learn how to improve (p. 162).

Based on this continuum, Johnson and Gheorghe's antifragile model considers a set of ten analytical criteria to determine where a system fits among the "tipping points" of fragile, robust, and antifragile descriptors on the antifragility curve. These criteria are tools to help stakeholders, policymakers, and governments "score" how the systems in place in their communities respond to stress. In their example, an antifragile analysis of the U.S. smart power grid produces an average score of -4.3 on the -10 to 10 scale used in the fragility continuum. Based on this result, the researchers conclude that U.S. power grid systems "would be considered fragile and would degrade with exposure to the stress" of a weather event (p. 166). Following a lengthy analysis, Johnson and Gheorghe reflect on the fact that the antifragile simulation model is imperfect. It assumes "first order relationships between stress and system performance when in fact the relationships might be of higher order"; needs clearer definitions of selection criteria; needs better methods for disaggregating results; and should consider applying "multiattribute decision-making," rather than a "two-dimensional analysis" in order to get at a fuller picture of how systems survive threats (p. 167).

It is clear from both resilience frameworks presented here that, in cases where communities are already experiencing risk or disasters related to climate change, history and context matter as much as disaggregated data scored on a continuum of change. Researchers have shown that particular histories, economic disadvantages, and political constraints work together to exacerbate and help create the conditions that make some communities more prone to risk than others. Emerging research also suggests the same systems that create conditions of vulnerability continue today unabated (Martinich et al., 2013). Martinich and colleagues have demonstrated that, particularly along the Gulf

Coast, social and economic class predict who is most likely to flood more than anything else. That is because flood-prone communities tend to have the fewest engineering protections in place against high water. This suggests that it is not merely historical systems of oppression, but also contemporary ones, that create inequities in disaster patterns (Freudenburg, Gramling, Laska and Erikson, 2008), and that a richer historical analysis is needed to better understand the multidimensional factors driving the varied outcomes we see within urban, suburban and rural communities along the Gulf Coast.

Conclusion

The next three empirical case study chapters are organized thematically and chronologically into five similarly named sections. The grid in Figure 1.2 captures the organizational structure of the case study material. This framework provides the architecture for the argument, rationale and analysis synthesized in the cross-case analysis in Chapter 5.

Figure 1.2: Chapter architecture

Section	Chapter 1: Bayou Petit Caillou, Louisiana	Chapter 2: Apalachicola, Florida	Chapter 3: Biloxi, Mississippi
Introduction	Buying time on the coast of southeast Louisiana	'The most important thing in a century'	'Authentic, iconic Biloxi'
Arrivals	'A gracefully grotesque and rough-hewn landscape,' 1890-1970	The 'big little county' along the Forgotten Coast, 1870-1940	Seafood Capital of the World, 1840-1944
Fast Times	The rise of conservation and tourism, 1970-1992	Revival and resistance on the Redneck Riviera, 1940-1970	'Las Vegas on a peninsula,' 1945-2005
Restore, Retreat, Resurrect or Resist	Restore or Retreat? Morganza to the Gulf, 1992-2010	Preservation and Resistance, 1970-2008	Desperation and Resurrection, 1969-2005
Adaptation	Restoration to Adaptation, 2010-2019	'Hardly no oysters there,' 2008-2019	Hurricane Roulette, 2005-2019

Chapter Two: Case Study, Bayou Petit Caillou, Terrebonne Parish, Louisiana

Introduction: Buying Time on the Coast of Southeast Louisiana

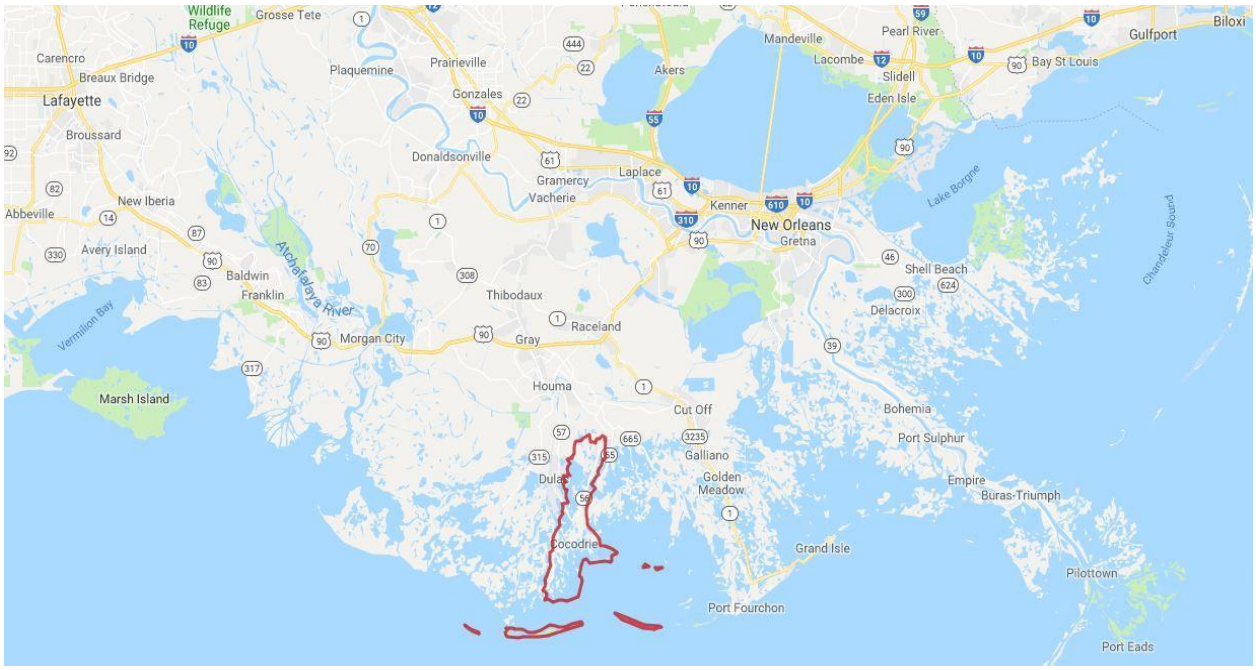


Image 2.1: The study area highlighted in red contains Bayou Petit Caillou in south-central Terrebonne Parish, Louisiana, approximately 75 miles southwest of New Orleans.

Up until recently, the urban development of the southeast Louisiana coast that accelerated in the aftermath of the 1984 New Orleans World's Fair showed no signs of slowing. After the 2005 storms, Louisiana State University demographers predicted Lafayette would be the next New Orleans, and Houma would be the next Lafayette, with Terrebonne Parish's population peaking at 125,000 by 2020, up from 107,000 in 2008. At the time, planners acknowledged that population growth in Terrebonne and Lafourche parishes was not necessarily a good thing, but would come at the expense of coastal wetlands and water quality, and put increased pressure on aging sewerage and drainage systems, roads, schools, fire and police.

A recent state analysis has corrected the record, finding not only has the coastal Louisiana population plummeted, but that coastal communities are leaving the water en masse. Between 2005 and 2015, the case study area of Bayou Petit Caillou lost 17 percent of its population. Employment trends are on an even steeper decline, with jobs decreasing in Cocodrie, Chauvin and nearby bayou towns by as much as 50 percent between 2004 and 2014 (LA SAFE, 2018).[6] As LA SAFE states in its literature, each of its recommended recovery projects takes into account two facts. First, southeast Louisiana's most vulnerable coastal communities will need to contemplate resettlement over the next fifty years. Second, current migration trends northward are an indication of the population patterns that will become the new normal in the twenty-first century as the retreat from coasts around the world becomes all but inevitable.

"As much as we are doing to restore and rebuild our coast, we will face a higher degree of flood risk and land loss over decades and generations to come" (LA SAFE, 2018). This acknowledgement is a century in the making, but there likely will not be another century to enjoy it. As one community leader told a newspaper reporter in August 2017, "My ancestors arrived in south Louisiana in the 1780s, eight generations ago. We don't have eight generations in the future. What I'm trying to do here is buy another 75, 80 years. What's going to happen in 50 years? I think this is all under water" (Gass, 2017, p. 1).

The five sections of this chapter provide a framework for understanding one south Louisiana community's experiences with the coast since the turn of the twentieth century, when a get-rich-quick schemer from the Midwest bought nearly 1.5 million acres of

[6] LA SAFE (Louisiana's Strategic Adaptations for Future Environments) is an effort created by Louisiana Governor John Edwards to create and implement adaptations to ongoing coastal land loss and rising seas.

swampland from the Atchafalaya Levee Board and a small family of Cajun entrepreneurs brought the Gulf Coast shrimp industry to Chauvin. The economic history of Bayou Petit Caillou is traced in the first section, Arrivals, from these early days of natural resource extractors—trappers, fishers and landmen—through the emergence of oil and gas development from the 1930s through the 1970s. The intersection of conservation, tourism growth, economic development, and the policies that helped shape them are outlined in the second section, Fast Times, which traces patterns of boom-and-bust investment from the 1970s through Hurricane Andrew, a turning point in the life and death of Bayou Petit Caillou. Section three, Retreat, explores the aftermath of Hurricane Andrew and the struggle to protect, preserve and profit from the water in the decades leading up to the Deepwater Horizon oil explosion in 2010. The fourth and final section, Adaptation, concludes this chapter with an examination of the situation facing Bayou Petit Caillou as it looks at the next fifty years.

Arrivals: 'A gracefully grotesque and rough-hewn landscape,' 1890-1970

The story of Bayou Petit Caillou in the twentieth century is a story of isolation and discovery, or invention and survival, of local agency and external pressure, of insularity and pride, of community collapse and resistance, and of the commodification of a Cajun culture once described as "probably the largest unassimilated nationality group in America" (Gilmore 1933). It is not a unique story, but it is contextual, and the context is one of place and power. The story of Bayou Petit Caillou is a story of the birth of Cajun French Louisiana, a story of the transformation of a plantation parish economy from sugarcane to fishing to oil to tourism, and a story of the ecological collapse of a delta

once considered a wasteland, but that foreshadows the great changes to come as coastal communities along America's sinking shores grapple with their own life and death through the twenty-first century and beyond.

From above, Bayou Petit Caillou is the middle finger of Terrebonne Parish's five bayous, which extend into the Gulf of Mexico like a hand floating on the sea. The palm of the hand is the parish seat of Houma. Terrebonne is Louisiana's largest parish, but today the "good earth" is an anachronism, representing a time before nearly 90 percent of parish acreage was composed of water, and counting. Terrebonne is in the middle of the Louisiana Gulf Coast and has been for centuries one of the most remote places in the western world. Prior to the Spanish Colonial era beginning in 1763, few people lived in what is today Terrebonne Parish. Although an appendage of Lafourche Parish, which was the locus of early and dense French settlement, Terrebonne Parish was only sparsely occupied by ephemeral camps of hunters, trappers, and fishermen. Pirates found the labyrinth of coastal bays and bayous conveniently and effectively concealed their hideouts; what Watkins (1939, p. 28) calls their "pied-a-terre."

Who lives where, and for what reasons, are important questions in the shaping of lower Terrebonne's distinctive settlement patterns. In addition to Bayou Petit Caillou's predominantly Cajun French population, the Terrebonne Parish study area includes African American and American Indian tribal communities. For freed slaves, Cajuns and American Indians, the central location of Bayou Terrebonne functioned as a vertical linkage from the developed higher ground along Bayou Lafourche and the city of Houma to the five-finger, lower-lying bayous of Dularge, Grand Caillou, Petit Caillou and Pointe-aux-Chenes (Mires, 1988). Along these lower bayous, the community settlement

patterns set forth in the nineteenth and early twentieth centuries can still be seen today, where the present geographic footprint of tribal cultures in Louisiana is enmeshed with the settlement patterns of Cajun exiles and newly freed slaves of the nineteenth century (Brasseaux, 2005, p. 127). The 1850 census of Terrebonne Parish indicates that small tribal communities existed along all five Terrebonne Parish bayous, while the famous American Indian studies pioneer John R. Swanton working in 1907 found six tribal communities in the Lafourche-Terrebonne coastal marshes. The 1920 census of Terrebonne Parish shows just one American Indian family living on Bayou Petit Caillou, which is the only bayou in the parish that did not house a state-sponsored or missionary Indian school during tripartite segregation, which ended in 1964, according to school board records and oral histories. Neighboring bayous that parallel Bayou Petit Caillou continue to be home to five independent, state-recognized tribal communities including four in Terrebonne Parish: the United Houma Nation, the Pointe-au-Chien Indian Tribe, the Isle de Jean Charles Biloxi-Chitimacha-Choctaw Indians of Louisiana, and the Grand Caillou/Dulac Band of the Biloxi Chitimacha Confederation of Muskogees.

Along Bayou Petit Caillou, or “little pebble” in French, are the settlements of Chauvin and Cocodrie. Named after two brothers, Hypolite II and Louis Chauvin, the town of Chauvin has historically been an insular village full of ritual and rooted in the Catholic faith. Father Jean-Marie Joseph Denecé (1825-1911) settled at Petit Caillou soon after his ordination during the Civil War. He organized the parish on Nov. 9, 1864 to serve “the Acadian and Houma people of southern Terrebonne” (Browning, 2016, p. 11). Fr. Denecé built a church and rectory, opened an adjoining cemetery, and established missions up and down neighboring bayous. After his death, priests residing on Bayou

Terrebonne served this remote section of Catholic Francophone Louisiana until 1948, when Archbishop J.F. Rummel canonically erected St. Joseph Parish, Chauvin, to serve the booming postwar town seventeen miles south of the parish seat in the city of Houma (Browning, 2016).

The first postmaster in Chauvin was a descendant of it founders. Albert Eloie Chauvin operated the post office inside his general store where he learned the ancient Chinese art of processing and canning fresh seafood. In 1875, according to family history, Albert Chauvin loaded a boat with produce and furs and sailed to New Orleans, where he sold his wares at the French Market. Albert Chauvin's entrepreneurial ventures took root among his five sons Ruffin, James, George, Leonce and Guy, who together formed Chauvin Brothers, which continues today as one of the longest-running family-owned businesses in south Louisiana.

Like the Chauvins, most people in the study area have historically identified with the Cajun French culture, and gone to work as Cajun fishers, farmers, and sharecroppers, working for wealthy sugarcane plantation owners and alongside descendants of slaves through the mid-20th century.[7] Lacking land, power and language, very few of the Cajuns in Terrebonne Parish operated plantations or owned slaves directly. They were former peasant farmers hemmed in by swamps along the Louisiana coast, compelled by necessity to work as day laborers on sugarcane fields, and to teach themselves to hunt, trap and fish within the alluvial lands of Bayou Lafourche and, after 1795, Bayou Terrebonne (Western, 1972; Brasseaux, 1997).

[7] These descendants continue to live in a segregated African-American community in Chauvin called Smithridge, named after sugarcane plantation owner and Confederate Col. Benjamin F. Smith.

Large demographic and economic movements in the late eighteenth century profoundly influenced the course of Acadian history in Terrebonne Parish. By 1803, Acadian exiles and their descendants had established settlement patterns that have endured through the present, continuously adapting along the way to larger economic, environmental and social forces ranging from forging a plantation economy with their none-Acadian neighbors in the early nineteenth century to creating a niche for themselves in the region's burgeoning economy as artisans catering to 'King Sucrose' ("King," 1997; Brasseaux, 1997, p. 200). The resulting complexity of Acadian society was compounded by economic changes wrought by the transportation revolutions of the late nineteenth century and the technological revolutions of the present age.

Bayou Petit Caillou can be seen as a microcosm of these adaptations within the context of its people, land, and sea. In the mid-1800s, the Terrebonne Parish government joined the transportation revolution when it began dredging canals and deepening and widening bayous in order to make it easier for fishers and traders to traverse the southeast swamps of coastal Louisiana. The government took over canal dredging and maintenance from private industrialists such as Robert Barrow Sr., a prominent local plantation owner in the early 1880s who conceived of Company Canal, the 1829 waterway connecting Houma to the Mississippi River on the east and to the Atchafalaya River on the west. Despite failing to turn a profit during the canal boom, Barrow and his company, Barataria and Lafourche, continued to maintain and operate it until after the Civil War, when shippers and parish governments realized a modernized waterway suitable for commerce and transportation was key to Terrebonne's future ("The Great Divide," 1997).[8] By 1890,

[8] Robert Barrow Jr. finally sold the family canal to the federal government in 1925. It later became part of the Gulf Intracoastal Waterway. Today the canal is considered a major cause of coastal land loss.

the parish police jury had purchased two of its own dredges to continue this work, connecting oyster beds to the plethora of oyster shucking and processing warehouses that lined the banks of bayous Terrebonne, Grand Caillou and Petit Caillou. Cutting shortcuts between bayous for navigation was an expensive economic gamble designed to meet the needs of the local elites who owned the means of production, and it paid off, particularly after plans were approved to extend the Louisiana Western railroad, a branch of the Southern Pacific, through the bayous in 1905. By 1907, the parish had purchased two additional barges and was taking credit for conducting 80 percent of the dredging activity that had single-handedly paved the way for the fledgling oyster industry's path to prosperity at the turn of the twentieth century. The result was a dramatic transformation of the landscape. M. B. Hillyard, from New Orleans, was a voluminous travel writer whose descriptions of voyages to the Louisiana Gulf Coast were picked up by newspapers across the country and in Europe (Grady, 1910). In 1907, Hillyard voyaged down Bayou Petit Caillou, and his impressions provide a rare account of the transformation Chauvin and Cocodrie were experiencing as their economies shifted from sugarcane farming to seafood processing.

> "When last here, say fifteen years ago, Little Bayou Caillou was then spoken of as a sort of large ditch, nearly filled and mainly useless for drainage. In point of fact one [could] cross it in a buggy without difficulty in many places then. Bayou Terrebonne the writer does not remember, but it is said that it was a sort of depression in the town and entirely outside the category of navigation. Now, boats ply from here to New Orleans, and bayous Terrebonne, Grand and Little Caillou have their waters covered with many craft of one character and another, whose employment hinges on the oyster business" (Hillyard, 1907, no page).

In Hillyard's writing, Chauvin and Cocodrie functioned as twin cities whose economies went hand in glove, with Chauvin playing commercial host to oyster shucking

warehouses and Cocodrie, where the bayou dead-ends, providing access to oyster grounds and primitive camp-style lodging for fishers and oyster tongers and shuckers. With its "low-pitched unpainted homes often with thatched roofs, sometimes dark with weather-wear …" it was "a gracefully grotesque and rough-hewn landscape" (Hillyard, 1907, no page).

Driving the Bayou Petit Caillou economy were big city elites who were likewise adapting to changing times. Located near Chauvin in lower Terrebonne's natural gas fields, Terrebonne Sugar Company's Presqu'ile plantation contained one of the largest sugar factories in the United States and one of the largest producers of cane sugar in Louisiana, mastering a refining technique that later spread around the world. Its officers were the financiers behind the turn-of-the-century oyster economy before the Terrebonne Sugar Company's collapse during the stock market crash of 1927 (Planter and Sugar, 1917; Browning, 2016). While sugarcane production eventually resumed, it was never the same; the sugarcane factories themselves were finally disassembled in the 1970s and relocated to Guatemala (Browning, 2016).

In the early twentieth century some of the world's biggest seafood canneries were in Houma, and in the age before refrigeration there were high hopes for the Houma oyster. Dr. Leon H. Jastremski, founder of the Pelican Lake Oyster and Packing Co., was one investor who forecast consumption of the Houma oyster would double by 1920. Jastremski owned one of four oyster shucking companies on Bayou Petit Caillou, but he got his start canning shrimp. In the early twentieth century he expanded the cannery to include a shucking department, machine room and fifteen double cottages to house 150 laborers imported from the "oyster city" of Baltimore, the nation's leading seafood

packing hub (Sears, 2015). Jastremski admitted "the capital of the company is mainly raised by home folks." The economics of the oyster industry meant that shucked oysters saved about 80% of weight and transportation costs. Shuckers themselves earned an average of $3.75 per day, or seventy-five cents per one thousand pounds of shucked oysters (Hillyard, 1907). Decades later, after Governor Huey P. Long used oil money to launch the U.S. 90 road paving project connecting New Orleans to Houma, and ushering in the spread of public works, hospitals and schools to bayou communities, with English-only books and policies that prohibited speaking French in schools, Jastremski's son, Stanwood Duval "Tiny" Jastremski, again expanded the Pelican Lake factory to include canned shrimp, oysters and vegetables and relocated operations to West Park Avenue in downtown Houma.[9]

[9] In 1934, inspired by other landmen, Long founded Win or Lose Oil Company, with a business model based on inside dealing. Long leased state lands to himself and his associates at bargain rates, then re-leased the tracts at heavy markups to oil companies for their development. No one knew, and when it finally became known, well after Long's death, no one did anything to reimburse the state hundreds of lost millions (Houck 2015).

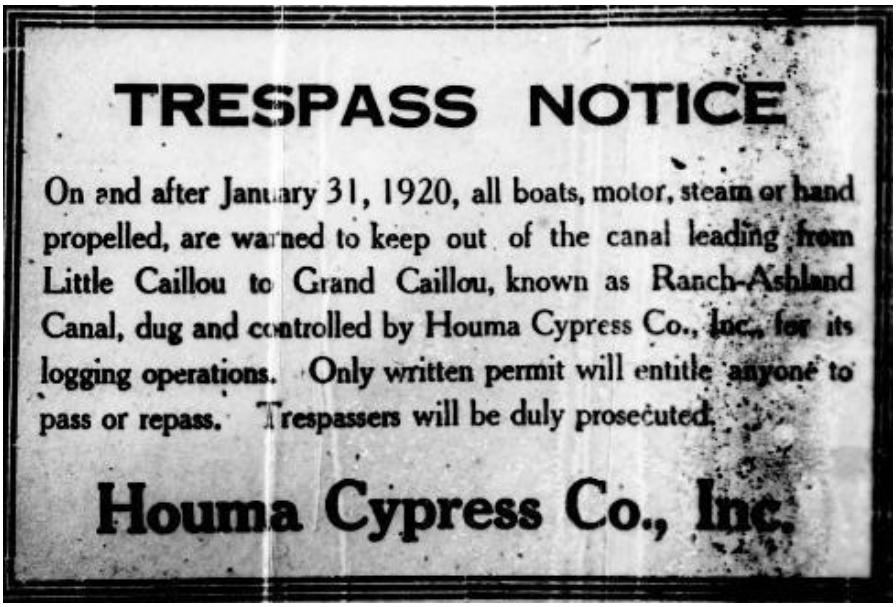


Image 2.2: Trespass notices began appearing regularly in local newspapers as individual land owners, lumber companies, and later oil and gas, land and mineral rights companies, sought to protect their property from hunters, trappers, fishers, Spanish moss pickers, and wood-cutters. Companies like the Houma Cypress Co. dredged access canals including the Ranch-Ashland Canal, which connected the study area to its sister community along Bayou Grand Caillou. (Source: *The Houma Courier*, January 31, 1920).

Oysters were officially a major industry, but under constant threat of ecological contamination from canal-building and population growth. The greater Houma area's population grew by 335 percent, from 1,500 to 6,531 residents, between 1890 and 1930, and accelerated through World War II with the construction of the Gulf Intracoastal Waterway, a continuous 9-by-100-foot channel that connected Houma to New Orleans in 1936 (Alperin, 2005). While the state began leasing seed grounds in the Gulf toward the end of the 1900s, by 1960, over 70,000 acres were under contract, booming to 138,000 by 1970 and to 400,000 at century's end (Houck, 2015). Rising alongside the oyster boom was the south Louisiana canal system, which rapidly expanded with rising consumer demand for goods between 1887 and 1930. Both enterprising businessmen and coastal communities worked together to cut artificial waterways through the swamp to reduce travel time and provide access to important markets. As a result, by 1930, prior to the

tremendous surge in canal building associated with the petroleum industry, the coastal landscape was marked by a number of transportation canals. The system was small, but adequate, built to serve local communities like Chauvin and Cocodrie and providing the necessary connectivity required for commerce.

Down Bayou Petit Caillou, the prewar population boom was not unfelt, as oyster and shrimp canning businesses continued to expand; as public agencies cleared, dredged and deepened canals; and as residents did the backbreaking work of farming, trapping and oyster fishing, and the Catholic Church rooted the community in ritual and faith.[10] In the late 1920s, a young merchant, Desire Theriot, was one of few local people who, like Albert Chauvin a generation before, regularly traveled outside Bayou Petit Caillou. It was during a business trip to Biloxi, Mississippi, 160 miles northeast of the Cajun coast, that Theriot learned about a new style of trawl that was producing major hauls from the Gulf of Mexico and bringing economic riches to Biloxi shrimpers. The young entrepreneur quickly recognized an opportunity to expand his seafood business, diversify the income stream of the seasonal oystermen and provide a better life to his community (Gordon, 1991).

Through Theriot's efforts, livelihoods changed from oystering to commercial shrimping nearly overnight as workers learned to build and repair nets and adapted their boats for sea trawling. Theriot is widely credited for not only bringing offshore commercial shrimping to Terrebonne Parish, but also starting the Blessing of the Fleet

[10] Father Jean-Marie Joseph Denecé (1825-1911) settled at Petit Caillou soon after his ordination during the Civil War. He organized the parish established on Nov. 9, 1864 by Archbishop J.M. Odin, C.M., to serve the people of South Terrebonne. Fr. Denecé built church and rectory, opened the adjoining cemetery, and established missions on neighboring bayous. After his death, April 2, 1890, priests residing on Bayou Terrebonne served this section

shrimp festival after he witnessed a similar celebration in Biloxi. Theriot asked St. Joseph's Catholic Church Rev. Joseph Coulombe for permission to perform the blessing in Chauvin as a way to build community around the new industry and usher in the first shrimp season. The two men believed the church blessing would facilitate the community's adoption of shrimping and lift up the community. With the church's endorsement, the Blessing of the Fleet became an annual event in the early 1930s. The religious ritual provided a sense of security for the fishermen and their families in facing the uncertainties of change, especially the dangers that would be incurred in moving their work from the slow-moving waters of neighboring bayous into the unknown offshore waters of the Gulf of Mexico twenty-seven miles away (Gordon 1991, p. 8).

Paralleling the economic development of Bayou Petit Caillou in the first two decades of the twentieth century was a larger trend of land grabbing that would eventually alter the coast's future. Much of the land in coastal Louisiana today, including 90 percent of Terrebonne Parish, by some estimates, is owned by large landholders, often out-of-state corporations, who own not just the royalties and mineral rights to their plots but also access to them from the coast. The trend began in 1900, when Midwestern capitalist Edward Wisner arrived in New Orleans with a get-rich-quick scheme to buy up "unsuitable" coastal land for pennies on the acre, then resell it to aspiring northern farmers as prime agriculture. Over the course of fifteen years, Wisner purchased nearly 1.5 million acres of swampland west of the Mississippi River, including 800,000 acres alone in the Atchafalaya Basin from the Atchafalaya Levee Board, which he bought for an average of 25 cents per acre. The land acquisition constituted the levee board's entire holdings ("Large," 1900). In exchange, the levee authority thought it would have the tax

base it needed to build and maintain miles of levees protecting the Atchafalaya Basin. As Wisner set his sights on more land acquisitions, he also had some convincing to do. In 1907, he wrote, “The Five Million Acres of Marsh and Swamp land around New Orleans is in its present condition a public nuisance. Reclaimed it will be the most productive and valuable body of contiguous farming land in the world” (“Large,” 1900, p. 1)

Marsh reclamation along the Louisiana coast is an old practice, dating back to French colonization. The chain of title began with assignment of tract numbers during the first U.S. land census of Louisiana, which began immediately after statehood was granted in 1812. Thirty-seven years later, those lands were officially designated swamplands by the U.S. Congress and in 1878 were granted to the Louisiana Land Reclamation Co., Wisner’s predecessor in title. After 1900, enterprising northern investors like Wisner successfully convinced levee boards to sell large tracts of “worthless” marsh, then founded management companies like the Louisiana Meadows Company (which later became Louisiana Land & Exploration) to hire workers to drain and develop it and, later, landmen to survey and lease the rights to it (Bryant, 1964).

Citing threats of overpopulation and fears of food shortages, people of the time supported Wisner’s strategy, even if they did not quite understand it. Albert Phenis, a special correspondent from the Manufacturers’ Record, predicted in 1907 that a few million dollars spent draining the swamps of south Louisiana would produce revenues that would duplicate the former wealth of the entire cotton crop of the South in a single year. “Considering the amount to be expended, this is probably the most gigantic investment opportunity ever given to any country in the world, for this 10,000,000 bales of cotton would mean an annual addition of $500,000,000 to $600,000,000 to the value of

the South's agricultural production." Three of Wisner's proposed swamp reclamation projects took place in Terrebonne Parish, according to Clifford Smith, whose father T. Baker Smith working in 1915 was one of Louisiana's early modern wetlands surveyors (Clifford Smith, 2003). In total, only fifty swamp reclamation projects were completed before Wisner's death in 1914, and only four remained productive through the latter part of the twentieth century (Davis, 1973). A hurricane one year after Wisner's death destroyed most of the levees and drainage work Wisner had managed to complete and, in the decade that followed, lawyers for Wisner's widow seized control of the land and sold it to Louisiana Land & Exploration, as Louisiana Meadows was renamed in 1927.

Like many large land companies, LL&E almost went bankrupt until the discovery of oil on its property made the trustees major players in the international oil and gas industry. Concentrated land ownership also benefited oil companies working in the three-mile coastal zone. Instead of dealing with many small landowners, companies only had to negotiate leases with a few large landholders. In 1930, none of this was known to a traveler to Houma who described the city as the fur capital of the United States, "a brisk, prosperous little city, with shrimp, oyster, and fish-packing interest in addition to activities as an outfitting place for trappers. On its streets one rubs shoulders with the famous 'Cajuns' of the state" (Graves, 1930, p. 406).

Just two years earlier, Terrebonne Parish's first oil and gas canal was dredged near Bayou Petit Caillou after speculators discovered oil and gas fields in south Louisiana's coastal salt domes. The 1928 project was the first in a series of twelve oil and gas access canals dredged across the bayou through 1990, when growing alarm over the effect of dredging canals on land loss and subsidence pressured a few oil companies to

funnel some profits to wetlands remediation projects ("Wetlands," 1992). Experimenting with the logistics and economics involved in working in the marsh and swamp, it was near Cocodrie that the Texas Company first used a submersible drilling barge for inland waters in 1933 (Gramling and Hagelman, 2005). With this invention, water-based techniques became more sophisticated, and significant mineral exploration occurred in 1937 and 1938 when 29 new fields were discovered, nearly doubling the 30 developed between 1902 and 1937 (Davis, 1973).

In the Houma City Directory of 1938-39, a total of 22 businesses were listed as "oil and oil services." This would grow to 260 by 2001. These businesses were either directly engaged with oil production, like The Texas Company and Louisiana Land & Exploration, or service groups like Schlumberger, Halliburton, or Reed Roller Bit which came into the area to support drilling activity (Sell and McGuire, 2008). Over the next seventy-five years, these companies would become international in scope, building their empires off the coast of Louisiana through a web of 191 separate pipeline systems containing more than 10,000 miles of pipeline and oil service canals "that ate the coastal zone like PAC-MAN" (Houck, 2015, p. 203). The pattern of extraction, with ever bigger canals serving ever bigger oil industry tankers for consumers with ever bigger appetites for cars and homes, accelerated subsidence, which scientists later learned continues long after actual oil production activity ends. These lingering, layered effects worked together to transform the character and identity of the south Louisiana delta into a national "energy sacrifice zone" (Maldonado, 2014, p. 115; 2019), which can be seen as part of a

larger “extreme energy extraction” map that has mobilized communities across the Gulf Coast.[11]

The impacts of oil and gas development on Bayou Petit Caillou in the postwar period were subtle, then sudden. The discovery of oil brought a massive influx of Protestant whites from northern, western and Midwestern states to the insular bayous of south Louisiana, along with a flurry of new money for unprecedented infrastructure projects, including two steel bridges over Bayou Terrebonne and Bayou Petit Caillou (1941). Around the same time the Texas pipeline pathway was set from Houma to Port Arthur through the marshes around Cocodrie, Archbishop J. F. Rummel canonically erected St. Joseph Parish in Chauvin. Two years later, Bayou Petit Caillou was described in a *New York Times* travel article using similar language as the 1907 travel piece. Oil and gas exploration was nowhere to be found. Chauvin and Cocodrie were still connected by an oyster shell road. A continuous line of shrimp-drying wharves still dotted the landscape between the two outposts. At the dead-end in Cocodrie, “trappers cabins scattered through the marshy country. The houses are stanchioned on the south side anchored by guy wires against the wind” (Beaty, 1950, p. 1).

When the first offshore oil rigs were proposed in the early 1950s, shrimpers and oilmen clashed, a period in local history immortalized by Jimmy Stewart in the 1953 film “Thunder Bay.” But the logistics of shipping oil and gas supplies for drilling through the marsh required that ship channels be created and pipelines laid. It was intense, heavy labor, with wages too good to turn down. As one wildcatter recalled, “When they found out what we were paying, the Cajuns stopped complaining” (Bernard, 2003, p. 37).

[11] For a list of southern participants in the Extreme Energy Extraction Collaborative, see http://www.stopextremeenergy.org/south.

Gradually, local residents stopped resisting, and then actively contributed to creating this unique transportation system. They also were some of the first workers to be employed by the refineries and chemical plants that sprang up inshore, offshore, and along the Mississippi River. Locals would not know for decades exactly how oil and gas activities collectively contributed to coastal land loss, destroying an estimated 1,103 acres of wetlands in the vicinity of Cocodrie from 1955-1978 (Yu, 1992). But they did sound a series of alarm bells that went ignored for decades beginning almost as soon as they landed on the first rig (Houck, 2015).

Wealth from the oil industry along with rapid population change attracted new recreational tourism interests to the Louisiana bayous. Inspired by the state's oldest fishing tournament, the Grand Isle Tarpon Rodeo, which dates to 1928, weekend saltwater fishing rodeos and competitions grew en masse after World War II and the offshore oil boom, which introduced Texas, Baton Rouge and New Orleans oilmen to coastal seaports like Cocodrie for the first time. Oilmen began to buy out trapper huts and replace them with ever more elaborate recreational fishing retreats. Reflecting this retreat to the coast, the state motto was coined "Sportsmen's Paradise" in 1958, the same year the Louisiana Intracoastal Seaway Commission was organized as a private nonprofit to manage, develop and conserve Louisiana's suddenly valuable coastal water resources.

Demand for increased access to the coast drove pressure to provide previously unimaginable transportation and infrastructure upgrades. Each consecutive year saw another expensive transportation project completed. The state road commission approved the construction in 1960 of Louisiana Highway 56, a two-lane paved highway replacing the oyster shell road connecting Chauvin to Cocodrie. One year later, the Houma Tunnel

was built beneath the Gulf Intracoastal Waterway, linking car traffic from the north to the southern Terrebonne bayous at a cost of $3 million. In 1962, the originally 150-feet-wide Houma Navigation Canal opened, providing a navigation channel between Houma and the Gulf of Mexico south of the eastern end of Isles Dernieres. The Old River lock, located eleven miles downstream of the Old River Auxiliary Structure at the location where the Mississippi and Atchafalaya Rivers once connected, was finished in 1963 at a cost of $15 million.

Between 1930 and 1970, the oil and gas decades brought thousands of new residents to Terrebonne Parish, where the population grew from 6,531 people in 1930 to 30,922 in 1970, a 374 percent increase. Like Houma, the city of Lafayette is a case in point for examining how the oil industry rapidly changed Acadiana. What in 1940 had been an agricultural town of about 19,200 was transformed by 1950 to a thriving petroleum city of 33,500. In both Houma and Lafayette, the surge in population brought with it new stores, restaurants, theaters, hotels, bakeries and automobile dealerships. Indeed, "the buggies and leisurely pace of an earlier Cajun day have given way to all the furor and speed of modern wealth and initiative" (Bernard 2003, p. 37). As one south Louisiana editorialist noted during Oil Progress Week, "Yes, the oil industry has found solid root on our soil. We are happy to salute all of its components, from the policy makers behind mahogany desks to the sweating roughnecks in the fields. … They truly make every week another period of economic progress" (Bernard, 2003, p. 38). The marriage of shrimp and petroleum was uneasy from the beginning, but as the petroleum industry implanted its roots in the area economy the relationship became inseparable. In 1967, Morgan City changed the name of its annual Labor Day street festival, which was

organized in 1936 to unite frog and alligator hunters, shrimpers, crabbers, dock workers and oystermen, to the Louisiana Shrimp & Petroleum Festival.

Interviewing with the Louisiana Sea Grant in the early 2000s, one former shrimper described the pre- and post-World War II changes brought on by the arrival of oil and gas like this: “We’d go to the coast every weekend, but nobody went past the islands. Nobody went into the Gulf of Mexico until after the Second World War, when they began to explore for oil and gas in the Gulf of Mexico.” Another resident who experienced the oil boom described what it did to her childhood landscape: “You see on your right when you pass over the bridge? All that water they have? That used to be cattle grazing pasture. We used to play Cowboys and Indians in the back of them trees. There’s hardly any more trees left. It’s unbelievable!” (Louisiana Sea Grant, 2010).

Fast Times: The Rise of Conservation and Tourism, 1970-1992

The oil industry not only shaped the politics and economics of Louisiana, it shaped the environment and culture. By 1965, the Louisiana State Health Department effectively closed Cocodrie’s oyster beds indefinitely due to pollution from population growth and canal-digging. Bacterial contamination from frequent overflows of raw sewage led to malfunctions of the Houma treatment plan that sent untreated wastewater down the Houma Navigation Canal directly into oyster beds (“Health,” 1972). Reflecting on the unintended consequences of growth, development and local livelihoods, Oliver Houck wrote in 2015, “Everyone had relatives who worked on the rigs or in service companies to the rigs; made machine parts for the rigs; crewed on mud barges, dredge barges, and/or tankers; laid pipe; ran computer programs and seismic tests; ran title and

land surveys; provided legal work, insurance, and bank loans; and worked in the refineries or stores and bars that served the crews. Coastal residents called Texaco simply 'the company,' as if there were no other employer to mention." In areas once dotted with cattle farms and citrus orchards, population pressures along with increased industry and waste dumping polluted the Cajuns' traditional fishing, trapping and hunting grounds. In 1970, Terrebonne Parish ranked first in Louisiana in the production of natural gas, third in the production of crude oil, and among the worst in water quality (Wilson, 1972).

Competing interests along the coast created the need for more regulation and new regulatory authorities to oversee areas of water quality, flood control, navigation, conservation of fish and wildlife resources, and environmental enhancement. After the Louisiana brown pelican was declared extinct in 1963, demand increased for a coordinated coastal zone management plan, but the Seaway Commission had no budget and was for the most part inoperative until 1970, when the Louisiana Coastal Commission formed. The commission was made up of more than twenty members: one from each of the 12 parishes under its jurisdiction; two appointed by the Governor from a list submitted by both the Louisiana AFL-CIO and the Louisiana Chamber of Commerce; and several appointed by the governor from the state at large. The commission had the authority to coordinate planning efforts; recommend coastal studies and programs consistent with state and local interests represented by members; and plan, establish, construct, own, operate and maintain navigation channels to supply freshwater, prevent saltwater intrusion and support drainage and flood control. The commission actively participated with other state commissions in establishing a coastal zone management plan, and allocated funds to the Seaway Commission and to state universities for studies

relating to coastal zone management affairs. From the beginning, though, the coastal zone commission's composition was fraught with tension, and met with a storm of resistance from coastal parish legislators. The conflict underscored the competing interests between people in the coastal parishes and those in central and northern Louisiana. "If coastal zone management must become a reality we feel it is time for the coastal parishes to stand up and demand their proper share of control," wrote a *Houma Daily Courier* editorialist in 1975 ("Coastal," 1975).

In 1978, after the Commission reversed a state permit for an oil access canal, it was between the ages of seven and fifteen to attend school regularly and punishing parents who failed to comply. As enforcement, the state created "visiting teacher" positions, combining roles of truant officer and social worker. Educators greeted the influx of students who spoke French in the Acadiana parishes with rules that mandated English-only classrooms and punishment that included verbal and physical abuse. For twenty years, through the beginning of the 1960s, hardly any French-speaking student was immune from punishment, and the consequences were disastrous for the language, pushing the Cajun French dialect to extinction. About 83 percent of Cajuns born in the early twentieth century spoke French as their primary language; the number dropped to 21 percent for those born between 1956 and 1960; to 12 percent for those born between 1966 and 1970; and to 8 percent for those born between 1971 and 1975. "French became a mystery to most postwar Cajun children, a peculiar code their parents slipped into when they wanted to speak in confidence" (Bernard, 2003, p. 34). The year 1968 was a banner year for attempts to bolster the status of French in Louisiana, but in many ways it came too late. This is the year that created the Council for the Development of French in

Louisiana (CODOFIL); state laws that mandated French instruction in public schools, teacher certification in elementary school French, bilingual television programming, and printing of legal notices and public documents in French; and the Institute of French Studies at the University of Southwest Louisiana.

At the same time Cajun culture was its most threatened, tourism spending on the Cajun coast was at its highest. By the end of the 1950s, tourism ranked as Louisiana's largest industry. Along with bridges and commerce, construction of Interstate-10 further bolstered the visibility of the Louisiana bayous, generating more than $500 million statewide in 1968, up from $290 million in 1954. Just as in the development of oil, local Cajuns were torn. They wanted to protect and preserve their heritage, but they also wanted their share of the wealth.

From the late 1960s through the 1970s, Cajuns participated in creating their own brand of "cultural tourism" by packaging their heritage as a commercial product in music, art, television, film, food, literature and dance. On Bayou Petit Caillou, the best example is Lagniappe on the Bayou, a community festival that started in 1969 as a way to pay down $350,000 in debt accrued at St. Joseph's Catholic Church, which couldn't afford interest payments, according to the late Father Brunet (Foret, "Vanishing Points," n.d.). A 1971 documentary produced by University of Southwest Louisiana students captured the packaged tourism of the three-day festival in its depiction of the traditionally dressed Lagniappe Signers, decorated commercial shrimp boats, and abundance of Cajun food. During 1994, its final year, the fair attracted 30,000 visitors to Bayou Petit Caillou.

National factors and the coming of economic bad times, as taxes, inflation, interest rates and fuel costs rose in the 1970s, coupled with local factors such as parent

perceptions of Cajun French as a dead language, contributed to Cajun apathy toward cultural preservation. As the French language was abandoned to history, the last two decades of the twentieth century heralded into existence a commodified Cajun identity bred by a national infatuation with Cajun culture and a tourism boom that economically benefited Acadiana but also disrupted its remaining folk rituals. In the midst of these transformations, Bayou Petit Caillou's dependency on oil decreased while its attachment to tourism increased as the devastating oil glut of the 1980s cut the economies of Chauvin and Cocodrie to the bone, and south Louisiana experienced the first in a series of mass exoduses of people and business from the coast.

What had been an energy crisis for most Americans during the late 1970s was a windfall for the oil-rich parishes of the Louisiana coast. In a 1979 presentation to the Morgan City-based Desk and Derrick Club, Hugh Fisher, representing the Tennessee Gas Pipeline Company, traced the journey of a day's worth of fuel drawn from a drilling site in Cocodrie. The "Muskrat Line" pipeline cut 355 miles through once impassable marshlands, swamps and bays to reach the oil-rich delta south of Bayou Petit Caillou. The pipeline produced one billion gallons of gas daily, and on this particular day, Fisher described the fuel winding its way through the underground tunnels of Louisiana up to the New England states where, 1,800 miles away, a housewife turned on her stove so she could cook dinner over a gas flame in her kitchen ("Gas," 1979).

While the contribution of oil and gas revenues to the state budget had steadily fallen throughout the decade from their peak of 70 percent in 1970, the oil crash of 1981 came at the height of south Louisiana's prosperity. In 1980, nineteen of Louisiana's twenty wealthiest parishes were in south Louisiana, and *Money* magazine named

Lafayette one of America's ten richest small cities. By 1983, the trickle-down effect of the oil glut came swiftly, hurting not only those employed directly by the oil industry but ancillary businesses as well. A Louisiana State University economics professor found that for each terminated oilfield worker, two others lost their jobs (Bernard, 2003). The Houma Metropolitan Statistical Area (the combination of all of Terrebonne and Lafourche parishes) lost nearly one quarter of all its jobs in the major downturn between 1982 and 1987.

Caught in the web were entire communities of workers, businesses, courts, construction firms, surveyors, universities, lawyers, legislators, regulators, levee boards, police juries, churches, civic leaders and the Army Corps of Engineers. At the center of the web was the legacy of Edward Wisner's turn-of-the-century swampland reclamation project: the five private land corporations that by 1980 owned 25 percent of the entire Louisiana coastal zone.

Some characteristics of these powerful yet little known companies are worth mentioning. Two of the five land corporations were subsidiaries of General Motors. Most of the major shareholders of the largest, Louisiana Land & Exploration, which earned $1.2 billion in 1980, lived in Texas. Another, the Land and Royalty Owners of Louisiana, gained a reputation as one of the oil and gas industry's most active lobbies against wetland protections and pollution controls. The early 1980s were topsy-turvy for the oil and gas industry in Louisiana, providing a pattern that would endure through the present. Despite economic gains and losses, the industry remained the dominant economic engine in the state, successfully resisting unwanted regulation locally and nationally. In the face of struggle, industry leaders strengthened alliances with the state as well as the larger

landowners who controlled access to the coast (Houck, 2015). When the price of oil plummeted, drilling dramatically declined and many residents lost their jobs; the Houma-Thibodaux's 20 percent unemployment rate in the late 1980s drew national attention. Some residents returned temporarily to fishing or trapping while others sought employment elsewhere. Payrolls from refineries and chemical plants prevented the oil industry from completely destroying the local economy and provided a relatively stable base for rebuilding (Houck, 2015).

Complicating this web, two parallel trends were emerging in early 1980s coastal Louisiana: the wetlands of America were becoming a national treasure and Cajun entrepreneurs were figuring out how to attract New Orleans tourists to the swamp. No longer the "wastelands" of Wisner's time, coastal wetlands were increasingly seen as irreplaceable resources to be protected and sustained. A rising environmental consciousness even infiltrated the Catholic Church, with the Diocese of Houma-Thibodaux taking the lead in the early 1980s on urging parishioners to support the Louisiana Coastal Wetlands Interfaith Stewardship Plan, a citizens' action plan for the coastal zone. "We are morally obligated, as stewards of God's gifts, to protect and restore our coastal wetlands," wrote the bishop in a letter to the congregation (Houck, 2015, p. 268). Sensitivity to the wetlands led to the creation of two organizations that would play important advocacy roles in the next two decades. In 1988, the Coalition to Restore Coastal Louisiana was formed, quickly raising awareness of the coastal plight through its first publication, "Coastal Louisiana: Here Today and Gone Tomorrow?" Two years later, the Barataria-Terrebonne National Estuary Program was founded to protect and restore the 4.2 million acres of land and water that lie between the Mississippi and

Atchafalaya rivers—the Wisner lands that continue to be ground zero of Louisiana's land loss crisis.

Tourism interests joined forces with those on the side of awareness and advocacy in defending the coastal environment from development threats. Three types of tourism will serve as examples of the strange bedfellows borne out of seemingly conflicted coastal Louisiana interests: recreational fishing, swamp tourism and culinary and culture tourism. Recreational fishing nearly doubled during the 1970s as the tourism economy extended down the bayous and more amenities were built to make the long drive from Baton Rouge and New Orleans worth it. Increased fishing led to increased conflict over Louisiana's fishing resources, and one of those conflicts concerning the commercial use of gill nets made it all the way to the Louisiana. Supreme Court before it was dismissed (Margavio, Forsyth, Laska, and Mason, 1996).[12]

Another emerged in 1975, when outspoken, controversial Bayou Petit Caillou fisher Randolph LaBauve gave away one thousand bumper stickers proclaiming "Save Our Commercial Fishermen | Sportsmen Go Home." LaBauve was protesting the influx of Baton Rouge recreational fishers in local waters and proposed restrictions on commercial fishing techniques that would send the industry "back to the horse and buggy days" ("Outsiders," 1975, p. 1). LaBauve's fears played out in the years to come. In 1978, the National Marine Fisheries Service began a research program to reduce the mortality of turtles caught in shrimp trawls. The method selected to protect sea turtles was the Turtle Excluder Device (TED). A TED is a type of escape hatch in a shrimp net that allows sea turtles to exit the net while retaining the shrimp catch. Shrimpers fought

[12] The case was brought by Cocodrie fishermen Randolph and Kerry LaBauve, who aggressively fought the state gill net law enacted in 1974.

bitterly against TEDs, but in 1987 TED regulations were implemented that required all U.S. shrimpers to use TEDs while fishing in U.S. waters (Durrenberger, 1992).

Within the context of rising concerns over fisheries management and increased interest in recreational fishing, a handful of concerned anglers began meeting to discuss banding together to promote responsible stewardship. They never used the word "environmentalism," but these politically conservative anglers found themselves pushing for the same restrictions as environmental groups. In 1984, just ahead of the Louisiana World Exposition, Louisiana became the third state behind Texas and Alabama to house a chapter of the Gulf Coast Conservation Association, later renamed the Coastal Conservation Association. The CCA would grow in power and prominence through the 1980s and 1990s to become a driving force behind the coastal Louisiana tourism boom following Hurricane Andrew in 1992 and the recreational fishing laws that made the coast one of the most lucrative fishing zones in North America.

In the time leading up to the 1984 World's Fair in New Orleans, other tourism types emerged to take advantage of the state's fastest-growing industry sector. One of these industries was swamp tourism, and the woman behind it was Annie Miller. Miller had experienced the best and worst of the oil boom and bust. As a child, she grew up trapping alongside her parents. To provide for her two children, she continued to hunt, fish, and live off the land while her partner, Eddie, went to work offshore on an oil rig. One day in 1956, Eddie fell 40 feet from the rig during a violently windy afternoon. When doctors later announced he was paralyzed from his neck down, Annie was horrified but she didn't miss a beat. The couple married in Eddie's hospital bed, with his broken neck supported by sandbags. Because of Eddie's injuries, his movement was

limited. So, wearing white garden gloves, Annie would trap snake, mink, muskrat, raccoon, otter and nutria, and Eddie would drive the boat. They made a living this way for twenty years, daily witnesses to the wetlands.

It was around 1979 when Betty Reed, from the local Houma-Terrebonne Chamber of Commerce and director of the first county tourist commission, the Bayou Country Tourist Information Center founded in 1975, approached Annie Miller about promoting Houma tourism. A savvy businesswoman, Reed sold Miller on the concept as a way to show another side of Terrebonne Parish beyond sugar cane plantations, to bring awareness to the wetlands, and to get ahead of the opportunities the World's Fair might present to bayou communities. What started as a basic nature ride in a two-seat marsh buggy quickly developed into a surprisingly successful business for the Millers, who quickly upgraded to an 18-passenger boat to accommodate families on their twice-a-day tours. Alligator Annie's tours were first broadcast in 1980 on a television program called "PM Magazine." Thanks to the publicity, and to the fact that the once-endangered alligator was making a comeback in the early 1980s, business boomed, so much so that Miller later nicknamed a favorite gator, "Boomer" (Krupa, 2003). "I think people are just finding us. We are really sort of unexplored as Cajuns," Betty Reed explained in a story on Terrebonne's tourism boom (Thibodeaux, 1986). As Annie Miller's swamp tours became more brazen, tourists and the media flocked to her little Alligator Lane home off Bayou Black Drive. After the World's Fair, other south Louisiana swamp tour businesses started up, and Alligator Annie's exploded. By 1991, 20 swamp tours were operating in Louisiana. Today, more than 30 mark the southern edge of the state, and new tours

continue to open, from small country tours such as Miller's to the large, air-conditioned boats south of New Orleans (Krupa, 2003).

Annie Miller influenced nearly every other swamp-boat owner in the Terrebonne Parish area, including Jim and Bill Munson and Black Guidry. Her success at drawing visitors to the Terrebonne area led the local government to declare sections of the marsh and bayous as "alligator preserves." Her efforts to preserve the swamps also earned her acclaim from ABC's Good Morning America, CBS, Southern Living magazine, the Wall Street Journal and the Los Angeles Times. In 1991, Annie Miller was named Louisiana's Minority and Woman Business Person of the Year. In 1997, former Gov. Kathleen Blanco, then head of the Department of Culture, Recreation and Tourism, gave Annie Miller, who died in 2004 at age 89, an award for founding the nature-based tourism industry in Louisiana (Krupa 2004). Annie Miller`s success marked the beginning of a thriving swamp tourism industry centered in Houma. Within a 17-mile radius, attractions sprung up overnight, from a wild animal farm to an Indian village. Visitors could experience life in a typical trapper`s cabin, rent a Cajun camp for crawfishing, crabbing and fishing, or spend the day hauling shrimp on a commercial trawl boat (Krupa, 2003).

Around the time of Alligator Annie's retirement, another longtime Cajun tourist attraction on Bayou Petit Caillou closed its doors forever. La Trouvaille was a family-owned restaurant located inside a weathered wooden house in Chauvin built in 1883 by farmers Alice and Gerard Fanguy. The concept was the brainchild of Gene and Wylma Dusenbery, who started the restaurant after her son's July 4, 1978, death on an oil rig. La Trouvaille filled a social void in Wylma Dusenbery's life as the mother of 12 growing children, who, as the Dusenbery singers, played rollicking Cajun music during every

meal, inviting guests on Cajun quests from around the world to join in. During their early years, the Dusenbery Family Singers—the group has a few Cajun French albums—traveled extensively across the country, performing in Utah, California, Washington, D.C., and Atlantic City, N.J. In 1983, they toured 18 cities in France, giving 11 concerts. Like Alligator Annie, La Trouvaille grew up with the budding swamp tourism industry. As it became a popular destination on tourist bus routes from New Orleans and Baton Rouge to Lafayette, the restaurant became filled with hundreds of antique hats from France, Germany, Russia and Italy, salt and pepper shakers, specialty plates and scores of placemats decorated with mementos, postcards, pictures, newspaper articles and thank-you notes from the restaurant's hundreds of fans worldwide. The restaurant's success astounded Wylma, a modest Cajun French woman who married Eugene "Papa Gene" Dusenbery, a Terrebonne Parish native whose roots trace back to a great-grandfather from Holland, more than 50 years ago (Krupa, 2003).

Demographically, the 1980s were a roller-coaster of a decade that foreshadowed even more volatile times to come. Terrebonne Parish posted its highest postwar growth in 1982 (3.41%) and posted its lowest in 1987 (-2.48%). Hit hardest by the oil slump were the shrimp and petroleum hubs of coastal Louisiana. Along Bayou Petit Caillou, as Chauvin's residential population declined in the 1980s, construction of recreational fishing camps exploded and wetlands deteriorated at their highest rates yet. In 1980, about one hundred fishing camps existed in the lower portions of the bayou, in and around Cocodrie. In 1990, the census counted 299 camps. With this threefold increase came pollution problems. An extensive study of Bayou Petit Caillou's sewage and drainage problems was commissioned in 1992 by the Barataria-Terrebonne National

Estuary Program. The study found 46 percent of camps had had a sewage discharge violation. Further, the study found that the ten and a half mile stretch of land that extends south of Chauvin into Cocodrie included an impressive inventory of recent development. A list compiled by the study's authors counted seven hundred homes and camps in Cocodrie, four hundred of which had no approved sewage disposal system; two boat repair facilities; a dozen seafood docks; eight oilfield docks; one fire station; three restaurants; three lodging places; two grocery stores; two stores; six boat launches; ten house boats; and one marina with twenty slips. Ten years later, the number of fishing camps grew to 557.

Image 2.3: A new Louisiana's Bayou Country sign welcomes visitors to Cocodrie. In the background is LUMCON, the Louisiana Universities Marine Consortium.. In 2017, water covered the LUMCON grounds on 43 days, prompting marine officials to open a second marine education campus in the city of Houma. (Source: Photo courtesy of John Solet, September 11, 2018).

Terrebonne's population slowly climbed back to its pre-recession levels until Hurricane Andrew decimated the area in 1992, destroying 360 homes, damaging 2,900, sinking 30 percent of Louisiana's barrier islands, and causing $55 million in local damages. Since then, while the parish population has remained flat, the population itself has retreated north. Dulac native Amanda Parfait was starting her junior year at Ellender Memorial High School in Houma when Andrew hit, and she described the demographic consequences to a reporter covering the twentieth anniversary of the storm. "The neighborhood I lived in was full of families. We had a lot of friends nearby. The aftermath of this storm began the 'ghost town' effect in the Grand Caillou/Dulac

community. People started moving to Ashland and Houma, and it started to affect businesses down there too" (Buskey, 2012, p.1).

Restore or Retreat: Morganza to the Gulf, 1992-2010

The contrast between locals and visitors living and recreating along Bayou Petit Caillou grew stark in the years after Hurricane Andrew. The late Norbert Domangue (1932-2011) was widely considered the unofficial mayor of Cocodrie, and the last native-born Cocodrie resident up until his death in 2011 at age 79. In 2003, in the aftermath of Hurricane Lili, Norbert reflected on the different sides of Cocodrie he had witnessed in his lifetime. As locals moved up the bayou, seeking higher ground and more affordable housing, more tourists came to the coast to take their place, Domangue told a newspaper reporter. They built weekend camps in gated communities or rented homes for the summer, and sometimes he barely recognized the place of his childhood (O'Brien, 2003).

The situation Domangue described in 2003 did not develop overnight, but it rapidly accelerated after Hurricane Andrew. Weekend fishing camps had existed alongside trapper cabins and full-time homes since the rise of tourism in the postwar era, when working families retreated to the rural bayou swamps and wetlands for a weekend, a summer or an occasional getaway. Likewise, the transformation of the Terrebonne coastline into a haven for the affluent is not exceptional. The interplay of interests along the Louisiana coast and the various factors at the local and state levels that drove tourism development along the coast in the latter decades of the twentieth century are many. Loosely written state tax laws that exempt second homes from most property taxes allowed owners of fishing camps to pay almost nothing for their waterfront vacation

homes and led to the recreation camp building boom of the 1990s. Along with the camps owned by rich out-of-towners are the businesses that serve them, including restaurants priced higher than most locals can afford, invitation-only fishing rodeos, private charter fishing companies, gas station tourist shops, marinas, and for-profit boat docks.

Weekend traffic congestion, marina tie-ups, price gouging and other nuisances certainly drive a wedge between locals and visitors, but the most serious consequences of the tourism boom between 1995 and 2005 were rising housing costs, increased fisheries regulation, restricted access to once public estuaries, and out-of-reach flood insurance rates. In a study conducted in the late 1990s, the U.S. Army Corps of Engineers found that, based on eighty-two flooding events over a 108-year period of record, the probability of a hurricane affecting the Louisiana coast in any given year is 76 percent. At the time, Terrebonne had experienced at least three major flood events in the past fifteen years. By 1995, the rate had climbed to seven flood events in twenty years. Elevations along Bayou Petit Caillou, a thirty-mile long waterway, range from 8 feet in parts of Chauvin to under 2 feet in southern Cocodrie.

As a result, locals retreated. The unincorporated community of Chauvin saw its full-time population drop from a high of nearly 3,600 in 1980 to a low of 2,912 in 2010. Parish planners expect the population of Chauvin, where 95 percent of Bayou Petit Caillou residents reside, to decline by an additional 8 percent by 2020. The parish's first master plan, completed in 2003, incorrectly predicted development patterns from the 1990s and early 2000s to continue through 2020. In their estimate, Boudreaux Canal would continue to be the dividing line. South of Boudreaux Canal toward Cocodrie, land use would convert to accommodate more recreational camps.

Image 2.4: Located next to Boudreaux Canal, this historic Chauvin elementary school closed in 2016, reflecting an ongoing depopulation of the coast. Nine years earlier, a second Chauvin elementary school, Little Caillou, relocated to Boudreaux Canal due to declining enrollment. Now students along Bayou Petit Caillou attend one elementary school at Upper Little Caillou. (Source: Photo courtesy of John Solet, September 11, 2018).

As the full-time population retreated to higher ground, single-family residential developments would follow suit. Two of the land-use goals set forth in the original parish master plan were "preserve and enhance the rural areas of the parish" and "protect existing wetlands while providing controlled growth in specified areas." Later, under a section called "Hurricane Threats," was a conflicting strategy: "[Government] should develop a plan for the long term or relocation of people displaced by hurricanes or tropical storms, particularly those below or at the poverty level, to the northern areas of the parish" ("Master," 2003). Such was the political and economic climate in which coastal residents found themselves before the 2005-2008 storms and floods. Unable to

fight the coastal land loss battle on their own, none could take solace in the fact that their government was going to help them (Solet, 2006).

By 2005, the forces were in play to continue the residential depopulation of the southernmost coastal parishes. Hurricanes Rita in 2005 and Gustav and Ike in 2008 flooded 80 percent of Chauvin's 1,000 households, but not one recreational fishing camp, where the average elevation is 16 feet. With water creeping into communities that had always been high and dry, the Morganza to the Gulf levee protection system first developed by the Army Corps of Engineers after Hurricane Andrew took on added urgency. In 2006, Terrebonne Parish elites formed the Morganza Action Coalition (MAC) to promote federal authorization and funding of Morganza to the Gulf, a 98-mile lock, levee and floodgate system designed to protect Terrebonne's five bayous. Since then, MAC has aggressively promoted the Morganza system and pushed for authorization and full funding of the project in Washington and Baton Rouge.

MAC's efforts began in force during the 18-month Louisiana Speaks Regional Plan for South Louisiana, a 2007 campaign supporters called the largest and most inclusive regional planning outreach initiative ever conducted in the United States (Fraiche, 2007). The three broad goals of the Louisiana Speaks planning process were "recover sustainably, grow smarter, and think regionally." It was an attempt to bring together a region that had lost more wetlands to erosion, subsidence, and resource extraction than any other place in the country. A newspaper editorial at the time described the situation facing Terrebonne and Lafourche parishes as a "battle … for the future of our community." It warned silence would spell the end of a coastal culture rooted to the water. "Anyone who thinks it's anything less need only look 40 or 50 miles

east to St. Bernard Parish, which was virtually wiped off the face of the earth by Katrina and continues to struggle not just to return to normalcy—but to redefine it" (Magill, 2006). Around the same time the editorial appeared Terrebonne and Lafourche leaders led a caravan to the Mississippi River Commission meeting in New Orleans to repeat the same point: The nation depends on Louisiana's coastal communities to supply energy and seafood, yet their need for flood control and wetland restoration has been ignored for decades. "We are not condos on the beach. We are producing new value for the rest of the country," said one Terrebonne official at the New Orleans meeting.

Despite several aggressive attempts to draw attention to the Louisiana Speaks planning process, poor attendance and a general lack of interest among residents marked the public forums and a follow-up survey questionnaire from the start, despite the fact that four critical local economic development and coastal restoration projects were at the center.[13] While generally well received in planning circles, in Terrebonne and Lafourche, the Louisiana Speaks surveys in particular were met with considerable skepticism and protest. Reggie Bourg, then a state Senate Democrat representing a coastal fishing community in Terrebonne, criticized the one-size-fits-all nature of the multiple-choice questions. In a 2008 interview, Bourg said he thought the questions were oversimplified, ineffective, and written and approved by outsiders who knew little about struggling coastal communities in Louisiana: "We have enormous issues down here that don't translate well on a multiple-choice survey. A lot of us thought that was a pretty dumb way to do things. And when you look at the results, they don't really tell you anything you don't already know."

[13] These included Morganza to the Gulf; Houma Navigation Canal upgrades; an elevated La. 1, the only road linking energy hub Port Fourchon to the rest of the country; and barrier island restoration.

At public forums, residents in the audience demanded more freedom to discuss what mattered to them. Throughout the Louisiana Speaks coastal forums, locals told detailed, emotional, often sophisticated stories that did not follow the state planning script. Locals' stories touched on habitat destruction, land loss, overfishing, and misplaced priorities of local government officials who preferred economic growth over protecting the water and rarely attempted to connect the two. A steadily growing vacation population and consequent development and tourism urbanization, particularly in the southernmost fishing settlements in the Barataria-Terrebonne estuary, had polluted small bayous and filled waterways that commercial fishing boats freely navigated just a few years ago. For one concerned citizen at a Lafourche Parish forum, "there are just too many people in these extremely sensitive areas. That's what we all need to be talking about."

A Houma public hearing several days later, on Jan. 31, 2007, attracted one hundred twenty people to a government meeting room where Louisiana Speaks planners again promoted the five-question coastal survey. Just minutes into the presentation, however, several local residents decided they had had enough. They interrupted the planners mid-speech by demanding a shift in emphasis to what mattered most to them: the fourth and fifth survey questions pertaining to transportation and development and coastal restoration, respectively. The fourth question on growth asked respondents whether they favored uncontrolled sprawl, current growth patterns, or compact, regulated urban growth dependent on public transportation. The fifth question asked respondents (a) whether property owners should have unrestricted rights, (b) a better balance was

needed between community safety and property rights, or (c) stricter building rules for everyone should prioritize safety in flood-prone areas.

A local chamber of commerce leader criticized the survey questions and answer choices as "issue light," saying an array of complex local variabilities made it difficult, if not impossible, to summarize community needs in the standardized survey style. For example, several residents added, an emphasis on community safety logically leads to mandated building restrictions in flood-prone areas. But such a directive would deal the Houma-Thibodaux region, most of which lies within a floodplain, a blinding economic blow. "You can't just write off a whole region of the state, and you just can't ignore our situation here," said one outspoken business leader during the public forum. "These questions were written from a Baton Rouge perspective. However much you may not like it, you all need to understand that our local economy is tied to the water that surrounds us. We flood all the time because of that. The government and the planners might not want it that way, but we need this water and we're not giving it up. You can't just take away our livelihoods in one fell swoop." Planner Glen Bolen responded by characterizing the Louisiana Speaks plan as a "living document" intended to reflect "community values," not tell residents, business leaders, or legislators what to do.

But the discussion brought to the forefront a central conflict that characterized not just the Louisiana Speaks planning process, but decades of attempts to create a unified coastal plan. In coastal parishes such as Terrebonne and Lafourche, interests in protecting the coast cannot be separated from the economic reality of a coastal economy where livelihoods depend on the water. The input of local residents who live with this conflict made an impression on planners, who in March 2007 again surveyed residents in the

nineteen-parish Louisiana coastal zone to get a better handle on rebuilding priorities. About 93 percent of survey respondents expressed support for spending more public money on efforts to protect the coast, an abnormally high approval rating that sent a clear message to state planners about coastal priorities. However, two-thirds of respondents also approved of measures to increase jobs and vocational training, attract and retain companies, improve oil-and-gas infrastructure, and expand navigation and ports.

The survey results had coastal-restoration advocates and economic development promoters alike scratching their heads. One local business owner in Terrebonne Parish said he was "stunned" only 23 percent of respondents expressed a desire to expand trade and shipping and only 21 percent approved of fostering knowledge-based businesses. Reflecting back on the survey results later in the year, he described it as a "blow" to development and growth advocates. "That really confused me. I don't know where they think the future is, but it's not in preserving culture and history. We have to get real around here. The only way we're going to make it is if we have a more dynamic and diversified economy." Coastal restoration advocates, for their part, were similarly puzzled. The leader of a local environmental group said she did not understand how residents could support both coastal restoration and coastal urbanization: "This has been the heart of what we struggle with around here, the fact that you can't have both. But residents don't want to hear that. They don't see the contradiction."

The Louisiana Speaks team combined the conflicting survey data with citizen input to craft the final parish-level recovery plans unveiled at community meetings in May 2007. At the meetings, state representatives attempted to summarize their findings by acknowledging that both parish plans recognize the risks associated with living in

south Louisiana but also that many of those risks are "manageable with proper planning." The basis of the Louisiana Speaks plan for Terrebonne and Lafourche is coastal restoration and flood protection—the plan endorses the state master plan for restoration and levee projects, including Morganza to the Gulf. But most of its recommendations for both parishes hinged on infrastructure upgrades that, if funded, would stimulate considerable development in vulnerable coastal areas. The Louisiana Speaks parish plans called for flexible zoning laws to encourage high-density development in existing urbanized areas. However, the plans did not distinguish between urbanized areas in low-lying coastal areas—such as the sportfishing community of Cocodrie and the Port Fourchon energy hub—and dense areas on higher ground such as Houma and Thibodaux.

It was the Louisiana Speaks plan's "endorsement of everything," as one audience member opined at a Lafourche public meeting in May 2007, that frustrated many locals. One lower Lafourche resident put it bluntly: "How can you be for coastal restoration and then encourage population in the coastal zone? I understand about hurricane protection, but you all should realize that hurricane protection doesn't make us any safer. We should be saying in this plan that we want to stop any kind of development that takes away one more acre of our wetlands. That should be in the first sentence." Others in the crowd expressed skepticism over how to pay for implementation of the plan's ambitious goals. "Don't worry, everyone. This is going to sit on a shelf somewhere just like all the other plans and all the other studies," a central Lafourche developer spoke over the crowd.

Three weeks later, the Louisiana Speaks plan for Terrebonne Parish, unveiled at a May 30, 2007 meeting in Houma, met with similar criticisms, even though the revised plan reflected many of the concerns voiced in Lafourche earlier in the month. Some of

the changes were minor, but others reflected a philosophical shift in the state's planning approach in coastal communities that was directly influenced by local input. Instead of calling for controlled and concentrated development in all urban areas, the bone of contention for many at the Thibodaux meeting, the new draft stated that major development should occur in only a handful of locales on the highest ground. The one significant exception the plan acknowledged was Port Fourchon, a low-lying, vulnerable energy hub at the water's edge that neither can be pulled back to safer ground nor easily protected. About 26 percent of the nation's oil and 26 percent of its natural gas flows through the lower Lafourche Parish port. Because Port Fourchon cannot be moved or surrounded by levees, the Louisiana Speaks plan suggested limiting economic development projects surrounding it "as much as possible without affecting industry," in some cases relocating businesses farther north to the coastal communities of Golden Meadow and Larose.

Despite the plan's shift in development priorities, Terrebonne residents insisted on more concrete details about which places were being defined as "urban" and "on the highest ground." Some residents were relentless: "We need you to tell us this information now. We're not going to endorse anything if we don't know what you're talking about." Several residents also raised the question of how much the Louisiana Speaks recommendations would cost. They were told that the effectiveness of the plan rests in the state's master plan for coastal restoration and hurricane protection, which includes the $1 billion Morganza to the Gulf levee alignment and several projects to build back wetlands. Without these initiatives funded and under way, both economic development and coastal restoration would be a hard sell, a Louisiana Speaks official said.

Most residents who participated in the Louisiana Speaks public forums were outspoken supporters of coastal restoration projects that did not threaten the fishery- and natural resource-dependent local economy. Once the planning process ended, the local debate continued about whether wetland and barrier island restoration—preserving nature—should precede or accompany economic development—preserving jobs. In the aftermath of Louisiana Speaks, public discourses on the future of coastal Terrebonne and Lafourche increasingly emphasized economic development to stimulate new jobs in the coastal zone even while residents continued to lament the loss of coastal habitat. The following summer, around the one-year anniversary of Louisiana Speaks, the Terrebonne Economic Development Authority, a post-Katrina agency, held a retreat to brainstorm ways to improve the local economy. One of the group exercises asked participants to write headlines that captured their visions. None of them mentioned coastal restoration. In fact, the mock "headline" that attracted the most enthusiasm contradicted the very purpose of efforts to protect residents whose livelihoods require them to live in low-lying, at-risk coastal communities: "Terrebonne's levee system nears completion and spurs economic boom."

In the years preceding the Deepwater Horizon oil spill, even local grassroots groups with purported coastal-restoration missions began to embrace economic development projects as tools to stimulate waterfront investment. In an April 2008 interview, the president of the Houma-based Morganza Action Coalition said all residents in the coastal zone benefit from a booming economy, even if new development projects require tampering with an already fragile ecosystem. "There are a host of federal and state agencies that deal with construction in the coastal zone and that monitor coastal

activity as it is. It's regulated enough. Our position is that, locally, we don't need to do anything more to stop business from coming here. What we do need to do is fight for hurricane protection so that the businesses we already have—and those we may have in the future—can successfully do business here in this region."

In September 2008, the Houma-Thibodaux region's vulnerability to hurricane-induced storm surge made national headlines for the second time in three years when two hurricanes—Gustav on Sept. 1 and Ike on Sept. 17—swamped both coastal parishes, causing millions in damages, flooding 2,500 homes, and prompting the federal government to declare a fishery-resource disaster in the Gulf of Mexico. At emergency and government meetings in Terrebonne and Lafourche immediately after the storms, discussion focused on rebuilding destroyed sewerage and water infrastructure, helping displaced families find housing, and other critical short-term concerns. Early recovery conversations also emphasized the importance of long-term, large-scale plans to restore the coast and better protect residents through measures such as home elevations, which has proven to be the best way to prevent flooding in Terrebonne, which lacks levees high enough to prevent storm-related flooding in most bayou communities, according to a local planning official in a 2009 interview. When it comes to repeated, severe home flooding, Terrebonne ranks second in the state, behind Jefferson Parish. Though elevation requirements are meant to save homeowners from flooding in areas where the risk is great, parish officials have challenged their accuracy, fearing they will stymie local development.

By the end of 2008, and with updated federal flood maps looming that meant higher insurance rates and elevation requirements for many coastal homeowners, state

and parish officials began worrying again about stunting economic development through a designation of severe flood risk. Though elevation requirements are meant to save homeowners from flooding in areas where the risk is great, parish officials have historically challenged their accuracy, fearing they would stymie local development and even snuff out tourism. In December 2008, knowing the National Flood Insurance Program is the sole source of flood insurance for 16,100 homes in Terrebonne and 12,500 in Lafourche, government officials requested a year delay before adopting the maps, which were released weeks before Gustav and Ike and represented the first update since 1985. The maps put much of Terrebonne and all of south Lafourche in a high-risk flood zone, despite the fact that south Lafourche is encircled by a hurricane-protection levee. In early 2009, Terrebonne and Lafourche parish officials decided to contract with private experts to help appeal alleged errors in the FEMA maps.

Around the same time as the FEMA flood map controversy, Terrebonne Parish received word that it would be the first in line to receive a portion of the $6.1 billion in disaster assistance the federal government approved for states hit by disasters in 2008. Administered by the U.S. Department of Housing and Urban Development, the money is distributed in phases. Louisiana's share of the first part of the money was $438 million. About 10 percent of that must be spent on "affordable rental housing." Of that pool, $10 million was already set aside for Terrebonne to be used for repairs, public projects, housing assistance and other post-storm needs related to Gustav and Ike. The state's plan, approved by HUD, detailing how that money should be spent emphasized levees and infrastructure, economic development, and housing.

Although local officials immediately characterized the money as an "economic stimulus," residents who suggested spending ideas at public meetings in early 2009 favored using all the federal aid on levees and hurricane protection. "I say we put every penny we have into our levees," said a coastal resident in Terrebonne. When the expected aid, totaling $122 million for Terrebonne and $33 million for Lafourche—the most money allotted to any region in the state and the largest pot of federal money either parish had ever received in the wake of a Gulf of Mexico storm—was announced, local officials drew up a list of priority projects to submit to the state, and ultimately HUD, for approval. The list included spending $73 million on levee projects; $15 million on drainage improvements; $15.5 million on housing; and $2 million on economic development and recovery projects including a cold storage facility for commercial fishers, a generator, and a loan program for hurricane-affected businesses.

In the wake of the 2005 and 2008 hurricanes, Terrebonne's planners turned to the parish master plan adopted in 2004 for guidance. Not only did they find the $700,000 master plan out of date, but they realized it offered little guidance in steering the recovery of a parish on the hurricane frontline, a place where coastal communities are facing extinction, rapidly depopulating with each passing hurricane season, even as the northern end of town has seen a population boom and the development of eight new motels since 2005, a 52 percent increase. In June 2009, parish officials began soliciting public comments once again to start the process of updating the master plan. According to a local planning official, few of the ideas generated during the Louisiana Speaks post-disaster planning campaign survived, and none made it into the second Terrebonne master plan. Such are the dynamics of a coastal Louisiana parish whose future is literally

changing day to day. “We just don’t find it has much relevance to our specific situation since the storms. There is a real disconnect between what we’re experiencing on the ground and the situation stated in the Louisiana Speaks parish plan.”

Conclusion: Restore, Retreat or Adapt, 2010-2019

When the BP-leased Deepwater Horizon oil rig in the Gulf of Mexico exploded, killing 11 workers, it set a chain of events into motion that fundamentally changed the conversation in south Louisiana (Freudenberg and Gramling, 2011), from one of restoration— disaster-proofing flood-prone communities—to one of adaptation—resettling families to higher ground in an effort to buy time and postpone the inevitable. The spill was an assault on a fragile environment, an affront to big business, and an impeachment of the regulatory credibility of government (M’Gonigle, 2013). It also did not change much. As M’Gonigle writes,

> “The BP disaster could have kicked off a critical examination of the dominant economic and political order. But its containment and astute political management meant that a serious challenge to America’s oil addiction never appeared on the public radar. After all, to challenge oil is to challenge what oil fuels—a growing economy that demands cheap and reliable primary resource inputs” (2013, p. 1012).

Research indicates that people’s experiences with disasters like the Deepwater Horizon oil spill may be understood best in terms of social processes—the mechanisms by which communities are divergently vulnerable to disaster-related disruptions, and how within these communities both individual and household vulnerability can vary (Cutter, 2003, 2006; Cope and Slack, 2017). The complexity of social vulnerability is one way to frame how the “restoration to adaptation” shift happened in southeast Louisiana

communities in the aftermath of the 2005 storms and the 2010 oil spill. As Cope and Slack note in their 2017 analysis of data from the census and Community Oil Spill Survey, a place-based index of social vulnerability helps explain the characteristics that make people and communities uniquely susceptible. In their factor analysis, Cope and Slack find that communities at a "rural disadvantage" due to poverty and unemployment, and those with low-income families, general geophysical and socioeconomic instability, aging populations over 65, high poverty and concentrations of mobile homes account for 93% of the total variance among social vulnerability indicators measured (Cope and Slack, 2017, p. 229).

But this case study argues that social vulnerability must be positioned within the context of coasts as landscapes of power (Zukin, 1991). Historically, recovery and reconstruction efforts following Louisiana Gulf Coast storms have exacerbated tensions between public and private interests in the use and demarcation of valuable waterfront land (Freudenberg et al., 2008; Charlier and Bologa, 2003; Griffith, 2000). Surges in reconstruction following damaging coastal storms have historically stimulated development pressures in Louisiana, for one because of the change opportunities that surface after disasters (Colton, Kates, and Laska, 2008; Flint and Luloff, 2005; Platt, 1999). And for another, federal, state, regional, and local governments have tended to promote coastal urbanization and tourism development through the provision of infrastructure, investment schemes, permissive zoning regulations, and other initiatives in the name of accelerating economic development (Freudenberg et al., 2008; Bagstada, Stapleton, and D'Agostino, 2007; Smith and Brent, 2001; Dean, 1999; Logan, Whaley, and Crowder, 1997).

The case of Bayou Petit Caillou is a story of the loss of isolation. The case shines a light on the historic pattern of local and national interests combining to exploit a coastal community's resources, particularly since the 1960s when hotels, second-home developments, and sportfishing marinas emerged, depriving local residents of dockside space along the coast, damaging wetlands, restricting navigation channels, and polluting popular swimming holes (Solet, 2006).

Coastal land ownership, land-use policy, post-disaster planning, and government intervention in the market via taxes, subsidies, and insurance, all influenced coastal development patterns and decisions in south Louisiana. At play here are major themes in contemporary social scientific studies of coasts: political responses to environmental threats; the politics of coastal development; the role of nongovernmental and environmental groups in shaping the coastal agenda; and the "terms of trade" between the owners of the land and the coastal residents who are experiencing the consequences of its use—from fishers anxious about the unintended effects of new mitigation projects (fixing one problem only to create another) to local tourism boosters fixed on ever-more-creative ways to draw more visitors and businesses to sportsman's paradise. As Kousis (2004) notes in her study of protests against a wastewater treatment plan in Catalonia and a fossil fuel plant in Portugal, while planners and the public may oppose projects considered environmentally damaging, a combination of political and private forces predictably team up to ensure such developments proceed.

"Before the BP settlement, this whole master plan was an academic exercise." Those were the words of Louisiana Gov. John Bel Edwards during a spring 2017 meeting with coastal stakeholders: local levee board members, advocates, legislators, lobbyists,

landowners and state officials. Everyone nodded their heads; they knew exactly what the governor was talking about (Alford, 2017, p. 1). After years of trying to convince the world that Louisiana was washing away, and after thirty years of master planning, coastal planning, public meetings and policy summits, the gigantic pile of money needed to jumpstart the state's $50 billion coastal master plan was finally on its way to the Bayou State. At stake in the wake of the 2016 BP oil settlement are two substantial sums of money. First is the roughly $10 billion to be paid out to Louisiana over the course of fifteen years for legal settlements. Second is the $140 million annually that will be gleaned from offshore oil revenue, beginning in 2018-2019 through the federal Gulf of Mexico Energy Security Act, or GOMESA (Alford, 2017).

The combined cashflow has contractors, parish governments, engineers, landowners and many others trying to get ahead of the competition to come, while elected officials are getting more serious about their oversight roles, and scholars critique the state's ability to build local capacity to implement the coastal master plan (Knox, 2017). Spending priorities are being questioned with a fresh intensity; bills have been introduced at the Capitol to address how some of the incoming revenue should be distributed; and protection advocates are facing off against restoration supporters, with both arguing that their respective projects are critical to the state's core mission (Alford, 2017). As erosion and subsidence relocate the coast and its byproducts further north, the proverbial table where deals are made is growing larger. Occurrences of saltwater intrusion have been found as far north as Baton Rouge and officials in the River Parishes region are reporting unprecedented backwater flooding connected to lower-lying areas. Gov. Edwards, convinced that Louisiana has reached a turning point, declared an official

state of emergency in 2017 for Louisiana's coast. Make no mistake—the state's plan to save the coast is being funded and implemented on a grand scale that promises high hurdles. The National Wildlife Federation has said that Louisiana is "embarking on the largest restoration effort in U.S. history" while the Public Affairs Research Council recently compared the process of putting the state's blueprint into action with tackling a "five-dimensional jigsaw puzzle" (Alford, 2017, p. 1).

The fight to protect the coast has evolved well beyond an academic exercise. It's now an administrative and political battle that the entire state will see play out through the fourth decade of the twenty-first century. With real money now at stake, Louisiana's $50 billion, newly revised 50-year coastal master plan has shifted its emphasis away from a years-long focus on restoring all that has been lost and saving every swamp, marsh and community. Instead, the state is engaging in triage, acknowledging, however begrudgingly, that some communities cannot be saved and some people will have to move to higher ground. Louisiana's official focus has shifted from restoration to adaptation, to reducing risk. It is a public acknowledgement that the state lacks the time and money to continue along the same restoration and mitigation path it had been on since the late 1980s.

The trickle-down effect of BP oil money to Terrebonne Parish will largely support the Morganza to the Gulf hurricane protection plan that was put together by the Army Corps of Engineers after Hurricane Andrew. Recently dubbed "The Great Wall of Louisiana" by Taxpayers for Common Sense, one of Morganza's key features, and the linchpin of Terrebonne's hurricane protection system, is a $366 million lock on the Houma Navigation Canal. Engineering for the lock complex, underway about two years,

is expected to wrap up in 2019, with the lock completed by 2022, partially paid for with BP settlement funds (Magill, 2017). Once opened, the 110-foot lock complex will be the single biggest public works project in parish history. Its twin purpose is to block storm surges that could inundate Houma and other inland communities, and channel fresh water from the Atchafalaya River through the Gulf Intracoastal Waterway and into marshes in central and western Terrebonne, preventing saltwater intrusion. Once Terrebonne's coastal lock systems are completed within the next three years, almost every community in the parish will be protected.

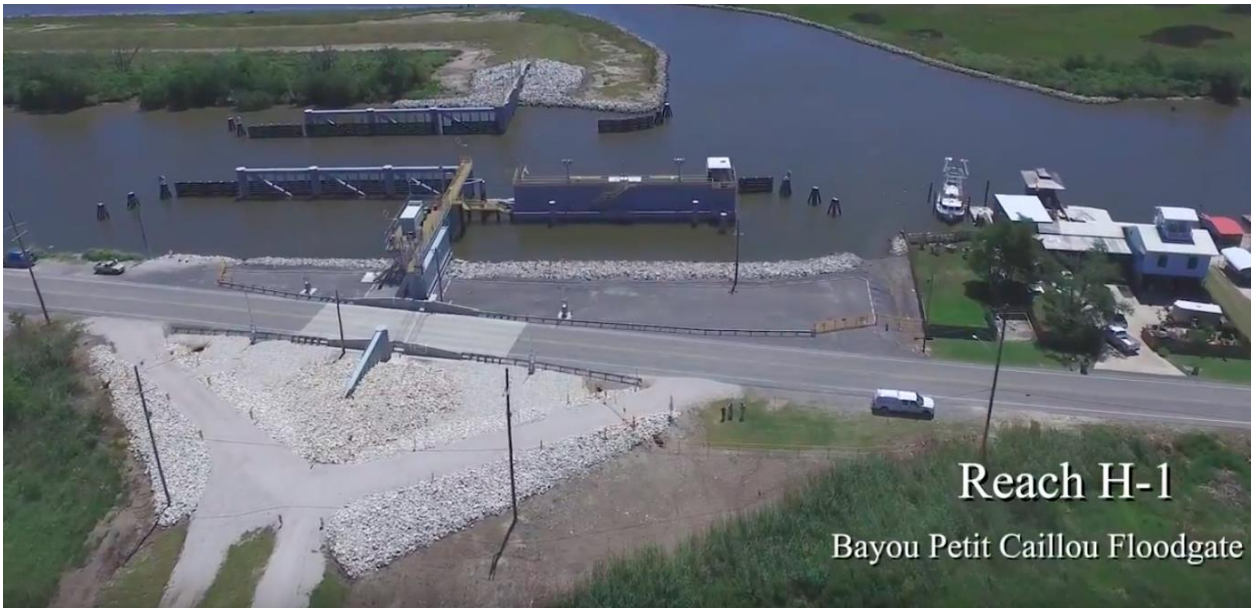


Image 2.5: This aerial image depicts a section of the Morganza to the Gulf hurricane protection project. The Bayou Petit Caillou canal floodgate and associated floodwalls were completed in 2016 at a cost of $19.8 million. (Source: Photo courtesy of T. Baker Smith from aerial video taken on July 18, 2017).

The economic consequences of land loss for Louisiana and the rest of the country in a future without action to protect and restore the coast are, for now, understood. From 1932 to 2010, Louisiana lost approximately 1,880 square miles of land, and state and federal officials project another 1,750 square miles are at risk of being lost by 2060. Coastal restoration projects will stem the tide, but not by much, and not forever. In the meantime, the Cajun culture continues to change. In 2018, the Diocese of Houma-Thibodaux announced that south Louisiana is no longer predominantly Catholic. The area has seen one-third of its Catholic population leave the faith during the past forty years (Copp, 2018).[14]

The unsentimental tone of contemporary planning and adaptation conversations is a stark contrast to the plans of yesteryear, but reflects the realities facing the future of the coastal zone. In 2017, more than 80 percent of Terrebonne Parish citizens participating in a community planning process led by LA SAFE (Louisiana's Strategic Adaptations for Future Environments) agreed with a vision proposed for high-risk coastal environments that includes "fewer permanent, full-time residences and more seasonal, recreational and workforce housing." More recently, a fall 2018 poll conducted for the National Audubon Society on behalf of Restore the Mississippi Delta found that 49 percent of coastal Louisiana voters think land loss will affect them directly this year, 70 percent in five years, 77 percent in 10 years and 79 percent in 20 years. In a region comprised of Terrebonne, Lafourche and St. Mary parishes, 60 percent think coastal land loss will affect them this year, 75 percent in five years, and 81 percent in both 10 and 20 years.

[14] During its inception on March 2, 1977, the diocese counted about 67 percent, or 132,000 people in the area, as Catholic. In 1987 that number decreased to 129,510; 1997, 125,185; 2007, 114,945; and 2017, 90,293.

With business and property more at risk than ever, Terrebonne's population is in decline amid a global crude glut and resulting low prices that have sparked layoffs and work slowdowns throughout Houma-Thibodaux's oil-based economy. Across the region, an astonishing 83 percent of homes, valued at $13 billion, are at risk of damage or destruction from hurricane storm surge flooding in Terrebonne and Lafourche parishes alone (CoreLogic, 2018). State figures show the area has lost roughly 13,000 jobs since the oil bust began in mid-2014. Census figures show that between 2000 and 2010, 15 percent of Montegut, 11 percent of Chauvin and 30 percent of Dulac residents left those communities, where many have suffered repeated flooding. Efforts are under way to relocate residents of Isle de Jean Charles, whose population has dwindled along with the tiny island itself (USHUD, 2016), "an episode emblematic of growing concerns about the equity of retreat" (Henderson, 2018, p. 657), to a 515-acre parcel of land in Schriever, "where a subdivision will be built to house those who are in harm's way on the island" (Yoshonis, 2019, p. 4). Henderson (2018) goes on to theorize that "an ideal strategy for retreat, or at least one that overcomes many of the current challenges faced by retreat measures, would have several features: flexibility to address the unpredictability of sea level rise, relatively modest costs, and the capacity to overcome legal uncertainty and political opposition" (p. 657).

In contrast, Louisiana's coastal master plan emphasizes voluntary buyouts to move more than 8,200 homes out of flood-prone areas in Terrebonne and Lafourche. The plan does not specify where the money will come from, nor the manner in which entire communities will be resettled. It leaves the job of determining which specific homes and communities would receive aid in the hands of parish governments, and it leaves

questions of economic, cultural and human costs unanswered. “Migration and environmental change are a research frontier,” (Simms, 2017, p. 410), and Louisiana is on the front lines as coastal communities like Bayou Petit Caillou learn to embrace adaptation as a way of life in the twenty-first century.

Chapter Three: Case Study, Apalachicola, Franklin County, Florida

Introduction: 'The most important thing in a century'

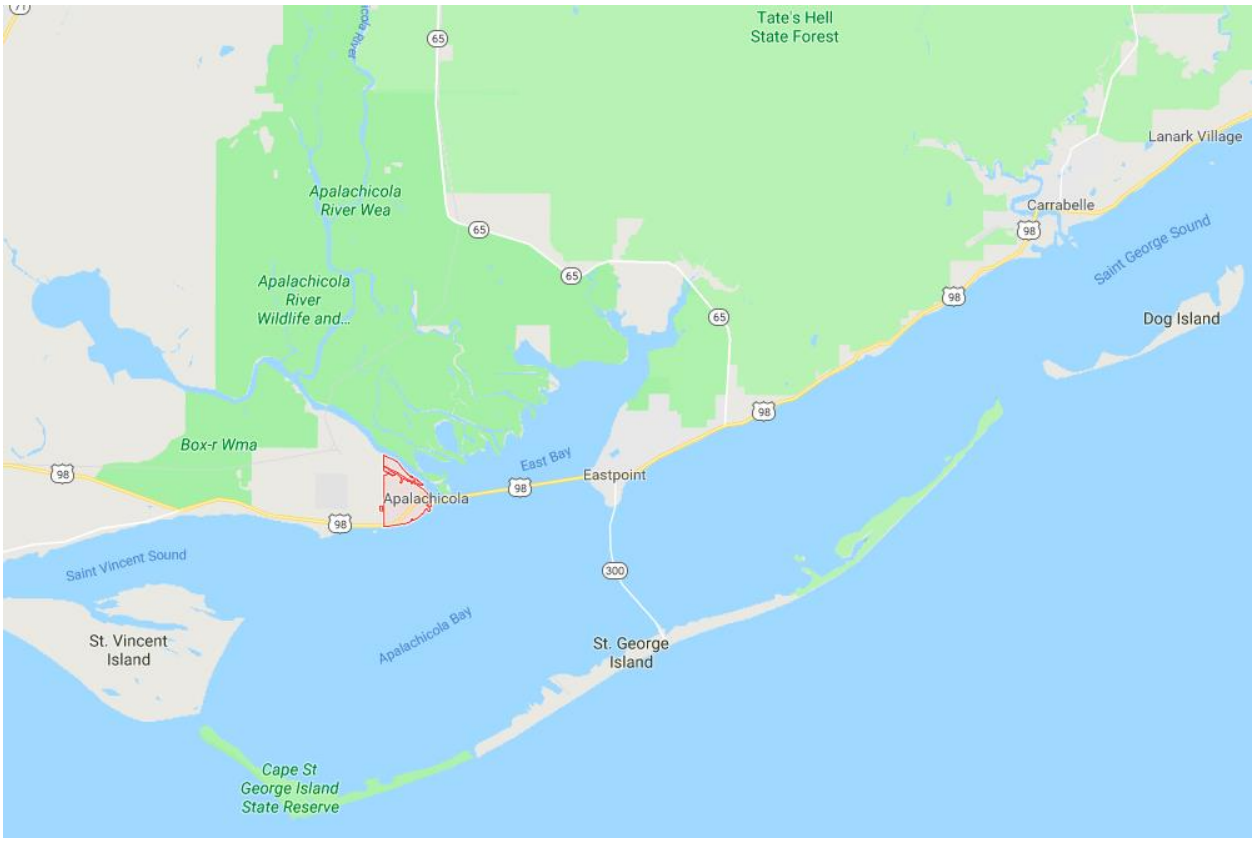


Image 3.1: The study area highlighted in red contains Apalachicola, located at the tip of the Florida Panhandle, approximately 200 miles southeast of Pensacola.

Apalachicola Bay, an estuary recognized by the United Nations for its uniqueness, once produced 10 percent of the nation's oysters and 90 percent of Florida oysters. No longer. The story of the Apalachicola oyster's demise provides a lens into a larger legal and political tug of war between twenty-eight Florida gubernatorial administrations, three states, six rivers and two basins that dates back nearly a century. In 2018, after thirty years of litigation, the U.S. Supreme Court finally weighed in on the so-called "water

wars" conflict dividing the states of Georgia, Alabama, and Florida over control of water flows into the Apalachicola-Chattahoochee-Flint River Basin and the Alabama-Coosa-Tallapoosa River Basin. *Florida v. Georgia* pitted the thirsty megalopolis of Atlanta and the farmers of southwestern Georgia against conservationists and seafood producers along a stretch of the Florida Panhandle known as the Forgotten Coast.[15] Both states argued they need the fresh water, which starts in the foothills of the Blue Ridge Mountains and in a spring just south of the Atlanta airport, before meandering hundreds of miles on its way to the Gulf of Mexico via the Apalachicola River. But for decades the Georgia agricultural lobby had been winning the war, aided by decisions from the U.S. Army Corps of Engineers dating back to 1946. Often in such Supreme Court disputes over boundaries or water rights, interstate arguments center on growth. But in Apalachicola, the argument was environmental and historical-ecological, about getting back what was, and it gained the court's sympathy. More fresh water flowing down the Apalachicola River would not only help preserve the basin's fragile ecology, it would also provide the perfect degree of bay salinity required to sustain the oyster industry, and thus a 250-year-old way of life.

In its 5-4 decision handed down on June 27, 2018, the court took a rare—if not unprecedented—stance, seeming to suggest that in water disputes between states, the health of an aquatic ecosystem can be considered alongside drinking water and farming concerns. The court sided with Florida when it remanded the case back to the special counsel with instructions to reconsider Florida's proposal and evidence. Now the task for

[15] In 1967, the magazine *Holiday* coined the phrase "Forgotten Coast" in describing a stretch of Old Florida from the Panhandle to the Everglades. The story featured color photographs of Weeki Wachee, Tarpon Springs and St. Petersburg (Johoda 1967).

Florida is to prove how an increased freshwater flow would help Apalachicola Bay "bounce back" (Beitsch, 2018, p. 6).

As the saga continues, there is a tinge of irony to arguments in favor of protecting the Apalachicola oyster economy. Because it might be too late. Since 2012, the lack of freshwater flows combined with over-harvesting and predation have severely damaged the Apalachicola oyster population. In 2013, the Apalachicola Bay was declared a federal fisheries disaster area, and in 2016 it was named the most endangered river basin in the U.S. Restoration efforts over the past five years have included a re-shelling program, stricter regulations on harvests, and monitoring daily hauls, but they have done little to stem the tide. Apalachicola Seafood Workers President Shannon Hartsfield has estimated that scores of oyster fishermen have either moved away or abandoned a way of life that sustained them for generations (Ash, 2016). Backing this up are Florida Fish and Wildlife Conservation Commission records dating back to 2001, which show over 1.2 million pounds of oysters were commercially collected annually in Franklin County for over a decade. The number peaked in 2012 with just over three million pounds before plummeting to just under 400,000 pounds in 2016.

Longtime Apalachicola city attorney Pat Floyd described the situation happening in 2018 as "probably the most important thing in a century for Apalachicola. This is the best ecosystem and the most pure water body in the Northern Hemisphere. So is that something worth giving away without a fight? ... If we can make a dent and get the fresh water down here, this can revive and populate the oysters the way they have been" (Associated Press, 2018, p. 9).

This chapter considers Apalachicola's struggle to preserve its working waterfront and protect the environment upon which it depends as a result of careful decision-making and deliberate dialogue involving local actors who were actively engaged in plotting the future of what their community was going to be. The chapter explores Apalachicola's twentieth century development by weaving this thread of continuous local agency within the context of constant external pressures to succumb to Florida's sun, sand and sea tourism economy as well as ecological and environmental threats beyond local, regional and state control. Section one, Arrivals, explores how Apalachicola's peripheral position on the Forgotten Coast endured through World War II, even as developers rose in prominence to influence policy in Tallahassee and Washington with their "convincing promises of paradise" built on images of sunshine, palm trees, and endless tourist consumption (Barnett, 2007, p. 8). In section two, Fast Times, the ways Apalachicola resisted change in the postwar period through the economic recession of 2008 are explored within the broader context of Florida's efforts to manage its postwar population growth by purchasing endangered lands for open space, mandating building codes in coastal counties, introducing comprehensive planning to municipalities, and adopting Smart Growth mandates. Special attention is paid to the impact of two bridges built thirty years apart: the 1935 John Gorrie Memorial Bridge linking Apalachicola to its Franklin County neighbors across the bay, and the 1965 causeway spanning Apalachicola Bay to then-undeveloped and largely uninhabited St. George Island. The conclusion, Adaptation, considers how decisions like *Florida v. Georgia* and disasters like the Deepwater Horizon oil spill will affect the future of rural Franklin County, which has as much

coastline as the state of Alabama but fewer than 12,000 residents, and the larger ecosystem dynamics that surround it.

Arrivals: The 'big little county' along the Forgotten Coast, 1870-1940

Travelers have long believed that the Florida peninsula possesses "exotic Edenic qualities" (O'Sullivan and Lane, 1991, p. 2).

> Whether traveling by Spanish galleon or by auto-train, generations have come to Florida with hopes of restoration or re-creation. Ponce de Leon's quest for the fountain of youth in La Florida, the land of flowers, was only the first recorded account to identify the state symbolically with the idea of regeneration. Huguenots fleeing religious persecution, Creek Indians escaping British domination, African slaves seeking freedom, nineteenth-century tourists escaping industrial cities, and twentieth-century Cuban refugees searching for political freedom and economic opportunity—each new wave of immigrants and visitors has carried to Florida a dream of a new life in paradise. Such visions have profoundly shaped the peninsula's history and culture (O'Sullivan and Lane, 1991, p. 2-3).

After the Civil War, Florida was one of the least populated states in the Union with fewer than 200,000 people, compared to a national population nearing 40 million. By the 1870s, "a pilgrimage of pleasure" was in full swing farther north on the Atlantic coast at such resorts as Atlantic City and Cape May, New Jersey (Lencek and Bosker, 1998, p. 1). The development of fashionably elite resorts—the conspicuous consumers all workers strove to become in Thorstein Veblen's *The Theory of the Leisure Class* (1899)—was spurred by the growth of extensive cheap rail service, a growing middle class with disposable income, and a spreading social belief in the healthful benefits of the seashore (Stokes, 2007). As early as 1823, Charles Vignoles recommended St. Augustine as a winter haven for the ill, remarking on "the geniality of the climate, the beauty of the orange groves, the vicinity of the ocean, and the quietude of the place" as contributing

"greatly towards the restoration of health to consumptive persons" (Miller, 1998, p. 10). The level of tourism promoted by medical authorities and travel writers concerned about "swamp miasmas," consumption, bronchitis, rheumatism, exhaustion, old age, and infertility helped develop places such as St. Augustine and Jacksonville, whose population of 28,429 made it the state's largest city at the turn of the century (Miller, 1998) By the late nineteenth century, Henry Flagler's dream to develop east Florida in a tripartite scheme of railroads, hotels, and land developments was viewed as the engine that could drive the rest of Florida's growing economy into the twentieth century (Miller, 1998).

Like much of the Florida Panhandle, the Apalachicola economy before and after the Civil War was largely immune to the coastal tourism frenzy sweeping the Atlantic coast. Agents of the house of Forbes & Company of New York, who carried on a vast trade with the U.S. government, purchased Franklin County land from the U.S. government in 1804 and, later, from Spain (Ziewitz and Wiaz, 2004). The firm owned all of what is now Franklin County until 1820, when Forbes sold its possessions to Mitchell, Innerarity and others, who went on to organize the Apalachicola Land Company. The company expanded the trading business inaugurated by Forbes by recruiting capitalists from the Northeast to relocate to Pensacola (Ziewitz and Wiaz, 2004). The strategy worked, and the Apalachicola settlement grew rapidly. The city was incorporated in 1829 by a company of wealthy New York speculators and within a decade became the third largest antebellum cotton port in the U.S., just behind New Orleans and Mobile. By the late 1830s, the earliest of coastal resorts had sprung up in the Panhandle, frequented by northern newcomers and wealthy elites from the interior whose summer outposts on the

Gulf were designed to escape hot, sickly summers (Ziewitz and Wiaz, 2004). It was not until after the Civil War, however, that Apalachicola saw its first tourist development, and not until decades into the twentieth century that the town received its first share of Florida's growing "sun-income" (Ziewitz and Wiaz, 2004, p. 50).

Although cotton made a brief resurgence after the Civil War, the Apalachicola economy remained rooted in extracting resources from the land and sea, with sawmills taking the place of cotton beginning in 1867, when construction of the first mill led to a lumber boom that witnessed one to two mills built each consecutive year through 1890 (Rogers, 1986). By then, lumber had become the principal industry in Apalachicola (Rogers, 1986). It turned around the languishing economy by providing an annual income of $1.5 million, revived Apalachicola as a port city, and attracted a string of outside investors to the Panhandle whose names still live on within the downtown historic district, names like John Gorrie (South Carolina); James N. Coombs (Maine); and Oliver Hudson Kelley (Boston).

Rising up alongside the lumber industry was oystering. Before the early 1880s, the longtime oyster industry of Apalachicola was a small-scale, regional endeavor, confined to catching the shellfish for shipment to the interior of Georgia and Alabama via steamboat (Rogers, 1986). Once the packing of fish into cans became commonplace in 1883, cargo loads of canned oysters from Apalachicola were shipped by rail around the nation. The Ruge Brothers Packing Company, the firm that started canning oysters in gallon tins in 1850, following the invention of artificial ice by Apalachicola resident Dr. John Gorrie, emerged to lead the way in oyster sales. The Ruge Brothers' largest markets for canned and shucked oysters made Apalachicola a household name in Kansas City,

San Francisco, Portland, Oregon, and Denver, Colorado. The industry grew so quickly and was so promising that the Florida state legislature in 1879 passed an act to protect and regulate fisheries, authorizing counties to hire "fish bailiffs" as enforcers of illegal catch (Rogers, 1986). Another state law in 1881 went further by encouraging individuals to plant oysters in Florida public waters and establishing a process by which people could be awarded exclusive oystering rights in designated waters by applying to the county commissioners (Rogers, 1986). In 1889, a short-lived Florida Fish Commission attempted to take responsibility for regulating Florida's fishing industry away from individual counties by creating an authority to annually investigate the oyster waters and oyster beds of the state and recommend to the governor policies to increase both yields and oyster-generated revenues (Digest, 1893; Rogers, 1986).[16]

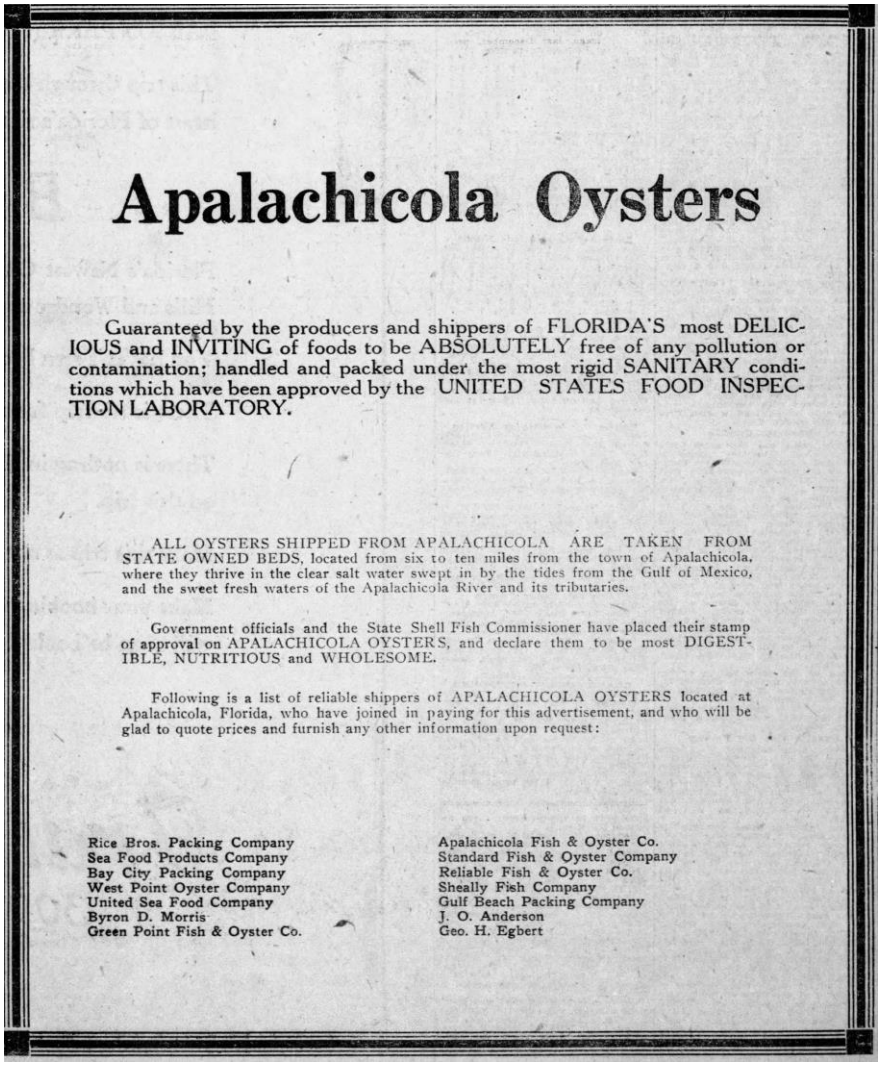
Despite its commercial promise in lumber and oysters, Apalachicola, like other Gulf ports, struggled to make a case for itself to Congress for improvements to water navigation and trade. In an 1895 editorial, *The Apalachicola Times* wrote on page 1:

> "Here is the harbor of Apalachicola, acknowledged to be the second largest
> lumber shipping port on the Gulf, and the largest appropriation we have been
> enable to secure at any one time was $20,000—hardly enough to begin the work."

Some Apalachicolans even supported a scheme to separate from Florida and make the area west of Apalachicola a part of Alabama, which was more likely to develop a deep-water port (Rogers, 1986). As the Miami area boomed in 1923, leaving the Panhandle farther behind, author Clara Stillman reflected on the value of separating Florida into two

[16] The commission was replaced in 1913 by a state Department of Game and Fish. However, two years later, the state relinquished central authority to the counties. In 1917, the legislature reversed that decision and vested ownership of game, birds and fish with the state, as it remains today.

states, North Florida and South Florida, or three states, giving the Panhandle to Alabama and allowing both the chance to be part of a regional economy with unified access to the sea (Rogers, 1986). In March 1982, the proposal grew traction when state representative Tommy Sandusky of Mobile drafted a resolution calling for a meeting among counties of southern Alabama and the Florida Panhandle to consider the creation of a new state. Those supporting secession argued that Panhandle residents had more in common with Alabama residents than with the transplanted New Jerseyans and other northerners who dominated South Florida and the Atlantic coast of the state. Although Alabama Governor Fob James offered Florida $500 million to purchase the Panhandle, few politicians in either Florida or Alabama supported "this kind of secession" (Stanonis, 2014, p. 27).



Apalachicola Oysters

Guaranteed by the producers and shippers of FLORIDA'S most DELICIOUS and INVITING of foods to be ABSOLUTELY free of any pollution or contamination; handled and packed under the most rigid SANITARY conditions which have been approved by the UNITED STATES FOOD INSPECTION LABORATORY.

ALL OYSTERS SHIPPED FROM APALACHICOLA ARE TAKEN FROM STATE OWNED BEDS, located from six to ten miles from the town of Apalachicola, where they thrive in the clear salt water swept in by the tides from the Gulf of Mexico, and the sweet fresh waters of the Apalachicola River and its tributaries.

Government officials and the State Shell Fish Commissioner have placed their stamp of approval on APALACHICOLA OYSTERS, and declare them to be most DIGESTIBLE, NUTRITIOUS and WHOLESOME.

Following is a list of reliable shippers of APALACHICOLA OYSTERS located at Apalachicola, Florida, who have joined in paying for this advertisement, and who will be glad to quote prices and furnish any other information upon request:

Rice Bros. Packing Company
Sea Food Products Company
Bay City Packing Company
West Point Oyster Company
United Sea Food Company
Byron D. Morris
Green Point Fish & Oyster Co.

Apalachicola Fish & Oyster Co.
Standard Fish & Oyster Company
Reliable Fish & Oyster Co.
Sheally Fish Company
Gulf Beach Packing Company
J. O. Anderson
Geo. H. Egbert

Image 3.2: Paid for by fourteen seafood packing companies and investors, this 1925 advertisement promoted the pollution-free Apalachicola oyster and appeared in newspapers across Florida. (Source: *The Tampa Tribune*, February 11, 1925).

Through the early 1930s, Apalachicola's turn-of-the-century battle for infrastructure upgrades became a recurring theme, often pitting local business leaders, many of whom were transplants from New England cities, against Tallahassee lawmakers. It was a David versus Goliath tale that would resurface again and again throughout the century as Northwest Florida struggled for its share of state prosperity.

The construction of the 1935 John Gorrie Memorial Bridge linking Apalachicola to its Franklin County neighbors across the bay, and the 1965 causeway spanning Apalachicola Bay to then-undeveloped and largely uninhabited St. George Island, were turning points in local history, both symbolically and practically. Franklin County contains two incorporated towns, Apalachicola (the county seat) and Carrabelle, and several unincorporated places—St. Theresa, St. James Island, Lanark Village, and Eastpoint. Roughly 70 percent of the county is publicly owned by various state and federal agencies; the St. Joe Company owns another 15 percent or 55,000 acres (Chapin, 2003; Gaither and Worthen, 2010). Until the 1935 Public Works Administration bridge was built, Apalachicola was cut off from the outside world for more than a century, served by frequently broken-down ferries and potholed streets (Rogers, 1986). But if the new bridge to Eastpoint and beyond was a symbol of hope, flexibility, and connectivity, the 1965 barrier island bridge was a symbol of change, for it ushered in a new era of centralization and tourism expansion between St. George Island and Apalachicola that eventually extended to markets as distant as Atlanta and Birmingham. A commercial fisherman who fought against the 1965 span and second homes on St. George noted that the bridge battle marked the beginning of forty years of fighting between developers and local fishers over a host of resource-management issues (Eidse, 2006).

The increased connectivity threatened historic norms and practices, encouraged tourism growth, and brought about social, political, and economic challenges that have changed local lives ever since. Like the water wars described later in this chapter, the tale of two bridges crossing Apalachicola Bay provides a lens into the changes occurring along the rural Florida Panhandle and the Apalachicola River Basin in the Forgotten

Coast of the mid-twentieth century (Trusty et al., 2012), when technology closed one of America's last frontiers and catapulted the dredging, filling, and paving of swamps and forests once so impenetrable that, according to folklore, a Franklin County homesteader named Cebe Tate dubbed a particularly fearsome tract Tate's Hell after a seven-day journey through the woods to track a panther that had been attacking his livestock (Rogers, 1986; Standiford, 2002).

Two months after the Labor Day hurricane of 1935 destroyed the Key West Railroad—celebrated as one of the greatest engineering feats of all time when it opened in 1911 as a 153-mile-long extension of Henry Flagler's Florida East Coast Railway—thousands of Apalachicola residents donned their finest clothes and met near the downtown fishing docks to celebrate the opening of the longest bridge most of them had ever seen (Rogers, 1986).[17]

[17] See also *Apalachicola Times* issues of Sept. 14, Oct. 26, and Nov. 2, 1935.

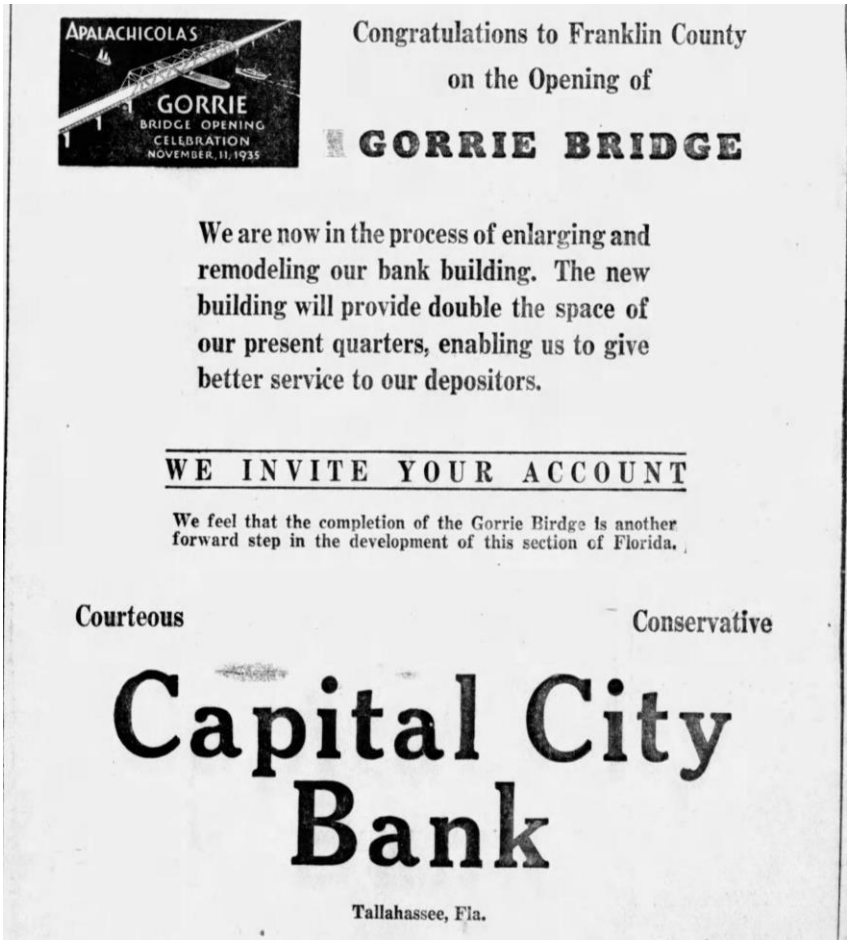


Image 3.3: Tallahassee banks and car companies saw opportunity in the opening of the Gorrie bridge, as this advertisement from Tallahassee-based Capital City Bank shows. (Source: *Tallahassee Democrat*, November 5, 1935).

The opening of the $1.5 million, 6.5-mile John Gorrie Memorial Bridge had been anticipated for more than a decade. It took WPA funding and an assortment of state and local appropriations to construct the span connecting Apalachicola on the west bank of the Apalachicola Bay to Eastpoint at the other end (Rogers, 1986). The bridge was largely viewed as the "missing link" to the general traveling public and a way to jumpstart the "remote and unexploited," "dying" small town of Apalachicola by connecting it to the Tallahassee and south Georgia economy (Rogers, 1986, p. 26). At the

November bridge opening on Armistice Day, city leaders served mullet, shrimp and oysters to 10,000 visitors and dignitaries including Florida Governor David Sholtz, who spoke about the bridge breathing new life into depressed Apalachicola, and resurrecting the boom times of Franklin County's antebellum commercial past. The day ended with a football game, fireworks and a gala dance ("Sholtz," 1935, p. A1). In his remarks, Governor Sholtz credited Apalachicola residents for advocating for the bridge, saying "forty governors would not have secured this bridge if you people had not gone out and plugged for it." He went on to assert the "great need for a bridge to span Apalachicola Bay" and that "a new day of prosperity for Northwest Florida is at hand." Millard Caldwell, representing the third Congressional district, said the opening of the bridge "is Florida history in the making," and predicted the Panhandle would experience in the next few years a prosperity and growth "that will be as astounding to us as the realization of this bridge today." Caldwell ended by declaring Franklin County, from here on out, "the big little county" ("Sholtz," 1935, p. A1).

Fast Times: Revival and Resistance on the Redneck Riviera, 1940-1970

In the decades that followed its grand opening, the John Gorrie Memorial Bridge did little to immediately change Apalachicola, although it was not for lack of trying. Just as Texas and coastal Louisiana were experiencing their own oil and gas boom, Florida in the early 1940s found itself in a similar predicament when the state decided to shift its emphasis on exploration from the southern tip of the peninsula to the north and western portion of the state. It was during World War II, but Florida's motivation was not entirely to help the war effort; just like their peers in Texas and Louisiana, state leaders were

beguiled by the promise of new oil jobs and state revenues when they decided to lease virtually all of Florida's Gulf Coast waters—including everything hugging the shore to more than ten miles out to sea across a 425-mile stretch between Apalachicola and Naples—to one company, Arnold Oil Exploration, which was later bought by Coastal Petroleum. The lease area totaled 3.6 million acres, about the size of Massachusetts (Braslow, 1996).

A pattern similar to the early twentieth century Edward Wisner-Louisiana Land & Exploration swamp leases unfolded. The issue in Florida was that the leases had no termination date—they were essentially forever—and the annual rent came to just $22,566.40, pennies on the acre (Braslow, 1996). Because Coastal Petroleum lacked financing to drill for oil on its leases, it partnered with oil companies including Chevron and Mobil, which spent $16 million drilling thirteen exploratory wells between 1947 and 1968. In all, twenty-two offshore wells were drilled, and each one failed to produce commercial quantities of oil or natural gas. Coastal did succeed in marketing and managed to sell enough shares to investors to keep the lights on in its Apalachicola office—and to pay lawyers. Given to grandiose statements, Coastal's longtime president Phil Ware repeatedly claimed that offshore drilling would be an economic boon for Franklin County. In one report, he declared that the St. George Island site contained 618 million barrels of recoverable oil (Braslow, 1996; Cotterell, 1996; Webb and Bates, 1999).

In the late 1960s, a dispute arose about the right to mine limestone beneath Lake Okeechobee that resulted in a federal lawsuit that continued until 1976. Coastal agreed to give up a large portion of its leased land but retained its rights to explore. It also

surrendered portions from the coastline to more than four miles into the sea with one stipulation: if any company were to strike oil and gas, Coastal would get six and one-fourth percent of the money generated. From 1976 to 1990, things remained calm, and no company asked to drill in the area. But when the Florida Legislature passed a law that forbade oil drilling in the area because of environmental concerns, Coastal sued, challenging the law because it took away the royalties under the 1976 settlement. By 1997, Coastal had sold 33 million shares to about 14,000 investors, still with no oil to show for its money. However, the ongoing lawsuit provided Florida lawyers with steady work churning out "takings" claims that the state deprived Coastal of hundreds of millions of dollars in earnings in 1998 when it denied a permit to drill for oil off St. George Island. It took thirty eight years for the Coastal saga to conclude when Circuit Court Judge J. Ralph Smith in 2002 found that there was no proof of any oil in the area, and the Florida Cabinet in 2005 paid the company $12.5 million to stop suing the state for cumulative losses since 1953 of $36.6 million (Rackleff, 2009).

The Coastal saga inspired landmark legislation to protect Florida's coastal zone by dividing it into separate types of management areas, including "development" for industrial or commercial activity, "conservation" for limited activity, and "preservation" for no activity. In the wake of the federal passage of the Coastal Zone Management Act of 1972, Florida was one of the first states to prepare for the enactment of a statewide Coastal Zone Management Authority; between 1967 and 1978 numerous state laws and constitutional amendments were enacted in the area of natural resource management, including nearly $2 million for land acquisition in connection with the Apalachicola River and Bay estuary system in Franklin County. It was the apparent conflict between

economic growth and environmental degradation that fueled efforts to manage growth in Florida, to literally plan paradise, and the result—the 1985 Growth Management Act—succeeded in transforming Florida from a state with little interest in and regard for planning into a state viewed within planning and environmental circles as a leader and innovator in methods for managing growth (Connerly et al., 2012; Linkous and Skuzinski, 2018).

In surveys of Florida's county commissioners conducted by the University of Georgia from the 1950s through the 1970s, county commissioners from the Apalachicola basin expressed a strong desire to use the Gorrie Bridge as leverage to attract growth and development in the Panhandle. However, Apalachicola remained a single-economy town, relying almost exclusively on the commercial fishing industry, which annually accounted for three-fourths of the city's total retail sales through the end of the twentieth century. Thirty years after Apalachicolans traded ferry rides for bridge travel, the $3.5 million, 1965 span to St. George Island finally brought the city and Franklin County the kind of tourism traffic local boosters had long anticipated. The Bryant Patton Bridge was designed to spur full-scale development of the island as a resort area, and it worked. Tallahasseeans and vacationers from neighboring states purchased lots on the island for retirement homes, weekend homes and speculation while the St. George Island Gulf Beaches, Inc. development firm invested $1 million in paving, dredging and filling the surrounding marshland in the years leading up to the bridge opening (Rogers, 1986).

Image 3.4: Sales of St. George Island land were gobbled up even before the bridge opened in 1965. (Source: *Tallahassee Democrat,* April 16, 1965).

St. George Island, once a desolate strip of sandy dunes inhabited mostly by goats and hogs and considered a wasteland by many locals, quickly became Florida's hottest new coastal real estate market (Rogers, 1986). The number of cars crossing the 4.6-mile toll bridge increased 69 percent from 1970 to 1974. In the decade after the barrier island bridge opened, over 300 full-time, seasonal, and mobile homes were built on one-acre beachfront lots. In the early 1970s, plans were submitted to Franklin County Commissioners to construct thousands more second homes, a seven-mile paved road, and underground utilities on a 3,000-acre tract of pristine beachfront property (Rogers, 1986). A 300,000-gallon reservoir was constructed to service a vacationing population that was

expected to soar into the tens of thousands through the 1990s. Within less than ten years, St. George Island had become the center of a bitter struggle over the fate of the entire Apalachicola Bay watershed between, on one side, private developers and, on the opposing side, local fishers and environmentalists (Rogers, 1986).

The 1960s battle over St. George Island involved local, state, and national governments, and, like other coastal zone battles occurring in Florida at the time, called on citizens to make a clear choice about the economic fate of Franklin County. The story of St. George Island attracted national attention and fueled concerns that beachfront development designed for tourists would destroy the region's prized commercial fishing docks. One newspaper editorial writer argued:

> "There is no reason we have to let our bayfront turn into another Miami Beach with a wall of buildings so dense it blocks off the breeze from the water. While we may not be able to stop the migration of people into our area, and we may not want to stop it entirely, we can pass strong zoning ordinances which limit the density of the population and the height of the buildings" ("Below," 1974, p. A4).

Robert Howell, Apalachicola clerk of circuit court and advisor to the Franklin County Commissioners, reflected the opinions of many when he told the local newspaper: "I absolutely don't feel that anything should be built along the waters of our county that would harm the seafood industry … We don't want anything to destroy the old Apalachicola that we know" ("What," 1974, p. 4). John James, the Franklin County Tax Assessor, noted that protecting Apalachicola Bay by curbing waterfront development was Franklin County's "only priority" ("What," 1974, p. 4). James noted that controls were needed to stop beachfront property values from increasing an average of 35 percent to 45 percent each year. "I am opposed to anything that is not compatible with the seafood

industry here. I love this place. I'd hate for us to get people-polluted and turn into asphalt jungle. The land is so rich here" ("What," 1974, p. 4).

The broader context of the rise of the sunshine economy in the 1960s meant that tourism-retirement, citrus, and vegetables accounted for about half of Florida's economic base for the first time. In the meantime, the state's "frontier" industries—lumber and naval stores, cattle, and phosphate mining—fell to third place behind the maritime sector, which was dominated by the federal military payroll (Mormino, 2005; Stronge, 2008). By 1960, around the same time Walt Disney began setting his sights on establishing an amusement empire already perfected in southern California, Florida had become the quintessential Sunshine State (Mormino, 2005; Stronge, 2008). Apalachicola continued to resist tourism like the pending development boom on St. George Island throughout the 1960s, preferring to keep their traditions local and contained. In November 1964, city boosters including the Chamber of Commerce, Rotary, Lions Club, Oyster Dealers Association, and other civic groups, organized its first annual seafood festival, later named the Florida Seafood Festival. The event featured a free seafood dinner, and historic tours and speeches by dignitaries about the value of the seafood economy to Franklin County (Rogers, 1986).

A few years later, recognizing the need to organize themselves, oystermen formed the Franklin County Seafood Worker's Association in 1967. While its initial purpose was to set oyster harvesting prices and influence price stabilization, the organization quickly grew in membership size and political authority, calling for strikes when dealers cut prices, Tallahassee protest marches when politically connected businessmen wanted to allow for mechanically dredging of oysters, and hiring attorneys to fight against

waterfront development proposals deemed incompatible with the seafood industry (Middleton, 1986, p. 6).

In 1974, Apalachicola leaders who feared exploding growth in South and Central Florida would penetrate the snake-infested swamps and forests of the undeveloped Panhandle, commissioned a local architect trained at the University of Notre Dame to craft the city's first master plan. A series of editorials quickly appeared in the local newspaper lauding the Apalachicola City Commission's decision to begin plotting a future unlike neighboring coastal cities such as Tampa Bay, whose polluted waters closed to fishers in the early 1960s after developers tore down fishing sheds and erected high-rise condominiums and hotels to reshape the city skyline. "The idea is to improve the quality of life rather than merely increase the quantity," a local editorial writer remarked ("City," 1974, p. 1).

But, like most political-economic decisions made in the tiny oyster outpost, the city commission's decision to join the nationwide master planning movement was not unanimous. One commissioner who voted against the $4,000 effort feared the master plan would place "too much emphasis" on "historic and possible tourism aspects" while ignoring the importance of a vibrant commercial fishing industry that, in the mid-1970s, directly employed more than 65 percent of the city's 1,425 able adults in seafood-related jobs ("City," 1974, p. 1).

The commissioner was not alone. While most residents agreed a master plan was critical to managing growth in Apalachicola, a sleepy fishing village where oystermen continued to outnumber visitors through the 1990s, local disdain for expanding the fledgling tourism industry framed much of the public master-plan debates. In some ways,

Apalachicola's resistance to tourism reflected the changing times. Gripped with a severe gasoline shortage, citizens across the country increasingly lobbied lawmakers throughout the decade to protect open space, air, and water, and control coastal development. In the early 1970s, Paul Ehrlich (1968) appeared on "The Tonight Show" four times to warn the country about a pending "population bomb," while Rachel Carson's (1962) *Silent Spring* continued to influence both the international and locally driven environmental movements (Gartner, 1983). In 1971, the Sunshine State, where 75 percent of people lived in the coastal zone in 1975, became the first of the southeastern U.S. states to permit citizens to file suit against government agencies to require them to enforce pollution laws. Motivated in part by pollution concerns, Florida legislators in the same year also slashed state expenditures for industrial promotion, marking the beginning of an attempt to fashion the state as an environmentally conscious leader of the modern South and eastern United States (Cobb, 1993).

Throughout the 1970s, the stark contrast between the rural and remote Old Florida Panhandle and urbanized central and southern New Florida coastal communities was increasingly bemoaned in newspapers and magazines by environmentalists, travel writers, and local traditionalists. A January 1974 *Better Homes and Gardens* article described Apalachicola, the state's third-oldest city and Franklin County seat, as "Florida as it used to be before the developers and the hotel builders created their synthetic Eden" (p. 11). Reflecting the state's newfound environmental awareness, Apalachicola Bay was designated an aquatic preserve in 1970. In the weeks leading up to the master-plan decision, Apalachicola editorialists urged city leaders to resist the lure of Florida's tourism "pitch" and railed against sprawling Orlando and Miami. They advocated

creating growth controls to curb "commerce at any price." At subsequent public meetings, Apalachicola residents picked up on this point. They not only wanted a master plan, zoning laws, and subdivision regulations, they wanted them specifically aimed at protecting their fishing town and restricting new economic development projects along the bay ("Florida's," 1974, p. 4).

While national events inspired local opposition to luring new industries in the 1970s, Apalachicolans had been aggressively fighting to preserve downtown commercial fishing docks, warehouses, and processing plants since New Deal-era road and bridge projects opened the isolated fishing outpost to coastal capitalism fueled by a new motoring public. From the 1930s to the 1970s, local efforts to defend the commercial fishing industry and resist waterfront hotels, second homes, and parks were unrelenting, and overwhelmingly successful.

The publication of Apalachicola's master plan coincided with another planning document that reflected the town's unwillingness to compromise the commercial fishing industry. The 1976 economic development plan for the city declared the seafood industry the "single most important economic generator in Apalachicola," accounting for more than $4 million of the city's $6.1 million retail sales in 1973-1974 ("Apalachicola," 1976, p. 1). In his introduction to the economic plan, then-Mayor Jimmie J. Nichols wrote that any planning effort undertaken in Apalachicola must first "protect our ecological inheritance, and the value of our historical past in both an economic and cultural sense." The report went on to note that the tourism industry in Apalachicola was unsophisticated and unorganized, consisting of several small roadside motels, one hotel, two sportfishing lodges with limited overnight accommodations, and hundreds of churches, homes, and

sites of architectural or historic interest but no guidebook or marketing campaign to lure preservation-minded visitors. Instead of tourism, Apalachicola's "true business activity is anything that affects the growing and harvesting of oysters and shrimp. Oysters and shrimp define everything that is important to the residents of this city. For more than one hundred years it has been the source of livelihood, virtually the only business activity. Like the oysters, the people of Apalachicola have a rather low tolerance for any kind of interference. While friendly to outsiders, the line is drawn at any interference with the oysters and shrimp. This in itself has been the source of many problems and will certainly influence all future considerations" ("Historical," 1975).

Apalachicola's longtime dependence on the seafood industry kept families in poverty and the river basin's economy depressed. The six Apalachicola River basin counties have historically been sparsely populated and economically underdeveloped. In 1970, Apalachicola's median household income was $4,000; the statewide average was $8,000. Seafood workers in the 1970s, many of whom suffered from high rates of illiteracy, earned $4,000 to $5,000 annually. Franklin County's per capita income of $2,331 in 1974 was well below the state per capita income of $5,412 and the worst of the six counties in the Apalachicola River basin ("Apalachicola," 1977).[18]

The lack of alternate jobs forced a brain drain of educated young people out of depressed Franklin County and into the booming coastal cities of Pensacola, Panama City, and Destin, once named "the luckiest little fishing village in the world" (Jackson, 2003). Apalachicola's small annual budget of less than $500,000 reflected the absence of a sales tax and its total isolation from a major city and interstate. Despite budgetary and

[18] The per capita income of the other five counties in the basin were: Jackson, $3,910; Gadsden, $4,568; Calhoun, $3,616; Liberty, $2,917; and Gulf, $4,108.

geographic constraints, the economic development plan predicted Apalachicola would become increasingly attractive to affluent retirees disenchanted by south Florida's overdevelopment.[19] The city's natural assets and maritime culture could draw thousands of tourists, but the report's authors doubted local residents would allow Apalachicola's economy to expand beyond seafood. The only new business that located in Apalachicola between World War II and 1976 was Doxsee Food, which became the town's largest employer when it hired 110 people to process frozen food and repair boats ("Apalachicola," 1977).

The report concluded with a series of dismal statistics: Apalachicola is one of the most economically depressed cities in Northwest Florida. Unemployment in the city is the highest in the state, average income is the lowest in Florida, rendering its future economic status shaky.

> "Of the many problems, both existing and future, the most important problem is that of changing the people's attitudes of accepting the fact that other industries can complement the seafood industry and exist harmoniously. Businessmen's attitudes, as well as that of many residents, are pessimistic because of feared environmental exploitations that have emerged in other cities. This problem must be resolved before any economic development program can be properly assembled and implemented" ("Apalachicola," 1977, p. 43).

A citizen's attitude survey included in the economic development report underscores this point. According to the survey, most businesses in town were small owner-operated establishments with one to three employees and activities focused on sales and services related to the oyster business. More than 85 percent of Apalachicola businesses were located on less than one acre of land, and most business owners reported

[19] "Apalachicola River and Bay System," 26-27.

being “satisfied with the slow rate of growth and did not want to relocate to a modern industrial park.” Business owners also expressed much concern about disrupting the seafood industry “under any circumstances” (“Apalachicola,” 1977, p. 48)

Before the growth pressures of the 1970s, it is clear that locals clung to commercial fishing for two reasons: it was all they knew and, with only a single-industry economy to rely on, they feared losing their livelihoods. Any attempts to recruit new industry raised the threat of polluting a bay upon which thousands of people depended. Locals defended commercial fishing because isolated Apalachicola provided few alternative economic options for them. From the time Apalachicola developed its third identity as a seafood village in the 1890s, choices were severely constrained for local people—geography and economy made commercial fishing one of the few ways to make a living in this remote outpost at the foot of the Panhandle.

Preservation and Resistance: 1970-2008

The town’s location at the end of the rural Apalachicola River basin had long determined what the main occupation of its citizens would be. But with the expansion of Florida’s sun, sea, and sand tourism in the 1960s and 1970s, locals suddenly had choices. Through the 1960s, tourism in Florida’s Panhandle remained a “Redneck Riviera”—a rough-and-tumble backwoods attractive mostly to a lower south demographic of tourists from Alabama, Georgia, Tennessee and Mississippi searching for a low-key place to unwind from May to September (Raines, 1978: Jackson, 2011). Places like Panama City and Destin were frequented mostly by day trippers from Alabama and southwest Georgia because the Panhandle route was so hard to get to, with slow-moving two-lane roads that

consumed nearly a full day's drive (Jackson, 2003, 2011). Things began to change in 1960 when Hollywood released "Where the Boys Are," a film about a spring break trip to Fort Lauderdale (Pasternak, 1960). The northern Gulf suddenly symbolized a good time for college students and their parents alike (Jackson, 2003).

Motels, better roads, and a new tourism economy attracted more visitors and more affluent southerners from the region's growing suburbs, who invested in still inexpensive and relatively unexploited real estate. Such was the state of the Panhandle through the 1970s, when two hurricanes—Agnes in 1973 and Eloise in 1975—damaged much of Florida's northwestern coast. In the aftermath of the two storms, developers descended on the Panhandle, purchasing waterfront property at dirt-cheap prices and convincing the state Department of Transportation to build beach roads—namely Highway 30A between Panama City and Destin—to make the hurricane-impacted shoreline more accessible to investors, hoteliers, and amusement park promoters. It was in this "atmosphere of economic opportunism, freewheeling speculation, and hell-bent hedonism" that the term Redneck Riviera was coined (Jackson, 2003, p. 319). The phrase originated in a *New York Times* piece by Howell Raines about Orange Beach and Gulf Shores on the Alabama coast, but it stuck among journalists searching for a caricature description of the rural Panhandle from Apalachicola, Florida, to Bay St. Louis, Mississippi (Jackson, 2003).

As the coast was being repaired and surveyed by new investors, further upstream metropolitan Atlanta was booming and southwest Georgia agriculture was expanding. In 1948, Atlanta was a much smaller place compared to the modern-day metropolis it has become.

The Rivers and Harbors Act, adopted by Congress in 1946, gave the Army Corps of Engineers authorization to make improvements along the Apalachicola River Basin. The plan included a proposal for a dam and reservoir at the upstream Buford site. Before any discussion of whether water supply would be a benefit of the project, Atlanta did not seem to place much emphasis on the Buford project as a part of its long-term plan for providing water to its inhabitants. In 1948, the mayor of Atlanta boasted that, "Certainly a city which is only one hundred miles below one of the greatest rainfall areas in the nation will never find itself in the position of a city like Los Angeles" (LoCascio, 2015, p. 331).[20]

In 1975, the Army Corps of Engineers completed the last of five federal dams in Georgia which, when paired with ten privately funded dams already in operation along the Chattahoochee and Flint Rivers, diminished water flow, and the Apalachicola River began fighting for its survival. The Corps' operations in Georgia were tweaked again in 1983, as additional water resources were held back from the rivers and the floodplain dried even more along the Apalachicola River basin. The effects were not felt right away, but would surface later as additional ecological, environmental and industrial forces merged to change the future of the Apalachicola working waterfront in ways never before imagined (Griffin, 2018).

It was during the 1960s and 1970s that the Panhandle was experiencing a sociocultural shift, as the first wave of Baby Boomers came of age, reinvesting in their childhood paradise (Jackson, 2003, p. 321). During the Reagan years, a time in which more Floridians had been borne in northern states than in Florida as a result of in-

[20] That statement has since proven to be ironic because of the hardships Atlanta now faces in the realm of supplying water for its residents.

migration, banks lent money for coastal construction and boomers borrowed for second homes (Jackson, 2003). Developers met the growing demand for coastal property with high-rise condominiums, until then exclusive to the south Florida scene, in Panama City Beach and Destin, and eventually a brand-new town. Seaside, Florida, described by *Time* magazine as "the most astounding design achievement of its era," was carved out of eighty acres of beachfront property and quickly became the prototype for a new Panhandle culture where "latte and Italian ices" trumped "beer and pickled eggs." Jackson (2003, p. 321) continues, "Folks who bought a Seaside home, or rented one for a week or so, had many different inclinations, but redneckery wasn't one of them."

Carbon copies of Seaside—pastel homes with porches, tin roofs, and walking trails to the beach—sprouted along the northwest coast in coastal subdivisions such as the St. Joe Company's WaterColor and WaterSound built atop the "yellow gold" of southern longleaf pine and bald cypress forests (Ziewitz and Wiaz, 2004, p. 62). The culmination of the "Seaside effect" is the transformation in tourism marketing literature of the Redneck Riviera into the "Emerald Coast." The shift materializes as New Urbanist McMansions occupied by the southern nouveau riche replaced trailer parks and "cracker cottages" (Jackson, 2003). The Panhandle's resource-based economy, for so long reliant on fishing and forestry, had become a diverse regional economy with pockets of ecotourism (Jackson, 2003; Starnes, 2003; Ziewitz and Wiaz, 2004).

The temptation of a new tourist economy pitted Apalachicola's local fishing culture, and a way of life that had defined generations of Apalachicolan families, directly against business leaders, environmentalists, governments and Panhandle tourism investors. The same qualities that made the 180-square-mile Apalachicola Bay and 288-

square-mile estuary one of Florida's best spots for oysters, crabs, fish and shrimp also attracted competing interests that threatened its future. By 1984, as the World's Fair was under way in New Orleans and Annie Miller's swamp tourism was just beginning to take off, Florida had already spent more money and effort protecting Apalachicola Bay—buying land, cleaning up pollution sources, and mitigating risk—than any other body of water in the state at that time. In the aftermath of Franklin County commissioners approving commercial zoning of St. George Island in 1979, the main development battle on the island cast oystermen against Tallahassee developers who wanted to build a $100 million, Hilton Head-style marina and condominium resort project on an 87-acre stretch of St. George Island. That was in addition to the St. George Island Plantation development already covering the westernmost five miles of the island with eight hundred homesites. "We got nothing in the world against tourists. But we don't want tourists and developers coming down here and destroying our oysters. We want them to enjoy the oysters," said Fred Jetton, then-president of the Franklin County Seafood Workers Association ("Apalachicola," 1984, p. 17).

In the early 1980s, St. George Island developers promoted the attractiveness of second homes and rental properties as a federal tax shelter. Before the landmark Tax Reform Act of 1986 diminished this incentive, local real estate advertisements promised investors long-term capital gains and short-term tax savings by deducting the cost of construction, furniture, appliances, property taxes, homeowners' association dues, management fees and insurance. Jay Landers, who represented project developer Gene Brown, a politically connected Tallahassee lawyer who used to own all of St. George Island, argued that the island could accommodate additional development if wetlands

were preserved and precautions were taken to protect the bay against sewage and storm runoff. The deal-breaker was the five-acre, 162-slip marina, which the developer needed to attract tourists interested in yachting and deep sea fishing, but which local officials and oystermen alike agreed could irreparably harm Apalachicola Bay. After the county commission voted in 1985 to delay expansion of the St. George Plantation project for up to two years, Brown threatened, "I'll strip develop it and get my money out of it. I probably should have given up and done it years ago" (Leifermann, 1985, p. 26).

After a years-long legal battle involving bureaucratic red tape and deals gone sour, and a maze of wheeling and dealing, Brown foreclosed on the property and ended his development activities on the island in the early 1990s. Through the 1990s, the Panhandle's upscale transformation accelerated on St. George Island, but largely excluded Apalachicola and much of rural Franklin County. Over the course of the decade, tenacious local traditionalists consciously chose commercial fishing over an alternate tourism economy that would have introduced hundreds of service-level jobs and a new leisure culture to the city of Apalachicola. Apalachicola's resistance to economic development persisted, time and again, against external forces. Among Panhandle developers, city and county commissioners gained reputations for unilaterally rejecting waterfront projects if even one commercial fisher raised a red flag (Ziewitz and Wiaz, 2004). An Apalachicola realtor from Massachusetts who has lived in the area since the late 1960s said seafood industry workers control the city's purse strings. "The fishermen rule this town. Don't let anyone tell you otherwise. If they say no to a project, the city

commission will say no to a project, and they'll do it unanimously. Otherwise, they'd never get reelected."[21]

In 1985, Hurricanes Elena and Kate caused significant damage to oyster resources in Apalachicola Bay, leading to highly restrictive regulations, on-water harvest check stations, and intensive shelling operations on a subset of reefs (Berrigan, 1990). Beginning in 1986, a revised landings and effort reporting system was required for all commercially harvested marine species, in contrast to the prior voluntary reporting program in place. Based on data I have analyzed since 1986, the number of Apalachicola Bay oyster harvesters declined from about 1,000 in the late 1980s to around 400-600 throughout most of the 1990s and early 2000s, before increasing since 2008 to about 1,000 license holders. The number of oyster fishing trips follows a similar pattern, with about 30,000 trips reported in 1988, declining to about 10,000 trips in the mid-1990s, and then varying between 10,000 and 25,000 trips until 2006, when the number of trips increased to about 40,000 annually in recent years. Oyster regulations in Apalachicola Bay are currently managed using a system of seasons, spatial closures, bag limits, and size limits, but on-water check stations and a bag tax to fund research and monitoring programs were ended in the early 1990s.

As the oyster industry came under stricter regulations downstream, problems were arising upstream in Georgia, where an extensive drought had forced Atlanta to implement water-rationing strategies for the first time. After the effects of this drought, and with an expected influx of an estimated 800,000 new residents over the next two decades, the city of Atlanta decided to work with the U.S. Army Corps of Engineers in a plan to withdraw

[21] Personal interview, Shaun Donahoe, May 15, 2009, Apalachicola, Florida.

around 529 million gallons of water per day from the Chattahoochee River in the Lake Lanier area. In 1990, Alabama responded quickly to this proposed withdrawal plan, filing a federal suit against the Army Corps of Engineers Florida, which quickly joined the suit in order to protect its own interest in the Apalachicola River Basin. The initial dispute centered on water quantity as well as water quality and demanded normal river flow. Alabama needed it to sustain its farming, industry, and hydropower, whereas Florida needed natural river flow to sustain the major seafood and oyster industry surrounding Apalachicola Bay. A series of agreements and compromises failed to find common ground in the water apportionment dispute, understandable considering the fourteen sectors of identified water users, including fisheries, manufacturing, and tourism. After negotiations deteriorated in 2003, the dispute played out in the courtroom over the next decade (LoCascio, 2015).

While concerns about the division of water flow inspired the *Florida v. Georgia* litigation, the focus throughout has been not so much about sharing water, as it has been about managing the flow of water between users. In the aftermath of the 1985 flooding, Apalachicolans defiantly clung to their commercial fishing past despite a steady drumbeat of pressure to diversify the local seafood economy and attract more tourists to the Panhandle (Bell, 1986). Local resistance to tourism had succeeded in leaving the city virtually unchanged since World War II. Apalachicola still had one flashing traffic light, two small grocery stores, one fast-food joint, three dollar stores, one hardware store, and one chain pharmacy—roughly the same business directory existed in 1950 as in 2008. The closest shopping mall is in Panama City, about an hour and a half drive northwest. A Super Walmart that opened in 2008 in Wakulla Springs, a bedroom suburb of

Tallahassee, is about a 45-minute drive southeast. Citing the sensitivity of the area, the state Legislature in 1985 declared Franklin County an area of "critical state concern," a designation that gives the state Department of Community Affairs broad powers to review building permits and monitor growth. At the same time, the Department of Natural Resources stepped up its presence to protect the oyster beds, issuing an onslaught of regulations that limited work hours, oystering locations, and the size of oysters harvested, and handing down fines, criminal citations and jail terms for violations. About 25 percent of the 2,000 misdemeanor cases handled in Franklin County Court in 1988 involved violations of Marine Fisheries Commission regulations, according to state documents.

While oystermen fought with the Marine Patrol, Apalachicola property owners found themselves going head-to-head with state agencies when their plans for building or modifying homes were ruled to have an inverse impact on the environment. Real estate speculators, timber companies, and other external development interests who had long focused on building Seaside-style subdivisions, strip malls, and retail centers near Destin and Panama City's coastal suburbs were increasingly turning their gaze toward Apalachicola in the heart of the wooded Panhandle. Since the early 1990s, in a state where competition between environmental interests and development interests is keen, economic development pressures had become increasingly difficult for locals to ignore or resist. "When you stop to think we've only really been majorly polluting the Gulf for what, forty years, it's really scary that forty years from now we may have choked it completely to death," remarked Dewey Destin, a fifth-generation fisher and city councilman in the Panhandle town named after one of his ancestors (Kaczor, 1992, p. 1).

These fears were recognized, albeit belatedly, at the federal level when Congress passed and President George H.W. Bush signed a resolution declaring 1992 The Year of the Gulf of Mexico, complete with a public relations campaign based on the slogan "America's Sea—Keep it Shining." The five states along the northern Gulf of Mexico disagreed with the definition of "shining," reflecting their conflicting economic priorities. While Texas and Louisiana favored keeping the oil and gas industry shining in their respective states, Mississippi wanted to sell the Gulf as a tourist destination and vital ecological resource, and Florida's west coast residents were nearly unanimous in their opposition to offshore drilling in the Gulf of Mexico. In fact, no issue quite united Floridians like a proposed 1992 plan to drill as close as ten miles from the Florida Panhandle's sugar-white sand beaches ("Coastal," 1992). In explaining the "America's Sea" concept, campaign creator Kerry Kirschner noted, "People don't stop to think about the Gulf of Mexico. They've heard of New York Harbor and Chesapeake Bay and the Great Lakes, but for the most part we have pretty much been ignored" ("Giving," 1992, p. 1).

Although politics and water in the Sunshine State once were controlled by agricultural interests and, in Apalachicola at least, commercial fishing interests, in the wake of the Year of the Gulf, farmers and fishers had been losing ground to home builders and their $42 billion impact on the state economy (Barnett, 2007). By the 1960s, Florida already had lost nearly half, or nine million acres, of its swamps, bogs, and marshes to development. The tide began to turn in the 1960s and 1970s when water pollution problems made action unavoidable. But as late as 2008, two-thirds of the state's lakes, rivers, and coastal waters were declared unsafe for fishing or swimming (Pittman

and Waite, 2009). Florida's "politics of paradise" questions the ideal of progress in a state whose biggest economic drivers are tourism, development, and agriculture (Grunwald, 2006).

At the same time, state and federal fishing regulations that emerged in the 1960s and grow stricter each year succeeded in discouraging a new generation of commercial oyster harvesters and shrimpers from headquartering in Apalachicola. Into this minefield stepped the organization Apalachicola Riverkeeper, which organized in 1997 to publicize the degradation of a 25,000-mile intracoastal waterway system that drains the Appalachian Mountains into the Gulf of Mexico and once was mighty enough to transform Bainbridge, Georgia, 106 miles inland, into a port city (Call, 2017). Riverkeeper chapters like the Apalachicola grew out of 1960s-era grassroots efforts to restore New York's Hudson River.

In the early aughts, the Apalachicola city and Franklin County Commission's reluctant approval of three waterfront development projects—combined with at least a dozen coastal "boomburgs" fueled by Florida's real-estate crush—threatened to alter the integrity of Franklin County's working waterfront once and for all (Lang, 2007; Packer, 2009). The trio of green gentrification projects included Apalachicola's first hotel condominium, the Water Street Hotel & Marina (proposed in 2005, opened in 2007); the 378-acre St. James Bay golf course subdivision (proposed in 1996, opened in 2003); and the 762-acre SummerCamp vacation retreat for Tallahassee elites (proposed in 2001, opened in 2006) developed by the St. Joe Company, the largest private landowner in Florida. These projects exemplified the green gentrification trend coined in 2009 by sociologist Kenneth Gould to describe the repackaging of the Brooklyn waterfront and

Gowanus Canal for the well-educated and environmentally sensitive “sustainability class” (Gould, 2009; Gould and Lewis, 2018).

Image 3.5: Fred C. Millender, owner of Fred's Best Seafood, poses outside his commercial processing house in Eastpoint, Florida, in December 2007. Fred, who died in 2014, had been tonguing oysters on Apalachicola Bay since he was a boy in the 1930s. 2007/PHOTO BY AUTHOR

In Apalachicola, the waterfront projects succeeded in setting the stage for the transformation of a bay whose pristine shores remain mostly in public ownership but increasingly threatened. Comprised of 545 square miles with more than 200 miles of coastal shoreline, 87 percent of Franklin County is held in either state or federal hands through protected forests, estuaries and nature preserves.

Through 2008, most locals and business leaders continued to stress the importance of reserving the waterfront for fishermen and preserving Apalachicola's maritime heritage—a tourism strategy that focused more on educating heritage-oriented visitors about a working fishing seaport rather than luring them to town with niche attractions. But few denied it would be easy to maintain this balance in a city of 7,500, raising questions for preservationists, fishers, and developers alike on how long Apalachicola could remain the heart of "Florida Wild" and resist the pressure to sell itself as Old Florida's latest undiscovered tourist trap (Arsenault and Davis, 2005).

Conclusion: Adaptation: 'Hardly No Oysters There,' 2008-2019

The 2008 recession and its aftermath had a far-reaching impact on Franklin County, made worse by a consecutive series of threats to the region's ecological health. According to the Florida Department of Revenue, Franklin County's tax roll for the 2012-2013 budget year was about $38 million, a 38 percent decrease from the 2008-09 budget of $50 million. Apalachicola's tax valuation, which includes all property within city limits, dropped by nearly 20 percent, from $210 million to $168 million, over the same timeframe. Locally, the area's 4,600-person workforce had a 7.1 percent jobless rate with county government and an area hospital among the larger employers. But with nearly 90 percent of the county's land owned by the state or federal government, the local implications of the national recession and Florida real estate crisis were not as grim for Franklin County speculators and developers. The commercial fishing industry in Apalachicola experienced an unlikely boom in the aftermath of the recession, with 1,400 licensed oystermen in Franklin County during the 2009-10 oyster season, a record. "We

farm oysters here," the head of the Apalachicola Bay Chamber of Commerce declared in November 2009 (Trigaux, 2009, p. D1). Indeed, Apalachicola's simple individual-operator, hand-tonging, small-vessel fishery working today is remarkably similar to the one that began in the 1800s.

The post-recession resurgence did not last long as the deck became stacked against the Apalachicola oyster industry. In fall 2009, the federal Food and Drug Administration threatened to ban the sale by 2011 of raw, untreated oysters harvested from the Gulf of Mexico during the five warm months between April and October (Fausset, 2009). The plan sparked outcry from Southern politicians who feared it would devastate the regional industry and was never enforced. But the furor marked a stark contrast to previous collaborative efforts with the oyster industry, state regulators and others on proposed rules and guidance, and came as a result of concerns over increasingly polluted oyster beds. Most of the raw oysters eaten in the United States carry vibrio vulnificus, but healthy consumers are unlikely to be affected by it. For those with diabetes, liver disease, cancer, AIDS and other chronic conditions, the infection can be deadly. About 30 cases of the infection are traced to Gulf Coast oysters annually, and half of those cases are fatal, according to the Centers for Disease Control and Prevention. The policy change would have implications not just for oyster shacks along the Gulf Coast, but raw bars around the country. In 2009, the Gulf Coast supplied 67 percent of oysters consumed nationwide, and many of those oysters ended up in Maryland, Virginia and other places where demand is high and the local supply is down (Kirkham, 2009).

Six months after the FDA pulled back from its oyster ban proposal, the chain reaction of the Deepwater Horizon oil spill described in Chapter Two stretched eastward

across the northern Gulf of Mexico to touch Franklin County. Although oil never entered Apalachicola Bay, the explosion affected the image of the Apalachicola oyster as consumer consumption of Panhandle seafood dropped 30 percent in the summer after the spill. Alarmed, state officials in an unprecedented move opened the winter oyster beds in June 2010, three months early, and launched a "Florida Gulf Safe" marketing campaign, setting up webcams at seafood stores, restaurants and docks so viewers could see how safe Florida seafood is ("116,000," 2010, p. 40). Ironically, that year Franklin County produced 3 million pounds of oyster meat, worth $7.1 million in direct sales to area oystermen for a total economic impact of $15 million. The Apalachicola oyster industry did not see the 25 percent loss that Louisiana experienced since the beginning of the oil spill. In fact, the industry was booming. The 2011 oyster harvest in Apalachicola was one of the most productive ever, with 740 bushels per acre harvested, up from 384 bushels per acre in 2009, according to county records (Gordon, 2013).

The real impact of the oil spill was in Franklin County bed tax collections, as the county saw its tourism revenues drop about 15 percent in the year following the Deepwater Horizon explosion. A $1.6 million BP marketing grant was awarded to the county in 2011 to launch a "We're Salty" campaign, an effort to promote Apalachicola as a premier beach destination known for its food, history and nature ("Franklin," 2011). Then everything changed.

When Robert Livingston studied Florida's Apalachicola Bay and River in the 1970s, he marveled at the ecosystem's health. The bay produced a rich bounty of oysters, shrimp, fish, and crabs. Those animals, in turn, supported a thriving fishing community and seafood industry, the aquatic ecologist at Florida State University found. In fall 2012,

Livingston was one of the first to find large declines in oyster landings, and his research alarmed industry workers. As oyster trips declined dramatically over the next few months, the words "oyster collapse" became part of the local lexicon, as large economic losses and community concerns rose over the current and future status of oyster resources, ecosystem health, and local economic opportunities. In Livingston's words, in the past, the ecosystem "was like a symphony orchestra. Now it is not. It is dysfunctional" (Kwok, 2018, p. 3).

Speaking before the Franklin County Commission in 2014, 73-year-old oysterman Fred Jetton recommended Apalachicola Bay be completely shut down for eighteen months to allow for replanting, adding that "if the oystermen had some way to make the grocery bill and the light bill I'd suspect 90 percent of them would vote to close it because they know there is nothing out there" (Portman, 2014, p. 1). In response, Florida received $6.3 million in federal grant money to reseed and restore the bay, with a tiny fraction to be spent providing fishers like Jetton with vocational training, and another $4.6 million in BP settlement funds to pay for bay restoration, but locals said it was not enough, and argued for more money to employ oystermen and reshell oyster reefs. For perspective, Florida's entire share of the BP oil spill settlement was $3.25 billion (Sterm, Sheikh, and Ramseur, 2017).

According to a report from the Florida Department of Agriculture and Consumer Services, oyster density at one major reef plunged from 430 oysters per square meter to 64 in one year. "I have never seen a fishery failure as severe," testified Mark Berrigan, a scientist who had worked for the State of Florida for three decades, in his *Florida v. Georgia* Supreme Court deposition. "You went from making a good living, to not making

a living at all," fourth generation oysterman Kendall Shoelles told a television camera crew in 2018 (Holton, 2018, p. 2). Using the best available data to assess what mechanisms may have driven the collapse of the Apalachicola Bay oyster fishery, a Florida Sea Grant-funded Oyster Recovery Team found that the causes were not overfishing, pollutants from the Deepwater Horizon oil spill, or low freshwater inputs caused by drought conditions upstream, as many locals believed at the time, but a combination of lower-than-average numbers and low survival rates of juvenile oysters in the years preceding the collapse. The authors concluded that, while the Apalachicola Bay oyster fishery had proven resilient to periods of instability throughout its 150-year history, it is now at a crossroads in terms of whether it will continue to exist or risk irreversible collapse. How to allocate Deepwater Horizon oil spill restoration funds, and decide which restoration and management practices to adopt, are choices that will determine the long-term viability of the Apalachicola Bay oyster fishery (Pine, 2015).

It is a complex situation, scientifically and politically, and as with most questions about entire ecosystems, simple answers prove elusive. Yet as the *Florida v. Georgia* legal dispute has shown, the blame game continues to be a key component of both states' positions. David Kimbro, an ecologist now at Northeastern University in Nahant, Massachusetts, was one of the scientists pulled into the dispute. During a 2017 presentation at the Ecological Society of America meeting in Portland, Kimbro told the audience, "You have the State of Florida screaming at the State of Georgia that they exacerbated the drought. You have the State of Georgia screaming back at the State of Florida. It's kind of like a football game" (p. 3).

Researchers are midway through a five-year study, funded by BP money, on the best, most cost-effective way to replant oysters. In a detailed presentation in November 2017, representatives from the University of Florida and Florida Fish and Wildlife Conservation Commission, the two lead agencies conducting a five-year project funded by the National Fish and Wildlife Foundation, offered details on what they have found two years into the study. Discovered so far are the presence of predators and parasites including the oyster drill and boring sponges are stymieing the reproductive capacity of oysters to rebuild their populations on the bars where they live (Adlerstein, 2017). The state has closed oyster beds to replenish reefs and conduct experiments, but in the meantime, oyster beds that once made a living for 600 to 700 fishermen now count 40 people on the water. “There just ain’t nothing nowhere. There just ain’t hardly no oysters there,” Shannon Hartsfield, president of the Franklin County Seafood Works Association, told *The Apalachicola Times* (Adlerstein, 2018, p. 1).

While the oyster fishery provided a foundation for local jobs and identities during the national recession, a complex interplay of historical, political-economic, and cultural factors will shape Apalachicola’s future as the water wars continue. Apart from political-economic and ecological hardships facing the commercial fishing industry, one additional force threatens to change Apalachicola over the next decades, but whether its typology will track more toward the sportfishing tourism of coastal Louisiana, casino-resort tourism of Mississippi, or the Disneyfied tourism of nearby Destin and Seaside remains to be seen. The interrelated struggles of the tri-state water wars and the Apalachicola oyster industry may soon contend with the interests of coastal real estate speculators and land companies, who began carving new subdivisions in Franklin County sand and

swamps beginning in the early 2000s. Like water shortages and water resource battles everywhere, the rise, fall, and inevitable recovery of the coastal housing market in Florida will eventually impact the future of Apalachicola. In the last half century, Florida has experienced extraordinary population growth, from 2.8 million people in 1950 to 21.6 million in 2019. Florida within the next ten years will grow another 13 percent. Considering the overcrowded conditions of south and east Florida, Apalachicola city leaders are worried new residents will look to relocate to the still-remote Florida Panhandle, where they questions whether there are enough resources—water—to support higher population density without further risk to the endangered watershed ("Sea Level Rise," 2018).

Like the St. George Island and master plan growth battles of the 1970s, the water wars battles of today are reminiscent of the forces at work in Apalachicola and other Gulf coastal fishing communities throughout the nineteenth and twentieth centuries. Over the past 150 years, traditional coastal communities along the Gulf Coast of the United States have had to adapt to significant transformations that have altered the landscape and lives of coastal residents—from coastal development to tourism to environmental degradation to offshore oil and gas exploration (Margavio, Forsyth, Laska, and Mason, 1996). While the offshore oil industry has most affected coastal communities in Texas and Louisiana, as discussed in Chapter 2, Florida's coast has been affected by the growth of a leisure industry that is a reflection of the state's political economy, natural amenities, availability of capital and peninsular geography that contains 663 miles of beaches.

Florida's dramatically changed coastline through each decade of the twentieth century is a product of the influx of migrants and the expansion of the leisure industry as

Americans acquired more free time and resources, urban populations urbanized the coast, and land use patterns met their demands for less traditional farming and fishing and more recreational beaches, marinas, and resorts. This case study supports Margavio, Forsyth, Laska, and Mason (1996), who note that the trajectory of coastal communities is not uniform, and coastal communities experiencing change do so at different rates. To some extent, the ways in which land and water are packaged and consumed are not only subject to market forces, but also to local control and power, "the ability of successful groups to get what they want" (Margavio, Forsyth, Laska, and Mason, 1996, p. 79). Local and state governments have enormous capacity to encourage or discourage particular land use patterns and determine how marine resources will be used.

Yet as this case study shows, scale and boundary matter, too. Apalachicola is a classic case of boundaries, policy, and governing the commons (Dietz et al., 2003; Brewer, 2012). Differentials in power across scales and state lines are affecting the resilience of the Apalachicola environment and an economy that has been developed to depend on its once-healthy river basin. Apalachicola's locally evolved and intentionally designed institutional arrangements have made its working waterfront survive and thrive. Through the years, this survival has depended on a stable community whose sustainable resources were insulated from outside forces and whose leadership were united in defending the coast from pollution and development. The rapid changes happening in Apalachicola today have destabilized these conditions. Forces outside local influence and beyond the scale of the Panhandle region are threatening its future. The lesson here is whether critical problems like transboundary pollution, water resource management, natural resource collapse, deforestation, and climate change also can inspire collaborative

strategies, engaging metro Atlanta, southwest Georgia and Apalachicola in critical conversations that encourage and facilitate experimentation, learning, and change. Shaping a compromise that addresses real solutions for the water usage of the entire river basin would go a long way in not only quelling the longtime water wars, but also revealing just how far people might be willing to go to accommodate growth even as it threatens to render extinct a national environmental treasure.

Chapter Four: Case Study, Biloxi, Harrison County, Mississippi

Introduction: 'Authentic, Iconic Biloxi'

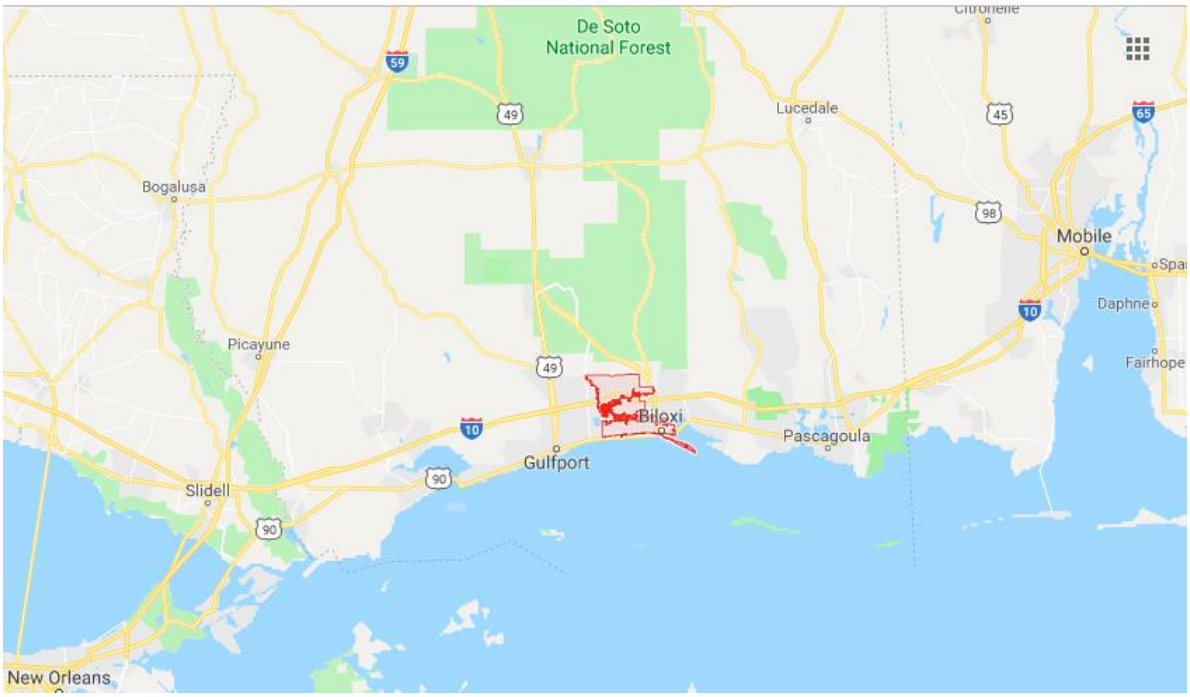


Image 4.1: The study area highlighted in red contains the city of Biloxi, roughly the halfway point between the cities of New Orleans to the west and Mobile to the east.

In 2017, the Biloxi City Council approved Mayor Andrew "FoFo" Gilich's Waterfront Enterprise development, a sprawling $75 million urban revitalization project designed to give visitors a "genuine waterfront experience" of East Biloxi's maritime past by reviving its former headquarters at Point Cadet, much of which has been flattened in the years since Hurricane Katrina (Perez, 2016). Unveiled on the twenty-fifth anniversary of the first casino opening in south Mississippi, the Waterfront Enterprise plan included a slew of projects to recreate the extinct working waterfront of the Back Bay, to resurrect the look and feel of "Old Biloxi," complete with an oyster aquaculture center, floating oyster docks, sidewalk cafes, a pavilion to host deep sea fishing tournaments, a floating bandstand, a seafood marketplace, and walking paths to nearby casinos. "Authentic,

iconic Biloxi," is how attorney and former Biloxi Mayor Gerald Blessey and current Mayor Gilich sold the city's latest waterfront scheme (Perez, 2016, p. 1). In mid-2018, the plan took a major step forward toward becoming reality when three of its six census tracts were deemed impoverished enough to be eligible for Opportunity Zone tax credits. Biloxi city boosters cheered the move as a turning point for Waterfront Enterprise and East Biloxi, calling the project "a significant development that will celebrate our history, create jobs, increase tax revenue and help expand our tourism industry" ("Biloxi," 2018).

Eating, playing and shopping in the same storied location, everything needed to have a good time in one place—the decades-old Disneyization of Biloxi appears to finally be coming to the last frontier of East Biloxi, where factory workers settled more than a century ago to be close to sawmills and the sea (Beames, 2017). This chapter will explore the key factors that drove Biloxi's transformation from turn-of-the-twentieth-century "Seafood Capital of the World" to a place whose all-you-can-eat crab legs are imported not from the Gulf of Mexico but from the Gulf of Alaska (Beckett, 2017, p.1). Most ironic in the city's Waterfront Enterprise scheme is the fact that Biloxi's shrimp and oyster industry is no longer, and city-driven schemes to boost the tourism economy have largely driven them away; the oystermen have relocated twenty three miles west to Pass Christian, right on the Louisiana border, while only nineteen commercial shrimp boats participated in the 2018 Blessing of the Fleet, down from three hundred during its peak. The 2017 oyster season in Biloxi Bay lasted just four days; only two reefs were opened, and only to tonging, according to the Mississippi Department of Marine Resources. The year before, oystering in Biloxi Bay was allowed for the first time in fifty years (Perez, 2016).

Image 4.2: A homemade sign near Biloxi, Mississippi's Back Bay directs shrimpers to park in a gravel lot near a commercial fishing marina. (Source: Author's photograph, 2009).

Indeed, much of the proposed East Biloxi waterfront plan is designed not to glorify or even resurrect the seafood industry, but to leverage Old Biloxi maritime nostalgia for the benefit of visitors to the region's twelve Mississippi Gulf Coast casinos, whose revenues totaled $1.192 billion in 2018, a five-year high (Perez, 2018). With the opening of Mississippi sports betting in August 2018, which is expected to bring to light a black market estimated to handle $150 billion in bets annually, the state's quarter-century trajectory of legalizing gambling and promoting casino-based tourism growth has resulted in the near-complete displacement of the seafood capital of yesteryear. Two generations of Biloxi residents have grown up removed from the coast's fishing industry past. They are unwitting witnesses to the Disneyfication of a city whose population in 1890 was the same size as rural Apalachicola and composed almost entirely of fishers and the companies that bought, canned, iced and shipped their catch.

However, as this case study shows, it was precisely the long descent of the Biloxi seafood industry that created the conditions for the casino industry to rise. In the twenty three years between the Hurricane Camille disaster of 1969 and the legalization of dockside gambling in 1990, Biloxi was in serious trouble. Its fishing industry was all but gone and tourism was nearly dead, too, as vacationers bypassed Biloxi for Florida beaches and the 1980s oil economy decline kept even the regular Louisiana and Texas tourists away. With miles of shuttered businesses, boarded up and blighted homes, Biloxi had become primarily a military town, or, in the words of the late former mayor A.J. Holloway, "a tourism town without tourists" (Solomon, 1999, p. 8). The city was broke, with no money to meet payroll or even fill a pothole.[22] Casinos brought tourists, prosperity and jobs to the coast, but it has been a hair-raising gamble from the start, and with debatable payoffs from an industry some still consider a pariah (Skolnick, 1978; Taft, 2016). In the words of Mississippi journalist Charlie Mitchell, "Mississippi has been living like a gambler for nearly 30 years, sustained by one jackpot after another. Absent a stable and rising core of revenue from more and better jobs, higher property values and increasing economic activity, Mississippi has time and again just gotten lucky finding cash to pay its bills" (Mitchell, 2017, p. 4).

Set against this backdrop is the long rise and swift fall of East Biloxi's working class neighborhoods, which were ground zero for Hurricane Katrina destruction and now find themselves at the center of controversial schemes to redevelop Biloxi's gutted urban core. The second section of this chapter, Arrivals, opens with a lens into what East Biloxi was by chronicling the beginning of the commercial seafood and tourism industry on

[22] Personal interview, June 3, 2009.

Biloxi's Back Bay. In a tale of two cities, the section shows how the real working waterfront of the city's early twentieth century past rose up alongside the tourism development that swept the Mississippi Gulf Coast from after the Civil War through World War II. The third section, Fast Times, describes how this coexistence ended between the 1950s and 1960s with a David vs. Goliath fight for the beach whose stakes only grew when casino gambling came to town. The last section, Adaptation, considers the future of a city that aspires to diversify its economy but lacks the resources to finance conservation, and the political will to embark on a real transition to a blue economy.

Arrivals: Seafood Capital of the World, 1840-1944

For most of its early existence, Biloxi was a small fishing and lumber town with a few resorts that attracted a clientele of mostly wealthy summer visitors from New Orleans. After the War of 1812, some people from Georgia and the Carolinas migrated to the Mississippi Gulf Coast, but the small towns that dot the shoreline from Waveland to Moss Point remained more closely linked to New Orleans. This relationship was enhanced in the 1820s and 1830s when New Orleans businessmen as well as Mississippi and Alabama planters maintained villas and vacation homes and patronized bathing and rooming houses in Biloxi, taking advantage of expanding railroad, overland and steamboat transportation. As an editorialist with a sense of humor wrote in 1838, "Disappointed politicians and others who have overheated themselves during the election would do well to take a trip over to Pass Christian or Biloxi in the [steamboat] Isabella to-morrow morning, and cool off. She leaves immediately after the 7 o'clock cars on Thursday" ("Disappointed," 1838, 1).

As early as the 1840s Biloxi was known as one of the nation's premier beach resorts. Grand hotels graced the waterfront, steamers from New Orleans and Mobile made regular stops in Biloxi, and urban travelers sought relief from the healing power of the beach (Husley, 1998; Stagnonis, 2014). New Orleans newspapers are full of Biloxi vacation advertisements in the years before the Civil War. In one, J.B. Currie, the owner of Bachelors' Hall, writes a personal appeal to prospective men guests by remarking on his establishment's recently renovated and expanded accommodations. "The advantages of Biloxi as a summer retreat is [sic] too well known to need encomium, and its oysters cannot be surpassed. His table will be will be constantly supplied with the best fish, oysters, shrimps, &c., and every thing else that this market and that of New Orleans afford, and his bar with the choicest wines and liquors. A Ten-pin Alley is attached to the premises, where the visiter [sic] may combine amusement with exercise. He pledges himself to use every exertion to give satisfaction to those who may favor him with a call" ("Bachelors," 1845, p. 1). Other advertisements touted Biloxi's fine live oaks and countryside peace, with updated properties stocked with horses, good carriages, sailboats, billiard rooms, ballrooms, and bathhouses.

The natural landscape of the Biloxi area was as conducive to the growth of the seafood industry as it was to tourism. The city sits on a peninsula between Biloxi Bay and the Mississippi Sound, which is separated from the Gulf of Mexico by the barrier islands of Deer, Cat, Ship and Horn. West of these islands lie the fertile shrimping and fishing grounds of the Louisiana marshes. Biloxi, chartered in 1838 with a population of nearly 600, originated in an area of East Biloxi approximately one mile wide and several blocks deep midway along the south side of the peninsula (Biloxi, 2009). In the 1840s, Catholic,

Episcopalian, and Baptist congregations established in East Biloxi as neighborhoods grew alongside sawmills, brick yards, and boat yards along the Back Bay (Husley, 1998; Blokker, 2017). By 1860, Biloxi contained a few brick buildings, primitive roads, and a population of approximately 900, 28 percent of whom were foreign born and one quarter of whom came from other states, primarily Louisiana and Alabama. After the Civil War, the timber industry expanded and steamboat service resumed, but the Biloxi economy was slow to rebound. New Orleanians had little economic capacity for the vacations they enjoyed in Biloxi before the war (Husley, 1998).

New impetus for growth came in 1869 when construction of the Louisville & Nashville Railroad opened passenger service to Biloxi between New Orleans and Mobile. The railroad stop marked a critical early turning point in Biloxi tourism and economic history. Former Confederate president Jefferson Davis retired to the beachfront in 1876, right around the time the Biloxi economy was linking up with inland markets and exposing the city to a broader audience. Factors such as the manufacture of ice and the commercial canning of shrimp and oysters made it possible to preserve fresh seafood for shipment by train car. The Biloxi seafood industry rapidly expanded with these process improvements, and with it the city population grew to 3,000. By the 1890s, Biloxi was proclaiming itself "Seafood Capital of the World" and its seafood canneries were employing almost 2,500 workers. That number is more than twice the population of the town recorded in 1860 and five-sixths of that in 1869 (Husley, 1998). In markets as far away as Chicago and San Francisco, Biloxi had become a household name.

Despite claims that the seafood industry built Biloxi, this research argues that the natural conditions of Biloxi created the seafood industry, and also led to its downfall. The

industry itself did not come into its own until the turn of the twentieth century, when it grew so big so fast that Biloxi's population was not large enough to support it. As Bayou Petit Caillou industry leaders would do two decades later, Biloxi factory owners looked north. They began importing Polish and Czech laborers from the Little Bohemia section of East Baltimore, paying their train passage and housing them in seasonal camps of row houses and shotguns located next to the factories (Pietila, 2018). Those who came from the Dalmatian coast of what became Yugoslavia identified as Croats, Serbs and Slavonian, with the greatest immigration occurring during the early twentieth century and immediately after World War I through 1917. For imported laborers, many of whom came from backgrounds as rural landless peasants, sailors, political refugees and men avoiding conscription, the prospect of life on the Gulf Coast was appealing. While early immigrants preceded the birth of the Biloxi seafood industry, their emergence constituted a viable economic force that attracted more of their kin to the coast. With their experience as sailors and fishermen, they were served well by the economic opportunities available in Biloxi. The migration of the Cajuns occurred around the same time, although their numbers peaked after a sugar cane crop failure in the 1920s (Husley, 1998). Biloxi resident Neville "Te-Jean" Broussard moved from Lafayette to Biloxi when he was four years old. As he recalled, dire economic conditions motivated his family and others to seek better opportunities in Biloxi: "My daddy was a sharecropper. He'd work and work and at the end of the year he never saw any progress. He had no education. He was under their control. Like the song, 'owed everything to the company store.' So we moved. Many families came over here (to Biloxi)" (Schmidt, 1995, p. 8).

Rising up alongside the seafood industry was the timber industry, which, like the majority of southern lumber workforces, employed mostly African Americans (Jones, 2005). Working-class factory workers from both the seafood and lumber industries lived and worked in segregated communities alongside each other in what locals still refer to as Back Bay and, on the easternmost point facing the sound, Point Cadet, or The Point. African Americans settled in a Back Bay community known as "back of town," a term widely used in the south to refer to lower-lying, often poor minority communities on the periphery of a city. It was in the back of town where these groups could buy property, build homes and establish businesses (Campanella, 2007; Blokker, 2017; Logan and Martinez, 2018). It was also the site of several lynchings, and where Biloxi's civil rights battles would be headquartered decades later. An example of one of the early back of town families to establish themselves in East Biloxi, the Reed family, is described in a 2017 National Park Service survey of twenty three resources in what is still a deeply segregated African American section of town. George Reed was born a slave in Perry County, Mississippi, but was drawn to economic opportunities in Biloxi in 1869, followed by his family. George Reed's younger brother, Pleasant Reed, worked at a sawmill and his father, Benjamin Reed, was a community pillar whose involvement in the East Biloxi fishing, lumber, railroad, tourism, and charcoal industry was legendary. The Reeds are among the best-known of the early African American families of Biloxi, but they are far from unique in their involvement and success with local industry (*Pleasant Reed,* 1979). Each community had its own church, with Greater St. John AME Church organized in 1880, Main Street Baptist Church organized in 1905, Bethel Baptist Church organized in 1909, and Our Mother of Sorrow Catholic Church organized in 1914

for African American parishioners; St. Michael Catholic Church uniting Point Cadet fishers in 1907;[23] and St. John's Catholic Church uniting Back Bay fishers in 1921 (Schmidt, 1995; Blokker, 2017).

Although many histories of Biloxi and the Mississippi Gulf Coast romanticize the commercial fishing industry, it was backbreaking, low-paying work that trapped entire families in crippling poverty for generations. The New York photographer Lewis Hine captured the underside of the seafood industry when he traveled to East Biloxi in 1911 as part of a campaign by the National Child Labor Committee to document the conditions in which children were working at factories across the country. Of the 5,000 photographs Hine took for the committee between 1908 and 1916, 170 depicted women and children laboring in Mississippi seafood factories, canning companies, and oyster boats during the winter of 1911.

[23] St. Michael's still calls itself the "church of the fishermen."

Image 4.3: With two hundred boots and locations across the Gulf Coast, the Dunbars, Lopez, & DuKate Company was the largest canning company in America when Lewis W. Hine took this photograph outside the cannery location near downtown Biloxi in 1911. (Source: Photo courtesy of The J. Paul Getty Museum. Hine, Lewis W. 1911. "Group of Oyster Shuckers, Biloxi, Mississippi.")

After Hine's photographs were published by the National Child Labor Committee, one particularly startling image of Manuel, a 5-year-old barefooted oyster shucker, helped lead to the creation of federal child-labor laws in 1916 and the Fair Labor Standards Act in 1938. "It was hard times back then," Joseph Olier, the son of one of the young Biloxi girls photographed by Hine, told historian Joe Manning, creator of the "Lewis Hine Project." "That house they were living in looks like a rundown shack. I'd

seen some of those shacks down in Biloxi when I was a kid. You could see through the walls when you went in them" (Perez, 2017, p. 3).

From the beginning, the unsightliness of the hardscrabble seafood industry was in direct conflict with the carefree, seaside resort image being created by the burgeoning tourism industry. By the early twentieth century, Biloxi's proximity to the Port of New Orleans had fostered year-round tourism, and the seafood industry was not good for business. In March 1888, the *Biloxi Herald* noted, "Standing on the front gallery of the Montross Hotel one looking to the Gulf would see the line of unsightly bath and oyster houses, dilapidated wharves, and high piles of oyster shelves. If the bath and oyster houses are to remain in [sic] cannot they be made neat and handsome and the large oyster piles-are they to remain and offend the eyes and noses of the denizens and visitors?"[24]

As tourism expanded, many facilities along the Mississippi Sound began welcoming wintering northerners to the "cool Gulf Coast," especially those from the Midwest. The coast's image was further boosted in 1914 after a three-week vacation by President Woodrow Wilson drew national attention to Mississippi beaches. At one point, an amusement park was even built on Deer Island, only to be wiped out by a 1915 hurricane. After Prohibition was enacted in 1919, some of the ships once used for hauling lumber were repurposed to transport illegal liquor to entertainment establishments along the Mississippi Coast. From the Caribbean Islands, particularly Cuba, to various ports along the Mississippi Sound, ships secretly sailed around the barrier islands and bayous. Two islands in particular, known as Dog Keyes, were popular stopping-off points for the

[24] The Mississippi Gulf Coast Museum of Historical Photography has a detailed chronicle of Hine's child labor photographs of the Mississippi Gulf Coast with Hines's original source notes and newspaper accounts from the time. See http://www.msmohp.com/lewis-w-hine.html.

underground liquor trade, which soon led to the birth of Biloxi's first casino (Nuwer, 2005).

By all accounts, Dog Keyes[25] was the place to go on summer weekends during the Roaring Twenties. Once known as the "Monte Carlo of the South," the two islands lay thirteen miles southeast of Biloxi between Ship and Horn islands (Houston, 1931). The large of the Dog Keyes, Dog Island, was three miles long and more than a quarter-mile wide, resting on a shallow stretch of shoals (Hearn, 2011). While the island had long been used by seafarers—artesian springs provided fresh water—during Prohibition it became a haven for bootleggers and rum runners. Realizing its importance because of the freshwater source and its location outside the jurisdiction of United States claims, three entrepreneurs looking for ways to attract tourists decided to develop a resort on Dog Island, technically not an island because of its lack of a real foundation, a fact they would realize too late.

The men, Colonel Jack Apperson (builder of Biloxi's 1924 Buena Vista hotel), Walter "Skeet" Hunt (founder of Biloxi Mardi Gras in 1916), and Arbeau Caillavet, acquired the three-mile-long Dog Keyes strip of land, between Ship and Horn islands, through a quit-claim deed for $183.75, and welcomed the first visitors in 1925. Tourists from New Orleans and Mobile, and as far as Illinois and Texas, loaded passenger boats like the Pan American from piers at the Buena Vista to experience the $1 ride to sunbathing, music, dancing and gambling at the Isle of Caprice (Beaugez, 2016).[26]

[25] The island has gone by many names, but in the 1920s it was Dog Keyes before briefly renamed the Isle of Caprice. The area is now called Dog Keys Pass. The actual hotel and casino building is still there, buried in waist-deep water.

[26] The name comes from a story passed down by local Pascagoula Indians about a disappearing island in the Gulf of Mexico. Appearing on maritime charts in 1847, Dog Keyes disappeared in 1859, only to surface again in the early 1900s.

Image 4.4: An early advertisement for the Buena Vista hotel notes regular trips to the Isle of Caprice. (Source: *The Clarion Ledger*, June 19, 1925).

The first few seasons were so popular, the Isle of Caprice was able to expand the next year, and kept expanding. Marathon swims from the mainland, bathing beauty contests, and big-band entertainment kept patrons entertained until the last boat left at 4 a.m. (Beaugez, 2016). “The casino, empty and bare last year, has undergone a remarkable change,” a *Daily Herald* front-page article reported in 1928. “It now presents a duplication of the great arenas of ancient Rome. These columns are placed about the hall and entrance, giving one the impression that he is entering a sporting place of the ancient city in all its glory. Three huge, artificial tigers, of life size and color, are about the arena” (“Coast,” 1928, p. 1).

At the height of the resort’s success in the midst of the booze bonanza of the 1920s, the owners had bought a lighting plant to double the island’s electrical capacity and developed a scheme to construct a seawall to protect Isle of Caprice from the Gulf of Mexico. Tourists traveled from as far away as Chicago to fish and play in the surf between rolls of dice. Inside the casino, reported one 1926 newsman, “There are soft, thick carpets and a general atmosphere of quiet luxury. Divans along the wall were tapestried and deep-cushioned. Mahogany-colored, cane-bottomed stools were on hand for players. A roulette table, two crap tables, a bird cage and a faro layout comprised the paraphernalia. A money changer with a capacious bankroll walked about. Each table was operated by a croupier plentifully supplied with chips. In fives, tens, twenties and hundreds, the bills flowed in” (Bergeron, 1992, p. 51).

By the time a fire destroyed the property in 1931, erosion was already evident. The following year, when the resort would have normally been open to tourists, all that remained was a pipe that still gushed fresh water from an artesian well that once serviced

the whole island (Beaugez, 2016). Local lore has it that the combination of industry and the harvesting of sea oat plumes for flower arrangements by Yankee tourists caused the island's fate (Bergeron, 1992; Nuwer, 2005).

Two decades of steady infrastructure investments not only paved the way for the Isle of Caprice tourism scheme to take off, but also for the Biloxi Chamber of Commerce to successfully lobby citizens to pay for more street improvements, to lure even more tourists. A 1920 voter referendum to spend $350,000 on paved roads was an overwhelming success that increased the chamber's power as well as the ability of the business community to influence the local agenda ("City," 1920). The momentum that began with paved streets accelerated through the early 1920s as attempts were made to form a Mississippi Coast Chamber of Commerce, later refashioned as the Mississippi Coast Club, uniting the 35,000 residents of the state's three coastal counties under the imperative, "Why should Florida and California have these things and we not?" ("Coast," 1925; "Many," 1925). The membership club raises $100,000 in funds for a national publicity campaign to establish the Mississippi coast as the go-to resort for the central and Midwestern states. Modeled after similar regional initiatives along the California coasts, the Mississippi Coast Club immediately got to work hiring a Chicago public relations expert to direct a national advertising campaign aimed at stimulating investment in the Mississippi Gulf Coast ("Gulf," 1925).

The organization was wildly successful, influencing the adoption of a series of infrastructure improvements that opened national access to the coastline and significantly increased coastal property values.[27] These improvements included a massive $2 million

[27] Between April and November 1925, beach frontage real estate values jumped from $75 to $400 per foot.

seawall and boulevard project stretching nearly thirty miles; seven bridges across Mobile Bay, Biloxi Bay, Bay Saint Louis, Back Bay, Pascagoula River, Lake Pontchartrain and Moss Point; expansion of the Illinois Central railroad; extension of the Mississippi Power company grid; and construction of grand resorts such at the Edgewater Gulf Hotel, which opened in 1927 with $5 million in financing from Chicago investors ("Many," 1925; "New Bridges," 1926; Stanonis, 2014). The seven bridges in particular, all constructed between 1925 and 1935, created for the first time an unbroken drive along the Gulf Coast from Mobile to New Orleans via the Old Spanish Trail. With southerners vacationing in the summer and northerners visiting in the winter, the state's three coastal counties were now able to offer tourists year-round refuge and respite.

The Great Depression did not squelch the dreams forged in the 1920s; in fact, the Depression and World War II created pent-up demand for the beach that resulted in a veritable tourist explosion in the late 1940s. Through the New Deal and early 1940s, Mississippi Coast communities consolidated resources and collaborated in their communication channels to more effectively advertise local attractions, including festivals that honored local culture and promoted area traditions. This includes the Blessing of the Fleet shrimp festival that inspired Desire Theriot and St. Joseph Catholic Church to launch a similar ritual in Bayou Petit Caillou in the early 1930s. Biloxi's blessing started in 1929 as a distinctly local attraction to highlight a major industry and honor the traditions of a 500-boat fishing fleet whose ancestors might have celebrated similar religious ceremonies in their native European countries ("Gulf," 1929). Competition for the tourism dollar resulted in repeat violations of Prohibition, even after

it was repealed in 1933,[28] and a citywide crackdown on honky-tonks and juke joints that engaged in gambling, which had evolved from roulette, craps and cards to include more sophisticated slot and pinball machines, leading to an all-out ban by Mississippi Governor Hugh White in 1938. The new gambling law did little to dampen the niche Biloxi had carved for itself as a free-wheeling betting playground, nor did it give pause to city leaders whose pre-war coffers were padded by the gambling economy. Legal gambling was now commonplace at hotels such as the Pine Hills, Edgewater, Tivoli, Buena Vista and White House.

The same year the gambling ban was enacted, the swank Broadwater Beach Hotel in Biloxi opened with a specific mission to lure wealthy out-of-state and Mississippi gamblers to a cavernous room where "roulette, bird cage, faro bank, roquetnoir, craps, dice" and other unlawful games were played ("Children," 1949; Nuwer, 2005). According to a 1949 lawsuit brought by two children against the owners of Broadwater Beach, where their father had lost nearly $84,000 in eighteen months, the hotel-casino gave patrons an "uncontrollable desire" to gamble by creating an irresistible atmosphere "with music, wine and song to lead and deceive the unwary to their loss and destruction at the gaming tables" ("Children," 1949, p. 1). As the southern seaboard moved from the periphery to the center of the regional economy, the road was now paved for the rise of casino gambling to take over Biloxi as capitalism continued its march to the coast in the postwar era (Boissevain and Selwyn, 2004; Kahrl, 2016).

[28] Prohibition became increasingly unpopular during the Great Depression, as the repeal movement, led by conservative Democrats and Catholics, emphasized that repeal would generate enormous sums of much-needed tax revenue, and weaken the base of organized crime. The repeal of Prohibition in the United States was accomplished with the passage of the Twenty-first Amendment to the United States Constitution on December 5, 1933. By its terms, states were allowed to set their own laws for the control of alcohol. The organized Prohibition movement was dead nationwide, but survived for a while in a few southern and border states including Mississippi, which continued to enforce statewide Prohibition until 1966.

Reinvention, Desperation, and Resurrection, 1945-1969

The making of the Mississippi Coast beach economy after World War II paralleled an organized series of efforts to resist crackdowns on the strip—the entertainment, liquor and betting mecca between Gulfport and Biloxi that contained upwards of thirty gambling houses by the late 1940s. Conflict between, on the one hand, city and business leaders hungry to get their hands on the money that would come from legal gambling and alcohol sales accused their opponents, religious leaders and nearby Keesler Air Force Base personnel, as confusing moral issues with economic issues ("Biloxi," 1951). Tensions over the moral or societal consequences of the new beach gambling economy in the early 1950s foreshadowed the civil rights battles over the beach that would surface a decade later in Jim Crow Biloxi in terms of who could access, experience, and participate in the coast's tourism economy. As the rise of the Sunbelt and decline of the Blackbelt altered the city economy once and for all in the latter part of the twentieth century, the seafood industry took a nosedive. These dynamics were cemented in the economic desperation that surfaced in the aftermath of Hurricane Camille in 1969, which, after decades of resistance, created the conditions for gambling to spread and eventually displace the workers who built the seafood capital of the world.

Throughout the 1940s and 1950s, gambling steadily expanded along the Mississippi Coast despite concerted efforts by military leaders and ministerial groups to stop it. Civic and business leaders were winning the battle and the war through a steady drumbeat of coastal transportation investments, beach upgrades and advertising campaigns that all but doomed the anti-gambling establishment and wrote the future

casino industry's ticket to dominance. As one businessman quipped at a 1950 chamber of commerce meeting dedicated to resisting anti-gambling forces, "If we don't have slot machines, they'll be referring to this section as the 'ghost coast' instead of the 'gold coast'" ("Chamber, 1950, p. 1).

The business strategy was built on the theory that increasing access to the coast would create an army of defenders who would demand more, not fewer, places to play; and who would insist on their right to spend their tourism dollars as they wished. By 1950, the opening of Biloxi's Highway 90 link, a four-lane superhighway paralleling the Gulf of Mexico from Bay St. Louis to Ocean Springs, boosted travel along the Mississippi Coast literally overnight. Nightclubs sprouted up, drawing entertainers as famous as Elvis Presley, Jayne Mansfield, Andy Griffin, and Hank Williams Sr. One newspaper writer teased this out in a laudatory column: "Fifteen years ago Mississippi boasted few paved roads and travel by car was a tortuous, dusty and tiresome undertaking. Few tourists entered the state by choice. Today the story is the reverse. Mississippi boasts one of the finest paved highway systems in the South, approximately 7,000 miles of hard-surface roads" (O'Brien, 1952, p. 33).

Around the same time as the Highway 90 beachfront thoroughfare was completed, the Army Corps of Engineers finished construction of a 27-mile-long seawall. To protect both the fortification and the new Highway 90 from salt water and erosion, the Corps dumped seven million cubic yards of sand on the Mississippi Coast, giving Highway 90 travelers a new spectacle to visit: the longest manmade beach in the world (Kahrl, 2014). While the 1951 beach cost $3 million, the sand had to be replenished in 1972 at a cost of $5 million, not counting the $350,000 spent annually through the early 1980s to maintain

the “nice white beach” (Riley, 1983, p. 1). While other Gulf Coast towns were catering to summer or specialty vacationers, Mississippi did not have a specific tourist “season.” It was always open for business, so much so that the resort industry by 1953 was worth $100 million (“Coast’s,” 1953). In 1955, the Mississippi Gulf Coast claimed 3,717 rooms in 122 hotels and motels, accommodating 2.6 million guests who brought $37.8 million to the beach.

Resistance to, and organized efforts against, Biloxi’s gambling industry, and the tourism interests aligned with it, came from two groups: the military and ministers. The interwar era witnessed a remarkable expansion in gambling, both legal and illegal. In the 1930s, for example, “bank night” at the movies, church-sponsored bingo games, and the ubiquitous punch boards became institutions. The numbers and policy games reached into the pockets of even the poorest neighborhoods. In Mississippi and other states, machine gambling, slot machines, horse and dog racing rose in popularity as gambling houses and lotteries declined. Slot machines, attractively boxed “one-armed bandits,” were designed to collect any size coin and were equipped with an adjustable pay-off mechanism, two features that helped them spread rapidly throughout the country to a wide variety of establishments. When New York's Mayor Fiorello LaGuardia in 1934 dramatically seized and destroyed large numbers of machines belonging to one-time supporter Frank Costello, Costello shifted a good portion of his operations to a more hospitable Louisiana-Mississippi Gulf Coast (Moore, 1974).

Alarmed by the volume and intensity of prostitution and public gambling during and after World War II, antigambling advocates began demanding enforcement of existing laws forbidding the practice across the state of Mississippi. As unemployment

declined and incomes rose in the postwar period, an increasing amount of money flowed into gambling and proposals for the legalization of gambling appeared in a number of states, including Mississippi. Citing Hoover-era fears that legalizing gambling would lead to rising crime rates and increased gang warfare, antigambling groups took every opportunity to persuade the public that their neighborhood speakeasy was part of a larger web of gambling with interstate ties that made it detrimental both to local business and to society and government in general. Wrote one newspaper editorialist, "It is no coincidence that the counties which thus tolerate and protect the 'one-armed bandits' are counties which also tolerate, protect, and unofficially or officially 'tax' the illegal liquor business. Gambling and liquor are two parts of the unholy trinity of which vice is the third component. Where one flourishes and is tolerated the other two are likely to flourish. And where all three flourish in defiance of law and public morals, graft and corruption usually flourish also" ("Conscientious," 1949, p. 6).

Harrison County Circuit Court Judge Lawrence C. Corban, a leader in youth affairs, began advocating for a crime commission in Mississippi in 1944 to combat the forces of gambling, crime and delinquency. Citing the FBI as a model of crime detection, and successful crime commission models in New York, Chicago and Miami, the judge remarked that "while we dedicate ourselves to future protection of our country from foreign aggressors, we make no provisions to safeguard the sanctity of our home from the man who swears he will do as he pleases" ("Crime," 1944, p. 2).

It would take seven more years, a lengthy senate investigation, several alcohol-induced deaths of airmen stationed at nearby Keesler Air Force Base, and a countywide ban on liquor for the Harrison County Crime Commission to finally materialize in 1951

with the stated purpose "to suppress crime by promoting and encouraging respect for law and order, by helping to bring about law enforcement, by fostering legislation deemed to be in the public interest and by taking all lawful measures which appear to be necessary or proper for improvement of conditions pertaining to crime and related problems in Harrison County" ("Biloxi" 1951, p. 1). Modeled after citizen-led commissions in other cities, the first officers of the group were civic leaders Dr. E.L. Bolton, president, of Biloxi; Henry Leggett, vice president, a Gulfport businessman; Thomas L. Wallace, secretary, a Biloxi attorney; and George Estes, treasurer, vice president of Hancock County Bank. The birth of the commission followed Harrison County Sheriff Laz Quave's countywide liquor ban and closure of all forms of gambling along the Mississippi Gulf Coast, inspiring one newspaper writer to predict that "with gambling closed and most liquor gone, many of the Gulf Coast businesses expect tourist trade to drop off" ("Biloxi" 1951, p. 9).

How Biloxi went from gambling mecca of the South to effectively closed for business, only to rise once more as the new Las Vegas, is part of a larger story that dates back to 1938, when the state legislature passed a law banning slot machines and other gambling devices, including any "cane rack, knife rack, artful dodger, punch board, roll down, merchandise wheel, slot machine, pinball machine, or similar device." Gambling continued for the next fifteen years, but the June 1941 activation of Keesler Field inspired a host of new critics to question gambling's impact on young soldiers. Although the local Biloxi community thought it was getting a technical training center with a student population that might peak at 20,000, Keesler soon became host to one of the Army's newest basic training centers, and its population climbed to 30,000 soldiers nearly

overnight. Their $48 million annual payroll represented 80 percent of Biloxi's economic base (Chandler, 1951).

Almost immediately, soldiers were getting arrested for drunkenness and gambling in nearby Biloxi, where hotel proprietors and club owners scrambled to meet the influx of demand for liquor, dice, roulette and slot machines.[29] The situation was not unique to Biloxi; World War II camps across the U.S. found themselves struggling with issues of morality as wives, mothers and women's church groups wrote letters of concern to senators and President Franklin Delano Roosevelt about the proliferation of gambling, prostitution and other vices occurring in communities outside camp limits, over which the War Department had no jurisdiction. The department's Morale Division responded by improving its recreation programs, serving cheaper beer with lower 3.2 percent alcohol content, and increasing the rigor of its training requirements, all the while denying allegations that soldiers were acting immorally (Pearson and Allen, 1941; "Presbyterian," 1942). "No American army in all history has been so orderly," wrote the Office of War Information in a December 1942 coast-to-coast survey of drinking conditions surrounding army camps. In its report, which favored control over prohibition, investigators found that on one Friday payday in Biloxi, fourteen Keesler soldiers were arrested, five for drunkenness. Such small numbers of recreation and pleasure-seekers gone awry "plainly show that army paynight is rarely the Klondike brawl and blow-out that rumor makes it," the report stated (Office of War, 1942, p. 10).

During the war, anti-gambling and anti-drinking religious groups in Biloxi kept a relatively low profile. In 1943, members of the Biloxi Protestant pastors' association

[29] In late June 1941, the proprietors of several Biloxi hotels including Broadwater Beach and the Plaza Club were fined for possession of gambling equipment, including a dice table, roulette wheel, faro layout and slot machines (The Daily Herald, June 25, 1941, p. 3).

issued a resolution that called on Mayor Chester Delacruz and other city leaders to enforce laws in reference to slot machines and liquor. “We notice the increasing reappearance of slot machines and continued evidence of the sale of liquor in Biloxi. The indifference of our community concerning these evils is having a detrimental effect upon the character of the children and youth of Biloxi as well as the men in the armed forces here,” the resolution stated (“Biloxi,” 1943, p. 10).

After the war, the pressure mounted on city officials to crack down on gambling as a driver of organized crime. The situation came to a head in the years leading up to the launch of the Kefauver Committee, a unit of the Senate Armed Forces Committee led by the crusading Tennessee Senator Estes Kefauver. The Committee’s investigation of interstate gambling was part of a larger probe of organized crime, defined as gambling, prostitution, drugs, labor and business racketeering, and an attempt to be a “permanent check on the growth of the underworld” (Moore, 1974, p. 2). The Committee’s investigation in Biloxi focused on examining reports that the local gambling and liquor situation was fleecing and demoralizing teenage soldiers stationed at Keesler base. At least two Keesler soldiers had committed suicide and one 17-year-old died in his bunk in incidents related to gambling and alcohol. On the eve of the commission’s one-day hearing in Biloxi in 1951, debate intensified over the past, present and future of gambling and its effects on the Mississippi Gulf Coast. Slot machines began to disappear in Biloxi as Sheriff Laz Quave ordered their exit from the city, threatening to send the Mississippi National Guard to enforce the gambling ban for those who refused to comply within 48 hours. Sheriff Quave had strong support from the Biloxi Protestant Ministerial Association headed by Reverend Douglass Carroll of the First Assembly of God and

Reverend Thomas A. Carruth of the First Methodist Church, both of whom would testify before the Kefauver Committee.

In a letter to the editor published just days before the Committee hearing, Carruth expressed his frustration in losing a series of anti-gambling battles to local business leaders who supported legalizing the industry altogether. Carruth counted 193 liquor establishments and hundreds of slot machines within the Biloxi city limits, a situation so out of hand in a legally dry state that "people will hold little babies up to the slot machines and grey haired ladies will jingle nickels in their hands as if it were something wholesome and clean" ("Wright," 1951, p. 1). Other estimates suggested as many as 327 gambling establishments lined the Mississippi Gulf Coast and that 80 percent of their combined $12 million revenues were owed to Keesler soldiers (Chandler, 1951).

In their testimony before the twelve-hour Kefauver Committee hearing in Biloxi on October 22, 1951, Carroll and Carruth claimed that slot machines were so pervasive in Biloxi that, with 1,200 machines in circulation, there was one for every thirty-five residents. Sensational photographs taken by *Life Magazine* were introduced by Committee counsel showing air base soldiers patronizing gambling houses. One picture showed a boy of twelve and a girl of six pulling the handles of slot machines. In eight pages of testimony, General Robert Powell, representing Keesler, admitted the base was overcrowded, but insisted the local situation was not an emergency, was not a military problem, and did not warrant as drastic an action as the call for National Guard troops. Powell was firm in his belief that there was nothing wrong with the slot machines at Keesler Air Force Base, insisting soldiers were citizens just like everyone else and should not be deprived of their rights. The general's testimony came under attack when

Wyoming Senator Lester Hunt, who hosted the Biloxi hearing, criticized Powell for failing to adopt a vigorous policy to stop gambling on the Gulf Coast. In his preliminary report, Senator Hunt wrote, "It is most discouraging to this committee to learn beyond a shadow of a doubt that the personnel of Keesler field have been exploited and victimized by vicious, greedy elements of this community, aided and abetted by law enforcement officers who have brazenly acknowledged in their appearances on the witness stand today that they have knowingly and willfully flaunted their oath of offices" (Chandler, 1951, p. 2).

However, Biloxi Mayor Hart Chinn, like the majority of the fourteen witnesses who testified, agreed with General Powell, saying that most Biloxi residents and visitors liked things the way they were. Gamblers paid higher rents for business locations than "legitimate enterprises," which helped the city budget stay in the black, the mayor testified, adding that all the state gubernatorial candidates came to Biloxi in the summer of 1951 and none protested the city's so-called vice conditions when they were drinking, gambling and partying in resorts (Chandler, 1951).

The culmination of the decade-in-the-making crackdown on liquor sales and gambling halls was not a culture change for the Mississippi Gulf Coast, but an outsider would not know it at face value. Governor-elect Hugh White laughed in November 1951 when asked whether open gambling would ever return to greater Biloxi. "There's about as much chance of that as there is of a star falling out of the sky and hitting a lark," he said, winkingly, before adding that he would put the issue before voters, who tended to prefer legalization in private while professing allegiance to a comprehensive ban in public ("White," 1951, p. 11). As slot machines were seized, liquor bottles destroyed, and

hotels raided through the 1950s, the influence of the Harrison County Crime Commission stalled while a second allied, citizens-led organization briefly rose up, called the Taxpayers' League of Harrison County, whose goal was to "eliminate waste and graft in local government." Headed by Clayton Rand, a daily columnist, editor of a weekly magazine, and author of several books, one of the Taxpayers' League's sole victories occurred in 1955 when it defeated a $25 million bond issue, backed by a state gasoline tax fund, that would have financed a twelve-mile causeway between mainland Biloxi and Ship Island, the largest and most distant of the four barrier islands protecting Mississippi Sound, and close to the site where the Isle of Caprice casino mecca fell into the sea more than twenty years earlier. Tied to the overall causeway scheme cooked up by a politically savvy Gulf Coast businessman named John Lee Gainey was a plan to connect Deer Island to Biloxi by a small causeway. In Gainey's vision, the "island paradise" would help Biloxi attract a bigger tourist market (Minor, 2001, p. 75). The Taxpayers' League's Rand said the causeway would turn Ship Island into a "living hell and center of operation for all vices" (Milner, 1955, p. 1), but the state legislature ultimately turned down Gainey's vision of paradise because of fears that a toll bridge—barred by the state constitution—would be needed to keep the causeway deal afloat (Minor, 2001).

Despite all this, plus the continued activism of the Protestant Ministers Association, Biloxi gambling continued unabated, one Crime Commission official admitted in 1955, before attributing the persistence of gambling and alcohol consumption to public apathy, corruption, and an inability to "take law enforcement officials from under the control of our racketeers" (Milner 1955, p. 1). One year later, Governor White declared in public testimony before the Federal Communications Commission that "there

is no effort made on the part of the state government to break up the sale of liquor in this community which caters to the tourist trade" (Bates, 1956, p. 1). Biloxi sheriff-turned-mayor Laz Quave agreed, testifying that the state's gambling and liquor prohibitions were a farce, "kicked around for fifty years or more. No sheriff, mayor or governor for that matters has enforced the law."[30] In the midst of such blanket defiance rose modern Biloxi, with its new manmade beach, publicly advertised 25-cent martinis and expanded luxury resorts. Despite yet another threatened Mississippi Gulf Coast liquor crackdown by Gov. J.P. Coleman, one travel writer wrote that in Biloxi, "a restaurant without a bar is as unthinkable as a menu without shrimp" (Denley, 1956, p. 44).

Throughout the 1960s, under the administration of pro-gambling Sheriff Eddie McDonnell, clubs such as the Beach, Fiesta, Gus Stevens, Mr. Luckey's and Raven all offered games of chance. They were repeatedly raided, fined, temporarily shut down, and later reopened, sometimes under different management or another name. But in part due to Sheriff McDonnell's role as a conspirator in the operation of Gulf Coast casinos, backroom gambling never stopped (Ricks and Saul, 1981). Across the state and along the Mississippi Gulf Coast, these clubs, bars, and resort establishments possessed slot machines and a wide variety of gambling devices, from blackjack and dice games to roulette wheels and poker tables. Writing to *The Clarion Ledger* in 1962 (p. 3), one Biloxi resident rolled her eyes at yet another governor's promise to crack down on Biloxi gambling: "Having grown up on the coast, I have pretty much learned the pattern of the gambling situation. If said pattern is followed it will be only a few weeks when gambling

[30] The testimony was solicited as the FCC sought to decide whether WLOX Broadcasting Co. or Radio Associates Inc. should receive television channel 13 on the Gulf Coast. Gambling and liquor emerged as issues because Gulf Coast hotels backed the radio stations. One group of hotels claimed to never break the law; the other hotel produced witnesses who stated Mississippi's liquor and gambling laws are meaningless.

will reappear on the coast." Indeed, liquor and gambling emerged as major issues in the Mississippi governor's races of the 1960s. Although it had been taxing illicit sales since 1944, Mississippi finally repealed its statewide spirits and wine prohibition in 1966; it was the last state to end Prohibition (Holder, 1996).

The Mississippi Gulf Coast population in the three Gulf-facing counties of Hancock, Harrison and Jackson experienced a 26.9 percent population increase, more than twice the national average, between 1959 and 1969, and an influx of new money and industries. As the cash poured in, coastal development accelerated, and by 1969 two thousand people per square mile lived on the coast. As Biloxi's tourism industry took over the city economy, the seafood industry became its stepchild in the postwar era. Plagued by agricultural pollution, threatened by competition, and handicapped by politics, the many causes that led to the deterioration of the Mississippi seafood industry inspired finger-pointing as early as the mid-1930s. One of the culprits to emerge then was widely considered to be the nail in the coffin of Biloxi oysters and shrimp. It was the unintended consequence of the Bonnet Carre Spillway flood control project, opened in 1945 as a safety valve for the city of New Orleans during Mississippi River floods. By diverting freshwater from the river into Lake Pontchartrain and the Gulf of Mexico when river levels are high, the spillway inadvertently destroyed the production of oysters in planting reefs along the Mississippi shore, and long with it the oyster industry itself, every single time it opened.

The spillway presented the Mississippi coast with its own version of the Florida-Georgia-Alabama water wars. "If it is the policy of the federal government to open the spillway every time there is a flood, the oyster industry will be permanently destroyed. It

will be necessary for the government to make reparations and perhaps establish new oyster grounds," Mississippi Rep. William Meyers Colmer argued before a House subcommittee in 1947 in seeking compensation for the crippled oyster industry ("Louisiana," 1947, p. 8). His testimony set forth a pattern that would be repeated for decades: spillway opens, oyster beds damaged, fishermen compensation denied, Army Corps of Engineers maintains federal immunity from flood damage liability.

By the early 1960s, Bonnet Carre Spillway flooding issues forced Mississippi's hand in supporting the seafood industry. The state invested in a 5,080-acre oyster growing area off the central part of the coast, and hoped it would stick. At the time the project was widely considered to be the single largest oyster bed in the world, according to the state Marine Conservation Commission. Gov. Ross Barnett, speaking at a Biloxi convention of Liquefied Petroleum Gas Dealers in April 1961, spoke proudly of the state's support of the seafood industry. Gov. Barnett called the Harrison County coastline not a fishery disaster, but the "future oyster and shrimp capital of the world" (Hills, 1961, p. 8). The governor had consistently fought to reactivate the seafood industry on the coast, and his efforts were paying off in steady oyster production growth and sales through August 1969, when Hurricane Camille swept through coastal Mississippi, severely damaging Biloxi's Gulf Coast-facing seafood plants and presenting an opportunity to gentrify the city's waterfront.

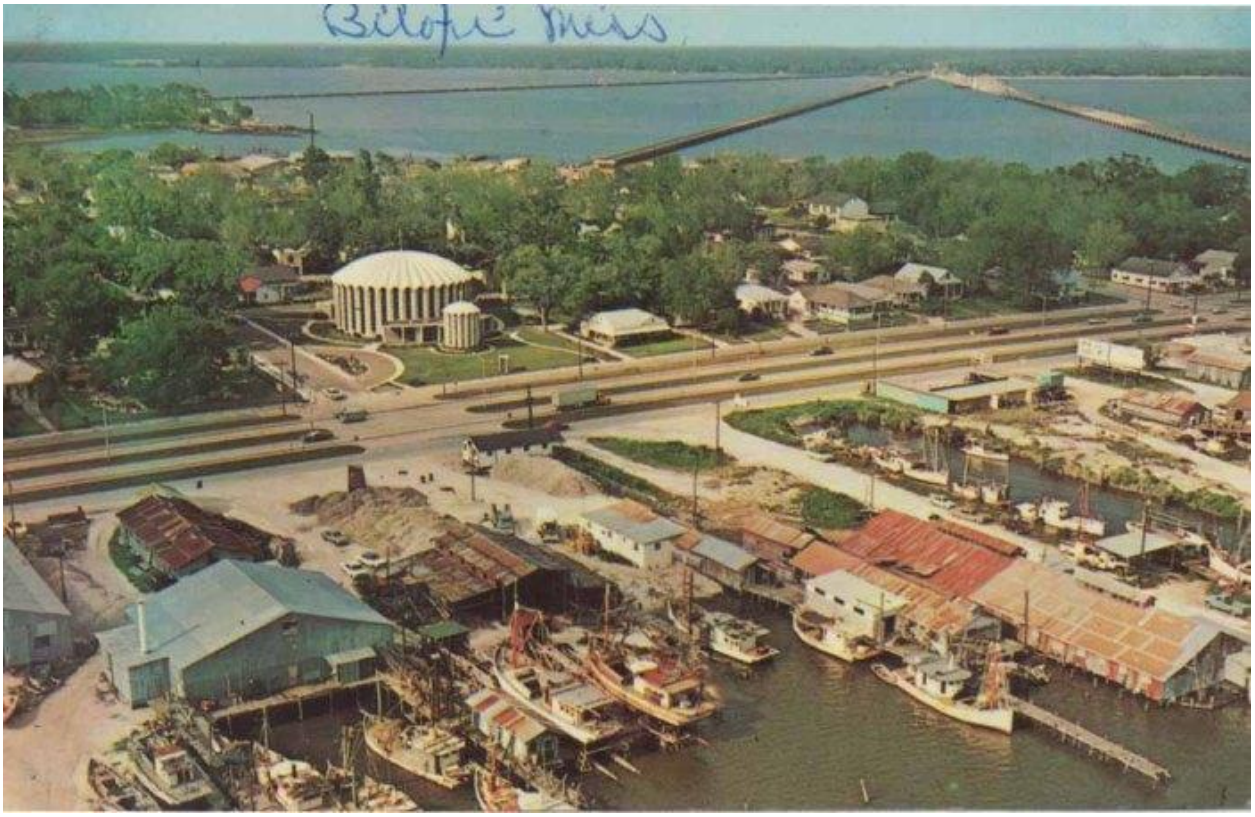


Image 4.5: East Biloxi's Back Bay before casinos is depicted in this undated photograph thought to be from 1964 or 1965. St. Michael's Church is the domelike shape in the background; note the oyster shell piles fronting the seafood sheds in the center of the photograph. (Source: Preservation in Mississippi).

Fast Times: 'Las Vegas on a Peninsula,' 1969-2005

Hurricane Camille tore apart Biloxi's seafood and tourism industries when it hit the Mississippi Gulf Coast as a Category 5 storm, causing $1.4 billion in damages ($11 billion in 2017 dollars) and leaving more than 150 people dead in Mississippi and Louisiana. The storm swept away homes and businesses three blocks inland, but only put a temporary end to the "American Riviera" marketing of the resort city. However much the storm stirred up problems of inadequate insurance, at-risk infrastructure and the need for regional cooperation, the disaster also cemented processes that had been in the works for generations, including the relocation of the Gulf Coast seafood industry from valuable beachfront property to the less lucrative, working-class Back Bay and the acceleration of beachfront tourism.

Three months after Camille, the Mississippi Research & Development Center and the federal Department of Interior's Bureau of Commercial Fisheries began exploring the future of the seafood industry as part of a report commissioned by the Governor's Emergency Council. This marks the first time the feasibility of moving the hurricane-damaged seafood plants documented by turn-of-the-century photographer Lewis Hine from the Biloxi beach to a more inland location such as the Harrison Seaway on the backside of Biloxi Bay was explored. The idea was to free up beachfront property for development and allow destroyed seafood plants the opportunity to centralize and modernize even as they relocated to the Back Bay ("Study," 1969). John Mavar Sr., owner of Mavar Shrimp & Oyster Co., lost everything during Hurricane Camille, but he told a newspaper reporter covering the aftermath of the disaster that he supported Mayor Danny Guice's effort to move the seafood industry off the beach. "That beach property is

too valuable for our industry. It should be used for big beautiful hotels and apartments like they have in Miami—building strong enough to withstand any hurricane," Mavar said ("Guardsmen" 1969, p. 14).

The creation of the Governor's Emergency Council was part of Executive Order No. 49 issued by Gov. John Bell Williams, a Washington-savvy Democrat, on September 6, 1969. In addition to studying issues like the relocation of the fishing industry from the beach to the bay, the executive order mandated a regional, coordinated approach to revitalizing the Mississippi Gulf Coast and birthed the Governor's Emergency Council. The council was a blue-ribbon panel then considered to be an innovative approach to intergovernmental relations and development on a regional scale. The council had the authority to initiate studies, evaluate alternative courses of action and establish priorities to apply state and federal resources in the development of the coast's full potential. The council's authority was strengthened after Republican President Richard Nixon and a Democratic Congress approved Gov. Williams' request to require federal agencies to also coordinate their recovery work in Mississippi through the same Governor's Emergency Council.

The first test of the council's power to implement plans came in the matter of uniform building codes. Biloxi Mayor Guice took the lead in getting the Biloxi City Council to become the first Gulf Coast municipality to adopt building codes. A second challenge was commissioning a comprehensive six-county regional plan using a systems approach to guide implementation of economic development, resource use and technological innovation in the region. In June 1970, the Cambridge-based firm Meta Systems published its 300-page report, "Mississippi Gulf Coast Comprehensive

Development after Camille" at a series of public, private and civic meetings. From a regional population of 300,000 in 1970, the Meta plan projected a doubling of coastal residents by 1990 geared to an economy of maximum utilization of the resort, recreational, port, land and residential potential of the region. The report recommended establishing a new, regional, quasi-governmental and permanent Gulf Coast Development and Services Corporation to deal with regional redevelopment activities for which existing municipal and county agencies would be too limited in scope; designating an ad hoc committee to develop studies and recommend findings to the corporation; and embarking on a process of prioritizing action proposals within selected strategies such as pollution abatement, health care and urban renewal coordinated by the Governor's Emergency Council ("Governor's," 1970).

Local mayors and county officials largely embraced Meta's take on regional rebuilding and the new regional agency, which would be comprised of mayors from fourteen cities and presidents of county boards of supervisors in the coastal zone, and thirteen members appointed by the governor from a cross-section of civic and minority groups. The Massachusetts planning firm continued to keep an eye on Gulf Coast post-storm redevelopment. Meta planners warned local leaders that the rapid recovery of tourism in the year following Camille, which saw 86 percent of its rooms restored in just twelve months, was "not the result of any balanced plan for the region," and such uncoordinated recovery patterns would result in "wide variations in economic and social impact" among the municipalities and counties that formed the base of the study. Geographically, most of the resort industry concentrated in the western end of Biloxi witnessed the biggest reconstruction boom, accounting for 2,459 of the 3,084 rooms

available one year after the storm in 26 motels-hotels, and 75 percent of restaurant service. Camille was a disaster, commented Dr. Robert Burden, chairman of Meta Systems, "but it did not destroy the economic and cultural characteristics of the region. A lot of the problems now predated Camille and unless they are resolved, a great many of the new problems cannot be resolved" (Minor, 1970, p. 35).

The Meta Systems plan proposed new cities, new supporting services, a total transportation system redo centered around Interstate 10, and a balanced industrial economy built around the NASA-Mississippi Test Facility at the western end of the Gulf Coast and the Litton-Ingalls shipbuilding facilities, the state's largest industry, on the eastern end. The proposal of a "seventh county" combining water-air-land resources management, including offshore land and water bottoms, was another new approach suggested by Meta planners (Minor, 1970, p. 35). The seventh county could bring together management and development of the saltwater fishery, use of bays, marshes and wetlands in mariculture, and through legislation a coordinated program for pollution, environmental control, and conservation.

Meta's plan, and the work of the Governor's Emergency Council, later influenced the 1973 decision by the Nixon Administration to combine federal disaster relief and recovery. The Federal Disaster Assistance Administration was created as an organizational unit within the department, overseeing disasters until its incorporation into the Federal Emergency Management Agency, or FEMA, in 1978. More immediately, concerns over Nixon's and Williams' handling of issues regarding the racial and geographic representation on the council and federal distribution of hurricane relief funds produced the passage of the 1970 Disaster Relief Act. While the governor's initial list of

council appointees was impressive, there was only one Republican represented, no women, and no African American, although estimates suggest about 40 percent of damages occurred in the black community. Within a short period, complaints were registered from the NAACP, Urban League and American Friends Society and the governor was seen as falling short of his promise that the council would be nonpartisan, apolitical and represent people of all backgrounds (Salter, 2005).

Despite its utopian visions, the post-Camille recovery of the Mississippi coastline occurred largely outside the influence of the Governor's Emergency Council, which disbanded in 1972. Reflecting back, former Biloxi Mayor Danny Guice said that the farther the community went beyond the immediate aftermath of Camille, the less inclined people were to join the proposed six-county, fourteen-city Gulf Coast Regional District that was the centerpiece of the council's rebuilding infrastructure (Minor, 2005). Gil Carmichael, a Meridian developer who was the lone Republican on the council in 1969, drew parallels between rebuilding trends after Camille and Hurricane Katrina in a May 2006 interview. "The Camille thing seemed such a disaster at the time, but we built back on the beach anyway. We repeated a lot of the errors we made. I hope we don't do it again this go-around" (Mees, 2006, p. 1). Dr. J. Chester McKee, now the retired Mississippi State University vice president emeritus for research and graduate studies, led the Governor's Emergency Council in the aftermath of Camille. Immediately after Katrina, an interviewer asked McKee what he made of the task facing the 2005 Governor's Commission on Recovery, Rebuilding and Renewal led by former Netscape CEO Jim Barksdale. "Where we all thought Camille was the mother of all hurricanes, now 36 years later with all the rebuilding, the many new developments, and the local

relaxation of the codes, damage from Katrina is many times that of Camille. Barksdale's commission really has a huge job" (Salter, 2005, p. 71).

By 1971, there were more hotel and motel rooms along the Mississippi Gulf Coast than before Hurricane Camille, but the completion of Interstate 10 linking New Orleans and Texas to Florida's sparkling beaches did not help Biloxi's once-thriving tourism industry. Rising up alongside the new lodging accommodations was the "Biloxi Strip," a "cancers on the city" (in the words of Mayor Gerald Blessey) collection of nightclubs, strip joints, souvenir and gift shops, gambling clubs and, later, Biloxi's version of urban renewal. In Camille's aftermath, economic recovery strategies centered on the exploitation of the region's recreational assets, and development proceeded in defiance of the destructive lessons of the past (Kahrl, 2012). Instead of coordinated recovery, developers seized control of the rebuilding of the coast, resulting in a patchwork quilt of projects that served to exacerbate economic gaps, privilege wealthier insured homeowners, and abandon the city's working poor neighborhoods around East Biloxi. Community blight dragged down the Mississippi Coast after Hurricane Camille because of this institutional neglect, and inspired a series of ill-fated development projects that only proved to make matters worse in the years leading up to the casino transformation of the Mississippi Gulf Coast in the early 1990s. Practically every public official elected on the coast during the 1960s and 1970s pledged to clean up Biloxi; nearly all failed (Riley, 1984).

One of the first recovery attempts to turn around East Biloxi was a traditional downtown urban renewal effort called the Vieux Marche. Launched in 1972 and opened in 1977, Vieux Marche was an attempt to revitalize a "totally deteriorated," hollowed out

downtown Biloxi, near the neighborhoods where turn-of-the-century African American lumber and immigrant seafood industry workers built homes, churches and civic life (Fuller, 1977). By transforming Howard Avenue from a commercial street into a canopy-covered pedestrian mall, complete with a water fountain and Golden Fisherman statue designed to commemorate the Mississippi Coast's seafood heritage and pay tribute to generations of commercial fishermen, city leaders hoped to breathe new life into a once vibrant downtown. The $22 million project covered 170 acres and included two intersecting pedestrian thoroughfares totaling eleven blocks, 40 percent of which were vacant when the project began. Like many top down urban renewal projects, Vieux Marche failed to accomplish even a fraction of its economic goals. In fact, some city leaders argued it made matters worse in East Biloxi. Over time, as the last shoppers and businesses left downtown for indoor, climate-controlled venues like suburban Edgewater Mall, the city took down the last of the canopies and opened the street once again to one-way traffic (Fuller, 1977), leaving East Biloxi to falter for several more years.

A second waterfront renewal project emerged in the mid-1980s under the banner, "A Rising Tide Lifts All Boats." The original Point Cadet waterfront redevelopment plan of 1983 was billed as a shot in the arm for the struggling East Biloxi community's pocketbook, a way to boost tourism, create up to 1,400 jobs and transform a "trash pile" of a neighborhood, in the words of one city elite, into an economic showcase of pre-World War II Old Biloxi (Oliver, 1986, p. 79). The Point Cadet project foreshadowed the scores of drawings, designs and development dreams that would persist for decades into the future to refashion East Biloxi into a working waterfront without the workers. The 1983 plan was developed with input from Washington, D.C.-based The Waterfront

Center and was widely considered to be a national model for waterfront revitalization. The $50 million scheme included plans to house a hotel, marina, waterpark and Jackson Brewery-style festival marketplace on a seventeen-acre campus comprised of twenty blighted or abandoned property tracts acquired by the city of Biloxi in the aftermath of Hurricane Camille through eminent domain. The land was once home to a U.S. Coast Guard station and a variety of seafood processing plants. Describing the project in 1986, the Point Cadet Development Corp. executive director noted it would be "the one place on the coast where you can sample everything we have to offer" (Oliver, 1986, p. 79). The development corporation was formed as a public-private agency to implement the Biloxi Waterfront Master Plan, funded with a $160,000 grant from the state Bureau of Marine Resources, $2.1 million from federal community development block grants and more than $10 million in HUD funds. With a seafood industry museum, state park, marine education center, casino dinner cruise ship, sportsman's club, yacht boatyard, seafood restaurant and shrimp, fuel and ice wholesaler, the project was a bright spot in post-Camille recovery. Then-Mayor Gerald Blessey described Point Cadet revitalization as a deliberate, coordinated attempt to maintain the city's traditional fishing culture while avoiding the atmosphere of a Disneyland amusement park. "We're putting old wine in new bottles. We will revive both the commercial fishing industry and tourist activity all in one place" (Oliver, 1986, p. 79).

In the aftermath of Hurricane Camille, the actual commercial fishing industry was bolstered by the arrival of Vietnamese refugees, who settled in Biloxi and Pass Christian specifically to fish. They revived the seafood industry by accepting low-paying jobs in packing plants and contributed to the city economy when they went on to build their own

boats, open businesses and join the Catholic Church in East Biloxi, just like their French, Yugoslavian and Polish predecessors at the turn of the century. Monsignor Gregory Johnson of St. Michael's Catholic Church counted 800 Vietnamese in his 2,500-member congregation by 1983. The Vietnamese influx was not without issues. As their presence increased, tensions arose between American and Vietnamese shrimpers over misconceptions about Vietnamese overfishing and perceptions that Vietnamese fishers were not following state fishing regulations and local ordinances. The most serious incident occurred in spring 1981 when a gasoline bomb was placed on a Vietnamese boat in Biloxi, but did not explode because of a faulty base. By 1983, about 5,500 boats, 1,500 more than 1980, were licensed in Mississippi, including 300 Vietnamese boats (Riley, 1983). The numbers continued to climb throughout the oil slump of the 1980s; by 1988 there were 6,000 licensed shrimpers and 68 seafood wholesalers, processors and retailers working in Mississippi's $337 million shrimping industry, according to figures from the Gulf Coast Research Laboratory in Ocean Springs. Increased competition for an increasingly at-risk catch was made worse by the rise of weekend and recreational fishing. In a familiar feud, career fishers accused outsiders of robbing them of their livelihood while recreational fishers accused the commercials of overfishing and environmental carelessness (Spear, 1992).

Competition for the same catch in a competitive market was the result of the coast's decades-long struggle to rebuild after Hurricane Camille. After a decade of fits and starts, the Biloxi economy of the 1980s was defined by struggle. The situation got so bad that a 1981 *Clarion Ledger* newspaper series dubbed "Wide Open and Wicked" brought an investigative reporting lends to the landscape of prostitution, gambling, drugs

and corruption that dominated the Mississippi Gulf Coast, where Harrison County Sheriff Leroy Hobbs had recently left office after twelve years under the weight of a voluminous federal racketeering indictment (Riley, 1984) The situation was compounded by sharp declines in federal shipbuilding contracts at Biloxi's Ingalls shipyard, the rollback of NASA's budget under the Reagan administration, and increased competition for fisheries from Asian shrimp farms. Pre-gaming, the Mississippi Gulf Coast was a dying town; five of the six largest hotels on the shore had entered bankruptcy proceedings and the other appeared to be on its way (Drown, 1988; Hashimoto et al., 2011).

The Gulf Coast's dire straits were music to the ears of the casino gambling industry, which was in the early stages of deploying an unscrupulous but highly effective strategy of preying on the most economically destitute regions of the country for market expansion (Kahrl, 2012). Beginning in the late 1980s, as the effects of Reagan-era federal budget cuts trickled down to state governments and as low taxes and fiscal austerity became a form of civic religion, state legislatures embraced, as Robert Goodman argues, casinos as "magic bullets for dying economies." They were the "economic development strategy of last resort" (Nuwer, 2005, p. 1).

Appearing out of nowhere, in a special session in 1990, the Mississippi legislature passed the Gaming Control Act, making the state fifth in the nation to legalize casino gambling, and the first in the South. Mississippi Senator Tommy Gollott, a Democrat from the 50th Senate District in Harrison County, spearheaded legislation for dockside gambling to help the slumping state economy. The legislation legalized gambling in the fourteen counties along the Mississippi River and the Gulf Coast and required all casinos to operate on the water. The so-called "riverboat gambling bill" provision appeased the

state's Bible Belt interior by ensuring the unseemly industry was confined to the margins of the state, which at the time housed the most economically depressed counties. A single deleted word in the bill, "underway," meant that vessels did not have to leave their dockspace to open as casinos; they likewise did not need engines. As the state got to work writing regulations for cruise ship, riverboat and dockside gambling establishments, Hancock County in December 1990 was the first Mississippi county to approve dockside gambling. Harrison County quickly followed (Nuwer, 2005). Two years after the Gaming Control Act passed, the Isle of Capri Casino opened in Biloxi, its misspelled name inspired by the sunken island twelve miles offshore that was home in the Roaring '20s to the Isle of Caprice casino. Isle of Capri started with two small boats tied up to the Point Cadet pier in the waterfront redevelopment zone built just a few years earlier. Reflecting on the Isle of Capri's significance as Biloxi's first casino, its marketing director said, "Initially we chose Capri because of the historical significance. The island was such a great place, and 'Capri' is what they were calling it. Now we feel that 'Capri' signifies change and helps us bring it into the '90s. It allows us to introduce the fun and exhilarating tropical feel with the history" (Bergeron, 1992, p. 51).

Veteran observers of Mississippi politics could not believe how quickly Mississippi relented to the casino lobby. Writing in 1992, journalist Bill Minor, a longtime capitol correspondent for the state newspaper, expressed his surprise in an opinion column. "It is difficult for me to comprehend that Mississippi, long the cradle of the Bible Belt, is now into legalized gambling. … Having seen the long struggle to bring about the fall of Mississippi prohibition of alcoholic beverages 26 years ago … the demise of another of the state's venerated moral icons—the ban on gambling—is mind-

boggling" (Minor, 1992, p. 1). The Isle of Capri casino's growth is a case in point, expanding over the course of five years into a casino complex complete with waterfall, volcano explosions and a 370-roome Crowne Plaza hotel (Ragland, 1997).

The dawn of the casino industry in 1992 ushered in the most dramatic economic development in Mississippi since the invention of the cotton gin. When Mississippi opened its first casinos, its poverty rate of 24 percent was the nation's highest—"no state seemed to need that jackpot more than Mississippi. And yet no state could see it all destroyed as swiftly" (Osnos, 2001, p. 1). Three dockside gambling casinos opened that year, and two other floating casinos, the Grand Casino in Bay Cove and the Mardi Gras at Bay St. Louis, were near completion, lending a boomtown atmosphere to a previously depressed coastal port. The expectation that the casinos would create 3,600 jobs was exceeded almost as soon as the first casinos opened, according to figures from the Harrison County Economic Development Commission. Apartments were fully rented, hotels were booked solid even in the middle of the week and weekends looked like the Fourth of July (Minor, 1992).

Officials working to expand the casino industry in the 1980s and 1990s understood the more depressed the state, the more lax the regulations they could get away with (Kahrl, 2016). Socio-legal scholars have long examined the government's role in regulating "vice" industries—those industries providing "taboo products" and services such as alcohol, guns, and gambling (Matthews, 2016, p. 1). The legalization of vice is often motivated by the state's need to generate revenue, which can produce conflict between the government's duty to protect its people and its desire to retain funding for programs (Cosgrave and Klassen, 2001; Skolnick, 1979; Walker and Calcagno, 2013;

Rorie, 2017). In the early 1990s, desperate Mississippi adopted among the most industry-friendly gambling regulations in the nation, placing no restrictions on the number of casino licenses; charging nominal licensing fees; putting no limits on the amounts of wagers, losses, or days in a row a person could gamble, and taxing the industry at half the rate of other states (Kahrl, 2016).

While the original riverboat planners imagined the gambling boats could be towed to a protective Back Bay during a storm, visions of paddlewheel cruisers eventually gave way to the reality of elaborate gaming palaces on barges, and regulators abandoned any notion of moving them. By 2004, twenty-nine vessels were tied to piers on the shore. Together they employed 29,000 people in mostly low-wage jobs; generated $330 million in annual state tax revenue, accounting for 10 percent of the Mississippi budget; and further connected coastal ecological management and environmental policy principles to the market needs of the regional economy (Kahrl, 2012). Rather than exemplifying a regional approach to growth management, as state planners envisioned in 1969, the Mississippi Gulf Coast between 1990 and 2005 became a case study in what happens to a community when free-market-based forces shape not only disaster relief, recovery and renewal, but also poverty alleviation, workforce development, job creation, and community economic development (Mele, 2011).

Casinos fueled economic spinoffs—golf courses, restaurants, souvenir tourist traps, and residential home sales, which increased in Biloxi and neighboring Gulfport by 84 percent from 1992 to 2001, according to the Harrison County development commission. The tourism industry became during this decade the largest non-military employer in Biloxi. In fact, tourist visits to the coast increased tenfold from 1992 to over

20 million in 2001. Local politicians used their share of the money, 4 percent of gaming revenues, to slash property taxes, hire new teachers and improve services. Along the way, many of the former seafood industry workers gave up their working waterfront for jobs in the new casino economy, collectively making a 1995 prediction come true that casinos would permanently shut down Biloxi's $40 million seafood industry and transform the city into "Las Vegas on a peninsula" (Schmidt, 1995, p. 18).

Conclusion: Adaptation: Hurricane Roulette, 2005-2019

After the ravages of Hurricane Katrina, the California architecture-and-planning team Moule and Polyzoides was invited to participate in a national charrette to provide emergency urban design services for the reconstruction of Biloxi. The firm was among fifty teams of designers, planners and architects who came to Biloxi in October 2005 for the Mississippi Renewal Forum, a six-day charrette to help the Mississippi Gulf Coast's eleven cities rebuild. Inspired by the idea of repairing Biloxi's postwar suburban scars, Elizabeth Moule and Stefanos Polyzoides came up with a plan to address not only widespread hurricane devastation, but also the social mobility, environmental and economic problems that had long plagued the city. The firm's proposal focused on revitalizing the Back Bay as well as core urban issues such as preservation, traditional neighborhood reconstruction, downtown redevelopment, connectivity, walkability, infrastructure, codes and administration (Moule and Polyzoides, 2005). Describing the Biloxi plan, *New York Times Magazine* writer Jim Lewis said "it looked like a quintessential sleepy Southern city, or perhaps a parody of one." While more affluent cities like Ocean Springs might be able to afford "graceful boulevards and pretty streets

flanked by neat houses and stately mansions," Biloxi is bigger, more diverse, geographically more at risk of flooding, and indebted to the casino industry. "Playing posthurricane politics in Biloxi is like trying to sword-fight on a rolling log, and as the months wore on, almost everyone found something to object to" in Moule and Polyzoides's plan (Lewis, 2006, p. 17).

Four months after Governor Haley Barbour convened his Commission on Recovery, Rebuilding and Renewal at the weeklong charrette, Biloxi Mayor A.J. Holloway unveiled "Reviving the Renaissance," a plan produced by chairman Clark Griffith, a retired Air Force general, and New York-based Living Cities to help guide the city's long-term recovery. In a February 2006 letter to the community, Holloway said he chose the title to follow up on Gov. Haley Barbour's challenge that the people of south Mississippi should create a renaissance as part of its recovery. "In Biloxi, we were enjoying unprecedented prosperity and opportunity in the decade or so before Katrina. We didn't see a need to create a renaissance, we needed to revive the one we had before the storm," Holloway wrote.

In April 2006, Moule and Polyzoides formally withdrew their firm from the process of rebuilding Biloxi, stating in a letter to local and state officials their concerns that the Reviving the Renaissance plan was allowing casino operators and condominium developers to influence rebuilding, especially on the city's impoverished and severely damaged east side (Hines, 2006). Instead of the Seaside, Florida-style New Urbanism scheme cooked up by Moule and Polyzoides, the Reviving the Renaissance plan called for East Biloxi to build on its pre-Katrina direction, ultimately becoming a tourist, entertainment and gaming destination of national stature. Weighing in on the urban

planning controversy, Griffith said that Biloxi needed a realistic, affordable, workable plan that would consider existing patterns, and that the New Urbanism concepts that dominated the Gulf Coast's post-Katrina planning conversations just did not fit with Biloxi. "We didn't have a clean slate. We have a broken city," Griffith said (Hines, 2006, p. 13).

In East Biloxi, the heart of Biloxi's coveted renaissance, the central problem was socioeconomics, as the reimagining of neighborhoods like Back Bay and Point Cadet went head-to-head with the reality and lived experience of the local community. With a population of 12,000—half white, 30 percent black and 20 percent Vietnamese—the area was low-lying, persistently poor, and filled with one-story cottages, 60 percent of which were destroyed by Katrina's 30-foot storm surge (Little, 2006). Planners, in their rush to action, did not consult the working people of East Biloxi, the fishers, bus drivers, and casino laborers whose version of affordable housing was a $65,000 home, not the proposed $140,000 New Urbanism model that filled post-Katrina pattern books. As one Biloxi resident said about the so-called affordable Mississippi Cottage: "A poor lady like me, what the hell am I going to do with that? Walk by it and admire it? We can't buy it. The white man will always have us pushed to where we have to just … go by and admire it and then go home somewhere and eat them old beans and bread and be thankful" (Little, 2006, p. 27). Visions of Hope, a Biloxi social services and affordable housing agency, advocated for the city to keep working-class homes in East Biloxi to fuel the city's economy. "They are bank tellers. They work in doctors' offices. They are teachers. They are police and fire. These are not lazy people. They are out there working hard. They can't help it their wages are low" (Hines, 2006, p. 13).

While plans were being cooked up to shape the future of post-Katrina Biloxi, the state's gambling industry and its political allies quickly turned disaster into opportunity. Following the storm, state and local officials in Mississippi worked to channel federal funds and subsidies toward rebuilding Gulf Coast casinos and away from small businesses and low-income homeowners, and rewrote laws that augmented the industry's influence over the coastal economy. Weeks after the storm, the Mississippi state legislature called a special session and passed a bill that waived the requirement for casinos to be anchored on the water and instead allowed for construction farther inland. Meanwhile Governor Haley Barbour successfully lobbied the U.S. Congress to strip a provision from a recovery bill that specified that 50 percent of the funds for Community Development Block Grants be granted to low-income people. Such moves were indicative of a larger strategy to remake the coast through rolling out the red carpet for commercial developers while constructing innumerable obstacles for poor homeowners to return. In the mostly poor, low-lying but highly coveted East Biloxi, new flood maps required homeowners to elevate on eighteen-foot-high stilts at an average cost of $30,000; few saw any other option but to sell (Petterson et al., 2006; Kahrl, 2012).

As recovery faded to rebuilding, large buildings of condominiums and resorts rose where family homes had been while geographies of power further reshaped the Mississippi Gulf Coast into a place divided by those who could offer the high flood insurance premiums and housing costs that came with "living on the littoral" (Waugh and Smith, p. 2). In the words of longtime Biloxi city spokesman Vincent Creel, Biloxi was fully aware of its role in what he termed "hurricane roulette." Hurricane Camille lulled its

survivors into a false sense of security; that complacency “killed more people in 2005 than it did in 1969” (Farber and Chen, 2006, p. 1).

The state’s reliance on its casinos and beaches as a source of revenue, and the environmentally disastrous policies that grew out of this marriage after Hurricanes Camille and Katrina, were on full display in the aftermath of the 2010 Deepwater Horizon oil spill. As of fall 2018, the latest economic estimates suggest there are 4,400 fewer jobs on the Coast in fall 2018 since the oil spill eight years ago, and 11,265 fewer than before Hurricane Katrina in 2005. As the Biloxi growth machine pushes on, those employment gaps show every sign of closing by 2025. In August 2018, after years of haggling, the Mississippi Legislature approved a bill directing 75 percent of the $750 million from BP economic damages back to the state’s coast. The money can be spent only for projects in the six southernmost counties—Harrison, Hancock, Jackson, George, Stone and Pearl River. Another bee in Biloxi’s bonnet is a planned expansion of Margaritaville to include a new 300-room hotel tower on Point Cadet and adjacent downtown amusement park, by Barrington Group, a firm that just a few years ago built Bay Cove, a multi-million-dollar retirement and assisted living home on Back Bay. Milton Segarra, CEO of Visit Mississippi Gulf Coast, said the project represents the future of a coastline willing to pull out all the stops to secure its economic future. “You have casinos, nightlife, nature, adventure, gastronomic and culinary offerings, fishing and history. Those are the key drivers to attract more and new visitors to the coast” (Walker, 2018, p. 2).

Chapter Five: Cross-Case Analysis

Introduction

The previous three chapters brought to the forefront case studies that explore the hidden histories, geopolitics and socioeconomics of Gulf Coast change. While several themes are at play when considering the Gulf Coast's rapid twentieth century coastal dynamics, at the same time, these case studies reveal that the situation in each state, and in each specific coastal community, are unique, as are the factors that come into play to influence local, regional and state support for local coastal issues. The most important variable determining the pace of change in the study timeframe is different for each of the three cases; even a state like Florida, with more rigorous coastal environmental protections, has followed a contradictory path in its promotion of pro-tourism policies along its ecologically fragile coastline.

In choosing the development of three unique coastlines over a 118-year time period as the target of investigation, the field of analysis might seem somewhat broad. After all, coastal growth and development during the twentieth and into the early twenty-first century encompass a broad range of local milieus; mobilization histories and techniques of empowerment of social actors; development policies; economic constraints; and new forms of governance (e.g. government structures established after disasters or strategies and tools to accelerate or slow down local development according to who holds the power). Indeed, this broad range of contexts contrasts how scholars typically view tourism development and urban revitalization, in general, as changes in land use or changes over time to the built environment (Drewe et al., 2008).

The purpose of each descriptive case study chapter is to provide the background and context needed for the development of a model that can inspire new insights into the complexities of coastal change at a time of near-uncontrolled coastal urbanization, risk-blind infrastructure investment, and erosion of traditional livelihood systems, all within the lens of "disaster resilience" (Keating et al., 2017; Didier et al., 2018). Multiple variables factor into each case's divergent trajectory of change. Given the depth and breadth of the case study material, several tactics are used in this chapter to synthesize their implications for the research model: the themes and patterns, how they link to each other, and how they connect to the theories discussed in Chapter One. Findings from the three cases can be categorized into several overarching explanations. Figure 5.1 provides a theme map in the form of a cross-case matrix of broad patterns and empirical evidence drawn from each case study community. The purpose of the cross-case matrix is to determine whether the case studies share a more generic, common transformation process as well as the conditions that might be underlying the transformation process within each specific context. The matrix identifies five themes, or common denominators, and fifteen findings that can be seen as the primary, place-based drivers influencing the varied outcomes of development described in each case study chapter.

The matrix doubles as an independent framework for understanding historical processes beyond the communities themselves; it considers certain events, such as disasters or policy changes, as a starting point for unpacking the underlying conceptual, institutional, economic, and systemic structures that shape patterns and events. The

theoretical implications of the theme map, and how they intersect with the typologies of coastal development presented in Chapter One, will be explored in more depth throughout the chapter, which is divided into five sections that progressively build on the material shown in the cross-case matrix.

Figure 5.1: Cross-case matrix of key themes and patterns, 1900-2018

Themes	Bayou Petit Caillou, Louisiana	Biloxi, Mississippi	Apalachicola, Florida
State Control: Impacts of federal, state and interstate political economy and equity in resource allocation decisions	Coastal Louisiana's cozy, at times corrupt, relationship with both the energy industry & government regulators has meant little to no regulation at all (1920s-present)	To support its coastal tourism economy and feed the growth machine, poverty- stricken state loosens or elects not to enforce select regulations (1990 pro-gaming law)	Interstate threats and interest group pressures diminish state's ability to deliver on environmental protection promises (1980s-present water wars)
Power Balances: Capacity of business and industry, tourism, and other pro-development interests to influence the agenda	Sink or sell: The privatization of the coast (land ownership in the hands of five companies) & long-term persistent impacts (e.g. saltwater intrusion), high poverty, & scarce insurance drove flight up the bayou (1992)	External capital, external entrepreneurs, and private land ownership dominate the city's power balance; business interests singularly drive the tourism-dependent economy (post-Katrina casino boom)	Local business & commercial seafood leaders are hand in glove; the commercial fishing industry for decades has resisted efforts to develop its historically working waterfront (1970s master plan)
Infrastructural zones: Resources and willingness to protect or preserve natural resource-dependent economies, including fishing and tourism	Barrier island restoration combined with the Morganza to the Gulf hardened shoreline project reflect the state's $1 billion race to save its shore (2017-present)	Engineering solutions-a manufactured beach and 26-mile seawall-are two examples of the hazardous development of the tourist landscape on once-protected shores (1950s)	Efforts to preserve an endangered ecosystem mean most county land is protected; changes to the distribution of freshwater resources upstream is the next battle
Geopolitical Economies of Reconstruction: Policy and redevelopment windows following natural and manmade crises	Geographically isolated from central planning agencies, site is largely outside the boundaries of code enforcement, a factor driving its post-disaster conversion to recreational playground (1992, 2008)	Marginalized groups (social inequality & low socioeconomic status) have greater risk exposure; power imbalances left them voiceless in post-disaster planning (1969 & 2005)	Local fishing community interests have been integrated into decision-making processes following major events; preference given for sustainable, community-based approaches to recovery (2010)
Antifragile or Resilient? Capacities of coastal communities to become more robust in the face of adversity	Historical identity, strong attachment to place, & local heritage (Cajun maritime traditions) mobilized communities facing uncertain futures to begin preparing for sea level rise (2010-present)	A near-singular reliance on casino gambling income creates boom-or-bust cycles, limiting locals' ability to bounce back; a new emphasis on civic centers & environmental protections could alter this course (2018)	Graying of the fleet: A lack of livelihood diversity has led to an aging community's livelihood dependency on the water; this contributes to community vulnerability & uncertainty amid ecological collapse (2012)

State Control

Along the Gulf Coast, the ecological and economic dimensions of development are inextricably linked. Reduced access to natural resources, including land, water and forests, negatively impacts the livelihoods of communities who depend on them to make a living. Moreover, the severity of local impacts depends largely on what happens at the state level; specifically, in how governments execute or ignore equity-based principles, such as principles of distributive justice (fairness in the distribution of access to natural resources) and procedural justice (fairness in procedures, such as opportunities for participation in the decision-making process of affected communities). The literature on the political ecology of state-led infrastructure development and resource allocation (e.g. intensive agriculture, energy projects, extractive projects) is clear that uneven power relations are no surprise; indeed, they are inherent in decision-making processes; usually costs and benefits are unequally distributed within the national, state, and local scales, and the people most affected are overlooked or ignored in planning and construction. A political ecology theme is relevant, then, to understanding the first theme in the cross-case matrix: the extent of state control. That is, the tensions that exist within each case study community between state priorities and local needs, and how that friction manifests locally in poor implementation of social safeguards and/or unequal distribution of access to resources (Siciliano and Urban, 2017).

Coastal Louisiana's cozy, at times corrupt, relationship with both the energy industry and the regulators who govern it has, more often than not, meant little to no regulation of oil and gas canal building, drilling and offshore exploration. Since the first salt dome produced oil in the 1920s, local power elites aligned their interests with those

of the state to maximize the production of oil and gas, and soon even powerless locals, many of them former commercial fishers, joined with them. They were unknowing participants in a system that would not only restrict their access to previously unrestricted and unregulated waterways but, over the course of a century, contribute to the ecological demise and environmental destruction of their communities. As Louisiana became the nation's oil and gas epicenter, with 600 platforms in a forty-mile radius around Terrebonne Parish, it also became a classic case of distributive injustice.

One state over, the pattern of state control has a similar dimension. Mississippi's poverty-stricken economy created the sense of urgency the state growth machine needed to pass the 1990 Gaming Control Act, a legislative decision that instantly changed the trajectory of the state's political economy and the coastline that doubled as its lifeline. As coastal casinos boomed, their revenues padded state and Mississippi Gulf Coast government coffers, an exchange that inspired even looser regulations and even more revenues. It was a spin-cycle of dependence that only strengthened after Hurricane Katrina and the Deepwater Horizon oil spill.

Florida's situation as a longtime pro-planning, pro-preservation state is complicated because of the influence of geopolitics on its natural and human resources. Even as the state has sought to protect its environmental assets as a matter of public health, its location downstream from major urban, agricultural, and ecological threats puts it in a precarious position. The state's ability to advocate on its own behalf, and protect its natural resources, depends on its relationship with pollution sources as far away as Appalachia. The Florida-Georgia-Alabama water wars spanning the course of the past thirty years boil down to issues of procedural justice, of politics, equity, and

infrastructure—who owns it, who regulates it, and who gets to decide what purpose it serves.

Power Balances

It may be obvious to point out that American businesses routinely try to influence policy, from establishing a political agenda, to influencing decision-making in executive agencies and the courts, to steering public opinion in ways that were successful for Mississippi Gulf Coast chambers of commerce, for example, when they sought voter approval for infrastructure upgrades in the postwar era. Nationally in 2015, for every dollar spent on lobbying by labor unions and public-interest groups combined, large corporations and their associations spent $34 (Drutman, 2015). Surveys of the "most influential interests" in the fifty states have deemed groups representing manufacturing, business, and electricity-generation firms to be extremely powerful, regularly eclipsing organizations devoted to environmental protection (Dincer, 2012).

What this study is more interested in, within the context of Gulf Coast development, is *how*; how did certain conditions create opportunity for businesses to experience increasing success in local and state policy interventions, in both setting the agenda *and* winning the vote, during the research timeframe; how did specific instances of economic development support local capacity and local efforts to adapt to rapidly changing economic and environmental contexts; and how have communities been supported or hindered? The case study findings reveal very different configurations of organized interests in both the microdynamics of the three coastal communities under investigation and in the broader states in which they belong.

In Louisiana, the privatization of the coast that started in the Edward Wisner era set the foundation for past, present and future decision-making processes related to the coast's economic development. Now that coastal land ownership is largely consolidated in the hands of five holding companies, access to the coast is severely limited to those privileged few individuals and companies who pay annual rights to lease the land for extraction and exploration. Classical economic development strategies, such as dependence on industrialized resource extraction for export, often come at a cost to community well-being. In Bayou Petit Caillou, reliance on the oil and gas industry has left an entire region of the U.S. not only vulnerable to global markets, but at risk of extinction due to long-term persistent impacts of industrialization (e.g. saltwater intrusion and sea level rise); persistently high, intergenerational poverty; and limited homeowner and flood insurance protections. These are the primary factors that drove the "sink or sell" mentality that not only pushed residents away from the coast to settle "up the bayou," but also opened the way for tourism businesses to recreate a recreational paradise where seafood canneries, processing sheds, and workforce housing once stood. It has only been since 2017 that coastal Louisiana residents experiencing continuing economic and social ills, and a weakened capacity to fight for their share of local decision-making power, have adopted the adaptation mindset. Their argument is that the survival and endurance of their communities means more than economic growth, but also the improvement of human well-being: adaptation to risk, a social network of resilience, and access to choices to shape their future.

Such lessons have not been absorbed into the fabric of Biloxi, where external capital, external entrepreneurs, and private land ownership dominate the city's power

balance; business interests singularly drive the tourism-dependent economy, as evidenced by the post-Katrina casino boom and ongoing attempts to reshape the blighted shoreline of East Biloxi. The economic importance of the Mississippi Gulf Coast's resources has grown over the last decades primarily due to the influences of tourism and the spread of the particular brand of casino tourism that is unique to Biloxi, where a constellation of structural factors (poverty, systemic racism) interact with local conditions (tourism, service and retail-based jobs) to produce specific livelihood options.

What has set Apalachicola apart, until recently, is its historically strong fishing cooperatives and relatively healthy fish stock. Local business and commercial seafood leaders have worked hand in glove since the oyster boom of the early twentieth century. The commercial fishing industry for decades has resisted efforts to develop its historically working waterfront, as shown in the example of the business and politics surrounding the adoption of the city's first master plan in the 1970s. As a peripheral fishing community, Apalachicola's capacity to regenerate and maintain its homegrown local economic growth processes is now being called into question in the aftermath of the ecological collapse of the oyster industry since 2012. Apalachicola's deep dependence on its fishery, combined with its peripheral status, has led to population loss, decline in job opportunities, and an overall inability to economically restructure for the new reality.

Infrastructural Zones

Across each case study, it is clear that infrastructure, urban-regional politics, and ecological dynamics converged over time to generate distinctive political situations and environmental justice dilemmas. Efforts to restructure human-environment interactions collided with changing ideas about nature, frequently in conjunction with new tourism and development markets. In each case, contemporary controversies (oil and gas exploration damages, polluted estuaries, tourism monopolies) have their origins in infrastructure projects from the early 20th century (canal dredging, agriculture runoff, manufactured seawall).

Barrier island restoration combined with the Morganza to the Gulf hardened shoreline project reflect Louisiana's $1 billion race to save its shore, but this case also illustrates how present-day issues are deeply informed by past decisions regarding the placement, operation, and maintenance of large-scale water infrastructure projects. It is well-known from this case that the benefits and hazards associated with Louisiana's centuries-old maze of canals, pumps, gates, and levees have been unevenly distributed. Writes Tulane University's Joshua Lewis in a 2017 investigation of controversies surrounding Mississippi River diversions, the beneficiary is "the urban center of New Orleans and its associated agglomerations of financial capital, institutional capacity, and political power, [which] has sought to rework its periphery to secure its economic position and enroll peripheral ecologies into the infrastructure of urban drainage, flood protection, and maritime transportation" (p. 8). The infrastructure zone of drainage systems and shipping canals along the Louisiana coast have succeeded in (1) fragmenting urban space; (2) endangering left-behind peripheries (Bayou Petit Caillou); (3)

encouraging particular forms of global connection; (4) triggering profound environmental transformations; and (5) creating a "situational dissensus" among neighboring communities (Lewis and Ernstson, 2017, p. 10).

The implementation of widespread engineering or infrastructure solutions to achieve economic growth is not unique to Louisiana. The intersection of state-initiated conservation governance (i.e. Pointe-aux-Chenes Wildlife Preserve in southern Terrebonne, Apalachicola National Forest in Franklin County; and DeSoto National Forest north of Harrison County) and amenity-related residential development (e.g. coastal second home markets and condo hotels) also can be seen as overlapping or coupled processes that set the stage for uneven community outcomes (Hurley and Ari, 2018), particularly as these developments restrict local hunting and fishing access. Literature on conservation territory establishment and amenity migration suggest these outcomes might be influenced by divergent social-cultural communities, who sometimes cooperate and who sometimes compete, within the context of ongoing "reterritorialization," a set of dynamics that describes how in-migration and its associated property transfers often change who can access and control certain resources (Hurley and Ari, 2018, 195). Coastal Mississippi's manufactured beach and 26-mile seawall are two examples of the hazardous development of the tourist landscape on shores that were once inhabited by workers and deemed unfit for development. In Apalachicola, efforts to preserve an endangered ecosystem have put most county land under state and federal wildlife management and protection, and are reflected in the state's longtime battle to receive more of its share of upstream freshwater resources.

Closed waterways, restricted commercial use of the beach, and forests protected from hunting and lumber are examples of state-sanctioned "infrastructural zone" decisions that, over time, forced Bayou Petit Caillou, Biloxi, and Apalachicola to abandon traditional livelihood practices. These forces are at least partially responsible for the outmigration trends documented in each case study chapter, as the unfolding landscape of coastal risk, coastal tourism, and second home development diminishes the ability of locals to access and make a living from natural resources, and to afford to continue living in their communities. With over half of the at-risk affected coastal communities in the United States being home to socioeconomically vulnerable rural communities (Dahl et al., 2017), equity in resource distribution and an array of adaptive responses—particularly ones that preserve community cohesion (Adger et al., 2012)—are needed to prepare against physical exposure *and* bolster the capacity of communities to rebound. In the coming decades, water security and the persistent impacts of water on low-lying coastal communities, like those analyzed in this study, will continue to threaten the ability of already socially vulnerable neighborhoods and groups to thrive (Bhattachana et al., 2018).

Geopolitical Economies of Reconstruction

The small window of opportunity that exists between disaster striking and recovery beginning is rife with possibilities. It is also a deeply challenging time because it calls for a balance of short-term, immediate priorities—preserve jobs, the right to return home, and the freedom to rebuild—with long-term, often environmental concerns—reduce risk, protect nature and habitat. Researchers have written extensively about how

communities ought to use this fleeting window as an opportunity to push for smart-growth principles, restricted rebuilding in flood-prone areas, and implementation of mandatory flood mitigation measures. However, as the Biloxi case study revealed in both post-Camille and -Katrina planning, residents and business owners also need to return home to normalcy. Tobin and Montz (1997, p. 187) argue that while there is usually "great interest" in mitigation and innovation immediately after a disaster, momentum quickly dissipates when the community begins to resettle. While communities tend to expect swift governmental aid, they also denounce policies that threaten to encroach on their activities or property rights once their journey home is complete.

The long history of hurricane activity ordered key aspects of Gulf Coast life, including local attitudes toward emergency preparedness, building codes, economic development, and social responses to both natural disasters and local authorities. In the context of coastal Louisiana, recovery and reconstruction efforts following Gulf Coast crises served to exacerbate existing tensions between public and private interests in the use and demarcation of prized waterfront land. Surges in reconstruction following damaging coastal storms, in particular, have stimulated development pressures because of the change opportunities that frequently surface after disasters (Colton, Kates, and Laska, 2008; Flint and Luloff, 2005; Platt, 1999). The situation is at its most obvious in Bayou Petit Caillou, a coastal rural community geographically isolated from central planning agencies and largely outside the boundaries of code enforcement. These factors played definitive roles in driving Cocodrie's post-disaster conversion to recreation playground following Hurricane Andrew in 2002.

Marginalized groups, such as East Biloxi's African American and Vietnamese communities, suffering from legacies of social inequality and persistently low socioeconomic status, have greater risk exposure; power imbalances left them in the lowest-lying neighborhoods. Driven from their homes, they were voiceless in post-disaster planning following Hurricanes Camille and Katrina. If planning is fundamentally about the allocation, distribution, and alteration of property rights, more often than not, the political power of development interests shapes the terms of the debate (Glickfeld & Levine, 1992). Furthermore, what makes coastal communities different in planning processes are the added dynamics of water: who controls it, who can access it, and who needs it most. In his recent study of Spain, Erik Swyngedouw calls this "liquid power," the idea that coasts, coastal people, and their interactions with water (canals, dams, irrigation, and desalination stations) present additional layers to unpack and unravel when considering coastal communities, how they change over time and how coastal places might learn to better integrate issues of water flow and water security into future decision-making. Water plays a "decisive role" in transforming coastal places, often in radical ways, into inseparable "hydro-social landscapes" in which water, social power, and identity are inextricably linked (Swyngedouw, 2015).

Given these realities, planning researchers consent to the fact that effective public integration into the post-crisis reimagining process is difficult to achieve. Forester (2006) points to an array of reasons. Local residents and developers alike often doubt planners' motivations and seek to defend diverse interests ranging from protecting neighborhoods to developing the local economy. After disasters, the task of attracting diverse stakeholders to the planning table becomes even more daunting because the

circumstances are far from typical and often fraught with emotion. Urban planners, developers, and architects tend to see solutions in demolition and massive redevelopment projects. Property owners want to get back what was lost. Government and philanthropic groups sit somewhere in the middle, commonly offering expertise, financial assistance, and volunteers for both property owners and developers (Werwath, 2005). The limited literature on planning for disaster recovery does not adequately explore the factors that hinder participatory planning in these circumstances, or how planners, policymakers, and local participants can overcome them, but one lesson from Apalachicola could help expand the literature. Apalachicola fishing community interests have been integrated into decision-making processes following every major event chronicled in Chapter Three; a preference has been consistently given for sustainable, community-based approaches to recovery, and it is a major reason the city's working waterfront has literally weathered the storms. Apalachicola's experience defies the notion that environmental protection and economic development are a zero-sum game—more of one is purchased at the expense of less of the other—yet the case study also shows the limits of local resistance when the ecology upon which most livelihoods depend is threatened by forces outside its control. As Whitfield and Hart (2000) note, over the last century in the United States, the economy and the environment have operated like a mathematical equation, with each term affecting the other in a dynamic tug of war. Part of the struggle is due to fiscal constraints. Local governments have experienced a shortage in the level of funding they receive to integrate economic development and environmental management. This matters in near-single-economy coastal communities like Apalachicola, whose economic and ecological interests are so closely tied as to be inseparable. When asked to choose

between preserving nature or preserving jobs, though, most governments, particularly poor governments like Bayou Petit Caillou and Biloxi with struggling economies and declining revenue streams, almost always choose economic development over sustainability (Wilson, 2000; Hansel et al., 2015).

Antifragile or Resilient?

The antifragility concept is useful for my analysis of variations in Gulf Coast community change. To recap Taleb's theory, explained in more depth in Chapter One, when systems are antifragile, artificially stabilizing them by restricting their range of environmental variations tends to make them fragile, or stagnant, if the induced fragility provokes the collapse of a system's ability to transform. In either case, restricting variation, or increasing the resistance of the system itself to change, is dangerous. This concept is useful in unpacking the meaning behind the shift in attitude among Bayou Petit Caillou residents surveyed about the future of their community post-Hurricane Rita in 2006 (LA SPEAKS) and in 2017 (LA SAFE). In the former survey, residents overwhelmingly demanded funding for flood mitigation projects that would reduce their risk of exposure to water threats—literally restrict the range of environmental variations they would experience and, by engineering resilience, create an equilibrium that would provide them with a false sense of security, limit their ability to thrive, and, inadvertently, make them more fragile. In the more recent LA SAFE survey, residents are finally acknowledging that stability is not possible, and that it may even be harmful.

Writes science philosopher Gillian Barker (2017) about the contrast between resilience and antifragility, "... a system that is too successful in resiliently returning to its

current equilibrium state is also ultimately limited—incapable of transformation in response to large environmental changes. No stage in the adaptive cycle is better than the others; *what is good is the ongoing activity of the cycle itself and its potential for transformation. …* striving to build resilience at all levels and locales at the same time is bound to fail" (p. 580-581, emphasis in original).

Bayou Petit Caillou's historical identity, strong attachment to place, and local Cajun maritime heritage traditions created the cohesion and sense of purpose they needed to mobilize, with the blinders off, to the uncertain, risky, fragile future of their coast. In admitting to this fragility, the community is embracing uncertainty and disorder rather than trying in a futile way to eliminate them; they are becoming antifragile.

The cases of Biloxi and Apalachicola reveal the dangers inherent in not acknowledging adversity. In Biloxi, a near-singular reliance on casino gambling income has created a never-ending boom-or-bust cycle that has severely limited locals' ability to not only bounce back, but to begin to dig out from its longtime overreliance on blackjack and poker tables to pay its bills. At the same time, a growing impatience is emerging with Biloxi's fragility, its perpetual passiveness in the face of economic opportunity, and its historic willingness to sacrifice just about anything (a healthy fishery, barrier island protections, historic neighborhoods) to expand its tax base. Increasing calls for a blue economy approach, complete with a new regional emphasis on enhancing livelihoods, building a more cohesive civic life, and funding more environmental protections, could alter this course.

The graying of the Apalachicola fishing fleet is a symptom of the city's lack of livelihood diversity, its rural dis-connectivity to the region, and its overall fragility.

Researchers suggest livelihood diversity is correlated with higher adaptive capacity in that this diversity provides households with some ability to shift efforts away from livelihoods that suffer environmental and economic shocks, thereby buffering against impacts on food security or income (Mills et al., 2017). As an aging community, Apalachicola's livelihood dependency on the water has helped to create its current predicament: a state of community vulnerability and uncertainty that has no endpoint. The implications in terms of antifragility boil down to the dangers of specialization; the traditional Apalachicola oyster tongers do well when the ecological conditions are just right; they are exposed to near-insurmountable shocks downstream when pollution threats force the state to shut down oyster beds or alter the overall health of the fishery. The fragility of Apalachicola is further magnified by its lack of connectivity to the region. Its remote location contributes to livelihood dependence on the commercial seafood industry, which, among natural resource-based livelihoods, is relatively stable. With its year-round source of food and income, fishing is less subject to shocks than crop or livestock farming (Mills et al., 2017).

However, families in rural economies like Apalachicola rarely hold the power to invest, relocate, or switch their efforts from one poorly performing livelihood to one that reaps more rewards. Instead, disruptions like the 2012 oyster crisis often leaves poorer households more exposed and potentially caught in a structural poverty trap. The solution is the argument presented in the still-unfolding *Florida v. Georgia* Supreme Court case. In the war over water, Florida is pushing for regulation to reduce pressure on downstream resources as well as tri-state compromises and reforms that improve resource governance. In their study of improving livelihoods and managing resources on Atauro Island, Timor-

Leste, Mills et al. (2017) found that structural realities faced by rural coastal communities cannot be overcome through local or livelihood-based interventions; their research emphasizes the need for cross-sector engagements in both policy development and intervention planning.

Chapter Six: Conclusion

The justification for this study lies in what has not been answered, or satisfactorily addressed to date, about how specific coastal transformation processes unfold at the local level, over time, in the context of complex and overlapping forces ranging from water insecurity and hurricane-induced physical destruction of the built environment to the collapse of the Gulf Coast commercial fishing economy to the political might of municipal growth machines. The gaps or unanswered questions in the literature on coastal gentrification, tourism, and urban political and historical ecology provide the rationale and ultimately the justification for the multiple-case-study research design. By weaving multiple lines of inquiry into a holistic, historically rooted study of coastal community change, this work contributes to deepening knowledge of local reactions to external growth pressures and to deepening understanding of the broader conceptual, institutional, and economic structures that shape events.

This research makes a valuable contribution to the emerging literature on coastal gentrification and local responses to external development pressures. Its focus on the largely unstudied locus of the Gulf Coast and emphasis on how hurricanes and other calamitous events inspire ever-bolder plans for coastal change make this research timely and relevant, particularly in light of forecasts which predict no ebb in hurricane intensity, sea level rise and other water-security threats over the next decade. The need to understand how at-risk coastal communities cope with pressures to transform economically, socially, and politically is great in terms of developing coastal and fisheries-related policies that contribute to the livelihood and survivability of the increasingly populated coastal reaches of the United States.

The specific research goals of this project also provide insight into the study's limitations. To restate, there are four overarching goals of this research and four specific questions. The four research goals are:

1. To chronicle the evolution of local environmental, planning, social, political, and economic policies that have allowed for tourism development activities to flourish along the northern Gulf of Mexico since the early twentieth century
2. To connect tourism development in coastal communities to gentrification theory, particularly its most recent offspring rural, coastal and green gentrification, by building on the author's previous research on rural gentrification in Louisiana's coastal communities
3. To examine the impact of tourism-induced development on economic, cultural, and social change, using indicators such as population growth, migration, new growth, and urban development
4. To develop a new line of inquiry about these dynamics by bridging theories from several research areas.

To better grasp the local process of change based on Gulf Coast tourism development patterns, this study seeks to answer four research questions:

1. How are coastal communities experiencing economic transitions caused by coastal tourism interests?
2. How are external development interests able to influence local economic, political, social and environmental conditions to promote their agendas?

3. What are the outcomes of these gentrification and development interests on local coastal communities?
4. What is characteristic of fishing communities' responses to coastal land-use pressures that makes them different from other places?

The rampant development of Martha's Vineyard described in 1973 by the late environmentalist Anne Simon forever altered the landscape and identity of one of the coastal United States's quintessential "battleground islands" (p. 3). By reason of circumstances noted in this study, Gulf Coast fishing communities are late in confronting the land use dilemmas other coastal places in the United States have been exposed to as early as the turn of the nineteenth century. But all along the northern Gulf Coast is a growing sense that while coastal cities, towns and villages are catching up to the overdeveloped shores of the east and west coasts, the conditions facing communities on America's Third Coast are fundamentally different.

The Gulf Coast is a place of remarkable transformation. The boundaries that have constrained lives and defined new possibilities have opened up significantly over the past forty years. For communities that have long depended upon the independence of operating their own fishing enterprises or the flexible, seasonal rhythms of a resource-based economy, there are many adjustments and implications for social relations that, in some cases, will take decades more to realize.

Uprooted families, loss of isolation, and disrupted livelihoods are offshoots of coastal capitalism that deeply limit choice. The incursions of globalization through restructuring in the agro-food industry and aquaculture; the loss of a reliable, year-round

fishery through regulatory regimes, government interventions and pollution; and the growing influences of tourism, technology, and second-home developments have all contributed to changing the trajectory of once isolated, familial and ethnically homogenous fishing communities.

Although the U.S. Gulf Coast's problems are diverse, critical, and understudied, they are not new. From the creation of the shrimp industry in Bayou Petit Caillou, to the preservation of the Apalachicola working waterfront, to the devil's bargain of legalized gambling in Biloxi, this study uncovers the numerous schemes, structures, laws, and policies that have been deployed to shape the future of three coastal communities over the course of a century—these are intriguing precedents and patterns that were deliberately created, cultivated and crafted by each community, for each community, to survive not only the booms and the busts, but also the chronic pain of living, working and doing business in a persistently at-risk and disaster-prone coastline.

If the end is also the beginning, the lived experience of adaptation and antifragility will be part of the Gulf Coast's story in the next one hundred-plus years. If water, policy, and society were the larger themes of the twentieth century—what historian James Cobb calls the "selling of the South" in post-World War II America, accomplished in large measure through changes in tax codes favorable to industry and environmental regulations that encouraged developers to turn fragile coastal ecosystems into valuable real estate (Kahrl, 2012)—then the twenty-first century will be filled with rapid-cycle tests of change that will force communities like Bayou Petit Caillou, Apalachicola and Biloxi to act quickly, pull together around regional consensus, and

resist the push of outside development interests to continue privatizing the coast into fortresses of exclusion.

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Appendices

Appendix A: Operational Definitions

Coastal tourism and coastal gentrification: *Coastal tourism* in the United States started in the 19th century and has increased in non-linear fashion ever since, stimulated by a combination of developments in transport technology and rising prosperity (Davenport and Davenport 2006) as well as growing interest in rural or "wild" recreational experiences. Over the past thirty years, coastal counties have shifted from traditional maritime activities such as fishing and boating to a more service-oriented and tourism-dependent economy. This coastal tourism economy encompasses leisure and recreational activities such as swimming; recreational fishing; snorkeling and diving, recreational boating and cruises that occur in the coastal zone and in offshore coastal waters. Also included are establishments such as hotels; resorts and restaurants; and the sectors that support coastal development such as retail businesses; marinas; fishing tackle stores; dive shops; fishing piers; recreational boating harbors; beaches; and recreational fishing facilities. *Coastal gentrification* is a process that includes a growth in tourism and its associated dislocating, often disruptive forces of economic development, as well as a shift from a maritime-based to a service-based economy. Coastal zones around the world are experiencing gentrification pressures that are expected to become even more intense as the population continues its shift toward the sea. Researchers predict growth to continue in the coastal zone, universally displacing native populations and traditional economies because of the political power of pro-growth coalitions (Charlier and Bologa 2003; Griffith 2000; Logan, Whaley, & Crowder, 1997).

Coastal urbanization: Urbanization is often referred to as either the degree of or increase in urban character or nature, and may either refer to a geographical area combining urban and rural areas, or to the transformation of areas to greater urban development. The term may be used to describe a condition at a specific time, namely the proportion of total population or area in urban localities or regions, or the increase of this proportion over time (since 1970 in this case). Coastal counties within 80 kilometers of the coast make up only 13 percent of the land area of the continental United States, but this area encompasses 51 percent of the population (Rappaport and Sachs 2003).

Commercial fishing: Commercial fishing can generally be thought of as fishing for a commercial purpose, e.g., to sell a catch. The commercial fishing industry along the northern Gulf of Mexico, including the five states with voting members on the Gulf of Mexico Fishery Management Council, is characterized by (1) individual fisher-operators who act in ways similar to small business owners, and (2) commercial fishing companies. This research focuses mainly on individual fishers who own their boats, work independently, catch their fish in state or federally controlled waters (but usually not both), and sell their daily or weekly catches to processing docks and the general public. Historically, individual fishers who work in the commercial fishing field have characterized the Gulf of Mexico's commercial fishing industry, with generations of families participating in the commercial fishing process by passing down boats and fishing techniques to sons and daughters. The five coastal states bordering the Gulf of Mexico – Texas, Louisiana, Mississippi, Alabama and Florida – require commercial fishers and commercial boat captains to obtain commercial fishing licenses, thereby allowing for the statistical tracking of boat operators and their annual catches (in

poundage and value). Licenses also are required for wholesale, retail and bait fish dealers who sell commercially-caught products to consumers, including the general public, hotels and restaurants.

Commercial fishing community: A commercial fishing community is being operationalized here to include, since 1970, current or former coastal fishing communities as defined by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. The act states that a fishing community is "a community which is substantially dependent on or substantially engaged in the harvesting or processing of fishery resources to meet social and economic needs." Considered in the research are two types of commercial fishing communities: (1) Gulf Coast communities in which catching fish commercially is a current, primary economic indicator and (2) Gulf Coast communities that had commercial fishing as their main economic base from 1970 but have since seen new industries such as tourism and sports fishing replace the resource-extraction-based commercial fishing.

Fishing: Fishing has been a popular human activity since ancient times and remains important for generating food, income, and to satisfy various non-consumptive needs (Arlinghaus and Cowx 2002). Globally, marine and freshwater fish stocks are facing a number of threats from anthropogenic stress (e.g., exotic species invasions, hydropower generation, land use, pollution, eutrophication, aquaculture, pollution and displacement, habitat loss or change, river fragmentation, flow regulation, and navigation; see Cowx 2002). The loss of fish biodiversity is a matter of global concern not only because of the associated loss of substantial intrinsic, ethical or cultural values, but also because it has numerous consequences for human life-support systems. Fishing

can be commercially, economically, and culturally driven, or practiced solely for recreational purposes.

Livelihoods: Livelihoods are "… a set of capabilities, activities and assets (including both material and social resources) that contribute to a means of living."

Rural gentrification: Rural gentrification can be seen as one of many recent examples of how restructuring space perpetuates uneven geographies of affluence, deprivation and exclusionary processes of change (Atkinson 2006). Notably, these include pervasive forms of urban and rural gentrification (Phillips 2004). Davidson and Lees (2005) argue, for example, that social groups with relatively low stocks of economic capital are often constrained from acting as pioneer gentrifiers – as networks of powerful institutional actors dictate the (re)production of gentrified spaces; arguably symptomatic of the political hegemony of neoliberal ideology (AND. Smith 2002). Gentrification in the rural setting exhibits many of the same phenomena as urban gentrification, as exemplified by the supply and production of privatized spaces for corporate global consumption, large-scale mega-projects, gated communities, and 'highest and best use' planning and policy regimes (Atkinson 2003; Lees 2003). Such readings can be transposed to the rural context, and may be essential for understanding why more places are susceptible to rural gentrification (Phillips 2004, 2005) and increasingly take the form of privatized and gated developments (D.P. Smith 2007).

Second homes: Second homes can be seen as an extension of urbanization as a central feature of modernization. As leisure time expands due to globalization, more energy can be diverted to recreating. Rather than gazing at spectacular sites and documenting new experiences, what matters to second home owners is inhabiting places

(Haldrup 2004). Second homes take many forms, including personal vacation properties, timeshares, sale and leasebacks and rental homes. They are often attractive to families and well-off city dwellers who generally live within a weekend recreational commutable driving distance to the second home; as a result, second homes are often built in amenity-rich areas and the hinterlands of cities. Second home developments can be characterized as elite landscapes that are enclosed, protected zones for wealthy vacationers. Researchers generally agree that the owners of second homes are members of the upper middle class, or higher-status members of the middle class making between $250,000 and $500,000 annually (Coppock 1977; Gallant et al. 2003, 2004: Hall and Müller, 2004).

Sports fishing/recreational fishing: Sports or recreational fishers (the terms are used interchangeably here) fish for pleasure. They capture a feed of fish for personal consumption, their primary motive being leisure, not profit. National laws forbid the sale, barter, or trade of recreationally caught catches. Because they do not rely on the fish as a source of income, the philosophies and tactics used by sports fishers are markedly different from what recreational anglers term “feed fishing,” or commercial fishing. Sports fishers and the associations and lobbying groups to which many belong support sustainable fishing practices that limit the activities of commercial fishers and, ideally, increase fish stocks for the fish they net. Sports fishers commonly argue that intensive commercial fishing can lead to stock declines and species extinction and induce ecosystem regime shifts. As commercial fishing declines, recreational fishing is coming to be seen as comparatively more important, involving millions more people, and thus contributing in the view of the urban growth machine substantial economic benefits. Today, angling is the sole or dominant use of fish stocks in most freshwater habitats and

in many coastal areas in the industrialized societies of the temperate regions (Welcomme 2001; Arlinghaus and Cowx 2002; Coleman et al. 2004; Cooke and Cowx 2006). Even in the developing countries, where most fishing still focuses on food security and maximizing harvest of fish stocks for commercial or subsistence use, the importance of angling is increasing (Cowx 2002), namely for tourism development.

Tourist: Given the multidisciplinary nature of the study of tourism, a clean and precise definition of the tourist has not yet emerged from the literature on tourism (Pearce 1991; Theobold 1994; Shaw and Williams 2001). Holecek and Herbowicz (1995) attribute the large number of definitions of tourism and the tourist not only to the multifaceted nature of the concepts, but also to measurement issues. They argue that when a theoretical definition conflicts with the realities of quantifying it, an alternative definition is developed to bring the definition and measurement into congruence. However, they note that most definitions are still based on travel experience outside of one's daily routine whose purpose is for pleasure. This research views tourism within the broader framework of leisure and recreation. Although distinctions between tourism, leisure, and recreation have often led to the development of separate strands of research, there is an increasing awareness of the linkages between the three phenomena. This research will focus on tourists as a group because available data does not make finer distinctions.

Appendix B: Dissertation Work Plan, 2007-2019

Dates	Tasks
March 2007- December 2007	Preparing for data collection; refining methodology
October 2007- December 2007	Exploratory phase: Document collection, preliminary field work and preliminary analysis Direct observations of sites began
December 2007- August 2009	Interviews Direct observations Ongoing data collection Full-time schedule in case study sites May-August for two summers
August 2008 and August 2009	Preliminary analysis and production of a brief report on the first year's progress to satisfy the stipulations of a grant from the RAND Gulf States Policy Institute
2009-2011	2010: Update grant report to RAND Follow-up interviews Complete transcriptions Categorize and code data Converge evidence Write drafts of three case study chapters and cross-case analysis
2016-2018	Reexamine Florida chapter and case study to include "water wars" tri-state environmental issue and Apalachicola oyster industry collapse Reexamine Mississippi chapter to include sports gambling Reexamine Louisiana chapter to include climate change and population resettlement Revise three case study chapters and rewrite cross-case analysis to be current through 2018 2018: Re-enroll in program
May 2019	Degree Completion

Appendix C: Interview Questions

Interview Questions – Non-fisher community stakeholders/leaders

1. How has life in your community changed, from as far back as you can recollect? [Indicators are economic, cultural, social, political and environmental – hurricanes and storms, pollution, land loss, etc., since 1960s]
2. When did you start noticing these changes?
3. What is your opinion of these changes? Have population changes or tourism affected local markets or raised costs?
4. Tell me about the role you or your associates have played in these changes.
5. How have these changes altered your life and your family?
6. Who are the significant players at the local, state, and federal level in terms of the various coastal industries? How do their choices influence local development?
7. Tell me what you imagine your community will look like in another fifty years.
8. Are you hopeful or concerned about your community's future?

Interview Questions – Commercial Fishers

1. Tell me about your experiences as a commercial fisher in [insert community name here].
2. How has the industry evolved during your career?
3. Take me back to when you first started fishing for a living. How were things back then? How have they changed? Are other members of your family commercial fishers?
4. What are the factors influencing you as a commercial fisher today? What are the struggles? What keeps you on the water? What would you want changed?
5. What have the economic trends in the fishing industry been like, apart from coastal development? What financial issues have you faced? Turnover of ownership?
6. What is your relationship with recreational sports fishers?
7. Who are the significant players at the local, state, and federal level in terms of your industry? How do their choices influence local development?
8. If you weren't fishing, how would you make a living? What do people do if they quit fishing?
9. Has the area you live in or fish in been in the path of other development? How has that affected your life?
10. Tell me about your thoughts concerning the new land uses along the coast, compared to when you started fishing.
11. Tell me about where you see the industry headed in the next fifty years.

Interview Questions – Sports Fishers

1. How long have you been a recreational fisher?
2. Talk to me about some of the major changes you've seen during this time.

3. Describe what the fishery is like in [insert community here]. What areas do you fish and what types of fish do you catch?
4. What are your experiences with recreational fishing in terms of how the sport has changed with new policies, competition, and environmental regulations?
5. One of the things I'm interested in is recreational fishers and their relationships with commercial fishers. Talk to me about the commercial fishers you come in contact with.
6. Describe the activities you participate in as a recreational fisher.

7. [Questions 10-20 only for professional sports fishers]
   Describe some of your clients, such as who they are, where they're from and what they're looking for when they hire you.
8. Tell me about how you advertise or promote the business.
9. I'm really interested in what your day is like. Reconstruct your day for me from the time you get up to the time you go to bed.
10. Describe some of the characteristics of the commercial and recreational fishing industries. Tell me what you see as their distinguishing features.
11. Talk to me about your relationship to the commercial fishing industry.
12. In general, describe to me how the recreation fishing industry is different from commercial fishing.
13. Describe how commercial fishing has changed since you became a charter boat operator.
14. While recreation fishing is on the rise, commercial fishing is in decline. Can you talk to me about what you have seen in your career that might help explain this?
15. As a charter boat captain, talk to me about what sorts of networks you rely on in your business. In other words, in order for you to be successful, what factors need to be in place?
16. How has the region [insert name] accommodated these needs?
17. Talk to me about what you see as the future of the recreation fishing industry, and then the commercial fishing industry. Where do you see the two industries headed over the next few decades?

Appendix D: Case Study Questions and Sources of Data

1. How are coastal communities experiencing economic transitions caused by coastal tourism interests and general economic restructuring due to a decline in the fishing market?

Sources of Data:

- Annual town (if available) and county budgets and property tax collection records approximately since 1950; including Terrebonne Parish, Louisiana; Harrison County, Mississippi; and Franklin County, Florida
- Census date on hotel accommodations, including casinos, since 1950, in the case-study areas
- State industry and/or economic reports quantitatively measuring and itemizing the value of annual fish catches and tourism dollars; including states of Louisiana, Mississippi, and Florida; since 1950
- Gulf States Marine Fisheries Commission economic records
- U.S. Fisheries Department state data for the 1950-2018 time frame to establish correlation
- U.S. census data for the years 1950, 1960, 1970, 1980, 1990, 2000, and 2010; American FactFinder for recent years
- Local newspaper records starting in 1950 (*The Terrebonne Press*, *The Houma Courier* and *The Times Picayune* in Louisiana, *The Sun Herald, The Gulfport and Biloxi Mississippi Daily Herald* and *Mississippi Today* in Mississippi, *The*

Islander, *Mobile Register*, *Mobile County News*, and *Mobile Daily Tribune* in southern Alabama, and *The Times* in Apalachicola)

- National sources such as the monthly magazine *National Fisherman*; magazine publication such as *Southern Breeze: The Good Life on the Gulf Coast* and *beachblvd*; sports fishing and tourism industry publications, and materials affiliated with relevant special interest groups such as the Gulf Coast Conservation Association
- Historical resources for each case-study community; including archives in libraries and universities, city and/or county archives, county courthouse records, photography archives, libraries, museums
- Interviews with selected knowledgeable town and county real-estate experts; fisheries officials; county accountants, mayors and other identified leaders; local historians; fishermen, shrimpers, oyster catchers, processors, dealers, packers, marina operators and others involved in the business from Apalachicola, Florida to Cocodrie, Louisiana (see Interview Questions)

2. How are external development interests able to influence local economic, political, social and environmental conditions to promote their agendas?

Sources of Data:

- Interviews with planning directors, mayors, local actors, real estate leaders, chambers of commerce heads (see Interview Questions)
- City directories
- Visits to former or current fishing communities; direct observations

- Formal and informal meetings of fisheries, conservation, sports fishing and commercial fishing groups (see Interview Questions)
- Examination of county property tax records to determine who has historically owned and controlled strategic land parcels and the use of harborfront property

3. What are the outcomes of these gentrification and development interests on local coastal communities?

-Cross-case analysis

4. What is characteristic of fishing communities' responses to coastal land-use pressures that makes them different from other places?

Sources of Data:

- Federal and state legislative bodies formed to regulate, track, monitor and shape policies affecting the seafood industry, to determine the economic trends in the fishing industry beyond economic development
- Agency reports, contract completion reports, planning documents, management plans, newsletters, proceedings and other "grey literature" related to fisheries agency-sponsored public meetings. Some of this literature has been produced by social scientists of institutions geographically close to the management agencies, ranging from major state universities to local community-oriented teaching institutions without traditions of research. There

is an abundance of this type of literature in existence; I will rely on and cite only that material which is methodologically sound

- Marine resource bulletins and annual reports of marine resource divisions in each state
- Mississippi-Alabama Sea Grant Program, Louisiana Sea Grant and Florida Sea Grant publications
- Records of the acts and proceedings of the Louisiana, Mississippi, and Florida legislatures, which provide materials on the deliberations and legislation of the respective bodies and can be rich sources for cultural and institutional histories.
- Mapping networks of support groups, organizations, and other social networks present in each coastal community to represent the interests of locals, such as the Apalachicola Riverkeepers, Organized Fisherman of Florida, the Louisiana Shrimp Association, Southern Shrimp Alliance, American Prawn and Shrimp Growers Association, Mississippi Shrimp Association, Biloxi Shrimp Festival and Heritage organization, Alabama Shrimp Association, Organized Seafood Association of Alabama, and the Alabama Inland Shrimp Producer's Association
- Interviews with current or former commercial fishers
- Changes in land use patterns reflected in planning and zoning documents before and after disasters

VITA

Born and raised in New Jersey, Kimberly Krupa received her Bachelor of Arts degree in journalism and professional writing from The College of New Jersey in 2001. She spent six years as a newspaper journalist in New Jersey and Louisiana before entering the Master of Urban Studies program at the University of New Orleans in 2004. She earned her master's degree in 2006; her master's thesis explored the dynamics of coastal change in one south Louisiana community. In addition to publishing more than 1,000 newspaper stories during her career as a beat reporter and investigative journalist, she has published peer-reviewed articles on environmental justice after Hurricane Katina and the desegregation of a tripartite school system following *Brown v. Board of Education.* Having worked in the nonprofit sector for ten years, her primary research interest centers on applied social research. She seeks to explore the relationship between people and place, and the social experience of spatial transformation in rural and regional coastal communities. She plans to publish works on these topics and transform her dissertation into a book. She may be reached via email at kimberlykrupa@gmail.com.