

Fall 2021

Land, Racial Formations, and Power: Exploring the Network of Power Relationships During Climate Change Planning in Coastal South Carolina

Teresa Norman

Follow this and additional works at: <https://scholarcommons.sc.edu/etd>



Part of the [Earth Sciences Commons](#)

Recommended Citation

Norman, T.(2021). *Land, Racial Formations, and Power: Exploring the Network of Power Relationships During Climate Change Planning in Coastal South Carolina*. (Master's thesis). Retrieved from <https://scholarcommons.sc.edu/etd/6787>

This Open Access Thesis is brought to you by Scholar Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact digres@mailbox.sc.edu.

Land, Racial Formations, and Power: Exploring the Network of Power Relationships
during Climate Change Planning in Coastal South Carolina

By

Teresa Norman

Bachelor of Arts
Franklin and Marshall College, 2019

Submitted in Partial Fulfillment of the Requirements

For the Degree of Master of Science in

Earth and Environmental Resource Management

College of Arts and Sciences

University of South Carolina

2021

Accepted by:

Monica Barra, Director of Thesis

Jessica Barnes, Reader

Meredith Deboom, Reader

Dean Hardy, Reader

Tracey L. Weldon, Interim Vice Provost and Dean of the Graduate School

Abstract

Climate change projections for the coastline of South Carolina predict that by mid-century there will be around 1.2 feet of sea level rise, and potentially up to 4 feet of rise by 2100. Additionally, climate change is linked to intensified hurricanes, a hazard for the South Carolina coastline every year. Both of these scenarios result in increases in the regularity and severity of coastal flooding, making the threat of permanent or temporary displacement (relocation) from coastal lands a reality. This is a particularly pressing matter for African American communities already made vulnerable by the long history of racial discrimination in the United States, which includes historically racist lending practices that have dispossessed African American land owners of coastal, family properties. As the threats of climate change materialize, there has been an influx of coastal development, gentrification, and whitening of the coastline facilitated by so-called colorblind climate change planning and environmental engineering that has largely excluded African American landowners from planning processes. In order to understand how contemporary coastal development and climate change planning practices potentially exacerbate these inequalities, my research will examine three interrelated questions: How does situating coastal South Carolina within multiple geographies inform the present governance of adaptation to climate change? What is the state narrative of climate change, and how are heirs' property owners included or excluded in planning? And, what does the land of heirs' property owners mean to them?

Table of Contents

Abstract.....	ii
List of Figures.....	v
Introduction	1
Theoretical Background	4
Methodology	11
Thesis Overview	13
 Chapter 1: The Multiple Geographies of Coastal South Carolina	 16
Introduction	16
The Geological Formation of Beaches.....	20
The Colonization of South Carolina’s Coast	26
Reconstruction, Coastal Development, and Tourism in the Sea Islands	31
Shifting Demographics of the Sea Islands	42
The Fortification and Construction of Beaches	50
Conclusion	55
 Chapter 2: Priorities of Coastal Climate Change Planning	 58
Introduction	58

Fill and Build, and the Dilemmas of Coastal Development	61
The Dynamics of Racial Inclusion in Climate Change Planning	66
Historical Patterns of Charleston’s Fortification	72
The Charleston Sea Wall: Can We Afford Not To?	75
Conclusion	85
Chapter 3: “Making the Land Human:” African American Landowners’ Relationships to Coastal South Carolina	89
Introduction	89
Redefining Land, Identity, and Memory	92
Submerging Perspectives and the Uneven Geographies of Climate Change	100
Owning and Retaining Land	105
The Question of the Map – Opportunities to Unsettle	109
Conclusion: Making the Land Human	112
Conclusion	115
References	118

List of Figures

Figure 1.1 A Map of the Sea Islands	21
Figure 1.2 The Formation of a Barrier Island.....	25
Figure 1.3 A Map of Lowcountry Rice Rivers.....	30
Figure 1.4 The Gullah/Geechee Heritage Corridor.....	41
Figure 1.5 African American Population in Beaufort and Charleston Counties in 1880	47
Figure 1.6 African American Population in Beaufort and Charleston Counties in 1940	48
Figure 1.7 African American Population in Beaufort and Charleston Counties in 2019	49
Figure 2.1 USACE’s Map of the Preservation of Cultural Resources Projected for the Sea Wall	83
Figure 2.2 Average Home Values in 2017, per Zip Code	84
Figure 3.1 The Gullah/Geechee Heritage Corridor.....	94

Introduction

In the spring of 2021, I sat on Folly Beach on a sun-kissed day. The wind blustered intermittently, and I watched as people stroll the shoreline. As I sat, I thought about the many things I now knew about the production of this space, and the many contested visions of what it represented, and to whom it belonged. I thought about the development of it in the early twentieth century, as a coastal retreat for Charlestonians. I thought about the individuals who built homes here, seasonal and year-round, and wondered what they felt when they realized the beachfront they had constructed on was quickly eroding. And I thought about all the numerous projects they pursued in order to build the beach up to what it is now – the failed groins that could not trap sand, and the perpetual infusions of sand. The amount of energy and resources to maintain this place astounded me, as I sat there on this pleasant beach day. As did the layers of geography, the histories that went deeper than just the past hundred years, the histories of people who had been displaced from this land, both the Indigenous peoples, and the culturally distinct Gullah/Geechee people who made home of the Sea Islands upon Emancipation. And I thought of climate change, of the rising seas, of the arguments regarding how to save this location and others like it and what measures to take. I wondered if someday this place would be gone. The waves gently lapped the shore; a dog walked happily off leash ahead of its people. Gulls flew into the wind above me, seeming going nowhere against the air currents. So many things coalesced at once.

My research examines the Lowcountry of South Carolina, situating the climate change planning of Charleston and Beaufort Counties within the multiplicity of geographies that exist here. Of particular interest is how practices of coastal development (or coastal gentrification) has exacerbated the distinct risks and vulnerabilities faced by African American communities. I have chosen these counties because of their historic African American communities, which have been subject to demographic change, gentrification, and coastal development throughout the 20th and 21st centuries (Kahrl 2012). Climate change projections for the coastline of South Carolina predict that by mid-century there will be around 1.2 feet of sea level rise, and potentially up to 4 feet of rise by 2100. Additionally, climate change is linked to intensified hurricanes, a hazard for South Carolina every year. Both of these scenarios result in increases in the regularity and severity of coastal flooding, making the threat of permanent or temporary displacement (relocation) from coastal lands a reality. This is a particularly pressing matter for African American communities already made vulnerable by the long history of racial discrimination in the United States, which includes historically racist lending practices that have dispossessed African American land owners of coastal, family properties, since the Reconstruction Era. As the threats of climate change materialize, there has also been an influx of coastal development, gentrification, and whitening of the coastline facilitated by seemingly colorblind climate change planning and environmental engineering that has largely excluded African American communities from planning processes.

In the summer of 2019, I attended the Rural Landowners' Symposium, an event hosted by the Center for Heirs' Property Preservation. It was here that I learned about

heirs' property – a practice through which landownership is passed between generations - that, in South Carolina is especially prevalent in long-standing African American and Gullah/Geechee communities. In this form of landownership, land is inherited from the deceased without a will, and all descendants become interest holders in the land. As the generations go on, without clearing the title to the land, the number of descendants can, and often does, grow. Heirs' property owners have been made vulnerable to specific predatory development practices, are limited in legal protections from these practices, and have historically been limited in their capacity to receive FEMA funds post disaster. It was here that my questions around the intersection of heirs' property, cultural understandings of land and relation to land, climate change planning, and coastal development began percolating. As the tourism industry in South Carolina has flourished, the rural lands that are held by an untold number of heirs' property owners have become highly coveted locals. For developers these rural coastal areas hold promises of being the next beach town, even when coastal locations are dealing with intensifying hazards like increased flooding, coastal erosion, and worsening precipitation events. In handling these issues, coastal counties are making decisions about how resources are allocated, engaging racial, economic, and environmental geographies that engage dynamics of power and resistance.

For this project, I focused on Beaufort and Charleston Counties – counties in which long-standing African American and Gullah/Geechee communities still reside and are fighting to continue residing in coastal areas. These counties have, however, experienced large demographic changes over the past hundred years, changing from

majority Black to now majority white populations, as land values have changed, coastal engineering projects have been pursued, and beaches have been built.

In order to understand how contemporary coastal development and climate change planning practices potentially exacerbate these inequalities, I employed ethnographic methodologies of participant observation, content analysis, and interview to explore three inter-related questions:

RQ 1. How does situating coastal South Carolina within overlapping geographies inform the present governance of adaptation to climate change?

RQ 2. What is the state narrative of climate change, and how are heirs' property landowners being included or excluded in planning?

RQ 3. And, what does the land of African American heirs' property landowners mean to them?

In answering these questions, I document both elements of control and resistance that are at play in determining the current social order of the coastline and explore climate change planning as a racial formation.

Theoretical Background

My research employs scholarship from the fields of environmental history, political ecology, race theory, environmental justice, and Black geography. Through engaging these fields, my research calls into question the ways that race is constantly being reasserted through human relations to the environment, through decisions around environmental management, and through decisions about how the future of the environment is imagined and manifested. By blending these fields, I am better able to situate the coastline of South Carolina within its historical particularity: it is a place

whose unique geological structure and social history have long been intertwined, as the contours of the environment and environmental management have bled into the contours of power, of subversion, and vice versa. The legacy and particularity of African enslavement in South Carolina, the ways that race in this state has been actualized over time, the shifting economies – from stolen labor, to tourism – the near ever-present issues of flooding and erosion, are all at play in the present moment. By leaning on Black geography, race theory, and political ecology I am able to analyze the narratives and counternarratives that undergird the conversations about environmental management, reading race formations into conversations that may otherwise appear “colorblind” (Omi and Winant 2015).

The coastline of South Carolina is a place that can be understood as both a geological and social formation; a space where conflicting desires interact, and are manifested onto the environment. These manifestations take place physically in the form of infrastructure, construction, and development of these coastal locales. A multiplicity of histories—social, environmental, economic, and political—intersect, and environmental geographies and imaginations dictate and are dictated by social desires. From a tourism standpoint the state has become known to outsiders for its beaches. The southern coastline of South Carolina, in particular, is home to a number of private beaches, on many of which there are resorts, condos, golf courses, and expensive restaurants. Since the late 1800s South Carolina’s coastline has been a place of immense social and developmental change, locales that were once deemed “undesirable” have been converted to highly coveted properties and beach fronts (Kahrl 2012). Within these shifts have

come privatization of beaches and coastal areas, making these places that were once predominantly African American, now predominantly white.

Climate change planning specifically, and environmental planning more generally, are expressions of cultural values having to do with the “environment” – the human interactions with the nonhuman world. In order to understand environmental management and relationships to nature as a racial formation, it is first critical to explore what how race is theorized. Racial theorists Michael Omi and Howard Winant explain the process of defining racial groups as one fraught with confusion because the boundaries of what “race” *is* prove to be “unreliable,” capable of slipping, shifting, and realigning as new collective understandings emerge (2015, 105). Functionally, they describe race as “a way of ‘making up people,’” specifically through processes of “race-making” in which some people are “othered” – categorized by their differences to the ones defining these differences, emerging as “a fundamental organizing principle of social stratification” in the United States (Omi and Winant 2015, 105, 107). In asserting race as a “*master category*” with a profound impact on the structure and the culture of the United States, Omi and Winant invite their reader to explore the ways the process of race-making is always happening (105). In the United States, they explain, “all the powers of the intellect – artistic, religious, scientific, political – are pressed into service to explain racial distinctions, and to suggest how they may be maintained, changed, or abolished” (2015, xiii). Other scholars have pushed this in the direction of the environment, exploring how certain interactions with the environment in the United States have been race-making processes. Geographer Jake Kosek, for instance, has explored how race is formed through the environment, and how ideas of racial purity are often enacted in the “wilderness.”

Kosek states, “the notion of protecting or maintaining the purity of a racially exclusive national body politic has long been central to American nationalism;” this exclusivity was extended to the environment, which became a place for enacting and reifying whiteness and purity (2006, 146).

The “wilderness”, itself is an untrue projection (Cronon 1995). It stands as a white settler environmental logic that viewed the land as being untouched, uninhabited, and previously unused before European settlement – defined in the 1964 Wilderness Act, “in contrast with those areas where man and his own works dominate the landscape, [wilderness] is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.” The logics that underpin “wilderness” make it a space that inherently erases the Indigenous peoples who have lived and operated here, and those who continue to do so, and also serves to make “wilderness” not a place where use of the land as commons (i.e. land as a shared resource) can exist – but rather a place where human intervention is temporary, and accessible only to those who are privileged in race, class, and gender. From this worldview, the human and the nonhuman are separated – with the nonhuman, the “wilderness” becoming a space that is evidence of white Christian divinity, but is not divine in its own right. John Muir famously described “mountain top Cathedrals,” bringing together ideas of white Christianity and wilderness. However, Muir also envisioned wilderness as an exclusive space; the wilderness was a place where racialized others had “no right place in the landscape” (as cited in Kosek 2006, 156). American wilderness had become a “sacred” descendent of its antecedents and parallels in European romanticism (Cronon 1995, 4). It was, and continues to be, a place of American

mythology, where “the mythic frontier individualist was almost always masculine in gender” and could dominate, tame, domesticate, and control the environment, and interactions with the environment (Cronon 1995, 8). Rather than a place where meaning and relation are defined by humans use through of labor, the “wilderness” has become exactly the opposite – something that is an “escape” from the “confining structures of civilized life,” historically for wealthy white men, who were the purveyors of American nationalism (Cronon 1995, 8). The artists, authors, and environmentalists, themselves descendants of European environmental traditions, both defined the American environmental imaginary and also explained racial distinctions. Their ability to control the nonhuman world reinforced their ability to control the human world, as they used their environmental ideologies to justify their domination, eschewing both ideas of natural and racial order.

How and when interactions with the nonhuman world are allowed or disallowed shapes the formations of race. As Omi and Winant note, perceived racial difference is often the rationale for discriminatory policies (2015). This is something further explored by Carolyn Finney, who brings a very nuanced view of the specific racialization that happens to African Americans in the environment and in environmental spaces. Finney challenges the dominant narrative that begets how Americans typically engage with the “environment” – explaining that the pervasive representation of white people in the environmental field and media leads to “whiteness, as a way of knowing, [becoming] *the* way of understanding the environment” (Finney 2014, 3). This prevailing whiteness in the environmental field is often decontextualized – not felt in specific terms, but felt through the patterned behaviors that guide dominant environmental principles, or through

the exclusion of racialized people and their worldviews in environmental spaces, with the exception of environmental justice. This dominant assumption that whiteness and the white worldview are universal, which either rejects racial differences and does not “see” race, or asserts a racial evenness, the idea that we live in a post-racial society, is termed by Omi and Winant “colorblindness” (2015, 132). Colorblindness is “a new and highly unstable form of racial hegemony,” and it is so insidious because it allows race-making projects that assert racial unevenness to continue, while denying they are happening. Colorblindness, if not attuned to, also exists in both environmental planning and climate change planning – enabling these fields to continue patterns of structural racial unevenness (Hardy, Milligan, & Heynan 2017). Since Omi and Winant’s seminal work in the 1980s, developments in critical race theory and the theories of intersectionality have pushed the discourse on race to include Black feminist geographies and greater understandings of the “hybrid character of black diasporic identity [...] whose articulation of black Atlantic culture emphasizes the common routes that link black expressive culture” (McKittrick 2006; HoSang and LaBennett 2012, 9). Climate change, as a critical challenge to human settlements in the twenty-first century, exists as another location where it is possible that “racial identities are created, lived out, transformed, and destroyed” (Omi and Winant 2015, 109).

Scholars Carolynn Finney (2014), Monica A. White (2018), and Tiffany Lethabo King (2019) understand the project of racializing Black people as one very rooted in perceptions of the environment. These scholars focus on the respective questions of belonging and representation in “natural” spaces, specifically through exploring environmentalism, the Black land ethic, and the concept of the Black shoal. Finney’s text

Black Faces, White Spaces: Reimagining of African Americans in the Great Outdoors calls into question the erasure prevalent in the perceived relationship between African Americans and the outdoors (2014). Finney explores how the African American relationship to nature is often overdetermined by the legacy of slavery, a narrative that reproduces erasure, and does not leave room to further explore this relationship. Finney notes the lack of comprehensive studies addressing the nature of the Black environmental imaginary; a race-making process, she explains, of excluding African Americans from the environment, solidified by what is not done, what is not studied, and by the colorblind assumption of a singular “truth” that there is one way to connect to land and nature as an “American” (2014). Importantly, Finney pushes against the problematic notion that the only place for African Americans within the environmental movement is in conversations around environmental justice, calling on her readers to “rigorously recognize, consider, and support new ideas, experiences and configurations of human/environment interactions” (Finney, 2014). White asserts (by putting into writing) the Black land ethic (2014). This concept, which is explored in other places as the African American Land Ethic asserts the deep and historical relationship between African Americans and the land of the United States (Black Family Land Trust, 2015). The concept of a land Black land ethic reifies the relationship and role of people of African descent on shaping the environment (Black Family Land Trust, 2015). Black land loss can be seen as not only a loss of wealth, but a loss of the cultural contributions of the Black land ethic.

In her work King examines the ways “Black thought, movement, aesthetics, resistance, and lived experience will be interpreted as a form of chafing and rubbing up against the normative flow of Western thought” (2019). King lends the concept of the

Black Shoal, which she describes as both a theory and a methodological approach. As a methodology, shoals are a “practice in listening for, feeling for, and noticing where things have come into formation together, or where they are one,” to challenge forms (King, 2019). King calls this ‘applied intersectionality.’ The shoal serves as both a real and representative space, and is particularly useful in analyzing racial formations at coastal zones. In understanding land as a representational space, there is the opportunity to view a deeper conceptions of land – as not just an asset, or property, but as something else entirely. King explores the shoal as something theoretically and physically functional – something for which the “shape, expanse, and density change over time” (King, 2019). The shoal’s “unpredictability exceeds full knowability/mappability” and thus it is a dynamic space in which land is more than land (King, 2019). King explicitly connects her concept of the shoals to the Lowcountry of South Carolina and the Sea Islands. It is land that is “haunted” by the scars of slavery, where “shoaling” is a “form of encounter and friction” that disrupt the “settlement” of the space (King, 2019).

Methodology

Due to the limitations associated with the COVID19 pandemic, this research primarily relied on content analysis and participant observation, with limited information coming from interviews with climate change planners. I began my preliminary research in the summer of 2019, attending the Rural Landowner Symposium hosted by the Center for Heirs’ Property Preservation. In the Fall of 2019 I created my literature review and identified my research questions. Spring of 2020 brought required me to slow my process and re-imagine my research as something that could be done remotely, distancing me both physically and relationally from my desire of building relationships with and

conducting interviews with landowners who own heirs' property. This methodological pivot engaged a mixed methods approach that included participant observation at many Center for Heirs' Property Preservation events, attending a course run by CHPP for Woodlands Community Advocates, a course geared to engage heirs' property communities. Additionally, I engaged in participant observation of Charleston City council meetings associated with the environment, and specifically meetings having to do with the proposed Charleston Sea Wall. I also engaged in participant observation at the Keeping History Above Water Conference in Charleston, the Aspen Institute's conference title "All Land is Not Equal," and related academic presentations. At the Keeping History Above Water Conference, I took specialized walking tours of the city of Charleston. I also attended meetings of the Charleston Resiliency Network to better gain an understanding of the different stakes environmental NGOs operating in Charleston hold.

I conducted six interviews – both formal and informal with individuals engaged in the climate change planning processes in the city of Charleston and in Beaufort County – in order to supplement the content analysis on the respective sea level rise plans. Further, I conducted content analysis of video and written testimonials of CHPP clients who have cleared title to their land, as well as of newsletters published by the CHPP, Minority Landowner Magazine, Coastal Heritage Magazine, as well as the Post and Courier. As the pandemic prohibited being in-person in a variety of settings, interviews became supplementary data, with me relying on readily available sources to inform the bulk of my work.

Thesis Overview

Chapter one delves into the multiple geographies of coastal South Carolina, exploring this land as a geological formation, a colonial settlement, a place of historic racial unevenness, a tourist destination, and a site of coastal engineering. I argue that there are multiple geographies of the land that are in conflict with each other, and that color the present state of governance and social order. It is crucial to understand these dynamics in order to critically address the impacts of erosion, flooding, and sea level rise in coastal South Carolina. Understanding this physical location from a variety of vantage points is critical to understanding the dynamics of power here, and the stakes of decision-making processes. In this chapter I explore different ways of imagining the coast – as a geological formation, as a colonial formation, as a racial formation, and as an economic and tourist formation. These different geographies flow into and inform each other, and carry with them the powerful undercurrent of racialization, uneven settlement patterns, and environmental manipulation. This chapter gives context to later chapters that engage the decision-making processes of land management, bringing into focus the histories that are always present but often not vocalized in decision-making spaces.

Chapter two focuses on both the logics of coastal development and the state narrative of climate change. In this chapter, I explore interview data with climate change planners and stakeholders who inform my argument that state-led climate change planning in South Carolina is, at times “colorblind,” in that it avoids addressing the specific racialized experiences of climate change. Additionally, while some non-governmental environmental organizations do attempt to be inclusive of heirs’ property owners in their plans, they often toe the line of inclusion without saviorism. In order to do

this, these organizations grapple with their own racial histories, their locations within white environmentalism, as well as the historically distrustful relationship between the government and African American landowners. After exploring these coastal dynamics, I scale in to a case study of the proposed Charleston Sea Wall. The proposal for the sea wall safeguards “cultural resources” in the City of Charleston, areas that are wealthy and white, mansions built for former slaveholders, and confederate monuments. These are the parts of the city that are also hubs of tourism. However, in its early iterations the proposal has excluded historic African American communities, that are often more vulnerable to flooding due to low-lying locations.

Chapter three examines the ways in which African American landowners conceptualize their lands. This chapter explores the Black land ethic as a way of conceptualizing and being on land. I argue that many African American heirs’ property owners are actively fighting against processes of gentrification on the coastline through emphasizing their relationships to the land. One tactic of retaining control over land as “property” is through sustainable forestry management. This chapter asserts the amorphous nature of heirs’ property as a social practice and explores heirs’ property as a “Black shoal,” per the work of Tiffany Lethabo King (2019). I also call into question the ways that maps are engaged by climate change planners, and the ways that maps are also a dangerous tool, that can make land ownership through heirs’ property an increasingly vulnerable position for landowners. Further, as an ever changing and ever possible condition, heirs’ property represents a distinct challenge to the static projections of mapping – in many regards it is what Katherine McKittrick dubs an “unknown” (2006). This chapter focuses on participant observation of my time attending the Rural

Landowners' Symposium, as well as the Woodland Community Advocate Course, offered by the Center for Heirs' Property Preservation. I also engage content analysis to discuss the meaning of land to multiple landowners.

The conclusion raises questions of more just ways of approaching climate change planning, that do not rely on proving landownership or being mapped. Further, future research on the proposed Charleston Sea Wall needs to be done, following the proposal in its forms to fruition. This research needs to be critical of what the is able to achieve, and who it will exclude. Additionally, understanding heirs' property as a Black shoal asserts the question of how to inhabit this land differently, prioritizing relationship to land and resources as necessities, rather than luxuries, and conveniences. Here, I explore my takeaways from this project, and discuss the ways in which having access to land equates to power and control of the future of that land.

Chapter 1: The Multiple Geographies of Coastal South Carolina

Introduction

There was a timid feeling in the room. Among us, most continued to wear their masks, but some chose to not. It was the first major gathering I had been to since the start of the pandemic, with over a hundred people seated in the South Carolina Society Hall. The night before an intense, but relatively typical, rainstorm rolled through. The streets of Charleston had flooded, like they have so many times before, yet people still sloshed through the streets to the bars and restaurants, as the shock of intense flooding events has grown banal here. This scenario is the reason why we, a crowd of planners, historical preservationists, scholars, graduate students, realtors and politicians had gathered to attend the Keeping History Above Water conference in Charleston. The event, hosted by the Clemson Design Center, felt appropriate; this city, much like many other areas on the coastline of South Carolina is and has long been embattled by flooding, and as a result is contemplating dramatic solutions to preserve their future. The keynote panel considered the perspectives of people in the Gullah Geechee Heritage Corridor; perspectives that have long been made marginal in the development of South Carolina's coastal tourism industry. Abe Jenkins JR., one of the several Gullah/Geechee stakeholders, began by addressing the flooding of the night before, as well as the multiple geographies that intersect at the coastline:

You really can't stop Mother Nature, and the African people, or the Gullah/Geechee people, when they came – we had a different appreciation for

food, for water, for everything. Those were survival things for this community ... And the folk that have moved down here look at the land and the nature for convenience, for recreation; their access to water is [for their] boat and their jet skis, whereas we are using it to survive, to live. So, there are differences in why we use mother nature. And guess what? When you cut down trees to build highways, the trees hold water. So, we are ripping the trees up and wondering why is it flooding?

In this quotation, Jenkins grapples with the geographies of food, of water, and of nature – and points out the distinct ways that these concepts have represented different things for different people. For African American people, and specifically the Gullah/Geechee, these elements of “nature” and food culture have been representative of necessity, of survival, of nutrition. These are both symbolic and material things that are related to in a culturally specific way. However, from another framing – that of the geography of tourism, or the white demographics that are settling the coast through development these same items: food, water, and nature, are representative of leisure, of commodity, of convenience, and recreation. Jenkins brings into focus the different ways that nature is understood on the coastline, and the implications of acting on these different understandings. The government of prioritizing recreation, convenience, and the tourist economy has had a direct impact of flooding and coastal erosion.

The Sea Islands of South Carolina have always been a site of change – some natural, from the physical processes that govern the geological formation; some anthropogenic – like coastal engineering projects, like cultivating rice in the marshland, or like changing climate; some economic and social, like coastal gentrification, and tourism. Different visions of what this land was, is, and should be, how it should be used, and how nature should be interacted with have operated to recreate uneven racialized power dynamics in these places. The logics that have driven the development of the coast

have also created a fixed line, where the built environment and the natural environment meet and contend with each other. The Sea Islands, and the coastline, itself, have been shaped and reshaped; physically and socially this has been and continues to be a site of transformation and of reckoning. For the longstanding Gullah/Geechee people, who arrived through forced migration – the descendants of the enslaved Africans who lived and labored here, and were promised land and freedom – these displacements are historical and patterned (Davies and M’Bow 2007; Franke 2019).

Coastal South Carolina is a place where land has represented promises, betrayals, profit, pain, luxury, property, sustenance, community, and home – important values that are given meaning by the complex interpersonal relationships that produce them. Within the context of the settler colonial United States, the material and cultural values of this land have long been subject to change. The fields of human geography and Black geography understand space as something that is made, naturalized, and known in the dominant narrative as truthful. From this lens, the questions of *who is seen* and *where* create spatial binaries “suggesting that some bodies belong, some bodies do not belong, and some bodies are out of place” (McKittrick 2006, xv). Understanding the coast as a place where multiple geographies, histories, and imaginations exist and are made actionable is difficult – for both social and physical reasons the coast, in its current state, requires near constant re-engineering, regulating, and maintenance. It is the interaction point between the human and the nonhuman, the appetite for leisure of white Americans, the history of enslavement, and the land claims by freed people that are the enduring legacies of the coastline. For this paper, understanding and exploring the coastal geographies of South Carolina is important because each of these geographies has

represented and continues to represent the power dynamics at play on the coastline. For instance, uneven social dynamics eschewed by enslavement, by Jim Crow, and by de facto and de jure racism, have resulted in difficulty for African American populations to own and retain land. In turn, this impacts their ability to decide what happens to this land, and what happens to the environment around it. This power differential also impacts the cultural relationships with the land and the water that Gullah/Geechee populations are or are not able to engage with. Coastal development, coastal settlement, and coastal hardening impact the geological process of beach formation and migration. The economic value of beaches begets dredging and filling projects that then must be done in perpetuity. The priorities of coastal governance including the decisions around who gets access to what resources determines the material reality of life on the coastline. In this way, the environmental, social, and economic geographies are tied together in the processes of decision-making. This is a story of the systems that both manage and control the environment, and control the social structures that occupy these spaces. These different geographies contribute to the way the space is envisioned and made.

This chapter will provide multiple introductions to the southern coast of South Carolina, from varying vantage points in order to explore how different geographies have dictated changes to the physical and social space of the coastline. It will begin with describing the coastline as a geological feature, a moving entity that the process of settlement contended with and ossified. I will then explore the history of the colonization and settlement of the coast. Focusing specifically on the histories of Charleston and Beaufort Counties, I will write about the enslaved labor that made the land profitable and valuable, but also the inherent danger and undesirability of coastal marshland. I will then

explore the history of Reconstruction and the disputed land claims thereafter. Finally, I will describe the coastal development and engineering that has occurred throughout the 20th century through present. Understanding the social and physical geographic histories of the land gives meaning to the present state of it; the enduring afterlife of the past is not confined by time or space, even when the racialized legacies of coastal South Carolina go unaddressed in dominant narratives. This chapter will serve as a primer to later chapters which grapple with the longstanding patterns of erosion, land loss, and flooding that are intensified by climate change. I argue that there are multiple geographies of the land that are in conflict with each other, and that color the present state of governance and social order. It is crucial to understand these dynamics in order to critically address the impacts of erosion, flooding, and sea level rise in coastal South Carolina.

The Geological Formation of Beaches

Geologically, coastlines are dynamic. When humans try to fix an unmoving line in the sand establishing a border where the beach begins, unable to move and change, the sea moves in on this line. As science writer Cornelia Dean remarks in her book *Against the Tide: The Battle for America's Beaches*, “the best shore protection is a wide, healthy beach” (Dean 1999, 14). The beach is a site of constant change – its width and shape are a function of the wind, waves, currents, and tides that come into play in that space (Hobbs 2012). Additionally, seasonality can affect the beach. For Southeastern beaches, the hurricane season in late summer through autumn, and the nor’easter season from autumn through mid-spring significantly impact the formation of these beaches. In the late spring through mid-summer, however, these beaches appreciate relative stability.

WHERE SEA MEETS LAND

Of South Carolina's 34 barrier islands, 21 have little or no residential development.



What is a barrier island?

Barrier islands have active beaches and are bordered on the other sides by creeks, rivers, or marshes. Islands without active beaches, such as St. Helena and Wadmalaw, are sea islands.

Figure 1.1: A Map of the Sea Islands

This map provides a sense of the location of interest for this study, in bold are the Sea Islands that have been developed, the locations not bolded are the islands that are not yet developed. These islands represent physical and social formations (Narayana 2019).

Because beach sediments (sand or other elements that constitute the beach) are unconsolidated, they are mobile and will move depending on external conditions. Cycles of loss and recovery are natural to beaches – shorelines disappear following storms, only to eventually reappear over time (Hobbs 2012). The seasonal shifts, that replenishment of beaches during the stable summer, and the narrowing of the beach in the autumn and winter, are part of a coastal rhythm (Dean 1999).

In terms of geological history, the East Coast is made up of an accumulation of weathering from the Appalachian Mountain chain over the course of millions of years. These fluvial sands and muds were primarily deposited during the Pleistocene epoch, lasting from about 2,580,000 to 11,700 years ago. Three primary through-flow rivers – the Pee Dee, the Santee, and the Savannah – in addition to many smaller river systems have established the coastal terrace (Cooke 1936). In this process of deposition, sediments are suspended in water and left at the mouths of river systems. Understanding these formations and fluctuations is important to better comprehend the predictable ebb and flow of South Carolina's beaches.

Barrier islands are also an important element in the coastline of South Carolina. Figure 1.2 depicts one of the major theories for the formation of barrier islands. This theory predicates that for barrier islands to occur, there needs to be: 1) a gently sloping mainland surface, 2) a rising sea level, 3) energetic waves, 4) a supply of sand, and 5) a low to intermediate tidal range (Hobbs 2012). Figure 1.2 illustrates the process of formation in three steps. The first stage is the existence of an open, unobstructed coastline, with a beach and dune system. Stage two is the rising of sea level and the inundation of the low-lying land behind the dunes; during this step marsh lands emerge

behind the dunes. Finally, the third stage is the isolation of the dunes and the formation of barrier islands. This geological process can only take place in low-lying areas. Figure 1.3 shows the map of the major river systems in the Southeast. These river systems and Lowcountry land have enabled the formulation of over thirty-five barrier islands in South Carolina. South Carolina also has a number of erosion remnant islands (Walpole 2016). Erosion remnant islands were part of the mainland where streams cut channels when sea level was low, and then those filled when glaciers melted, becoming rivers and isolating the land. As such, the soil composition of erosion remnant islands is different from the sand of the barrier islands (Dean 1999). In South Carolina, the Sea Islands are made up of both barrier islands and erosion remnant islands (Walpole 2016).

As Hobbs notes, “problems, whether they be erosion of the shoreline or shoaling of channels, occur where and when something interrupts the longshore system” (Hobbs 2012, 15). In a 1982 report by geologists at Duke University, the scientists challenged the idea that there was, in fact, an erosion problem with beaches, noting that “people are directly responsible for the ‘erosion problem’ by constructing buildings near the beach” (Dean 1999, 16). Additionally, to drive home their point, they note that “for practical purposes, there is no erosion problem where there are no buildings or farms” (Dean 1999, 16). In this way, the geologists writing this report illustrate exactly what Hobbs describes, that coastal erosion, rather than a problem in its own right, is an issue of interference with natural processes. Erosion only became a problem because people settled the coastline.

For much of the twentieth century, the science that underpinned beach formation was lacking. As development of southern beaches into leisure zones began, in the decades following the Civil War, no one could foresee the impacts of future coastal

erosion that would occur. Development created a fixed line between the beach and buildings. The sea has moved in on this line. As coastal geology has become a more understood science, however, scholar and science journalist Cornelia Dean argues that there has been a “constituency of ignorance,” people who willfully ignore the science of coastal zones in order to continue practices of coastal development (1999). Dean writes:

Much of this development began before science was able to say precisely what was happening in the geology of the coast. Even today much remains unknown about what happens in the mysterious region where air, water, and land meet. For one thing, research can be difficult to conduct; studying the surfzone is notoriously labor-intensive, unpleasant, and dangerous. Even worse, the nation’s increasing commitment to living on the beach has created a powerful force against the application of knowledge already in hand. There is a kind of *constituency of ignorance*, people who have so much invested in coastal real estate that they do not want to hear how vulnerable it is. (Dean 1999, 13; emphasis added)

As Dean notes, what began as an absence of knowledge has spiraled into a purposeful deployment of ignorance in order to protect individual and corporate economic interests on the coastline. In constructing beaches, a line is fixed where coastal migration can no longer occur – where the natural erosion of the shoreline now threatens capital. Homes, businesses, and tourist economies that derive their value from the desirable presence of the beach are left with the perpetual challenge of how to maintain that feature. By understanding the geological formation of the coastline of South Carolina and the Sea Islands, the decisions around developing these places can be examined more critically. Further, contemporary issues, such as coastal erosion and flooding can be looked at as issues of development and land management, rather than issues that are inherently novel to climate change and sea level rise. It is in interactions between humans and the environment and the decisions on where to locate settlement and development that erosion has emerged as a dilemma that requires constant solving.

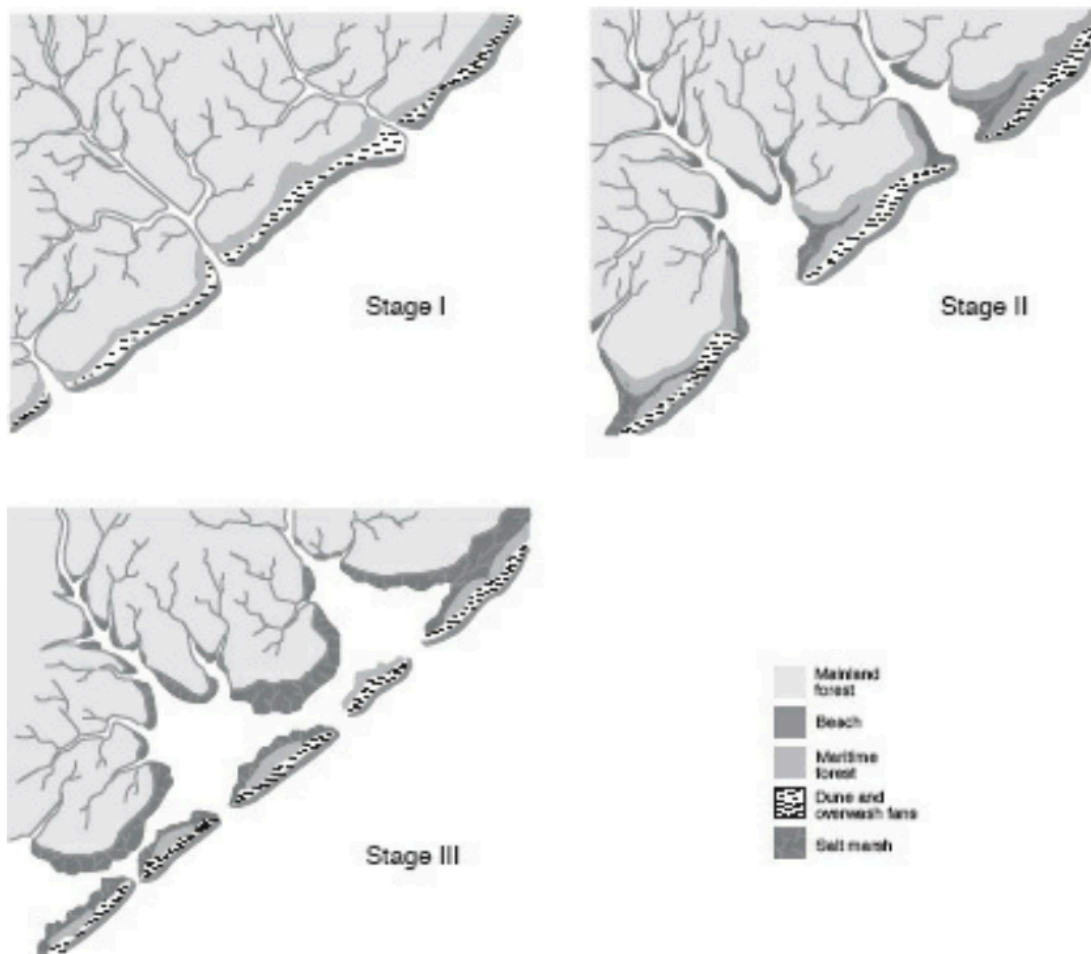


Figure 1.2: The Formation of a Barrier Island

This image, borrowed from physical scientist Carl H. Hobbs' book *The Beach Book: Science of the Shore*, illustrates a widely accepted hypothesis for the formation of barrier islands. The first stage in this process is the existence of an open, unobstructed coastline, with a beach and dune system. The second stage is the rising of sea level and the inundation of the low-lying land behind the dunes; during this step marsh lands emerge behind the dunes. The third and final stage is the isolation of the dunes and the formation of barrier islands (Hobbs 2012).

The Colonization of South Carolina's Coast

Coastal South Carolina – specifically the areas of focus for this project which is Beaufort County and Charleston County – exists on Yamasee and Natchez-Kusso land (Yamasee Indian Tribe 2020; Alani and Behre 2020). Despite warring against colonial South Carolina in the Yamasee War (1715-18), the native people of the region were not able to push out the English settlers (Butler 2020). The colonization of South Carolina began with the settlement of Charles Towne on the west bank of the Ashley river in 1670 (Winberry and Bushman 2021). There was a strong connection between the Charles Towne colony and Barbados, the wealthiest English colony in the Americas in the late 1600's. Made up of 60,000 inhabitants, of which sixty percent were enslaved Africans, many forced to work on sugar plantations, Barbados was a crowded colony in the late 1600's and from there many plantations owners began looking toward North America to expand their wealth. Eight Lord Proprietors from the Barbados colony began the settlement of Charles Towne, which would later be incorporated to be Charleston. This connection led to a strong tie between the cultures of the African diaspora in both locations, as many enslaved Africans were brought to Charleston to ultimately labor in the physical and economic construction of the colony – through the building of Charleston, to laboring in cash crops, like rice (The Barbados and the Carolinas Legacy Foundation 2020; Butler 2020). Although the location, at the confluence of the Cooper and Ashley Rivers, provided access to the Atlantic Ocean, was a good location for shipping, it flooded frequently. The fortification of the town happened against both military and environmental threats, beginning with the construction of a seawall along the Cooper River waterfront in 1694. Placing the town in such a vulnerable spot – on

marshland and between two rivers – exposed it to near constant erosion, requiring maintenance in perpetuity (Butler 2020).

Charleston's history is one of environmental engineering and uneven development. Since its establishment, inhabitants of the Charleston settlement have manipulated the marshy topography, changing the outline and nature of the land. Flooding has been a regular hazard experienced in the marshy city bringing with it disease and discomfort (Butler 2020). Flooding in the city has long been a result of both natural and manmade factors, fluctuating as land use changes. The desires to increase the city's urban land mass for development, encourage the growth of businesses, and beautify the city drove much of the land reclamation projects that have resulted in the current level of dryness experienced by the city (Butler 2020). The financing of filling and drainage projects has long been pursued in a discriminatory manner, along class and race lines, as such projects occur first in wealthy white residential sections (Butler 2020). Low spots in the town were raised, leveled, and drained, in order to improve both transportation and the cleanliness of the town – and the uncleanness, the exposure to disease and mosquitos, was used as rationale for the importation of more enslaved Africans to South Carolina, who were forced to work the grueling labor of digging, ditching, damming, and filling the town and surrounding plantations (Butler 2020). As the town grew in population and in prominence, it incorporated and annexed surrounding lands – expanding the need for reclamation and urban development – filling in and hardening the marshlands of the Lowcountry. Soon after the settlement of Charleston came the expansion of colonization down the coastline, with the port of Beaufort being established by English colonizers in 1711, despite the land being reserved for the Yamasee per a

1707 treaty (Rowland, Moore, and Rogers 1996). Following the Yamasee War began a period of rapid transformation through the establishment of the rice economy.

The most distinctive feature of Beaufort was the Sea Islands, established by the webs of inland waterways. This landscape is made up largely of freshwater swamps, flooding often. In Antebellum times it was home to a disease environment that “made year-round habitation dangerous to whites,” with the presence of malaria and yellow fever – the impacts of these diseases on enslaved Africans was not a consideration (Stewart 1991).

The land was cleared of trees, and the swamps and forests were transformed by enslaved Africans into a landscape that would be suitable for a massive agricultural economy (Edelson 2007). The physical changes to the landscape ordered by plantation owners simplified the hydrography, making the coastal plain more prone to unpredictable and devastating flooding (Edelson 2007). Enslaved Africans were abducted precisely for their environmental engineering and agricultural knowledge, which was implemented to make the South Carolina colony profitable (Carney 2001). Figure 1.3, borrowed from Mart A. Stewart’s analysis *Rice, Water, and Power: Landscapes of Domination and Resistance in the Lowcountry, 1790–1880* depicts the Lowcountry rice rivers, and helps illustrate how prevalent small river systems are in the Lowcountry landscapes on the coastline of South Carolina. Stewart ties together the dynamics of environment and social history on rice plantations. He begins by exploring the “huge hydraulic machine,” the engineering feats that were the rice plantations themselves. Such machines controlled and dictated the work of both the environment and the slave labor required to run and maintain them; in creating a landscape in which both the environment and the workforce were tied together, enslaved Africans were also able to create a second landscape where social and economic

culture existed on their “own time” – beyond the banks of the plantation (Stewart 1991). Although other variants of rice in other places (like Indonesia, Malaysia, India, and West Africa) generally do not require such extensive irrigations systems, in the U.S. South, there was an intent on maximizing rice output. Because of this plantation ecosystems became highly artificial and required a massive amount of human energy. Enslaved Africans became “instruments of environmental manipulation,” and in return the environment became “an instrument to control the slaves” – they were beholden to the needs of the plantation, and the plantation was beholden to their work (Stewart 1991, 54). In working so intensively with the environment, enslaved Africans gained an intimate knowledge of the environment and were able to use this to their benefit. They were able to supplement their provisions with plants and animals, and were even able to establish surplus and thus trade economies. They knew how to carve canoes and travel in and out of the plantation. They developed culture, economy, and community on their “own time,” within and beyond the boundaries of the plantation. The relationship to the environment for enslaved Africans was a matter of necessity. Understanding the land was a way to access additional resources for survival, as noted by Abe Jenkins JR., a Gullah/Geechee man and the grandson of prominent community organizer and civil rights leader Esau Jenkins, in his comment that, “[food and water] were survival things for this community.”

Following emancipation, the profitable rice economy extant in the South during slavery collapsed, as the labor force requisite to support the rice economy could not be maintained without slavery (Stewart 1991). Additionally, the economy was outcompeted by more mechanized markets in Louisiana, Arkansas, and East Texas (Stewart 1991).

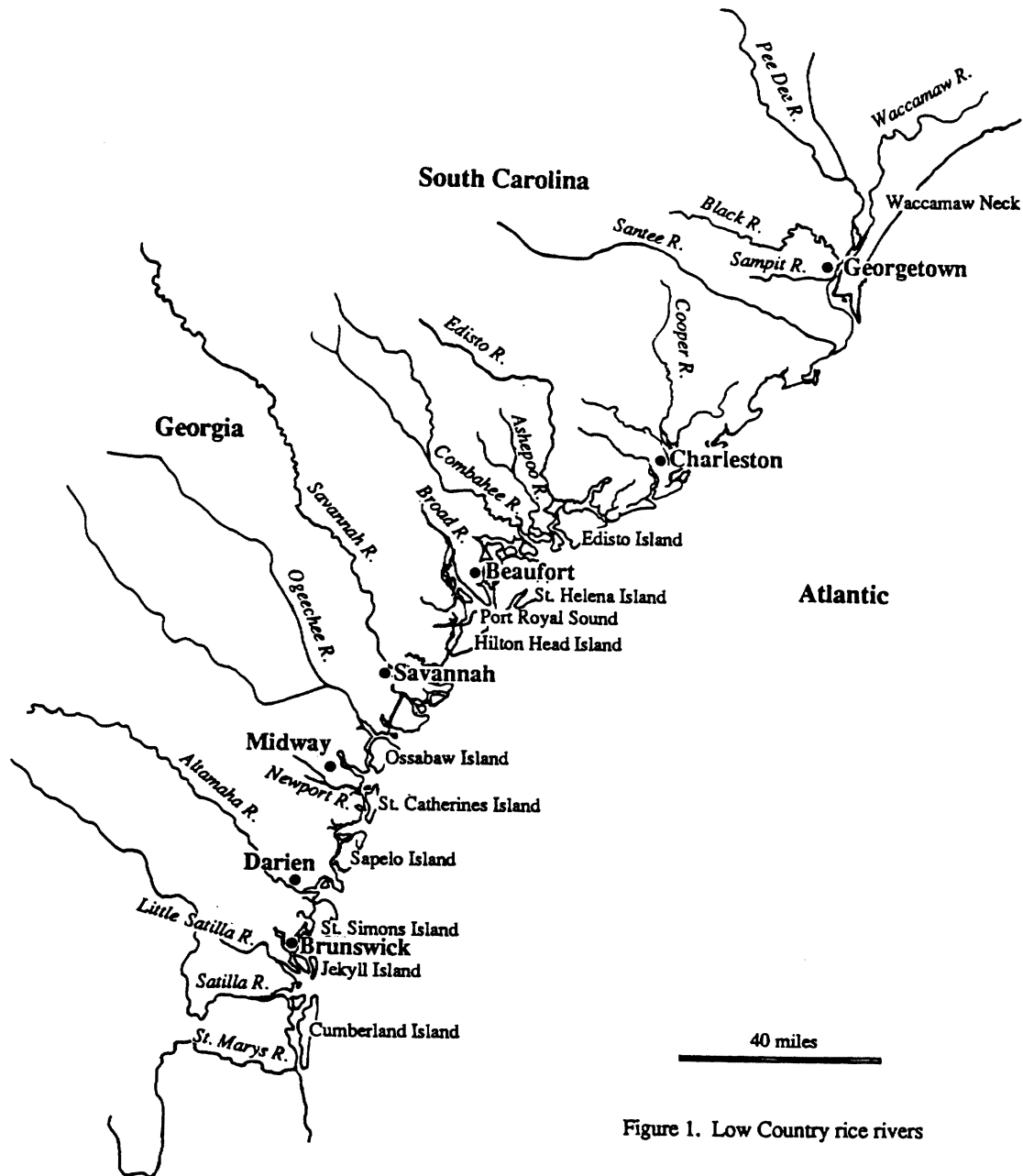


Figure 1. Low Country rice rivers

Figure 1.3: A Map of Lowcountry Rice Rivers

A depiction of the major rice rivers of the Lowcountry. Of note to this paper are the rice rivers in Beaufort and Charleston counties. Image borrowed from Mart A. Stewart's article *Rice, Water, and Power: Landscapes of Domination and Resistance in the Lowcountry, 1790–1880*.

Around the Antebellum time period, much of the coastal land value was derived from rice plantations, however following the Civil War this coastal economy toppled. In addition to this, the Lowcountry, made up of swamp and marshland was not coveted land, until it could be developed for the tourism industry. Because this land was deemed undesirable, it was a place where freedmen could eventually buy land, as will be explored in the next section. It is important to understand the shifting value of this land to understand what land claims have been placed on it at what times, and what these land claims mean socially and economically in the present.

Reconstruction, Coastal Development, and Tourism in the Sea Islands

As the Union won battles in the South and drove out confederate plantation owners, both land and the newly freed enslaved people inhabited an unclear legal space. Many formerly enslaved peoples followed the Union army around as refugees, requiring provisions from the army (Franke 2019). Author and law scholar Katherine Franke writes in her 2019 book that the formerly enslaved people operated from a legal space of being *freed* but not being *free*, meaning they were technically no longer enslaved; however, they were not extended the full rights of citizenship (Franke 2019). Franke explores how the South Carolina Sea Islands – Edisto, St. Helena, Lady's Island, Port Royal, Hilton Head, and Parris – were speculated on by the Union, for their rich industry in cotton and rice, which Union leaders thought could be used to fund the northern war efforts. Additionally, the Sea Islands represented a strategic military location. As the white planters left the islands, 10,000 Black people remained behind, and almost immediately began to reclaim the land and resources as their own, despite not having, in the eyes of the United States, the legal right to do so (Franke 2019). The military was interested in the potential profits

that could be earned from that land, and the Department of the Treasury, headed by Secretary Salmon P. Chase was appointed to manage and control the abandoned properties – and the Black refugees who inhabited them. Chase, who was strongly anti-slavery, enlisted Boston attorney Edward L. Pierce to spearhead the experiment of freedom on Port Royal, believing if they could demonstrate the “benefits and utility of freed labor” to the cotton industry on the island, it would illustrate the potential productivity of freed people and advance the anti-slavery cause (Franke 2019).

Port Royal, specifically, and the other Sea Islands of South Carolina are physical spaces that represent the white navigation of experiments of Black freedom. Emancipation, as a legal and political act, Franke posits, was never about Black autonomy away from white oversight, judgment, and discipline (2019). Part of the project of the Port Royal experiment was undertaken by an ad hoc collaboration with Northern missionaries, who sought to imbue the island with the “moral power of the presence of white man” asserting assimilationist views that freedom required ascribing to the tenets of a white patriarchal Christian society. Though some of these missionaries held truly philanthropic values, others saw this as a potentially profitable venture that allowed them to speculate on the newly seized lands (Franke 2019). Chase and Pierce, along with a few of their contemporaries – including General Sherman – viewed an essential part of their work to be the reallocation of land to the freed people; yet this task proved legally difficult. On the ground in Port Royal, Brigadier-General Rufus Saxton assumed the governorship of the Sea Islands. Saxton pursued the plan of reallocating formerly Confederate lands to the freedmen, per Pierce’s recommendation. Pierce’s plan entailed

the allocation of “two acres of land [...] to each working hand, plus an additional five-sixteenths of an acre for each child” (Franke, 2019).

The plans being constructed on the ground in Port Royal, however, were somewhat different from those being developed in Washington D.C. The Confiscation Act of 1862 enabled the government to seize the land of Confederate loyalists by imposing higher property taxes on “insurrectionary districts” and then taking the lands when the taxes were not paid (Franke 2019). Despite existing in “murky legal grounds,” this confiscated land was then to be sold to generate revenue for the war, however Saxton and others feared that because the land was likely to be sold at open auction, freedmen would likely not be able to outcompete the bids offered by Northern white speculators (Franke 2019). As voiced by Saxton, “[freedmen] had been the only cultivators, their labor had given [the land] all its value” and the entirety of it should be owed to the freedmen for generations of unpaid wages (Franke 2019, 31). Military titles granted to freedmen during and following the Civil War ultimately held no permanence. When the land was sold, at a reduced rate, so that freedmen could purchase it, they engaged in bidding strategies, such as pooling wealth and buying collective land in order to outcompete Northern interests. Despite the competition for land, other strategies building cabins and inhabiting the land parcels to make claims of “a pre-emptive right” to the land (Franke 2019).

Resistance to being mapped was powerful; resisting land being turned into property, resisting the land being treated as newfound terrain were important acts of ensuring the preservation of Black families and kinship networks, of safeguarding the culture and ways of being with which the Black people of the Sea Islands inhabited the

lands. When met with surveyors from the North for projects such as appraisal of St. Helena island, the Black people of the Sea Islands expressed their protest by refusing to identify property lines and landmarks, and by “following behind surveyors pulling up survey markers” (Franke 2019, 73). When land went to auction, it was disproportionately bought by those who held disproportionate wealth, and yet some Black families still procured substantial swaths of land. Additionally, during the Johnson Administration, Confederate-friendly policies restored the property rights of former slave-owners, and prioritizing these claims over the claims of people who were owed repair. This history illuminates the unevenness of power and property on the coastline of South Carolina, where land claims were being made now by former Confederate inhabitants, Northern speculators, and the freed people whose work had given the land its structure and viability in the first place.

Following the Civil War tourism and leisure were largely more accessible to the middle-class white populations. This was, in part, a function of the growth of railway infrastructure and competition between railways, driving down ticket prices (Weiss 2004). Additionally, beaches in the North, such as at Cape May, were contending with the coastal erosion associated with their earlier development. Where previously tourism was largely justified as being for “health,” and the majority of tourist sites were mineral springs and spas, throughout the nineteenth century the works of aspiring artists and writers like Thomas Cole, Henry David Thoreau, and Washington Irving created a movement that promoted the appeal of natural attractions and fostered a market for a tourism industry that centered around white understandings of nature as a place to recreate, rather than labor. Further, the number of resorts and sites of leisure dramatically

increased. Their presence in the South was largely a post-Civil War phenomenon, with northerners heading south for the winter seasons. This rush to the beaches was coupled with the erection of hotels, amusement parks, and resorts in beach towns, as the development of other attractions and increase in hotel capacity were necessary to accommodate ever larger crowds (Weiss 2004). A large tourism economy began to flourish in South Carolina; it was claimed that in South Carolina, “locals lived off fish during the summer and ‘Yankees in the winter’” (Wetherington 1995). Additionally, in the twentieth century trends for the white tourists only accelerated, as the widespread use of the automobile ushered in a feeling of freedom and self-determination associated with travel (Weiss 2004). No longer were travelers confined to the dates on a train ticket, or to staying in expensive hotel rooms – auto camping emerged as a trend that lowered the price and increased the freedom of travel.

Myrtle Beach in the north part of the state was among the earlier of South Carolina’s beaches to be developed. Perhaps this is because of its demographics, with a majority white constituency in Horry County in the late nineteenth and early twentieth century. In the latter half of the century, the appetite for beaches expanded rapidly down the coastline of South Carolina, with the development of Beaufort County’s beaches occurring rapidly in the years following 1950 (Shannon and Taylor 2003). On Hilton Head Island, now one of the most high-end tourism locations in South Carolina, the population exploded, from a population of five hundred in 1956 to thirty-thousand full time residents only forty years later (Shannon and Taylor 2003). Though this expansion has settled in the recent past, this period of rapid expansion was coupled with massive development and influxes of millions of tourists – as well as a stark racial flip from

almost entirely Black in 1950 to overwhelmingly white by 1980 (Shannon and Taylor 2003). Competing economic interests during this period, from 1950 to 2000, ultimately determined the tourism outcome, and impacted the racial outcome of the area. African Americans in this region, who had owned their familial land since the Civil War maintained these lands through subsistence farming.

The white American appetite for tourism was built upon nineteenth century imaginings of the environment through the works of artists who asserted the American identity into the environment, and a sense of the environment into the American identity. Environmental historian William Cronon notes that there was a distinct sense of white American masculinity expressed in the preservation and occupation of natural space (Cronon 1995). Not only was participating in tourism a class-distinction, but a participation in the nationalistic vision that drove the white environmental imaginary. As it is understood in the field of environmental history, “nature” is culturally relative, a production of society and in a white American society, it can be understood as a remnant of European Romanticism (Cronon 1995; Finney 2014). The enactment of racist laws makes the land, in the eyes of the state, a place where only white bodies belonged, and where whiteness was enacted and materialized (Kosek 2006). The meaning making processes that construct race are deeply tied to what narratives for the land are allowed to be heard. In the words of Carolyn Finney:

Racialization and representation are not passive processes; they also have the power to determine who actually participates in environment-related activities and who does not; which voices are heard in environmental debates and which voices are not. (Finney 2014, 3)

To this end, the experience of leisure and tourism during the late nineteenth and early twentieth centuries is also an experience of exclusion. As documented by Andrew Kahrl

in *The Land Was Ours*, African Americans had a vastly different experience of America's beaches, including those in South Carolina. Kahrl recounts how, through Jim Crow laws, African American were relegated to "remote, polluted, dangerous, and wholly inferior beaches," as white Americans were able to enjoy dignity, leisure, and "privacy" on their beaches (2012, 15). In one example in Charleston in 1961, Black children, banned from swimming in a variety of other spaces, would swim in a notoriously dangerous "Horse Hole," a ditched filled with runoff from the street, and a site where numerous children drowned (Kahrl 2012). Despite the death of twelve Black youths in 1961, the Charleston government refused to cover the hole and provide adequate spaces of leisure to Black youth; they instead blamed the children's parents for allowing their children to "run wild" (Kahrl 2012). Kahrl illustrates the intentionality of relegating African Americans to spaces that would do them damage, either through proximity to pollutants or to dangerous environments. In some instances, white business owners capitalized on African American desire for leisure. However, where Black business owners attempted to carve out leisure markets, they were often met with unfair lending practices, were pushed out by large white corporations, had the use of law enforced on them in unequal and discriminatory ways, or experienced domestic terrorism that destroyed their developments from hate groups like the Klu Klux Klan (Kahrl 2012). And yet, African Americans continued to pursue experiences of leisure and pleasure, despite the discriminatory and unethical obstacles that often stood in their way.

The experience of leisure and recreation for African Americans in the Sea Islands was often limited to sites that they had created for themselves. Plots of land were sometimes purchased by many land owners, as demonstrated in a 2020 video produced

by the Center for Heirs' Property Preservation, entitled "The Value of Land." In this video, coastal landowner John Miller describes the land he now stewards:

This is excellent land (laughs). Very excellent property. And it's a dream come true for developers but the goal is not to ever, ever have it developed. The property was purchased in 1920 by 47 men, that wanted the opportunity to fish and to hunt, they did that in hopes of preserving it for future generations and, and that's probably our goal now, is to preserve this property for future generations so that we will have a place to recreate and do some of those things also.

African Americans had to carve out sites of leisure that resisted the discriminatory laws and practices of the time. Another example Kahrl explores in South Carolina is the genesis of James Island, also known as Mosquito Beach, which emerged as an informal beach resort for African Americans during the summer months. Initially home to an oyster factory that employed many African Americans, James Island slowly became a vivacious beach over the course of the first half of the twentieth century. What started out as an informal economy – selling beer, wine, and food – transformed into a place of congregation and commerce. Black landowners turned "their barns into nightclubs, dining rooms into restaurants, and spare bedrooms into do-drop inns" (Kahrl 2012, 181). They took land viewed by the white narrative as formerly worthless land and transformed it into a commercial asset, with a functioning commerce. Despite the painful experiences of exclusion that Kahrl details, he also recounts moments of success and pleasure.

White tourism in coastal South Carolina was not limited to the natural features of the land, but also took the form of commodifying and exoticizing culture and identity in the Sea Islands. The Sea Islands of South Carolina are home to the culturally distinct Gullah/Geechee Nation, a group whose geographical presence is recognized today by the National Parks Service as running from Pender County, North Carolina to St. Johns County, Florida. Figure 1.4 depicts the Gullah/Geechee Heritage Corridor. Scholar

Melissa Cooper's 2017 book *Making Gullah: A History of Sapelo Islanders, Race, and the American Imagination* details the numerous assertions that have been made during the 20th century over what exactly the Gullah/Geechee identity entails. Cooper documents how this identity was contrived and constructed by academics, used as a point of exploitation and consumption by the tourist economy, and reclaimed, reimagined and retold by African Americans, Black feminists, and the Black arts movement. A critical dynamic in the perception of the Gullah/Geechee identity in the American imagination is the question of who tells the story, and what story is being told. Cooper explains that both academics and the tourism industry have constructed an exoticized vision of the Gullah/Geechee that hinges on indistinct tropes like having an "African Feel," being transported "back in time," and ideas of cultural primitivism. This vision pigeon-holes the identity, making it another facet of the coastline, something for white tourists to visit; an "other" against which too construct their own white identities. Similarly, to how white writers, naturalists, and artists like Henry David Thoreau, John Muir, and Aldo Leopold constructed a romanticized sense of the American Environment as a site of self-discovery and enlightenment for white middle-class America, authors like Julia Peterkin ascribed a Gullah identity and reported narratives about this identity to white Americans eager to define themselves and assert their own identities against others. Peterkin was from South Carolina, and drew inspiration from the southern Black people who lived and worked on her plantation. Cooper explores how Peterkin's fictional writing about "primitive" Gullah folk was an imaginary that whites clung to, especially during the nineteen twenties and thirties. Peterkin was not alone in her fictional constructions of the Gullah. As Cooper states: "the 'black spaces' created by customs and laws that mandated separation between

Black people and white people attracted the attention of adventurous and rebellious whites who wanted to explore the exotic world inhabited by the nation's own primitives" (Cooper 2017, 30).

Peterkin achieved much success in eschewing a primitivist identity onto southern Black people, winning a Pulitzer Prize for her work, and gaining the respect of Northern intelligentsia, white and Black, for defying the common stereotypes held in the North. Her work was taken as fact, rather than fiction, and created the illusion that she was progressive, and was challenging the racial norms of the time. However, Peterkin was actually a conservative wealthy white woman, the chapter historian of the United Daughters of the Confederacy, who did not intend on challenging the racial hierarchies of South Carolina. Her work, however, illustrates her problematic racial politics and "underscores the limits of primitivism as a tool for racial progress" (Cooper 2017, 38). Peterkin was responsible, in large part, for a reawakening of interest in southern Black people living on South Carolina's coastline and in rural locals, because her work was taken as a factual accounting of their lives (Cooper 2017). Functionally, Peterkin created an imaginary that was projected onto Black people living in the South; following her works academics searched to ground-truth these narratives, and read her fictionalized accounting into their own work. Though constructed in the early- to mid-twentieth century, these notions of the Gullah/Geechee culture as a commodity and a tourist attraction have lingered as the regional tourist economy continues to boom (*Atlanta Blackstar* 2016). As the coastal tourism industry continues to take precedence in climate change planning, as will be explored in the second chapter, it is important to understand

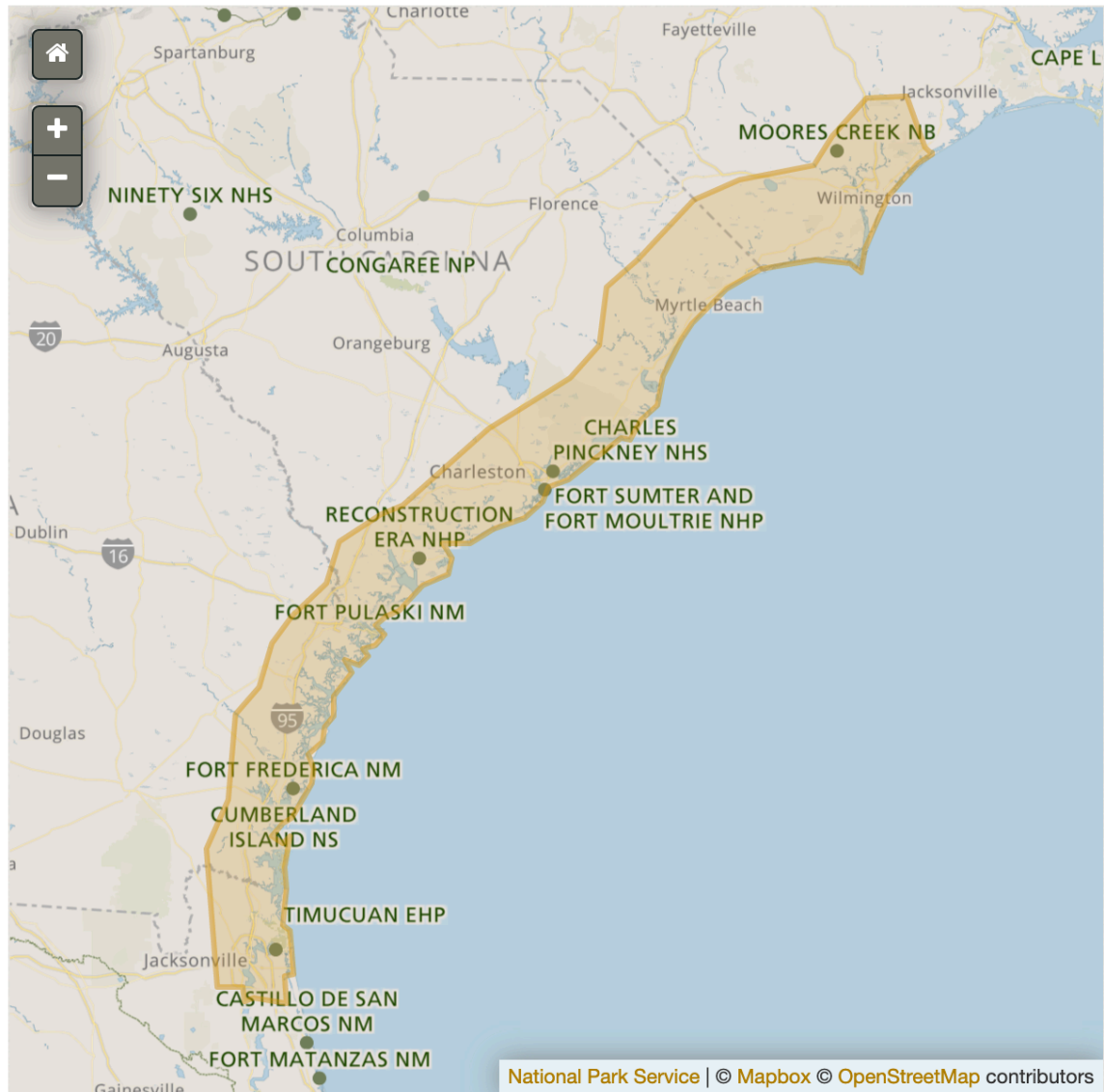


Figure 1.4, The Gullah/Geechee Heritage Corridor (National Park Service, 2019)

where this economy has emerged from, what its uneven social implications in the Lowcountry have been, and what the costs of maintaining it are.

Shifting Demographics of the Sea Islands

As the tourism industry in the Sea Islands has succeeded, and as this land has gained value, predatory real estate practices and lending practices have displaced many African American land owners. As I sat in the South Carolina Society Hall, listening to Abe Jenkins Jr. and the other panelists talk about what had changed in the past fifty years in the Sea Islands, Jenkins said this:

So, [when asked] about what has changed, and there is a whole lot has changed over the past 50 years. I'll say it this way: over the past 50 years John's Island was predominantly African American, with the Gullah/Geechee people. Today, I think they say that the demographics have changed so much that the African American population has decreased by half, but the population of John's Island has increased by over 50 percent. So, most city folk, if you are from Ohio, or New York, or wherever and migrated here to the Islands and most of the African American folk have had to leave, especially the young ones.

The biggest change he has noticed was not the erosion or the sea level, but the change in the demographics, and with that, the inherent change in the culture of these places. As Jenkins previously noted that the people who move down here value the land and the water as features recreation and convenience, not survival. The demographics of the Lowcountry have shift dramatically over the past hundred years, from being almost primarily African American at the beginning of the 20th Century, to presently being predominantly white.

Between 1910 and 1997, African Americans lost over 90% of their farmland, an amount that peaked in 1910 at 16-19 million acres (Gilbert, Sharp, and Felin 2002; Hitchner, Schelhas, and Gaither 2017; Presser 2019; Dyer and Bailey 2008). A variety of

mechanism have been at play as African American land holdings have declined, including voluntary sales, foreclosures, lack of credit and access to capital, trickery and withholding legal information, as well as violence, and racism and discrimination at individual, organizational and governmental levels (Mitchell 2001; Hitchner, Schelhas, and Dwivedi 2021; Hitchner, Schelhas, and Gaither 2017). However, in 2001, scholar Thomas Mitchell estimated that 41 percent of Southern Black landowners had lost their land through issues with heirs' property. These issues with heirs' property that have been a key mechanism that has enabled Black land loss have taken the form of the rules governing land owned under tenancies in common. Because of the nature of land procurement following the Civil War and during Reconstruction, a large amount of the land held by African Americans in the South is held for generations without clear title (Rivers 2006). As this land is passed down through generations without a will, the members of each subsequent generation lay claim to the land – this is termed heirs' property (Rivers 2006). This is a form of cotenancy that emerges as each heir gains claim to an interest in the land. Heirs' property is a common form of landownership on the South Carolina coast – specifically in the Lowcountry (Rivers 2006). The passage of land through oral tradition has been a part of the social structure of land ownership in coastal South Carolina for many of the descendants of enslaved Africans. However, not holding clear title to the land is accompanied by the struggles associated with tenancies in common including: 1) a tenant in common who fails to pay their proportional share of land expenses (taxes, mortgages, repairs, etc.) does not lose interest in the property and 2) any interest holder in the property, however small, may file a partition action to terminate cotenancy without the consent of the other interest holders (Mitchell 2001). If the land is

brought to partition, it can result in the property either being physically divided, or being brought to sale, the proceeds of which are then distributed among the interest holders, or heirs (Mitchell 2001). The threat of partition sales creates a specific vulnerability for heirs' property owners, as they may have lost track of all of the individuals who hold interest in the land, as relatives may no longer live on the land, but still hold interest in it. Partition sales can be enacted without the consent of all the tenants in common; they may even take place against greater interest holders' wishes. A tenant with a very small stake in the land, who no longer lives on the land could sell their stake to a development group, which would then become an interest holder, and could force the land to sale. These forced sales, which may or may not take place at market value, are thought to be a contributor to the racial wealth gap (Mitchell 2010).

Additionally, Kahrl explores how coastal capitalism and development has made "black coastal land owners [...] an 'endangered species'" (2012, 256). He, too, looks at the role of heirs' property in the loss of African American land. On the topic of heirs' property, and the legal problems associated with tenants in common, Kahrl notes,

since many flocked to the coast to escape Jim Crow justice, it should come as no surprise that black coastal landowners often developed patterns of ownership and inheritance that operated outside and in defiance of southern courts of law, in particular, and the classically liberal notions of private property ownership enshrined in American jurisprudence, in general. (Kahrl 2012, 164).

The emergence of heirs' property is not the problem, he argues, but rather the way the law is enacted and manipulated in regard to Black land ownership. He also examines how the shares of family land have been used as collateral for securing loans, which has resulted in default loans being sold to real estate companies, such as Home Real Estate Realty Company. Through such avenues, developers have gained entry into the "family"

and used their newfound tenancy in common to force the partitioning of the property. As family members have migrated elsewhere, as well, there is a trend for family property to be seen more as an economic asset than as an ancestral inheritance or source of identity. This emotional distance from the land may make it easier for individuals to justify selling their shares. Additionally, following natural disasters, such as Hurricane Hazel in 1954, many sites of heirs' property in the Carolinas were deemed ineligible for mortgages or disaster relief loans because there were no clear titles on the land. This legal oversight complicates the process of rebuilding following storms, and is an avenue for land grabs as well. There are a variety of means through which heirs' property can be exploited by the legal system to usurp rural African American land in the South. Following the end of segregation, Kahrl notes that many beaches that had previously been exclusively Black fell into disrepair as Black youth were now able to use white beaches. As these properties fell out of use, many of them were acquired by large coastal development projects.

Another function dictating the emergence and development of the tourism industry was explained at the "Keeping History Above Water" conference in Charleston, by the mayor, John Tecklenburg. He explained a unique dynamic of the city's "historic" aesthetic: the city was not burned during the Civil War. Following the civil war, the city was so poor that it didn't tear anything down or rebuild. Then in the early 1900's during a series of urban renewal projects, preservationists realized Charleston had maintained a unique structural characteristic, and thus granted it the first preservation ordinance in America. The economic hardship that prevented the demolition of many of Charleston's buildings has since imbued its historic appeal in tourists. Following the preservation ordinance, Charleston was developed: old buildings were rehabilitated and resold, while

maintaining their character. White writers and artists romanticized the city and turned it into a tourist hub on the coast. The palatial estates that people take pictures in front of became a vital part of the city's current identity. This ordinance has set the precedent for what the dominant history in Charleston – this idea of history has determined the logics of what deserves to be saved, what requires the most resources to be talked about in the next chapter.

The tourism industry often ignores the legacies of slavery and unequal development that haunt the land, confining the space for recognition of the cultural elements of the Gullah/Geechee nation to exoticization of the Sea Islands distinct “African-feel” (Cooper 2017). Although the Gullah Coast stretches from North Carolina to Florida, South Carolina is an epicenter for this population (Rivers 2006). Much of this population acquired this land through land purchases made by former slaves during the Civil War and Reconstruction period (Rivers 2006). Despite the large failures of Reconstruction, freedmen had the first opportunities to acquire land on the Sea Islands, which had been Union-occupied. Figure 1.5 reflects this demographic information as illustrated by an 1880 census. This image of census data illustrates how the predominant population on the coastline following the Civil War was African American. In the four counties depicted, Beaufort County, home to the Sea Islands, was 91.1% African American; Charleston County was 69.9%. Over the course of the late nineteenth century and throughout the twentieth century this demographic shift becomes strikingly apparent. Figure 1.6 represents the African American population in these locations in 1940, before the development of Beaufort. At this time, the African American population of Beaufort County was 67.07% and that of Charleston County was 49.19%. Finally, Figure 1.7

shows the most recently available census data from 2019, where the population of Beaufort County is 17.75% African American, and Charleston 26.73%. These changing population demographics provide a brief glimpse of the underlying transformations that have whitened this area. Attributable in part to the availability of work, but also in part to the predatory development practices, and sky-rocketing land values, coastal South Carolina has become an exclusive place – its exclusivity expressed through both class and race. African American and Gullah/Geechee individuals have experienced a forced migration from these places, in part due to the rising property values. These values increase property taxes to the point that individuals who are not wealthy can no longer afford them.

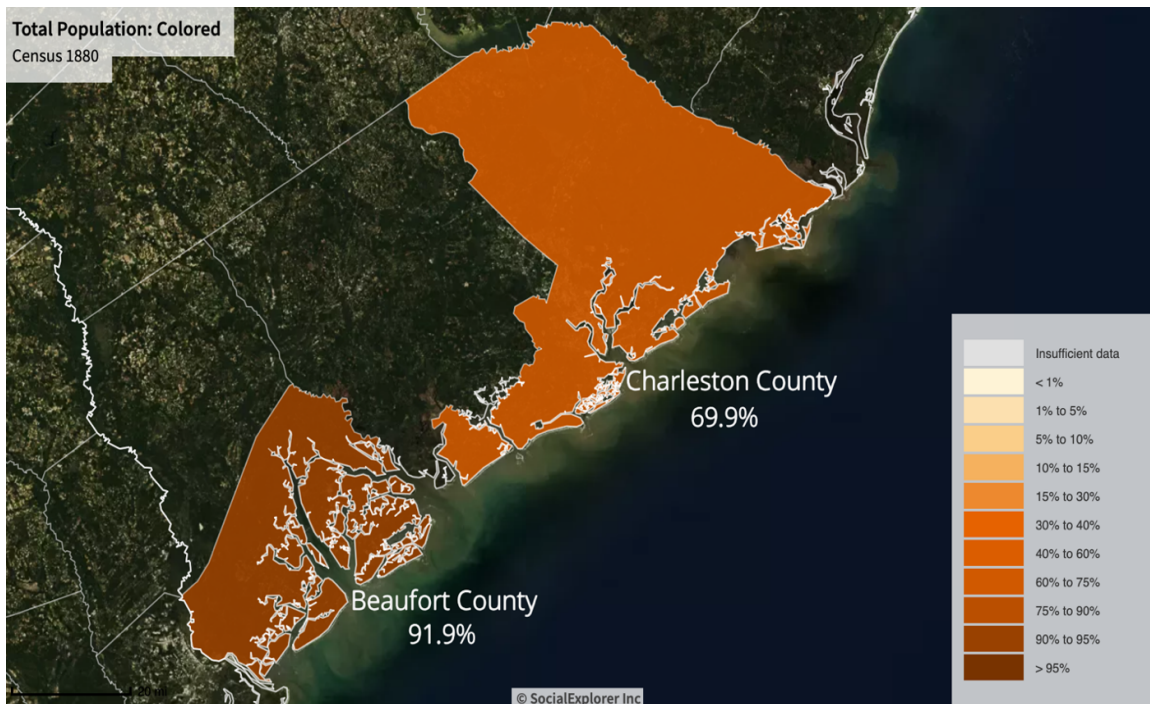


Figure 1.5: African American Population in Beaufort and Charleston Counties in 1880

Map generated in Social Explorer using data from the 1880 Census Digitally transcribed by Inter-university Consortium for Political and Social Research. Edited, verified by Michael Haines. Compiled, edited and verified by Social Explorer.

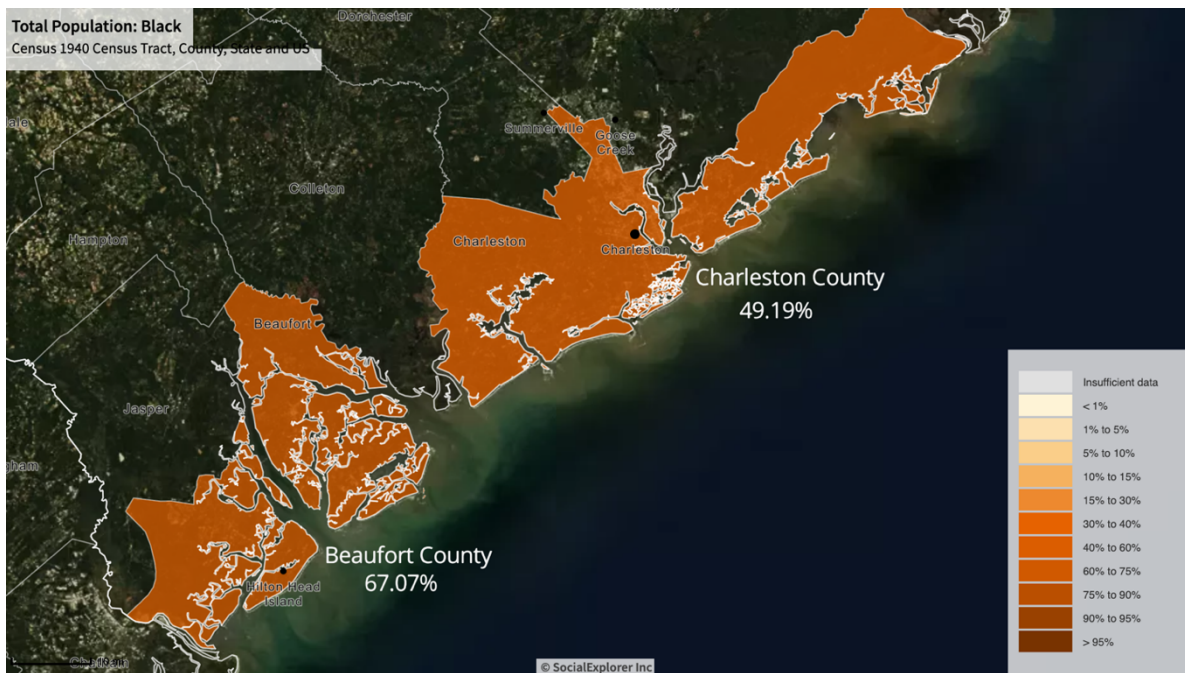


Figure 1.6: African American Population in Beaufort and Charleston Counties in 1940

Map generated in Social Explore using data from the 1940 Census Digitally transcribed by Inter-university Consortium for Political and Social Research. Edited, verified by Michael Haines. Compiled, edited and verified by Social Explorer.

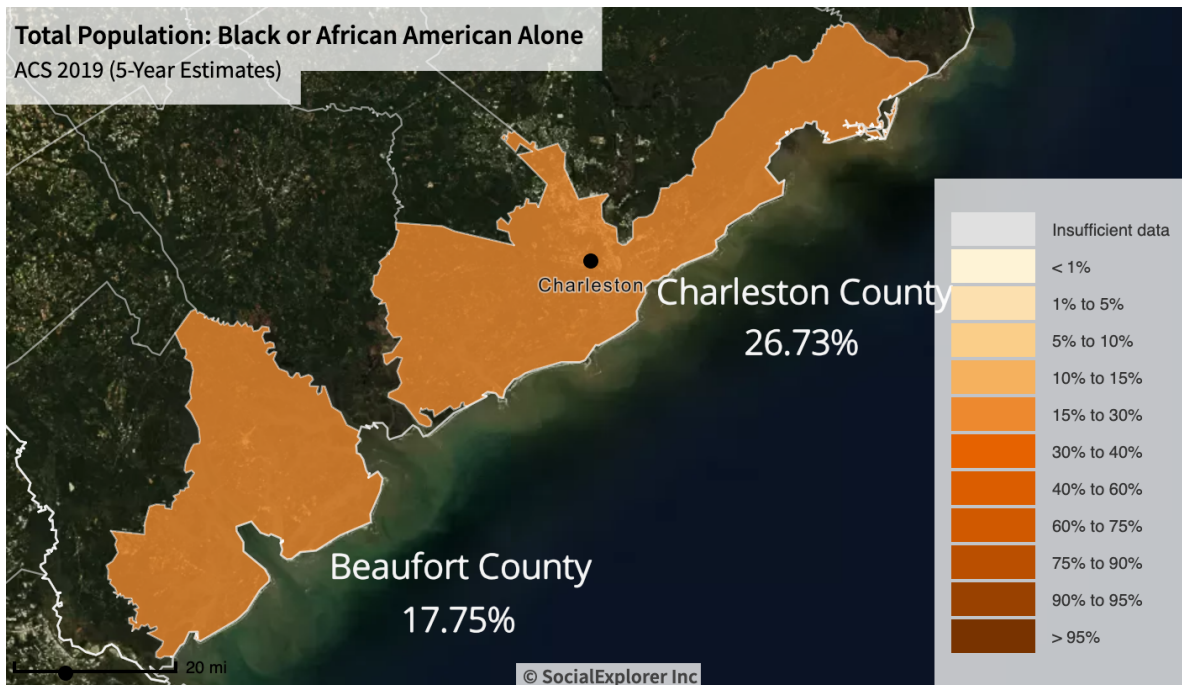


Figure 1.7: African American Population in Beaufort and Charleston Counties in 2019

Map generated with Social Explorer using ACS 2019 (5-Year Estimates) (SE), ACS 2019 (5-Year Estimates), Social Explorer; U.S. Census Bureau.

The Fortification and Construction of Beaches

The primary tool that has made coastal South Carolina the luxury destination that it now is, is coastal engineering. These projects, which have hardened the coastline, and have contested with the natural processes of a shifting beach, have also turned this land from marshland to land capable of being built on. Coastal development, as it has been done in South Carolina requires coastal engineering in order to maintain the appearance of a beach, and fortify the future of the buildings built up to the water's edge. In order for the gentrification of the coastline to occur, it was necessary for the beach to be engineered and re-engineered. Built up, replenished, fortified. Coastal engineering and shoreline stabilization projects take time and large amounts of resources and they are often unpredictable. These projects must be maintained in perpetuity, and often, once one section of a given beach is engineered, the rest of the beach must be supported by stabilization. The principle concern with many beach stabilization projects, however, is that they exacerbate erosion, and require the beach to be replenished through the input of a slurry of sand dredged from the deep ocean (Dean 1999).

The aforementioned 1982 report by Duke geologists notes that while fixed shore structures (like beaches, groins, and sea walls) can prolong the life of beach buildings, they almost always accelerate the rate of beach erosion (Dean 1999). One of the most harmful forms of coastlines stabilization to the erosion of beach is armament. Generally, armor like sea walls degrades beaches through encouraging passive erosion of the beach. Because the force of the waves is not absorbed into the sand, they bounce off the wall, and erode the beach in front of the wall (Dean 1999). Where walls are erected, the sea closes in. Eventually, wave action undermines walls and will threaten the development on

the other side of them. Many states, including the Carolinas have laws limiting beach armament because it encourages erosion. South Carolina, however, weakened its restrictions after a number of aggrieved property owners pushed for the change following the 1989 Hurricane Hugo. Another problem with armament is that it creates a false sense of security for developers and encourages further development. Other forms of armor include jetties, groins, and breakwaters. Breakwaters and jetties function similarly in that they are structures put in place attempting to capture sand as it moves suspended in the water. They slow the movement of water on shore and, in effect, trap sand. Groins are a common solution to losing sand, but since their construction can be done relatively inexpensively, without consultation of an engineer, they often cause more problems than they solve. Groins are, in essence, walls built into the water of timber, steel, rock, concrete, or other material. Changes in their permeability and their size greatly affect their function, but essentially, they capture sand suspended in the current for the property owner, however in doing so, they leave beaches downstream bereft of sand (Dean 1999). The common conception is that “once one person has one, everyone else needs one” (Dean 1999, 44).

Dredging sand is harmful to ocean ecosystems, and also results in a noticeable change in the way the beach feels and functions. Replenished beaches are harder than natural beaches. This change in feeling is a result of a difference in the size of sand particles that comprise the beach. Sand obtained from the ocean floor is often finer grained than sediment that is naturally deposited on the beach; because of this, the sand compacts more easily, and is often put under pressure by the heavy machinery used to place it (Dean 1999). This compaction changes the way that natural erosion processes

occur on the beach. Rather than a beach with a relatively smooth slope, renourished beaches often feature a sharp cut off at the water's edge. This change makes beaches more dangerous for children and weak swimmers, and also changes the ecology of the beach. In the case of sea turtles, whose nesting sites are on beaches, beach nourishment projects can result in "significant reductions in nesting success" because of the scarps at the water's edge and the compacted beaches that make it difficult for turtles to lay eggs and emerge from eggs (Dean 1999, 115). Additionally, many permanent residents of coastal communities do not want to pay for the maintenance of beach infrastructure that benefits the property value of other people's second homes.

Fripp Island is a gated luxury community in Beaufort County. It has been armored with groins, jetties, seawalls, and bulkheads, however to no avail. Many of the beaches on Fripp Island have completely eroded away (Dean 1999). Fripp Island began experiencing erosion problems in the 1970s coinciding with its development. In 1975 the island was armored with a seawall, and in the following decade the shoreline has been armored with (Kana, Traynum, and Kaczkowski 2014). Although the island gets some reprieve from an influx of sand from Hunting Island, to its north, the outer channel between the two islands has migrated to hug the seawall on Fripp's northern shore (Kana, Traynum, and Kaczkowski 2014). Although Fripp island does accumulate some sediment, further down its shoreline (likely because of the other forms of armament), the northern coastline is barren and requires replenishment from dredged sand to have a beach.

Hilton Head is a site where much of the island's appeal is derived from its beaches, however due to the geology of the soil, Hilton Head requires frequent artificial

replenishment (Dean 1999). Following the completion of the James F. Byrnes Memorial Bridge in 1956, Hilton Head went from isolation to rapid development. Developers began constructing high-end resorts and wealthy white people began building second homes (Shannon and Taylor 2003). As developers encroached, the island was re-engineered and land values began to rise dramatically (Dean 1999; Shannon and Taylor 2003). Hilton Head is both a barrier island and an erosion remnant island, however, neither of these identities provides the island with the beach that tourists want. The soil of Hilton Head is sandy; the shore is very muddy, “perfect for shellfish but useless for sunbathing” (Dean 1999). The re-engineering of the island resulted in digging canals through the island to provide inland sand to the beaches; in addition to this, the beach is also replenished with sand. For beach development, much of a property’s value is derived from the presence or absence of beach front (Dean 1999).

The example of Folly Beach illustrates the contested process of beach replenishment. Folly Beach, outside of Charleston was a location where, in the early twentieth century, Charlestonians began building both summer homes and year-round homes on the beach. The beach quickly began to erode. Subsequently, in the 1930s and 1940s storms wiped out seventy-five feet of beach. In the following two decades, extensive groins were constructed in the surf, first out of wood, and later replaced by stone. The groins failed at trapping and retaining sand. In 1986, the federal government agreed to pay 85% of the cost of rebuilding Folly Beach (Dean 1999). When rebuilding processes began in 1992, much of the beach property was underwater; regardless, the replenishment effort proceeded, costing an estimated \$116 million in total, and moving 2.5 million cubic meters of sand from the Folly River onto the 5.2-mile coastline (Dean

1999). The beach started disappearing very quickly, especially in front of a sea wall outside of a Holiday Inn, and officials in Folly Beach accelerated the planned schedule of periodic sand infusions. The Folly Beach example is representative of the perpetual maintenance that coastal engineering projects require, as well as the expense and resource use of such projects. The project was dubbed a failure by its opponents and praised as the “city’s savior” by its proponents, illustrating the contested opinion on what successful beach construction looks like to differing stakeholders.

The fortification of beaches, the commitment to uphold these costly spaces where the land meets the water, is a project that both runs contrary to the natural ebb and flow of the coastline, and a project that allocates material resources to upholding white spaces of leisure. The methods of ensuring the presence of a beachfront are also counterintuitive, sometimes actually exacerbating the problem they seek to address: erosion. Not only do these projects enable further coastal development and gentrification, but they also harden the coastline, changing the ecology of the area. The space of the coastline represents important African American and Gullah/Geechee geographies, yet these geographies are minimized and exoticized to allow coastal tourism to take precedence as these spaces are privatized and developed. Understanding these processes that enable the pushing out of African American coastal landowners highlight what the “dominant” narratives of the coastline are – whiteness and wealth. Through bringing together these overlapping geographies, I have explored how land that was once undesirable is now highly coveted – this land however would not be as wanted if it was not for the coastal engineering projects that ensure the presence of the beach.

Conclusion

This chapter argues that the coastline of South Carolina is a product of intersecting physical, economic, political, and racial geographies. It currently stands as the product of hundreds of years of decisions on how to manage the land, and decisions regarding *who* can access the land and *how*. These decisions have created spatial binaries through both de jure and de facto racism that have create locations of exclusivity. This attempt at creating spatial binaries, however, has always been resisted by African American communities – from resistance to being mapped following the end of the Civil War, to carving out spaces of leisure and community, and buying land communally, there have always been, and continue to methods of rejecting the ascribed racial order of the coastline.

The implications of these decisions on South Carolina's Lowcountry social and racial order are still present and must be understood in order to contextualize and give meaning to the climate change planning processes for this area. Understanding the multiple geographies of coastal South Carolina, and of the Sea Islands, is critical to understanding the dynamics of power and the patterned history of this place. The Sea Islands were made home by enslaved African, forced migrants, whose descendants now are being forced to migrate from these places. Development is usually seen in isolation as the main driver for gentrification, but in this context, it is critical to look at the role engineering of the coastline plays that enables development to occur. These coastal marshlands are not inherently stable or ready for development. It is the processes of engineering that made and continue to make Hilton Head and the other Sea Islands capable of being developed are just as culpable for the rise in land value as the

development projects that ensued. The story of shifting demographics on the coastline of South Carolina is a gentrification story; it has been enabled by the mass funneling of resources that maintain shoreline stabilization projects in perpetuity, as well as the laws around shoreline stabilization that become flexible when large scale development is involved. Additionally, this development has been supported by unfair laws, such as those surrounding heirs' property, which has enabled the land grabs performed by development agencies. These development agencies create a double bind for the constituents of these coastal communities, as tourism supports many coastal economies at the cost of the destruction of the natural coastline.

Understanding the histories of the land –the environmental, social, and economic – help contextualize the present state of the Lowcountry and Sea Islands of South Carolina. Through engineering, and arduous labor stolen from enslaved Africans, this land has been made livable following white logics of “fill and build.” Where once stood marshlands, now stand the epitome of white wealth in America: multi-million-dollar properties, expositions of excess, private beaches, golf courses, expensive restaurants. The tourism industry, and the white upper class continue to hold a disproportionate amount of stolen material wealth, because their interests in the land have long been represented in the policies that make actionable their land grabs. For African Americans in coastal South Carolina land has never been a guarantee. Since emancipation the iterations of policies to dispossess coastal African Americans have taken different forms, but this driving pattern has never gone away.

In 2020 alone, Kiawah Island, one of South Carolina's Sea Islands saw a record \$808 million in property sales (Wise 2021). The permeation of wealth in these places is a

continuation of the history of violence and dispossession along the coast. The value of the tourism industry to South Carolina has been made repeatedly clear through the ongoing desire to invite tourists through these areas, even during a pandemic. The vulnerability of these places cannot contend with the value of the tourism industry, and yet as Abe Jenkins, JR. stated: “you really can’t stop Mother Nature.” Coastal erosion and changes to the size and shape of beachfront are natural processes tied into the geological record of the land – it is only when humans set an unmoving line between where the beach ends and development begins that erosion becomes a problem. Coastal development represents the influx of impermeability – both physically and metaphorically, as the settler colonial logics that drive environmental decision making are fixed, unable to be influenced by different ways of relating to the land. The control of the environment must be deployed in a way that “secures” and “fortifies” the development, and to varying degrees, the population. In the coming chapters the question of policy priorities will be a constant one as climate change plans and heirs’ property are examined. Further, the two subsequent chapters will delve further into both the dominant narrative of the coastline, and the perceived dilemmas it will face in the future of climate change, as well the counternarratives of what this land means to African American landowners who have continued to live here.

Chapter 2: Priorities of Coastal Climate Change Planning

Introduction

The call begins like so many these days do: a spread of faces, boxes on the screen, with names showing or showing in partial (depending on length); the peculiar intimacy of seeing into strangers' houses and lives while discussing a contemplative future, what it looks like and what it means. It is February of 2021. An unseen observer in this space, I am without the ability to turn my camera on; given the webinar structure it is exclusively those who have a say in the decision-making process that have a face and a voice. And even on this awkward platform, with the ever-present grain of background noise, the implications of power, and the limitations of who has the power to envision and to make decisions on allocating resources are felt even more obviously than when everything was in person. Today, the city of Charleston Council, along with the Army Corps of Engineers (USACE), the Waggoner and Ball architecture firm, and the Gulf Institute are coming together on a zoom call, streamed to the public, to discuss a wall that is years in the making. It's a plan that will cost billions of dollars – to wall the city to hold off rising tides, to guarantee a future, to fortify and secure the historic city.

“This is too big and too expensive to not get this right,” says Mark Wilbert, the Chief Resilience Officer of the city of Charleston. The plan to insert perimeter protection for the city is the product of a three-year federally funded coastal storm risk management and feasibility study by the USACE. The sea wall project is one of many adaptations

the city of Charleston, a peninsula which sits in the crook between the Ashley and the Cooper Rivers, is contemplating for the future. The decisions around how to best preserve Charleston stem back to its settlement as a city; it has always contended with the natural features of marshland, and throughout its history it has done this through constructing sea walls. As explained in the first chapter, the history of Charleston can be traced through their environmental engineering projects and uneven development – historically leaving African American populations and poor populations more exposed to hazards. In the present, much of this history is still alive, taking the form of a new, very expensive project, bigger than any preceding sea wall the city has seen. I was referred to look at the proposed sea wall as an example of environmental injustice by multiple the individuals spoke to for this project – Emerson, a forester for a local branch of a national environmental non-governmental organization (ENGO), and Williams, a researcher studying environmental justice issues in the area. Additionally, the issue of environmental justice had permeated local news sources, picking up traction with a Post and Courier article. The project also hinges on the idea of staying, and preserving the “historic city,” but it is a project that many individuals I interviewed have pointed to as an example of environmental injustice. In the way it is proposed, the project ensures the future of Charleston’s wealthy lower peninsula, where the history of “old Charleston” is preserved and upheld, but does not span far enough to protect the predominantly African American and low-income communities, who would possibly be granted non-structural measures, such as home buy-outs or home elevation, relocation, or flood-proofing. Alternatives that could result in displacement (Johnson 2020). Though the wall is still in its planning phases, it provides a useful example to analyze questions like: Who gets to

make decisions about the future? Whose history gets preserved? And, what does the future of climate change in coastal South Carolina look like?

This project serves as a prism through which to better understand what arguments are used to justify adaptation, and what values are expressed and upheld when adaptation comes to fruition. While leaning on scholars who examine race formations and climate change, I argue that the process of race-making is happening amid the series of decisions made around climate change. These conversations are expressions of what the future of the Lowcountry will look like in South Carolina. In this chapter, I argue that climate change planning in South Carolina is, at times “colorblind,” in that it avoids addressing the specific differences experienced by racialized communities; amid these series of decisions, however, the process of race-making is occurring (Omi and Winant 2014; Telford 2018). Though some planners and environmental organizations attempt to be explicitly inclusive in their planning, they often toe the line of trying to achieve inclusion without saviorism, exposing fragile relationships. The dynamics of power, race, and history come into play in decisions around land management, whether or not they are verbalized. The de facto nature of these dynamics is nestled in the settler colonial logics from which governance and decision making are situated. I will begin by exploring perspectives on climate change planning in the Lowcountry that I have gathered through interviews, conversations, and participant observation of city council meetings. Then I will focus specifically on the Charleston Sea Wall, and examine the ways it engages a racialized history, even though race is not often invoked explicitly in the conversation.

Fill and Build, and the Dilemmas of Coastal Development

“Fill and build” is the logic that underpins much of the settlement of coastal South Carolina. This phrase has been used to describe the current and historic process of developing many coastal locations, from marshy cities like Charleston, to coastal areas on the Sea Islands. I first consciously encountered this phrase when I attended a walking tour of Charleston given by Christina Butler at the 2021 Keeping History Above Water conference. Butler, an engineer and historic preservationist, whose 2020 book *Lowcountry at Hightide: Flooding, Drainage, and Reclamation in Charleston, South Carolina* digs into the history of Charleston’s development, showed us around the city, pointing out the sloping hills built on reclaimed ground that often flood during precipitation events. Upon hearing of the concept of “fill and build”, I quickly realized that this method of development described succinctly the issues suburban sprawl and land development that I had learned about in my interviews. “Fill and build” is what it sounds like, using in fill material – in some cases material that is quarried out of state and brought in – to raising up and hardening the land, making it more suitable to build on. Butler explained that Charleston is built on marshy formations that have been filled in to create the land for the city. It is the of lack bedrock, and the desire to keep costs low during the 300-year process of filling and extending, that have resulted in much of the city’s current flooding. The places where land was cheaply filled by developers are some of the places that contend the most with flooding now. This method of development enables communities with resources to continue building on the coastline, in what would otherwise be vulnerable areas because they are able to raise the land. It contends with the natural geological processes of coastal formation that has previously been described. It

eliminates wetlands and other coastal buffers, and interrupts the land that gently slopes toward the coastline.

Rogers of the South Carolina Coastal Conservation league described how this process of “fill and build” also contributes to additional flooding in vulnerable African American neighborhoods. Rogers detailed to me the example of Phillips, a predominantly African American community outside of Charleston. Phillips, a town settled by freedmen, is now flooding frequently. Thirty years ago, the land around Phillips was annexed by Mt. Pleasant, a large suburban town outside of Charleston, which has since developed the land around it, using fill and build to raise this land up and construct new developments on it. This land formerly served as drainage for Phillips. Now all of the impervious surfaces are causing flooding in Phillips, from the suburban sprawl. Many of the African American residents there cannot access the resources necessary to recover from flooding, often because of issues with heirs’ property excluding landowners from accessing FEMA funding for recovery. Rogers explained to me that there are incoming developments which his organization is in opposition to, that may put additional impervious surfaces in an area right outside of the city of Charleston. In one of these developments, a 9,000-acre tree farm will be converted into an 18,000-unit development. The current residents here, who will be contending with the forthcoming pressures of gentrification and impervious surfaces are not incorporated into the city of Charleston, but it is possible that the development will be – giving them access to the city’s resources. This scenario, which mirrors that of Phillips is not isolated or uncommon, as intense residential developments are expected to continue outside of Charleston, and elsewhere in the Lowcountry (Miller and Porter, 2021). Allowing these developments not only exacerbates issues of flooding

by increasing impervious surfaces, but also increases inequalities in the region driving gentrification and displacement of African American communities.

It is both the case in Phillips and in many areas of Beaufort County that sea level rise and flooding are damaging septic systems and destroying sewage infrastructure. This information was relayed to me both by Rogers, as well as a member of the Beaufort County Community Development Department, Martin, and an individual who works with the Carolinas Integrated Sciences & Assessments, and South Carolina Sea Grant Consortium (SC Sea Grant), Weber. CISA is a scientific collaboration between researchers in North and South Carolina, aimed at integrating scientific assessments into the decision-making process. SC Sea Grant is an independent state agency, and a member of the nationwide network of 34 college program, located within the National Oceanic and Atmospheric Administration. In a similar vein to CISA, SC Sea Grant operates to integrate research, education, and extension programs to serve practical uses in the conservation of coastal and marine resources. In her position, Weber is a coastal climate and resilience specialist and she works directly with coastal communities to help them prepare for climate change and sea level rise. On a Zoom call, Weber explained to me the issues that are occurring with septic systems for low-lying communities:

[septic systems] are five feet underground and [are] supposed to have a certain amount of space to trickle down into the aquifer to filter out whatever contaminants are in there. As sea level continues to rise, that causes the shallow groundwater table to rise, and the closer you are to water, the higher that groundwater table is. When that shallow groundwater table fills up – maybe it's been a very wet period and we've had a lot of high tides – suddenly there is no space for that wastewater to go and so it kinda just sits there or it floods and so when that happens you've got sewage contamination all over the place.

This is a problem that is exacerbated by the consequences of climate change, but also a problem that exists in a jurisdictional limbo – where many of the rural and poor residents

of Beaufort County, both Black and white, are dealing with this issue, yet a septic system does not necessarily fall under county jurisdiction, because it is something that is supposed to be managed by the state. There are many elements of flooding that fall between jurisdictional levels, and thus are left without a plan, amplifying problems for those who do not possess the individual capital to adapt and recover by themselves. According to Weber, the issues of septic failure often only come to the landowners' attention until they try to sell the property, resulting at times in lower property values. Weber and Martin are currently working together to update the Beaufort County Sea Level Rise strategy plan, a document originally written in 2015. They each explained to me different aspects of coastal planning, and identified the variety of challenges – physical, jurisdictional, and social – that they are grappling with in climate change planning.

Fill and build developments have also been a problem in Beaufort County, these have occurred, in part because of the desire to develop low-lying land, close to the water and the marsh. As Weber identified, despite the fact that Beaufort County does have a lot of elevation, “the people obviously want to be as close as they can to the water, and the marsh.” Many of the areas that relatively well elevated and still Sea Islands, are the islands that have large Gullah/ Geechee populations, as Weber says:

Unfortunately, some of the areas that are probably the safest places to go but are still on islands those are predominantly Gullah/Geechee areas, but you are starting to have an issue where you have gentrification, where white people are coming in wanting to build nice houses. That is causing other issues with raising the price of land, where people may not be able to afford to stay, they may not be able to afford their taxes and so maybe that's not happening at this very moment but it is one of those things people are very worried about, or it is already happening and it's just starting to come very apparent

The desire to have proximity to natural resources, often for aesthetic value, is driving gentrification and demographic shifts in the Sea Islands. These patterns, in which development drives population change, and increases land values, making historically African American or Gullah/Geechee communities that exist in low-lying areas even more vulnerable and more susceptible to further development, are continually happening in the Lowcountry of South Carolina.

Martin, who works in the Community Development Department of Beaufort County, noted that “historically, we have not made wise choices about where we develop” citing downtown Beaufort and The Point neighborhood as areas that were built on land that is very vulnerable to flooding. Going forward with climate change planning, one of the changes Martin would like to implement, and hopes to achieve with the newest iteration of the Sea Level Rise plan, is identifying low-lying areas and limiting development in those places, encouraging it instead in the more upland areas. Further, in alignment with the scholarship on erosion prevention techniques presented in the first chapter, Martin acknowledges that bulkheads that landowners put in to try to preserve beaches and prevent erosion, actually drive erosion. A large ecological issue that his department is confronting in coastal South Carolina is marsh migration, “if we continue to allow development of the marsh, and people put bulkheads up to avoid erosion, or to try to prevent erosion, the marsh is not going to have anywhere to go and we are going to see the loss of that habitat.” And loss of these unique habitats at the hands of developments will drive and is driving loss of cultural pathways, especially for Gullah/Geechee individuals, as will be further explored in Chapter Three.

There are also wealthy white communities that have made the choice to pursue climate change planning without county support, because taking that support would come with the trade of making their islands more open to the public. One community that was an example both Martin and Weber gave me was that of Harbor Island, a middle-class to wealthy island community that is on low-lying land. Martin explained to me that Harbor Island has come up with their own plan of action regarding sea level rise because the County is less likely to intervene there, since the community has chosen to develop low-lying land to make a resort town, the responsibility is on them to “bail themselves out” when they are flooding. Weber added the details that, “in order for the county to provide money, public money, there has to be an increase in public access. So, if the island community is not willing to allow that, the county is not going to assist.” Communities that have access to more wealth are able to determine their own course of action, on their own terms, when it comes to climate change – and they are choosing to do so when it means retaining exclusive access to the land.

The Dynamics of Racial Inclusion in Climate Change Planning

Emerson, a forester at a local ENGO, and I met in the chat of a Zoom presentation hosted by the Aspen Institute to celebrate the Center for Heirs’ Property Preservation’s fifteenth year in operation. I was interested in identifying if anyone was trying to engage in conversations around heirs’ property and climate change in South Carolina, and Emerson gave me his email, from which we set up a call of our own. Emerson mentioned to me that the branches of his organization in North and South Carolina were trying to develop a “coastal blueprint,” a guide for their future, and a guide for how to navigate climate change. They are focused specifically on where bird habitats are endangered,

these could be sites where sea level rise and other climate change variables are threatening habitats, as well as places where there are prey-based impacts (the horseshoe crabs could be a large issue), or marsh migration is occurring – as marshes move inland into forested areas (what Emerson specifically works on). While they had identified some key areas that met their criteria, Emerson also mentioned that they were facing the challenges of whether to include or exclude a consideration for heirs property. They are weighting areas by most necessary for conservation, but that process has often excluded socioeconomic values (especially in the past), and it's hard to know how this will work with heirs' property. Emerson noted that it is one thing to know that heirs' property owners exist and are vulnerable, it's another to include them in planning – this is very difficult. He specifically mentioned it would be difficult to include them “as those maps are very tightly held.”

In trying to foster inclusion, the organization also contends with their own racist legacy, in much the same way that many organizations located within mainstream environmentalism have had to do (Purdy 2015; Fears 2021; Nobles 2020; Lanham 2021; Giltner 2008; Di Chiro 1995). Not only was the founder, himself, a slave holder and an ardent upholder of white supremacy, but the organization has long located itself within the logics of mainstream environmentalism, rather than environmental justice (Lanham 2021; Nobles 2020). Whereas mainstream environmentalism has been largely Eurocentric, and based on Romantic conceptions of the wilderness, and has concerned itself with preserving land, environmental justice challenges these preconceived notions of “the environment” itself, expanding it to encompass urbanity, the built environment, health, and jobs, to name a few (Di Chiro 1995). Contrary to the mainstream

environmental movement, which cultivated nature as a place outside of the built environment, an exclusive escape designed for wealthy white bodies, environmental justice considers the way the intersections of race, class, gender, sexuality, and ability influence one's capacity to live, work, eat and “play” (Di Chiro 1995; Gottlieb 2009). As they try to reckon with their past and move toward a more inclusive future, Emerson noted both his awareness of this history, and of “white saviorism.” There is a want to do this work of preserving land for underserved communities, but there is also an element of fear – of how this opens up the opportunity for gentrification, and the potential to drive out the communities they are serving. Gentrification is a big issue – and a big consideration. Within this internal conversation, he noted, there is much “considering, but struggling with how best to do this work.” When considering the potential act of solidarity that Audubon is trying to attempt, it is also important to engage the scholarly work of decolonial scholars Eve Tuck and K. Wayne Yang who argue that “solidarity is an uneasy, reserved, and unsettled matter that neither reconciles past grievances nor forecloses future conflict” (2012, 3). Identifying mutual desires, or trying to work on the behalf of others, to preserve their best interests recalls a history of white oversight, such as was present on the Sea Islands following the Emancipation (Franke 2019). Although Emerson discussed the dilemmas at play in the organizations’s planning process, and thought it would be a good object of study for my question of how racial inclusion was or was not taking place in planning, I was ultimately not allowed to attend planning meetings.

When asked about how racial inclusion takes place in coastal climate change planning, many of my interviewees answered in similar, rather tenuous ways, being

careful to choose their words wisely as they verbally negotiated their current stake in the process of race-making. In some ways, it seems that some planners are actively trying to engage the past, and be cognizant of the ways that racism has been historically encoded in the laws. In our interview, Weber also invoked historical relationships between the state and Black people as reason for tenuous relationships and distrust today, “there is a lot of mistrust for very obvious generational reasons, where you have a lot of communities – African American communities and Gullah/Geechee communities – they don’t trust government or white people and for very obvious, real, very good reasons.” The pandemic, she added, has only made trust-building more difficult between her organizations and these communities, as a large part of this population is rural and older, does not have access to internet, or the technology necessary to engage in Zoom calls or other communications via the internet. These were challenges I am well acquainted with, as my own research has been hampered by the reliance on technology that the pandemic induced. While there are some planners who do explicitly try to draw race and racial history into the discussion of climate change, there are also many scenarios in which the drive to develop the coast, and maintain a tourist economy overrule considerations of environmental justice. Even where a few individuals may push against the prevailing racial order, the system that governs the coast, the legislations that allow development, the legal system that enables land grabbing of vulnerably held heirs’ property is maintained. Scenarios like the Charleston Sea Wall indicate that “colorblindness” in climate change planning is still occurring, and in coastal adaptation plans, the material impacts of the plan on racialized people is an afterthought.

One of the main critiques of the initial Charleston Sea Wall report is that it was not sensitive to environmental justice concerns – and, in particular, that it left predominantly low-income neighborhoods, and historically African American neighborhoods exposed to the impacts of flooding, offering nonstructural options, such as raising homes or neighborhood buy outs (Johnson 2020). The city council members for these neighborhoods have been some of the most vocal in advocating for the concerns of their community members to be heard. These concerns include the timeline of the project: at what point will these neighborhoods be protected? Other concerns include the ability of these citizens to engage with the evaluation process for the perimeter protection system. Though the Zoom call was a publicly held meeting, and all of the information about the wall is available online, that does not inherently mean it is accessible. City councilman Robert Mitchell, who represents the East-side of Charleston, argued that many citizens of Charleston likely are not going to go online and read the feasibility report. Participation in the process, especially during the COVID19 pandemic, requires the ability to access the internet, either via cellphone or computer, and also requires ample time, either to read a feasibility report or to attend a virtual meeting where the process and goals of the wall are explained. These requirements inherently prevent public engagement from all facets of society, limiting engagement around the wall to those with the resources to do so. As noted by Nancy Parrish of the USACE, the decision to construct the perimeter protection system ultimately lies with the city of Charleston – it is also up to the city to determine the level of public engagement involved in that process.

Adaptive actions are often context- and place-specific, as they are limited by the features of local climate change threats, and require place-based knowledge of the

challenges of climate change. There has been an increasing emphasis of public participation in climate change adaptation processes, and an assertion that without public consent and involvement some strategies for local adaptation will fail (Miroff 2017). However, public participation is a difficult thing to achieve. As councilman Mitchell noted, many citizens, for a variety of reasons, will not go online and read through the feasibility report, or be able to attend virtual meetings. Being able to participate becomes a factor of privilege and access, delineated by work schedule, free time, internet access, and education level. Public participation actively engages the power dynamics of a locality, and sensitivity to the inequalities of social power are crucial during these processes, especially as the decisions made result in allocation of material resources. Processes that are actively addressing the structure of social power can create more equity and avoid those “with greater resources in terms of communication, social/political networking, and experience in decision-making processes” (Few, Brown, and Tompkins 2007). Public participation with governmental institutions and associated agencies is often fraught with challenges of power that come with over managing the process and with a top-down approach. Achieving true inclusion in the climate change planning process is often easier said than done – but “participation” as a key-word frequents the global discourse of climate change adaptation planning. Often times, the processes of decision-making pose themselves as inclusive and transparent, asserting the feeling of participation, when in reality the decision is ultimately, exclusively that of the government – as is the case with the Charleston Sea Wall. The ability to participate in this process is inherently limited – the apparent transparency functionally concealing the achievement of true participation. The questions of “who gets to participate in the

processes of deciding the future?” and “what values, geographies and worldviews are represented at the table?” go unasked, with the prevailing white environmental way of knowing the environment existing as *the only* way to know and manage, echoing the city of Charleston’s historically uneven development.

Historical Patterns of Charleston’s Fortification

Environmental engineering and the issue of flooding are nothing new to the city of Charleston. Throughout its existence the city has required near constant engineering to stave off flooding, and the harmful health issues associated with standing water (Butler 2020). During the February meeting, Wesley Wilson, of the USACE, who has been working on the project, situated Charleston within a long history of environmental engineering projects:

We've been here 150 years, we want to be here for 150 more years, so this study is very important to us. We've worked on some pretty important projects, even starting in the 1800s, we've constructed Fort Moultrie, Fort Johnston, Fort Sumter. Those two big rock piles in the harbor - the jetties, we constructed those. Then removed the sunken debris from the Civil War. And I think this one's the most interesting - we oversaw and constructed the state's first railroad. So, that's just a little history on the Charleston district and we've been around for a long time.

Wilson’s comments illustrate both the long-term relationship between the city and environmental engineering – a must for the peninsula. The comments also represent a geography of domination, with the use of “we” locating the group of councilmembers and others firmly in the timeline of colonization and dominion – his comments about the other structural projects, primarily building forts, support this narrative. “We” have been here and “we” want to stay here.

Since its colonial roots Charleston has always been a city that exists in contention with the natural environment that surrounds it (Butler 2020). As it has been settled, the

city has actively pushed outward onto the marshlands, re-engineering the environment and re-imagining itself as it does so (Butler 2017). On a walking tour of Charleston, Christina Butler, a professor of historic preservation, pointed out the streets that used to be the outermost limits of Charleston. Through development – both that sanctioned by the city and unsanctioned – Charleston grew. In some places, the wharfs that were put in to dock boats stopped the flow of sediment down river and amassed land. Soft, silty land that was never structurally sound was built upon. King street and Meeting street, the only areas of naturally occurring high points, served as the “spine” of the city – moving further away from these points, the land slopes downward.

The ground was filled in with offal; two walls were constructed – the High and Low Battery walls. The construction of the Battery was not dissimilar from the process today: “massively expensive” securing previously non-existent real-estate for development (Butler 2017). The southernmost tip, where now some of the most coveted property in Charleston lies, was in the early 1700’s a vacant beach – dubbed “White Point.” Mirroring the process today, the then Governor of South Carolina, James Glen, elicited the help of German-born engineer William de Brahm to fortify the city, including White Point, using enslaved labor to build up the earth, erecting ramparts that were later secured with a brick wall (Butler 2017). In the following centuries, this structure has needed revision, and reinforcement, and has served as a defense structure for the city – both against flooding and, sparingly against invasion. But presently, the Battery fortifies reality; with the homes situated along the perimeter of the city enjoying the viewpoint of the Ashley, the Cooper, the Charleston Harbor and the Sea Islands. But the development of Charleston has always been uneven, with rich, white neighborhoods, populated by

mansions historically owned and lived by plantation owners, existing within a pattern of structural supremacy (Butler 2020).

As the bastion of the South Carolina colony, the city of Charleston amassed much wealth as the leading importation hub in the colonies for the trade of enslaved Africans (Pollock 2019). As documented by historians Ethan J. Kytle and Blain Roberts, two narratives of slavery exist in Charleston, the narratives of former slaveholders and their descendants, which has downplayed the brutality and inhumanity of the institution, and the counter-narrative, which recognizes slavery as horrific and tyrannical, and as a structure that has had lasting impacts (Kytle and Roberts 2018). These legacies can be felt walking through Charleston, like a top-coat of nicety and beauty that tries to cover over a deeply disturbing past – the old slave market converted into a marketplace; where humans were once sold, local vendors now sell their art. The palatial, million-dollar houses of prominent slave owners that border the White Point Garden, and the Confederate Defenders of Charleston memorial, now serve as the scenic iconography that Charleston’s tourist economy hinges on, if only the viewer can forget the disturbing past that brought these luxuries into being. Forgetting completely or remembering only the white-washed history are integral components of maintaining the power structures that be – racial dissociation and amnesia are critical to upholding what scholar Adrienne Harris has termed the “perverse pact,” the relationship necessary to maintain white privilege and white power (Harris 2019). As Daniel Pollock puts it, these are shared spaces with separate pasts (Pollack 2019). He is noting the problem of overlapping geographies that exists in both Charleston, the coastline of South Carolina as a whole, and the United States in general, which Katherine McKittrick terms “the geographies of domination” –

that operate from spatial colonization and domination and “the profitable erasure and objectification of subaltern subjectivities, stories, and lands” (McKittrick 2006, x). Meaning that often the space allocated for recognition of these subaltern histories and geographies is done so that they are tokenized or made profitable, but not in a way that challenges the dominant narrative. As McKittrick notes, geography is constantly being produced, it is not secure, and very hard work is put in to making geography what it is; this is why it is critical to challenge and explore the geographies being espoused and imagined by projects like the Charleston Sea Wall.

The Charleston Sea Wall: Can We Afford Not To?

Like much of the coastline of South Carolina, the city of Charleston is a space with many overlapping geographies. It is a place where the inequalities wrought by a long history of African American enslavement still play out through unequal development, and unequal access to resources. And even when there are spaces where these truths are confronted – like in the city of Charleston’s Commission on Equity, Inclusion, and Racial Conciliation – these confrontations are limited, and are not present in the predominantly white spaces of climate change and resilience planning. The process of planning, of anticipating the impacts of climate change, is also a process of making geography and of asserting historical racialized unevenness into the future. Something about the proposed Charleston Sea Wall, which is currently in the final phases of a feasibility study, feels inevitable; perhaps it was a statement from Mark Wilbert, Charleston’s Chief Resilience Officer: “this is an opportunity that not every city in the country is getting, given what we know now about our risk, can we afford *not* to build a perimeter protection system?” The question of affordability is an important one, as the

total cost of the wall comes out to around \$1.4 billion, of which the city needs to determine by November, 2021 whether they can pay thirty-five percent, about \$500 million (Johnson 2021). In a conversation with Dwyer, a recent retiree from SC Sea Grant, who has served as a member of the Charleston Resiliency Network and on the City of Charleston's Resilience Committee, Dwyer noted that "those with the resources get the help, we value the value of money more than we value the people who are here." Dwyer referenced the mega mansions at the base of the city: for them, the city will build a wall. However, the plans for the wall do not extend up the East Cooper, where more vulnerable communities are located. It is a project that many of the individuals I interviewed – Emerson, Rogers, Williams – pointed to as an instance of environmental injustice.

The initial feasibility study for the "three by three" study – a research project that lasted three years and cost the city three million dollars – was published in April of 2020, and in February of 2021, an optimized plan was discussed in a Charleston city council meeting. The revisions of the plan focused on optimizing three primary objectives: environmental, engineering, and economics. The primary goal of optimization, especially in regard to engineering and economics, is to reduce the cost the wall without reducing the project's benefits. To achieve this goal, the USACE eliminated some parts of the initially proposed wall, such as a breakwater, and moved sections of the wall from marshland onto higher ground. This move reduced the environmental impacts of the wall as now only 51ft of the wall will be in the marsh, as compared to 111ft previously. The optimized version of the wall will save the city a total of \$300 million, though the total price of the wall is still around \$1.4 billion. Additionally, because of the presence of significant environmental and social impacts, the planning for the wall has switched from

an Environmental Assessment to an Environmental Impact Statement (EIS), extending the study period. Per Nancy Parrish of the USACE, the EIS is an opportunity to examine the things the public found important: the visual aesthetics, the wetland and marsh impacts, impacts to cultural resources and historic properties, and environmental justice issues. Parrish states, “pivoting now to an EIS will allow us to determine if the alternative that we are looking at disproportionately impacts low income or minority areas,” a clear indicator that environmental justice and the impacts of the wall on vulnerable populations were not among the formative concerns of this project.

This mindset, in which the future becomes actionable in the present, represents a common feature of climate change governance: anticipation. The way the future is imagined and anticipated is shaping the present; and the present state of planning that is concerned with security has, as scholar Jason Cons asserts, “ushered in a paradigm of anticipatory governance” (Cons 2018). This transition, he explains, has shifted from “prevention to preparedness to preemption,” wherein contemporary governmentality is focused on the anticipated future, and by making assertions of what this future may be creates shifts in the power dynamics at play. Within these power dynamics are the expressed desires of climate security. At a global scale, this language is used primarily to discuss the ways that an ever-warmer climate presents an imagined future of displacement, as well as increasing conflicts based on environmental stress, in this rhetoric climate change is seen as a threat multiplier in its potential exacerbating existing vulnerabilities and inequalities. However, with most of the climate migration predicted to be internal, there is a pressing question that goes unasked and unanswered in these spaces: where are displaced people going to go? The plan for the Charleston Sea Wall

does not articulate that displacement will still happen, and is still happening. There are conversations in other city council committees about affordable housing, however, developers in Charleston are offered two options when they build new housing developments: they can include affordable housing in that structure, or they can opt into pay a “fee-in-lieu,” a rate determined by the city that they can offer up to fund the construction of affordable housing *elsewhere*. Not only is this non-descript, but also when affordable housing is built, it is often built in the areas outside of the desirable Charleston peninsula. As Rogers of the SCCCL explained to me, in Charleston it is the public housing that are the most exposed to flooding and sea level rise.

The proposed Charleston Sea Wall represents a major opportunity to the city, one that city leaders pose as an opportunity they cannot afford to miss. Yet, this strategy is also one that facilitates further development of this area, and further coastal hardening, and in doing so holds the potential to continue the displacement of some of Charleston’s more vulnerable citizens, as well as its vulnerable ecosystems, including its marshes, which the plan has proposed building on. The proposed sea wall is not a new intervention – but rather it mirrors the coastal engineering that has long upheld the Charleston Peninsula, and because of this it will likely perpetuate long standing social structures that surround the decision-making process. This expensive allocation of resources is and will produce future geographies for the region; what these geographies look like is a function of what is given attention to and what is ignored in the process of shaping the future. This process of transcribing future geographies is a process of race-making, asserting a future where whiteness is preserved where Black geographies are erased, submerged, or displaced.

Building on McKittrick's work, scholar Tiffany Lethabo King has studied de Brahm's maps of South Carolina, noting the distinct ways white settlers projected their anxieties – both racial and environmental – onto the landscape (King 2019). De Brahm did not just serve to settle the line between the land and the water, but also as a tool to settle the social structures of domination and conquest in the colony. Using the methodology of “shoaling,” which King explains as a “disruption of the conquistador imagination and settlement” in which the slowing and interruption of violence can occur, King asserts the difficulty de Brahm and settlers like him faced from Black and Indigenous resistance. The creation of the maps of South Carolina, like de Brahm's “1757 Map of the Coast of South Carolina and Parts of Georgia” were attempts to ease white racial anxieties and to project a settled terrain – envisioning “the British/European subject as a rational, interior self of the mind who exercised dominion over the irrational and sensual beings such as Black and Indigenous others existing at the margins of humanity” (King 2019, 217). Following this line of thought, the map eschews dominion, but also a process of self-making – an engagement with the literature, cultural, and scientific ideologies that separate the group self (us) from the other. Rather than representing true domination and settlement, the map represents the struggle to control landscape and people – the edge of the map illustrates a space of shoaling at the shoreline, where the sea and the land meet. King explains that this space is surrounded by the exterior spaces of the “Black oceanic (chaotic space),” it is through this lens that we can better view the maps of the Charleston Sea Wall project as being racialized production – asserting control on the landscape and on the social order in their geographical representations. The Sea Wall mirrors a deep history of relying on

European, white logics of development and environmental management. Reminiscent of the “wilderness” that Cronon criticized, it is a stark reminder of the white environmental ideology that views human and nonhuman as separate entities (1995).

The current perimeter protection project is situated within a long history of environmental engineering and colonization, and by drawing this comparison to de Brahm, who was also foundational in the construction of the High and Low Battery wall, it is possible to better see the legacy in which the new sea wall stands. Figure 2.1 is an image pulled from the USACE’s NEPA Scoping Meeting Presentation. It depicts a prediction of Charleston in 2082 years with and without the sea wall, showing the impact on “cultural resource” – predominantly historic areas, represented in purple, and located at the tip of the peninsula (USACE 2021).

As of 2019, the city had a population of 137,566 people, with a median household income of \$68,438, only slightly above the national median income of \$62,843 (US Census Bureau 2019). These numbers, however, fail to represent the distribution of wealth, especially on the peninsula, where there are pockets of immense wealth, including in the South of Broad neighborhood, where the median household income is \$178,905 (ESRI 2020). Here home prices range from the \$800,000s on the low end to in the multi-millions on the higher end, with one of the oldest and most expensive homes in the city being sold for \$10 million in 2020 (Canales, Brandt, and Borden 2020; ESRI 2020). Figure 2.2 illustrates the average home price per zip code distributed across the Charleston Peninsula; this figure demonstrates the pockets of wealth that exist throughout the city, that the local government is fighting to preserve. The homes at the bottom of the peninsula, the area highlighted in Figure 2.1 as “cultural resources,” average greater than

\$394,267 per home in 2017, with homes at the lowest point of the peninsula, in the White Point Gardens neighborhood averaging \$880,165 in 2017 (ESRI 2018). The projection by the USACE, demonstrates how this project of the perimeter protection will preserve the “history of Charleston’s cultural resources.” These homes, which are epitomized as “historic Charleston,” are used as the bargaining chips for the sea wall engaging what is termed anticipatory history by scholar Caitlin DeSilvey (2012). The culturally significant parts of town happen to be the wealthiest areas.

Anticipatory history is a term that confronts “the impending transformation, or even disappearance, of landscapes or artifacts of cultural heritage” – an experience that will likely become more frequent as environmental change accelerates (DeSilvey 2012). In the sea wall project, the anticipated losses are to a whitewashed history. Where the Environmental Assessment gives mention of Charleston’s history, the engagement with slavery is almost completely lacking (US Army Corps of Engineers 2021). The historical section of the report mentions the colonies wealth, generated from the trade of deerskin, and the rice and cotton industries – making Charleston the “fourth largest city in Colonial America and the largest, as well as one of the wealthiest, cities south of Philadelphia,” without giving mention that this wealth was generated through the labor of enslaved Africans and African Americans (US Army Corps of Engineers 2020). This is indicative of the report’s ideological location – engaging solely the geography of domination, rather than the subaltern geographies. Choosing to operate from a standpoint that engages slavery and its afterlife of inequality sparingly and almost completely neglecting this narrative, rather than engaging it foundationally is an active move that asserts the view point of this work. Further, the proposal engages a distinct separation between the human

and the non-human worlds – viewing nature as something that exists outside of humans, something that is held in contention to humans, and something that is operating against human life. This separation is one that is well documented in the field of environmental history.

CULTURAL RESOURCES

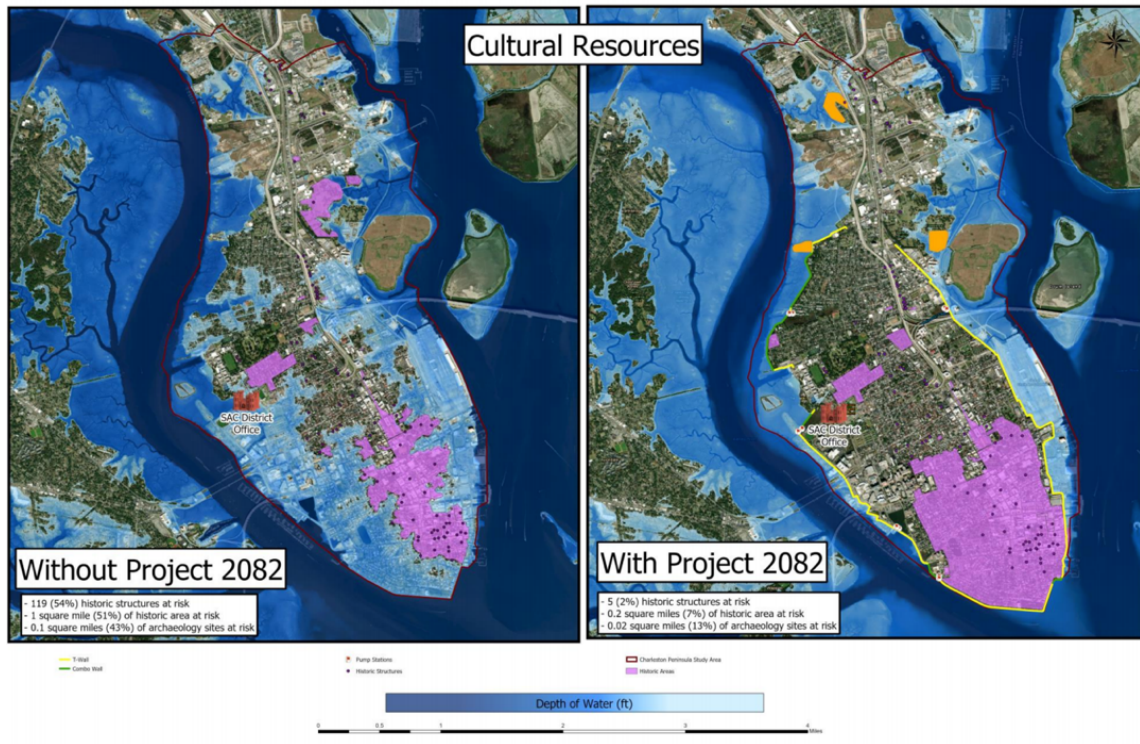


Figure 2.1 USACE’s Map of the Preservation of Cultural Resources Projected for the Sea Wall.

Source: US Army Corps of Engineers 2020 “A Coastal Flood Risk Management Study Feasibility Report and Environmental Assessment.”



Esri data developers evaluated every ZIP Code in the United States based on the average wealth of the households found within them.

City of Charleston, Charleston County GIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Figure 2.2. Average Home Values in 2017, per Zip Code.

Source: "Wealthiest Zip Codes 2017" (ESRI 2018).

Conclusion

The survival of the planet will depend upon abandoning the deeply rooted belief that economic growth can deliver social justice, the rational use of the environment, or human well-being and embracing the notion that there would be a better life for all if we moved beyond ‘development.’

- Gilbert Rist 2007,
485

The process of race-making, as theorized by Omi and Winant, is a formation that is constantly happening, including during decisions about climate change. This chapter has examined how this process is happening in Charleston, SC, through interrogating the logics that make the future of climate change actionable. These arguments include focusing on “anticipatory history” and the speculation of what historical cultural resources will be threatened and require preservation. However, the unspoken bias of these resources is that what is being saved and preserved represent the geography of domination, the whitewashed history of enslavement, that lessen the impact of these atrocities. These plans primarily consider the white geography of Charleston, giving little space to counternarratives, and little room in the plans for preserving African American and low-income neighborhoods, hence the assertion of environmental injustice. The primary goal of this chapter was to situate coastal South Carolina in the contexts of climate change and development, in order to demonstrate that the proposed adaptive measures to flooding are ones that facilitate the continued development of the area. Rather than heeding the words of Albert George, who believes that preserving the Gullah/Geechee culture will preserve the land, historic and environmental preservationists are more concerned with preserving the structurally unequal histories that

Charleston holds. They locate Charleston's history in the lowest end of the peninsula, in the richest neighborhoods, whose dark lineages span back to slavery. The way race is being made in Charleston is through the decisions of what deserves to be preserved. The decisions at play are ones that will structure the future, that will determine not only who is or is not inundated, but also who does or does not get to stay.

Superficially, this project represents the question of dealing with flooding – both nuisance flooding, and flooding that causes real structural damage to the built environment of the city; flooding that equates to economic losses for city residents that anecdotally come in the forms of corroded cars and damage to basements. Certainly, this is a problem. But, the fortification of the coastal city also allows for the patterns of development that have existed here for hundreds of years to continue. The plans put forth by the USACE represent a limited geographic scope that is much in line with Charleston's history of settlement. These plans illustrate an unspoken desire to project control onto the social order, as well as the landscape, mirroring de Brahm's map. Controlling the environment is a way to control social order.

Underscored by these plans is the desire to stay: to figure out ways around preserving life as we know it in these places; preserving the highly desirable realty, the multi-billion-dollar tourism economy, the "rich" history. These trends of value and desirability that are attempted to be maintained by these projects, however, also contribute to ongoing gentrification of these coastal locales. What does staying mean? Throughout many of my sources, such as videos and presentations by the Center for Heirs' Property Preservation, gentrification in coastal South Carolina is a salient theme – specifically for historic African American and Gullah/Geechee communities. Coastal

engineering is surely a contributory factor to this – rather than discourage or limit growth along the coastline, the city is opting into plans that enable the further growth and development of the Charleston Peninsula – even when the peninsula is lacking in affordable housing structures and developers can pay a fee in lieu of adding affordable housing to their developments. This strategy perceives the continued economic development of this area as a necessity, ergo fortifying this area, preventing its destruction in changing climatic conditions, is also a necessity.

There are conflicting visions of what the future of the coastline should be depending on cultural perspective; when managed exclusively from a white settler colonial perspective, environmental management and climate change planning are hardening the coastline. They are asserting a fixed line between human and nature, not allowing the coast to move. Ideologically, these environmental management practices doing the work of making racialized people marginal. By upholding only white histories, these logics actively “submerge” other perspectives. This does not represent a “natural” or inherent process, but rather is the result of decisions-making processes that are lodged in one distinct way of viewing and managing the environment. As will be explored in the next chapter, the range of options for adaptation for heirs’ property owners is limited. Securing FEMA funding after a disaster, and resisting predatory development and legal maneuvering make tenuous the able to stay on family land. Just as the wealthy white landowners of coastal South Carolina are trying to stay through dramatic solutions such as a sea wall, heirs’ property owners are trying to stay as well. Yet, through legal exclusion, and through colorblind climate change planning, their ability to stay is limited. Recalling Dwyer’s comment: “those with the resources get the help, we value the value

of money more than we value the people who are here.” Staying is not an equal experience. As will be explored in the next chapter, heirs’ property as a form of landownership, and as a way of relating to the land is devalued. This devaluing keeps it as a vulnerable means of holding land. But heirs’ property also exists as a point of chafing for the settler colonial legal system – and in that there is an opportunity to challenge the prevailing understandings of land and property.

Chapter 3: “Making the Land Human:” African American Landowners’ Relationships to Coastal South Carolina

Introduction

In August of 2019, I was in Charleston, SC to attend the Rural Land Owners Symposium, a two-day conference held by the Center for Heirs’ Property Preservation (CHPP). Outside, the air was warm and humid and smelled of pine needles baked in the sun, and of marsh. Inside I sat in a conference room that was crisp and cool, with the air conditioning blowing. I made pleasantries with the people sitting at my table: an older couple who had inherited land in South Carolina, a man who worked at the South Carolina Department of Natural Resources, a woman who worked at an environmental NGO in North Carolina. The commencement speaker, Ebonie Alexander, began her keynote by addressing who she is and what she does. Alexander serves as the executive director of the Black Family Law Trust (BFLT), as such she helps families own and maintain land; she has helped Black families retain up to \$12 million worth of land. The BFLT works to see land as an asset that is tangible and performing. Though born in Maryland, she now lives in Virginia on family land. Her family history can be traced in Virginia to the 1700s.

Alexander began her talk by discussing the African American Land Ethic. She mentioned that this month is the 400-year anniversary of African Americans coming to

this country as slaves, which began in 1619. The idea of the “land ethic” can be traced to Aldo Leopold in the early 1900s in the American north, but Leopold had little contact with African Americans, and thus had little understanding of their relationship to the land. Alexander was not the only person at this conference to make mention of the intimate relationship African Americans on the coast of South Carolina have to the land. Albert George, the keynote speaker and the director of the South Carolina Aquarium also mentioned this, and asserted the idea that the enslaved Africans who were brought to South Carolina were brought specifically for their agricultural knowledge and their environmental engineering knowledge, a postulate supported by Judith Carney’s book titled *Black Rice* (2001). This relationality to nature is inherent to the African American existence, even when it has not historically been acknowledged. To that end Alexander stated: “When an old man/elder dies a library burns to the ground,” emphasizing the importance of the generational knowledge that needs to be captured and harnessed, in order to keep both the land and the history alive for future generations. She cited the concept of the African American land ethic to John Henrik Clarke, the idea conceptually blends phenomenology, land ethic, cultural competency, and race theory for a people who “have been left out” and feel not a part of the country. Clarke, a historian and professor, was critical in the creation of Pan-African studies. He rejected dominant narratives that belittled Africa, its history, and its global contributions – such narratives included African primitivism and savagery (Clarke, 1993). In turn, he explored and asserted the resistance of people in the African diaspora to colonization and enslavement, as well as their connection to land.

This chapter grapples with the African American cultural conception of “land” – exposing the different natures of what land can be, through engaging concepts such as the commons, land versus property, and “making the land human.” Land is inherent to understanding identity, and identity is inherent in understanding land; in the historical particularity of the United States, who and what has been made “natural” to the landscape is largely representative of the modes through which the racial domination of this nation takes place. Human geographer Carolyn Finney, whose work my research leans on, explores the dimensions of representation in outdoor spaces as a function of producing what is ultimately deemed natural. The way that Americans generally “think, see, and talk about the ‘environment’ in the United States” is often asserted in a hegemonic and universalist way, wherein the “environment” is seen as a white space (Finney, 2014, 2). National sentiments of who belongs in the “environment” and who does not, and even what spaces qualify as the “environment,” what issues are considered “environmental” has all been produced and reproduced in accordance with national ideology. Existing in subaltern geographies of the land that explore different conceptions what it has been, what it is, and what it will be is a form of resistance to the colonial and capitalist domination that continues to play out in patterned forms. This chapter is an exploration of what the land of African American land owners in coastal South Carolina means to them. In order to do this, a few concepts must be made clear: 1) African Americans are not a monolith, and there are a variety of diverse experiences around land and land retention, and 2) relationships to land and the question of what land “is” is culturally relative. My analysis is formed through participant observation, content analysis, and interviews, as well as through observations that challenge my preconceived lens as a white settler in the

so called “United States.” The matters of discussion here are related to societal structure, access to resources, and the rights to identity. In the third chapter, I argue that many African American heirs’ property owners are actively fighting against processes of gentrification on the coastline through emphasizing their relationships to the land. One tactic of retaining control over land as “property” is through sustainable forestry management. Maintaining access to and relationship with land has allowed African American land owners to connect with past and future generations

Redefining Land, Identity, and Memory

Staying on the Sea Islands of South Carolina is critical to retaining the Gullah/Geechee identity. In a 2017 video produced by the Weather Channel about the threat of coastal climate change, Najmah Thomas, a member of the board of trustees of the Penn Center, stated: “Our culture and this location, this island, are one and the same. It’s not as though you could pick up this culture and put it in another place, away from the islands and it would manifest in the same way. There is an impossibility there. To be Gullah/Geechee is to be on the Sea Islands.” In this way place and identity are deeply connected - where a departure from one is a departure from the other. The invention of traditions, of customs and cultural practices are the things that tie together the present, the past, and the future (Hobsbawm and Ranger, 2012). The Gullah/Geechee identity is marked by a distinct dialect, as well as by cultural practices “born of a sustained connection to the land,” such as basket weaving, story-telling, religion, food ways, and land-based livelihoods (<http://sainthelenagullahgeechee.com/>, 2020). As will be explored later, the processes of culture- and race-making in America are subjects of imagination, objectification, commodification and reclamation. These historical particularities are

important to understand in order to understand the race-making projects at play in coastal South Carolina. With rising tides and intensifying storms, and with limited provisions and protections from the state and local governments, place, and in turn, identity is made vulnerable. Understanding the geographies that exist in these locals is crucial to understanding the implications that certain action or inaction have. The dimensions of power that play out here highlight the “uneven geographies” that exist on the coastline. In their essay *No One Knows the Mysteries at the Bottom of the Ocean* scholars Katherine McKittrick and Clyde Woods explore the ways that racial difference is violently experienced, and yet concealed by the circuits of science, nature, and difference (2007). They use Hurricane Katrina as an example of a moment in which “uneven geographies” were, for a second, exposed. These geographies are those that the state often tries to erase or ignore: “geographies of the homeless, the jobless, the incarcerated, the invisible labourers, the underdeveloped, the criminalized, the refugee, the kicked about, the impoverished, the abandoned, the unescaped” (McKittrick and Woods, 2007). These geographies, McKittrick and Woods suggest, exist at the outer bounds of democracy and citizenship, an unevenness normalized in the United States. These structures are in place prior to, during, and after natural disasters – for some they are the quotidian. In understanding the historical particularities of coastal South Carolina, we can better grapple with the ways that these geographies are produced and reproduced, and can examine the decisions and decision-making processes that do this work of race-making (Hall, 1980).

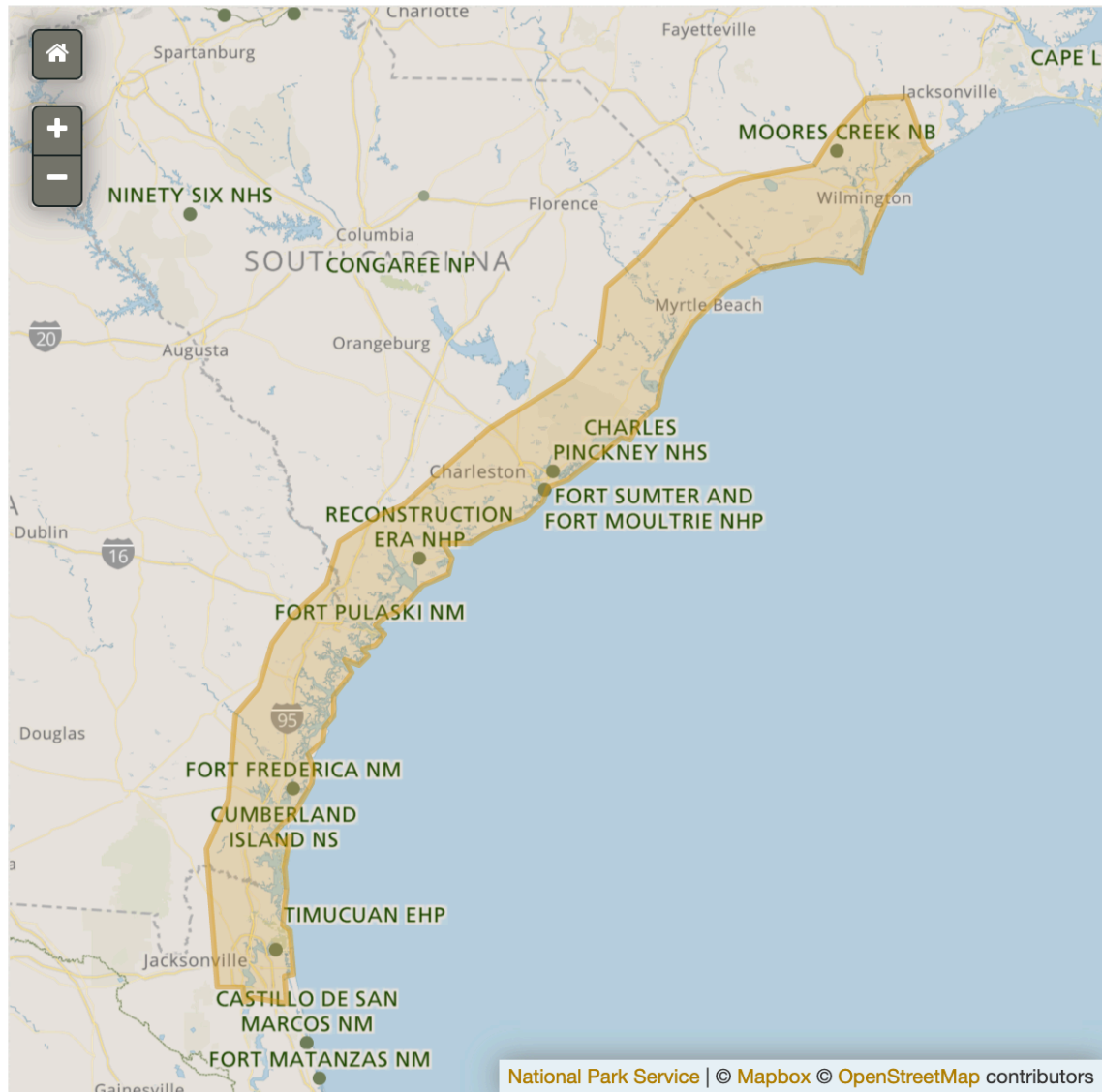


Figure 3.1, the Gullah/Geechee Heritage Corridor (National Park Service, 2019).

From the 1970s to the present, Black women writers have asserted a counternarrative to the exoticization and primitivism that was part of turning the Gullah/Geechee culture into a commodity for tourism. They described a new way to imagine the southern Black identity – invigorating the fight to stay on the land during a time when dispossession and being pushed out has been a continuous battle (Cooper 2017). Their own relation to land, and their resistance to white supremacy have been facets in reclaiming the unique Gullah/Geechee identity. Much of the problematic material of the previous decades was used as imperfect sources, from which “valuable material could be extracted,” recasting the previous material with a critical lens that included the understanding of the way that race and racism specific to the South shaped the lives of Southern African Americans (Cooper 2017, 160). In foregrounding racism, scholars, such as Lawrence Levine, were able to illuminate the ways that “Sea Islanders [were] constantly adapting and adjusting their worldviews to survive slavery and Jim Crow” (Cooper 2017, 161). Unlike previous presentations of Sea Islanders, these more recent understandings explored the complex pathways through which white supremacy has been resisted. This scholarship was brought to life, and to popular consciousness through the works of Alice Walker, resurrecting and building on Zora Neale Hurston’s literature, as well as Alex Haley’s popular book-turned-film *Roots* (1976). Additionally, authors such as Toni Morrison, Paule Marshall, Gloria Naylor, and Julie Dash wove a re-conceived Gullah folklore into their fiction – reimagining the identity with pride, rather than primitivism. The revival of interest, and the assertion of pride helped galvanize the fight to remain on the Sea Islands. In 2009, the Gullah Geechee Cultural Heritage Corridor formed in order to best preserve Gullah/Geechee geographies, folk culture,

history, and traditions amid concerns of land retention and permanent displacement (Cooper 2017). However, in the 2000s owning land through heirs' property was just as precarious as it is now, as coastal development has taken advantage of the vulnerable form of holding land. In 2001, scholar Thomas Mitchell estimated that 41 percent of Southern Black land owners owned their land through heirs' property, a number that has likely only swelled with the passing of generations, and with new heirs being born.

This internal displacement is what is being felt in coastal South Carolina by the Gullah/Geechee and African American coastal communities. Specifically, in Gullah/Geechee-identifying spaces gentrification and being pushed away from the coast is a large topic of conversation. These communities, who have historically subsisted from the land and land based-resources, through farming and fishing, are being displaced – and with this displacement comes a large loss. This loss is of culture and knowledge, and of land; for the Gullah/Geechee culture, location, identity, and subsistence are linked to their ability to control and manage the land. As Albert George, a proud Gullah/Geechee man and the Director of Conservation for the South Carolina Aquarium, explained at the Keeping History Above Water Conference:

when you think about the interplay between land and people, if you preserve the Gullah/Geechee culture, because we are living in harmony with land, because we live off the land, we have low density, what I tell people: these are the few last remaining bastions where the land can migrate with sea level rise, where the land can adapt. When you have high density, when you do all of these hardenings of the edges you make it so that the salt marshes, all of these things we call home, are not going to be adaptive under these conditions. [...] If you protect those people, you protect the land. You are protecting nature in a way that you cannot even comprehend.

Gullah/Geechee land management practices run counter to the practices of increased hardening that a plan that emphasizes continued development encourages. How land is

managed and how it is understood and related to are functions of cultural differences. When the ability to access and manage land is delineated by race, as it is when the decision-makers and planners are predominantly white, and are ideologically located in a white cultural relation to land, whiteness becomes the exclusive way of knowing, understanding, and relating to the environment. In this paradigm, racialized people are made marginal, and their perspectives, cultures, and environmental pathways are submerged.

Land for many African American residents of the Lowcountry represents more than just parcels. A video, produced by the CHPP, opens with several establishing shots: the camera pans through Spanish Moss draped on trees; then a large green space in-between two ponds and bordering a marsh; cattle in a field; a barn; a man in a striped shirt carrying a bucket walks across the scene, as several voices begin to speak on the meaning of land. “Well it’s a sense of ownership, a sense of ownership means a lot to me,” a man says. The camera pans through Palmetto bushes and a woman can be heard speaking: “Land is very important, even you read about land in the Bible and that’s what my father dreamt of, he dreamt of owning a piece of land and I’m thankful for him today, because I’m living on it.” “The Value of Land” produced by the Center for Heirs’ Property Preservation follows interviews several individuals as they detail their relationship to heirs’ property, to the land they now own, and to the values they place in it (2020a). For many, owning land is a safeguard for future generations, as the land was kept for them by past generations. It is symbolic of autonomy and agency:

My father was born in Alabama on a slave plantation and to him to be by this land, you feel like you’re really free, when you have a piece of land that you can call your own. You are not under *them*, you know? It means everything, it means everything. I love to see things grow, I get a thrill out of getting up in the morning and walking

over there to see that it had grown a half an inch (laughs). We had to work, because I was the youngest of the family that didn't mean that I didn't work. I had a cotton bag when we were picking cotton, so I've been working all my life and I'm 99 and I'm still working (laughs).

Land is not only an important asset – a means of production, wealth generation, and control – but it is also an important aspect of identity. It is representative of what has been promised to African Americans: freedom. It is a legacy.

In his dissertation thesis, *“The Land is Our Family and the Water is Our Bloodline:” The Dispossession and Preservation of Heirs’ Property in the Gullah-Geechee Communities of Lowcountry South Carolina*, geographer Brian Grabbatin explores the ways land retention is utilized by African Americans in the Lowcountry to broker the distance between the past and the present. Grabbatin writes, “land retention is seen as a way to honor the memories of ancestral struggle, while also serving as a cultural mechanism for reproducing values that are essential to community cohesion and heritage” (2016, 63). In continuation with the themes Black women writers used to galvanize interest and pride in Gullah/Geechee identity, as Cooper explored, many self-identified Gullah/Geechee individuals assert both their pride and their battle for land ownership as a means of claiming agency, and as a means of resistance to both climate change and dispossession. As Grabbatin asserts, the contemporary struggles for control of land and resources experienced by owners of heirs’ property can be situated in much longer “temporal processes of enclosure and commodification,” situating these struggles within a frame of capitalism and the enclosure of the commons (2016, 64). As geographer Jake Kosek explored, the social forces that drive claims to land are not just material, but also imagined through memory and connection to the past (2006). The desire for holding

and retaining land exists outside of the capitalist paradigm of material value and encapsulates the non-economic motivations and desires to remember and to be connected with the past and to the future; to be connected to pride and to culture, with land and identity being intimately woven formations. As explored in the interviews performed by Grabbatin, the connection to the land for African Americans and Gullah/Geechee in the Lowcountry is a physical one as much as a metaphorical one. As one of Grabbatin's interviewees stated:

If you look at enslavement, our blood, sweat, and tears is literally in the land. I don't care if it's from your finger getting cut in the field when you were working out there. It's literally in there.

We have to look at our land as a place that holds every bit of blood, sweat, tears, and placenta of everyone who came before us. When babies were born by a midwife the placenta was buried in this land. Burial areas are here. So, now is it just land or is it a living being that has DNA in it, literally and figuratively (Interview: Septima, February 2012 in Grabbatin 2016, 72).

As explored in this quotation, and as presented by Grabbatin, the land of some African Americans in the Lowcountry is more than property, but is a multi-directional conduit of life. From the physical production of food on farm lands, to the labor that has made this land profitable, the formal and informal economies, to the lives and kinship networks – the land is as much as social formation as it is a physical place. And, in this way, it is so much more than “property” or parcels; it is more than waterfront and recreation.

Recalling Abe Jenkins, J.R.'s quotation from chapter one, “the African people, or the Gullah/Geechee people, when they came – we had a different appreciation for food, for water, for everything. Those were survival things for this community.” There are many different ways of conceiving of the land, of nature, but for many of the lineages of

African Americans in the Lowcountry, land represents something deeper than monetary value.

This understanding of land challenges the values of climate change planning that predominantly view preserving the tourist economy and property values. On the Sea Islands that have been developed, like the example of Harbor Island from Chapter Two, exclusivity is valued enough that that community would rather confront climate change on their own than take public funding. Further, colorblind climate change planning neglects the historical particularities of the longstanding African American and Gullah/Geechee relationships to the land. In doing this, these plans, like the plans for the Charleston Sea Wall risk further displacement of these populations, and leave them often unable to respond to and adapt to intensifying hazards. This is a matter of preserving culturally distinct groups and achieving environmental justice.

Submerging Perspectives and the Uneven Geographies of Climate Change

Many perspectives and identities are at a continual risk of being submerged by the impacts climate change, and the policy-making processes that either enable or disable the ability to respond to intensifying hazards. Hurricane Florence, a \$24.23 billion-dollar storm, battered the coastline of South Carolina in September of 2018 (Smith et al., 2021). The category 4 storm was slow moving, dumping record breaking rainfall in the state, and warranting a presidential disaster declaration, a move that opened up the ability for residents in both coastal counties and inland counties of South Carolina to make claims to the Federal Emergency Management Agency (FEMA, 2018). FEMA serves to provide relief after natural hazards, granting those affected what they need to recover and respond, and build back to increase the resilience of communities. But, for some, access

to these resource is limited by the status of their land tenure. For some homeowners, especially in coastal South Carolina, there are huge barriers to rebuilding or receiving FEMA relief following a natural hazard because they own their land through heirs' property – a form of land ownership also known as a “tenancy in common” where the land owners do not have clear title to the land because it is inherited (Bliss, 2018; Mitchell, 2005). For these land owners, many of whom in South Carolina are African American and identify with the Gullah/Geechee culture and nation, this discrimination in access to resources for responding to natural hazards leaves families vulnerable to predatory real estate and development practices. Individuals who own their land through heirs' property are limited in their capacities to respond to climate change because the way they own and occupy land does not fit into the legal structures of the United States. It is a disruption, what scholar Tiffany Lethabo King might call a “shoal.” As King explains it, a shoal is a site “of conceptual difficulty” that represents a place where “Black thought, movement, aesthetics, resistance, and lived experience will be interpreted as a form of chafing and rubbing up against the normative flows of Western thought” (King 2019, 2). The conceptual shoal that is heirs' property occupies a space of challenge. Theoretically, it is a presentation of an alternative form of land ownership that runs opposite to capitalist property laws; functionally, existing in an unresolved and unrecognized legal space presents a challenge to heirs' property owners – marginalized by FEMA requirements of clear title, and thus limited in their options for responding to climate change and natural disaster.

In the event of a natural disaster Presidential Disaster Declaration are made following a request from a Governor, through that state's regional FEMA or Emergency

Preparedness office, granting both the president and the governor a large discretionary role in responding to a disaster (FEMA, 2020; McCarthy, 2014). Following the declaration of a PDD, FEMA disaster assistance takes three forms: individual assistance, public assistance, and hazard mitigation. The category of individual assistance includes Individual and Household Programs (IHP) aimed at assisting individuals whose homes are damaged during a disaster. These programs apply to homeowners and renters who are U.S. citizens, non-citizen nationals or “qualified aliens” affected by the disaster (FEMA, 2020). Available assistance for IHP includes temporary housing, repair, replacement, permanent housing construction (rare) and other needs assistance. Additional home disaster loans can be granted to homeowners and renters to repair or replace disaster-related damages. Public assistance takes the form of repair, restoration, reconstruction, or replacement of a public facility or infrastructure, which can include such acts as removing debris, clearing roads, aiding water control facilities, and the like. Finally, the Hazard Mitigation Grant Program (HMGP) is a measure through which communities can apply for mitigation funds through the State. The State or local government then must provide a 25% match of funds, which cannot come from federal funding of another source. The primary emphasis of the HGMP is acquisition and demolition, relocation, and elevation and floodproofing. These different strategies allocate funding toward property owners and have the potential to change the nature of a community – for instance if the community relocates to a site outside of the 100-year floodplain.

In order to verify home ownership for disaster assistance, FEMA requires a verification document such as a deed or title, a bill of sale or land contract, a mortgage payment booklet, a property tax receipt or bill, or a last will and testament (along with a

death certificate) naming an heir (FEMA, 2021). By its very nature heirs' property is excluded from FEMA post disaster programs such as IHP, as well as the HGMP, and the NFIP because of the issue of clear title – leaving heirs' property owners without some of the only federal dollars allocated to dealing with the impacts of climate change (Bliss, 2018). In regard to mitigation, the HMGP requires a 25% match by either state or local governments, restricting applications to communities who have more resources. Large NGOs with local chapters, such as the Nature Conservancy have, at times, provided funding for communities to cover this match, however, the HMGP tends to favor communities with the means to attain the grant.

In regard to inherited property, an heir is considered anyone related “by blood” to the person whose name is on the deed of the property, and those individuals related by law or birth including spouses, spouse by common law (though recent legislation has been passed limiting this), and children by birth or legal adoption (Center for Heirs Property Preservation, 2021). The state of South Carolina requires a probated will within ten years of the deceased person whose name was on the deed; if a will is not probated, the land becomes heirs' property, and must go through a process of “clearing title” which would list the name(s) of the living heirs on the deed – granting them the ability to obtain a mortgage, start a small business, or access grant funds to repair the current home. However, the further back the deed holder passed away, generationally, the more difficult the process of clearing title is, because it requires the individual trying to clear title to have a knowledge of all the living heirs, and their consent. Resolving heirs' property can take anywhere from several months to several years according to the Center for Heirs' Property Preservation (CHPP), leaving the land still vulnerable to natural disasters during

this time of resolution. Since its inception in 2005, the Center for Heirs' Property Preservation, an NGO based in Charleston, has resolved over 202 titles, with a total tax assessed value of \$12.2 million for the land (Center for Heirs Property Preservation, 2020b). A 2012 study by CHPP suggests that at least 41,000 acres of heirs' property remained in coastal South Carolina at that point (Gaither 2016). From a policy standpoint, the Uniform Law Commission, a non-partisan group that drafts legislation to bring clarity and stability to state statutory law has created the 2009 Uniform Real Property Transfer on Death Act (URPTODA). The Act, which simplifies the process for the non-probate transfer of real estate, has been introduced in 22 states, and enacted 19 of those states; South Carolina has not yet introduced or enacted the Act (Uniform Law Commission, 2021).

The formal process excludes heirs' property owners, limiting their ability to respond to natural disaster, and highlighting the uneven geographies at play in the United States. These are the geographies that often remain invisible and marginalized until disaster strikes – though socially produced, these are the places and times in which racialization becomes realized and the material consequences of unevenness are felt. Homes, and ultimately culture, are made vulnerable for African Americans, for Gullah/Geechee by a legal system that does not accommodate it. The contours of citizenship come into question when a nation-state fails to provide and protect its citizens. If citizenship is a measure of one's ability to access to resources then clearly true citizenship in the United States falters here. Furthering this conversation, the Gullah/Geechee Nation of St. Helena Island assert themselves as "nation within a nation" – wherein land sovereignty and self-determination are critical

(<http://sainthelenagullahgeechee.com/>, 2020). Nationality refers to identity, how people view themselves and their history, and this identity is tied to using the land. As Najmah Thomas states, “to be Gullah/Geechee is to be on the Sea Islands.” In this regard the Gullah/Geechee Nation has asserted “that land retention is a sovereign human right” (<http://sainthelenagullahgeechee.com/>, 2020). Land retention is cultural retention. Yet, the vulnerable status of heirs’ property threatens this land retention. Encroachment threatens this land retention. Natural disaster threatens this land retention. But these threats are the result of social organization, of dominant social systems “that reward us for consuming, claiming, and owning things” (McKittrick and Woods, 2007). Both capitalism, which has turned land into a commodity, and accumulation by dispossession, which constantly requires new enclosures of the land have morphed and continue to morph the coastline of South Carolina.

Owning and Retaining Land

In the fall of 2020 I attended a public course offered by the Center for Heirs’ Property Preservation for titled Woodlands Community Advocates (WCA). The course, aimed at heirs’ property owners, detailed how the CHPP works; it sought to train a group of advocates to be able to reach out to their communities and educate them about heirs’ property, and direct them to the Center. The course covered many different facets of the Center’s work, protecting heirs’ property and promoting sustainable land use in order to economically benefit low wealth land owners. In their fifteen-year tenure the Center has grown from a staff of two to a staff of twenty-nine, and has launched a “Sustainable Forestry and African American Land Retention Program,” of which the WCA program was founded. They serve eighteen counties in South Carolina The Center has three main

service to protect heirs' property: prevention, resolution, and land utilization. Under these different domains the Center offers education, as well as increases access to services that have historically been inaccessible through barriers such as de jure and de facto racism, as well as financial barriers. The strategies employed by the CHPP involve strategically navigating the legal structures that have created the issues of heirs' property. And, to a large degree, the Center has been very successful, resolving over 202 titles, with a total tax assessed value of \$12.2 million (Center for Heirs Property Preservation, 2020b). They rely largely on word of mouth, testimonials, and community organizing in sourcing their clients, and while this has proven very effective heirs' property is by no means a resolved issue. At any point in time there could be new heirs emerging, and as clearing title requires an extensive knowledge of kinship networks and family consent, made more difficult by the passing of generations and family movement away from South Carolina. As historian Andrew Kahrl argues, is not the emergence of heirs' property that is the issue, but rather the enacting and manipulation of the law to the end of dispossession.

This work, of helping heirs' property owners hold clear title to their land, is anti-gentrification work. Gentrification and its impacts on Gullah/Geechee people are of distinct interest to the Center, which presented the 2020 "Gullah Geechee Preservation Project" funded by a grant from the South Carolina Department of Archives and History. As coastal South Carolina has experienced unprecedented growth in population, the experiences of dispossession and gentrification are intensifying (Center for Heirs Property Preservation, 2020c). The project awarded nine grants to historical African American communities around the Charleston area. One community, Liberty Hill, is

representative of this tension between gentrification and land retention. As Hester

McFadden, a passionate community member states:

This historic community has been such an established community for so long, in fact it is the oldest established community in North Charleston. And we were talking about a lot of folks who invested their entire lives in trying to promote economic growth and stability and faith and family. And we are seeing all of that dissipate because of gentrification. We've seen houses built up around the community and it grieves our spirit, as I said before, and we are really trying to get our children to understand that because our predecessors invested so much of themselves, their heart, their soul, their spirit into the community, we are trying to stop this influx of economic growth without us being a part of that growth. And so, this is our mission, so that our children and future generations will understand that this is a strong historic community and we are going to hold onto it at all cost.

McFadden, a passionate member of the Liberty Hill community expresses how this is a systemic issue for the community – threatening their ability to participate in economic growth, land retention, and stability for the future. The way gentrification appears, the visuals connected with it are very real things in these communities. As McFadden noted, houses and land are being “built up around the community,” is a visual that attests to the visual difference between the new and the old. In one of my interviews with a very politically active environmental NGO, my informant detailed that new development is being built on filled in land; these developments will often encircle heirs' property communities, existing at a higher level. Both the hardened land, and the heightened land then drain off into the predominantly African American communities that are physically below them – exacerbating flooding in these communities that lack access to the FEMA funding for hazard relief and mitigation.

Preserving land is critical to preserving community, and in turn, land represents a communal asset. In his 2016 dissertation Grabbatin explores in depth the multitude of meanings land in Lowcountry South Carolina can hold. Land, as a culturally relative

subject, takes on different meanings depending on the space in which it is being discussed. As Grabbatin notes, each remaining acre of heirs' property is "a starting point for exploring the complicated nexus" of social practices that are exposed by the various interests in the land. In a capitalist structure, wrought with enclosures of the commons, land is a commodity to be bought and sold, owned and controlled. In coastal South Carolina, especially, land has become highly coveted for its value to the tourism economy, and its potential for development. By examining heirs' property from a historical lens, Grabbatin is able to engage heirs' property in the context of an intensification of longer-standing practices of enclosure and land struggles.

In her opening speech Alexander discussed the Decades of Sorrow from 1920, the height of African American land ownership to 2004, at which point 97% of African American land assets had been lost. With this she stated "a landless people is a powerless people," taking control over land can mean control over food, diets, and other factors of life. This notion of food sovereignty is expressed as well by the Saint Helena Gullah/Geechee, who emphasize the importance of land retention to cultural retention. In being able to have sovereignty over the land, "it gives the people power over their own lives," including how they "honor their ancestors on the land, pass on cultural traditions, practice their faith, build economic power, and uphold food sovereignty (<http://www.sainthelenagullahgeechee.com/> 2020). As explored by scholar Monica M. White, the ability to control land, especially in an agricultural context, has long been critical for the manifestation of Black power, and the formulation of Black politics, in addition to maintaining food sovereignty and food culture (2018). White's work ossifies the Black land ethic, asserted by Alexander, and the spaces of Black farming

communities and collectives as being critical in the push against the white supremacist state, and the assertion of Black freedom.

The exploitation of heirs' property – “legalized theft” as an attorney at CHPP dubs it in their video on the value of land – has resulted in vulnerable ways of owning land. Land development threatens heirs' property communities in a variety of ways – not just through predatory practices, but also through the building up of development in areas around African American communities. By both building up the earth and through increasing the number of impermeable surfaces in the areas around African American communities, issues such as intensified flooding overburden these communities. Coupled with limited avenues for heirs' property owners to respond.

The Question of the Map – Opportunities to Unsettle

In Chapter two, I explored Tiffany Lethabo King's assertion that de Brahm's map of South Carolina was a projection of settlement – psychological and geographically, done to calm white anxiety. Heirs' property, in its fluid nature, challenges the conventions of mapping. It follows in a history of African American resistance to mapping stemming back to the ability of African Americans to procure land following the Civil War. Freed African Americans on the Sea Islands expressed their protest to being mapped by “following behind surveyors pulling up survey markers” (Franke 2019, 73). In this way, they resisted land being turned into parcels, and they resisted the land being known in that way, as property. Heirs' property exists as a challenge to climate change mapping projects because it is a challenge to settler colonial American understandings of what property is and should be. There is a certain power in being “unknown” and unmappable, a power of existing in a fugitive space.

Amid my interviews there seemed to be conflicting ideas that either there is or is not somewhere a map of where much of the land owned through heirs' property is. Both Sullivan and Emerson, who worked on climate change planning for the ENGO suggested if only they could have access to the map layer of heirs' property, they would better be able to plan inclusively. They were doing this from the position of both attempting to grapple with the history of environmental racism in the field, as well as understanding the impacts restoring greenspaces has on potential gentrification. They did not want to purchase land to restore and inadvertently displace heirs' property owners – however, it seemed that this hidden geography needed to be known in order to achieve these goals. Sullivan suggested that another alternative was to show their planned restoration locations to the Center for Heirs' Property Prevention, who holds the supposed map, for acceptance or rejection. Alternatively, Weber, who operates between the academic and governmental worlds for climate change planning suggest there is no map of where heirs' property is, which makes it hard to address directly, and, again, hard to plan around. The Center may have a map, but because of the way that heirs' property arises in South Carolina – through the passage of land without a will probated within ten years of the landowner's death – heirs' property represents a form of land ownership that, without policy change, can continue to take place. It is inherently amorphous.

The use of map making has proven to be a near ubiquitous tool in climate change planning. Maps, exploring projected futures and imagined possibilities are used to impart the urgency of impending crisis. However, the expansiveness of heirs' property represents a space of the unknown – and therefore exists in a place of tension. As Katherine McKittrick and Clyde Woods suggest there are “places, experiences, histories,

and people that ‘no one knows’” that exist “*within our present geographic order*” (McKittrick and Woods, 4). And these unknowns, unmappables represent disruptions to the projected order. There is a feeling that it would be so much easier if certain entities *could just know* where heirs’ property was – “inclusion” could be possible, but on the terms of climate change planners. At a presentation hosted by the Aspen Institute titled “All Land is Not Equal,” Dr. Jennie Stephens, the founder and CEO of the Center for Heirs’ Property Preservation stated the mantra: “if it is for us, without us, it is not about us.” In saying this, she made clear that work that some organizations do in order to achieve the aesthetic of inclusion is often self-serving.

The challenge of integrating heirs’ property to the dominant structure is, at the same time, a representation of another possibility – a way to move away from territoriality, to exist on family land, where the land is also family, to know the land as living. However, because of the challenges of encroachment and enclosure, because of the current legal structure of the United States, it is precarious to hold land in this way, and it is precarious to know where this land is held. Heirs’ property challenges land ownership; it offers a disruption to the universalist view that the right way to be is to be a “property owner.” Land held through heirs’ property is held in another way, it exists outside of, and in contrast to, settler colonial expectations of what land is useful for – not parceled for sale, but rather family. Connection. A gateway backwards and forwards. Were a map of heirs’ property could be produced, it would make these landowners further vulnerable. In exposing their land ownership status, in locating them upon a projection, heirs’ property owners could be exposed more rapidly to the entities of real estate and development who have already disposed African American land owners

expansively during the past hundred years. The nature of these practices, of projecting climate change, or of projecting other social facets, is a precarious thing. Contrarily, being unknown, occupying an unknowable space, existing in this amorphous nature

Conclusion: Making the Land Human

Sitting in the air condition conference room in Charleston, SC, Ebonie Alexander finished her impassioned keynote speech on the African American land ethic by imbuing upon the audience the idea of “making the land human,” as in connecting the spiritual nature of who you are to the place you are from – here she delved into ontological relationships that people have to the land. She asked the audience who do you leave your land to and how do you leave it, with this she explained that the forests offer more than what has been associated with it through the deep histories of lynching and slavery that are so commonly associated with the land. Through this people need to talk about the land: how did you get this land? What has happened to you on this land? As land is passed down generationally it is important to remember all land and all children are not equal. Landowners should talk to children about what the landowner wants for the land, and what their child wants for the land – these visions are important in deciding who to leave the land to. The land is made human by the stories of the land, Alexander suggested making a map of the land and putting pushpins where the stories happened. She talked about stories of her land, how her father used to hang out in the big oak tree on the property and dress in a sheet waiting to scare passersby, and her uncles used to play in the saw dust of the mill, and would take off their clothes so as to not get them dirty as they played. Presently her nephew, who lives with her on the land takes the chairs off the porch and has a spot in the woods where he can sit and still get wifi on his phone. These

were examples of how the land matters to her and her family. The land is capable of expansiveness, in the process of meaning making, it too can be amorphous – occupying multiple temporalities, holding always an element of the unknown.

When the land is made human, when it is understood as something other than property – as an inheritance, a lineage of relationships, a marker of time, a symbol of freedom, family itself – it exists outside of settler colonial law and understanding. There are unique opportunities, or, perhaps challenges, that heirs’ property poses as a “shoal” against “the normative flows of Western thought” (King 2019, 2). Heirs’ property is not a problem in and of itself, rather it is made a problem by a legal system that does not accommodate it. Dealing with the complexities of climate change justly, then, requires the illumination of these submerged perspectives – and requires taking the prerogative of making the land human literally. The human land of heirs’ property is always a possibility – so long as life, and death, and lineage continue, so too continues the potential for land to be passed down without a deed, so too persist the challenges (the opportunities) of heirs’ property to settler colonial land practices. As previously stated by Albert George, the land held by the Gullah/Geechee is the last land that has not been hardened, “these are the few last remaining bastions where the land can migrate with sea level rise, where the land can adapt,” rather than being made the problem, these lands can represent the alternative. A different option, a different way of being and relating. Moving and changing with the movement of the water and the soils. Currently, climate change planning in coastal South Carolina does not make the land human. The land, as well as the rising water and intensifying storms are presented as a threat to infrastructure, a threat to jobs and to the tourism economy Making the land human requires

understanding the human in the nature, understanding the social and environmental histories, and stepping away from the dominant, whitewashed narrative, into a different formation entirely.

Conclusion

Throughout this research I have critically engaged with coastal climate change planning from multiple framings, examining it as a function of environment, economy, and social order. Currently, though there is much research on both climate change and the socio-economic history of South Carolina, and even research on the intersection of hazards and social vulnerability, there is limited research regarding how heirs' property holders specifically will be impacted by both climate change and by climate change planning processes. In bringing these entities into the same space, I hope to advance the way climate change planning and inclusion of "unknown" or "unmappable" elements are engaged with. By doing this, I raise questions around how climate change planning is currently being done and how it could be done alternatively.

Currently climate change planning often relies on using maps to illustrate impacts of hazards, as well as to locate certain populations. This is happening in South Carolina by a variety of organizations, from the proposed Charleston Sea Wall by USACE, to the climate change blueprint that local ENGO is developing – but maps are a limited and limiting tool. In the case of USACE, the maps of Charleston's cultural resources preserve legacies of whiteness and wealth, valuing the communities with the most resources over the communities with the least. These maps and these decision-making processes indicate what is truly of value to the state, who is reticent to invoke conversations around environmental justice in these planning processes. Alternatively, the ENGO I focused on, as well as other environmental groups, are actively trying to contend with their own

history of racism, both in the legacy of their founder, and in their location as a mainstream environmentalist group. Yet, they still rely on projections, on locating the unknown and unmappable entities such as heirs' property, in order to achieve inclusion. What does inclusion look like without mapping? Are there ways to protect the unknown geographies of climate change? Because of the amorphous, fluid, and expanding capacity of heirs' property, it would seem that locating these family properties as static points on a map would be impossible – so methods must be employed to preserve these places and make them less vulnerable in the eyes of the law.

Further, in understanding heirs' property as a shoal, an instance of chafing, something that has been made a problem by a racist legal system, rather than something that is inherently a problematic way of holding land, I hope to assert that there is untapped potential for heirs' property to be a disruptive force. Heirs' property challenges conventional understandings of property as parcels, making it family. In the words of Ebonie Alexander, making the land human. When the land is human, when the land and natural resources are located as necessity, rather than luxury, the mainstream ideological position can shift from one of valuing profit and tourism, to one of actually preserving the coast. Reiterating Albert George's words, "if you protect [the Gullah/Geechee] people, you protect the land. You are protecting nature in a way that you cannot even comprehend." Further research should follow the work being done on the proposed Charleston Sea Wall, challenging this project to be one that considers justice and vulnerability over geographies of domination. Additional research could also advance the understanding of heirs' property as a shoal, employing participatory action techniques to resist gentrification, while retaining a culturally specific relationship to land and family.

As I have worked through this project, I am left contemplating the ways that access to and control of land results the power to control the future of the ways that land is manipulated. Current formations – social, racial, economic – shape future physical formations. Decisions around climate change planning, and land management are being actively made in a way that does not engage ways of looking at relating to land that are alternative to the predominantly white viewpoint. This results in sacrificing and submerging perspectives of African American and Gullah/Geechee populations. These are populations whose land-holding practices enable the land to move and migrate.

References

Introduction

- Black Family Land Trust, Inc. 2015. *Land Ethic*. <https://www.bflt.org/land-ethic.html>.
- Cronon, William. 1995. "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." *Uncommon Ground: Toward Reinventing Nature* 1st ed. New York: W.W. Norton & Co: 69–90.
- Finney, Carolyn. 2014. *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. The University of North Carolina Press.
- Hardy, R. Dean, Richard A Milligan, and Nik Heynen. 2017. "Racial Coastal Formation: The Environmental Injustice of Colorblind Adaptation Planning for Sea-Level Rise." *Geoforum* 87: 62–72.
- HoSang, Daniel Martinez, Oneka LaBennett, and Laura Pulido. *Racial Formation in the Twenty-First Century*. 1st ed. Berkeley: University of California Press, 2012.
- Kahrl, Andrew W. 2012. *The Land Was Ours: African American Beaches from Jim Crow to the Sunbelt South*. Boston: Harvard University Press.
- King, Tiffany Lethabo. 2019. *The Black Shoals: Offshore Formations of Black and Native Studies*. North Carolina: Duke University Press.
- Kosek, Jake. 2006. *Understories: the Political Life of Forests in Northern New Mexico*. North Carolina: Duke University Press.
- McKittrick, Katherine. 2006. *Demonic Grounds: Black Women and the Cartographies of Struggle*. University of Minnesota Press.
- Omi, Michael, and Howard Winant. 2015. *Racial formations in the United States* Third edition. New York: Routledge/Taylor & Francis Group.
- White, Monica M. 2018. *Freedom Farmers: Agricultural Resistance and the Black Freedom Movement*. The University of North Carolina Press.

Chapter 1

- “The Connection,” *Barbados and the Carolinas Legacy Foundation*. September 2020.
<https://www.barbadoscarolinas.org/about>
- “Yamassee Nation Indian Tribe of SC, FL, & GA,” *Yamassee Indian Tribe/Yamassee Nation*. 2019. <http://yamasseenation.org/index/>
- Atlanta Blackstar*. 2016. “A Community Under Attack: How the Gullah/Geechee Nations Are Fighting Against Culture Vultures Keen on Destroying Them,” December 17, 2016.
- Butler, Christina. 2020. *Lowcountry at High Tide: A History of Flooding, Drainage, and Reclamation in Charleston, South Carolina*. Columbia: University of South Carolina Press.
- Carney, Judith A. 2001. *Black Rice: the African Origins of Rice Cultivation in the Americas*. Boston: Harvard University Press.
- Center for Heirs' Property Preservation. 2020a. “The Value of Land.” *Center for Heirs' Property Preservation*. Youtube. May 11, 2020.
https://www.youtube.com/watch?v=Yo9uhysLTC8&t=5s&ab_channel=CenterforHeirs%27PropertyPreservation
- Cooke, Charles W. 1936. *Geology of the Coastal Plain of South Carolina*. Washington, D.C.: Government Printing Office.
- Cooper, Melissa. 2017. *Making Gullah: A History of Sapelo Islanders, Race, and the American Imagination*. Chapel Hill: University of North Carolina Press.
- Cronon, William. 1995. ““The Trouble with Wilderness; or, Getting Back to the Wrong Nature.” In *Uncommon Ground: Toward Reinventing Nature*. 69–90.
- Davies, Carole B., and Babacar M’Bow. 2007. “Towards African Diaspora Citizenship: Politicizing an Existing Global Geography.” In *Black Geographies and the Politics of Place*, edited by Katherine McKittrick and Clyde Woods, 14–45. Ontario, Canada: Between the Lines.
- Dean, Cornelia. 1999. *Against the Tide: The Battle for America’s Beaches*. New York: Columbia University Press.
- Dyer, Janice F., and Conner Bailey. 2008. “A place to call home: cultural understandings of heir property among rural African Americans,” *Rural Sociology* 73(3):317–338
- Edelson, Max S. 2007. “Clearing Swamps, Harvesting Forests: Trees and the Making of a Plantation Landscape in the Colonial South Carolina Lowcountry,” *Agricultural History*. 81(3): 381–406.

- Finney, Carolyn. 2014. *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. Chapel Hill: University of North Carolina Press.
- Franke, Katherine. 2019. *Repair: Redeeming the Promise of Abolition*. Chicago: Haymarket Books.
- Gilbert, Jess, Gwen Sharp, and M. Sindy Felin. 2002. "The loss and persistence of Black-owned farms and farmland: A review of the research literature and its implications," *Southern Rural Sociology*, 18(2): 1-30.
- Hitchner, Sarah, John Schelhas, and Cassandra Johnson Gaither. 2017. "'A Privilege and a Challenge': Valuation of Heirs' Property by African American Landowners and Implications for Forest Management in the Southeastern U.S." *Small-scale forestry* 16(3): 395–417.
- Hitchner, Sarah, John Schelhas, and Puneet Dwivedi. 2021. "Safe Havens: The Intersection of Family, Religion, and Community in Black Cultural Landscapes of the Southeastern United States." *Landscape and urban planning* 214(2021): 1-8.
- Hobbs, Carl H. 2012. *The Beach Book: Science of the Shore*. New York: Columbia University Press.
- Kahrl, Andrew W. 2012. *The Land Was Ours: African American Beaches from Jim Crow to the Sunbelt South*. Boston: Harvard University Press.
- Kana, Timothy W., Traynum, S. B., and Kaczkowski, H. L. 2014. "Scales & Signatures of Episodic Sand Bypassing at a Tide-Dominated Inlet – Fripp Island, South Carolina," *Coastal Engineering Proceedings*, 1(34): 52.
- Kosek, Jake. 2006. *Understories: The Political Life of Forests in Northern New Mexico*. Durham, North Carolina: Duke University Press.
- Mitchell, Thomas W. 2001. "From Reconstruction to Deconstruction: Undermining Black Landownership, Political Independence, and Community through Partition Sales of Tenancies in Common," *Northwestern Law Review*, 95(2): 505–580.
- Mitchell, Thomas W. 2010. "Forced Sale Risk: Class, Race, and the 'Double Discount,'" *Florida State University Law Review* 37(3): 589–658.
- McKittrick, Katherine. 2006. *Demonic Grounds: Black Women and the Cartographies of Struggle*. Minneapolis: University of Minnesota.
- Narayana, Crystal. "Where Sea Meets Land," *Coastal Heritage Magazine*. S.C. Sea Grant Consortium. Fall 2019. <https://www.scseagrant.org/wp-content/uploads/Coastal-Heritage-Fall-2019.pdf>

- Alani, Hannah and Robert Behre. 2020. "Just Outside of Charleston, a Native American Tribe Seeks to Preserve Its Identity." *Post and Courier*. September 4, 2020. https://www.postandcourier.com/news/just-outside-charleston-a-native-american-tribe-seeks-to-preserve-its-identity/article_dac0cce6-142a-11e9-8471-c726cd1169ff.html
- Wise, Warren L. 2021. "Kiawah Island Sees Record \$808M in Property Sales in 2020," *Post and Courier*. January 23, 2021. https://www.postandcourier.com/business/real_estate/kiawah-island-sees-record-808m-in-property-sales-in-2020/article_4458c7d6-55d7-11eb-a259-d3ef6df36af7.html
- Presser, Liz. 2019. "Their family bought land one generation after slavery. The Reels brothers spent eight years in jail for refusing to leave it," *ProPublica*. July 15, 2019. <https://features.propublica.org/black-land-loss/heirs-property-rights-why-black-families-lose-land-south/>
- Rivers, Faith R. 2006. "The Public Trust Debate: Implications for Heirs' Property along the Gullah Coast," *Southeastern Environmental Law Journal* 15(1): 176–195.
- Rowland, Lawrence, Moore, Alexander and Rogers, George C. 1996. *The History of Beaufort County, South Carolina: Volume 1, 1514-1861*. Columbia: University of South Carolina Press.
- Shannon, Margaret A., and Taylor, Stephen W. 2003. "Astride the Plantation Gates: Tourism, Racial Politics, and the Development of Hilton Head Island," In *Southern Journeys: Tourism, History, and Culture in the Modern South*, edited by Richard D. Starnes, 176–195. Tuscaloosa: University of Alabama Press.
- Social Explorer Dataset (SE), Census 1880, Digitally transcribed by Inter-university Consortium for Political and Social Research. Edited, verified by Michael Haines. Compiled, edited and verified by Social Explorer.
- Social Explorer Dataset (SE), Census 1940, Digitally transcribed by Inter-university Consortium for Political and Social Research. Edited, verified by Michael Haines. Compiled, edited and verified by Social Explorer.
- Social Explorer Tables: ACS 2019 (5-Year Estimates)(SE), ACS 2019 (5-Year Estimates), Social Explorer; U.S. Census Bureau.
- Stewart, Mart A. 1991. "Rice, Water, and Power: Landscapes of Domination and Resistance in the Lowcountry, 1790 – 1880," *Environmental History Review*, 15(3): 47–64.

- Walpole, Ford. "Barrier Islands," *South Carolina Encyclopedia*, University of South, Carolina Institute for Southern Studies. May 17, 2016.
<https://www.scencyclopedia.org/sce/entries/barrier-islands/>
- Weiss, Thomas. 2004. "Tourism in America before World War II," *The Journal of Economic History* 64(02): 289–327.
- Wetherington, Mark V. 1994. *The New South Comes to Wiregrass Georgia, 1860–1910*. Knoxville: University of Tennessee Press.
- Winberry, J. J. and Bushman, Donald O. "South Carolina." *Encyclopedia Britannica*, March 21, 2021. <https://www.britannica.com/place/South-Carolina>.

Chapter 2

- Butler, Christina. 2020. *Lowcountry at High Tide: A History of Flooding, Drainage, and Reclamation in Charleston, South Carolina*. Columbia: University of South Carolina Press.
- Canales, Katie, Libertina Brandt, and Taylor Borden, 2020. "Inside one of the oldest and most expensive mansions in Charleston, which just sold for \$10 million and was once owned by Abraham Lincoln's granddaughter." *Insider*. July 28, 2020.
<https://www.businessinsider.com/sword-gate-house-16-million-charleston-mansion-haunted-abraham-lincoln-granddaughter-2018-10>.
- Cons, Jason. 2018. "Staging Climate Security: Resilience and Heterodystopia in the Bangladesh Borderlands." *Cultural anthropology* 33(2): 266–294.
- Cronon, William. 1995. "'The Trouble with Wilderness; or, Getting Back to the Wrong Nature.'" *Uncommon Ground: Toward Reinventing Nature*. 69–90.
- DeSilvey, Caitlin. 2012. "Making Sense of Transience: An Anticipatory History." *Cultural geographies* 19(1): 31–54.
- Di Chiro, Giovanna. 1995. "Nature as Community: The Convergence of Environment and Social Justice." In *Uncommon Ground: Toward Reinventing Nature*, edited by William Cronon, 289–320. New York: W.W. Norton.
- ESRI. 2018. "Wealthiest Zip Codes 2017." *ESRI Demographics*. June 4, 2018.
<https://uscgeography.maps.arcgis.com/home/item.html?id=93d6c84a70bd46139bbd38c379bf2693>
- ESRI. 2020. "2020 USA Median Household Income." *ESRI*. June 25, 2020.
<https://uscgeography.maps.arcgis.com/home/item.html?id=20a60423d37c49ba9253526859ba93e1>

- Fears, Darryl. 2021. "The Racist Legacy Many Birds Carry." *Washington Post*. June 3, 2021. <https://www.washingtonpost.com/climate-environment/interactive/2021/bird-names-racism-audubon/>.
- Few, Roger, Katrina Brown and Emma L. Tompkins. 2007. "Public Participation and Climate Change Adaptation: Avoiding the Illusion of Inclusion." *Climate policy* 7(1): 46–59.
- Franke, Katherine. 2019. *Repair: Redeeming the Promise of Abolition*. Chicago: Haymarket Books.
- Giltner, Scott E. 2008. *Hunting and Fishing in the New South : Black Labor and White Leisure after the Civil War* Maryland: Johns Hopkins University Press.
- Gottlieb, Robert. 2009. "Where We Live, Work, Play . . . and Eat: Expanding the Environmental Justice Agenda." *Environmental justice* 2(1): 7–8.
- Harris, Adrienne. 2019. "The Perverse Pact: Racism and White Privilege." *American Imago* 76(3): 309–333.
- Johnson, Chloe. 2020. "Charleston flood wall would not protect SC Aquarium, African American museum, Neck Area." *Post and Courier*. April 26, 2020. https://www.postandcourier.com/news/charleston-flood-wall-would-not-protect-sc-aquarium-african-american-museum-neck-area/article_b51499ae-840f-11ea-ad93-1b955e232627.html
- Johnson, Chloe. 2021. "A \$1.4 billion Army Corps plan to protect Charleston from hurricane surge changes." *Post and Courier*. February 18, 2021. https://www.postandcourier.com/news/a-1-4-billion-army-corps-plan-to-protect-charleston-from-hurricane-surge-changes/article_e1c4e8f8-722c-11eb-b56c-db6024475ca1.html.
- King, Tiffany Lethabo. 2019. *The Black Shoals: Offshore Formations of Black and Native Studies*. North Carolina: Duke University Press.
- Kytle, Ethan J., and Blain Roberts. 2018. *Denmark Vesey's Garden : Slavery and Memory in the Cradle of the Confederacy* New York: The New Press.
- Lanham, J. Drew. 2021. "What do we do about James Audubon?" *Audubon Magazine*. Spring, 2021. <https://www.audubon.org/magazine/spring-2021/what-do-we-do-about-john-james-audubon>.
- McKittrick, Katherine. 2006. *Demonic Grounds: Black Women and the Cartographies of Struggle*. Minneapolis: University of Minnesota.

- Miller, Andrew and Mikaela Porter. 2020. "Balancing history and building in a forest: How development is reshaping Cainhoy peninsula." *Post and Courier*. October 20, 2020. https://www.postandcourier.com/business/real_estate/balancing-history-and-building-in-a-forest-how-development-is-reshaping-cainhoy-peninsula/article_91e77160-0f31-11eb-b561-af4356823cf0.html.
- Miroff, Nick. 2017. "A Flood of Problems: Peru's glaciers have made it a laboratory for adapting to climate change. It's not going well." *Washington Post*. August 7, 2017. <https://www.washingtonpost.com/sf/world/2017/08/07/perus-glaciers-have-made-it-a-laboratory-for-adapting-to-climate-change-its-not-going-well/>
- Nobles, Gregory. 2020. "The Myth of John James Audubon." *Audubon Magazine*. July 31, 2020. <https://www.audubon.org/news/the-myth-john-james-audubon>
- Omi, Michael, and Howard Winant. 2015. *Racial formations in the United States* Third edition. New York: Routledge/Taylor & Francis Group.
- Pollock, Daniel A. 2019. "Shared Space, Separate Pasts: Versions of Slavery in Charleston." *Southern Spaces*. February 14, 2019. <https://southernspaces.org/2019/shared-space-separate-pasts-versions-slavery-charleston/>
- Purdy, Jedediah. 2015. "Environmentalism's Racist History." *New Yorker*. August 13, 2015. <https://www.newyorker.com/news/news-desk/environmentalisms-racist-history>.
- Rist, Gilbert. "Development as a Buzzword." *Development in practice* 17, no. 4-5 (2007): 485–491.
- Telford, Andrew. "A Threat to Climate-Secure European Futures? Exploring Racial Logics and Climate-Induced Migration in US and EU Climate Security Discourses." *Geoforum* 96 (2018): 268–277.
- US Census Bureau. 2019. "Quick Facts: Charleston city, South Carolina." *Census.gov*. <https://www.census.gov/quickfacts/fact/table/charlestoncitysouthcarolina,US/PST045219>
- US Army Corps of Engineers. 2020. "A Coastal Flood Risk Management Study Feasibility Report and Environmental Assessment."

Chapter 3

- Carney, Judith A. 2001. *Black Rice: the African Origins of Rice Cultivation in the Americas*. Boston: Harvard University Press.

- Clarke, John Henrik. 1993. *African People in World History*. Maryland: Black Classic Press.
- Finney, Carolyn. 2014. *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. Chapel Hill: University of North Carolina Press.
- Hobsbawm, Eric J. and Terrence Ranger. 1992. *The invention of tradition*. Cambridge, UK: Cambridge University Press.
- Smith, Adam, et al. (2021). *U.S. Billion-Dollar Weather & Climate Disasters 1980-2021*. National Center for Environmental Information.
<https://www.ncdc.noaa.gov/billions/events.pdf>.
- McKittrick, Katherine and Clyde Woods. 2007. "No One Knows the Mysteries at the Bottom of the Ocean." In *Black Geographies and the Politics of Place*, edited by Katherine McKittrick and Clyde Woods, 1–13. Ontario, Canada: Between the Lines.
- Hall, Stuart. 1980. "Race, articulation, and societies structured in dominance." In *Sociological Theories: Race and Colonialism*. Paris: Unesco: 305–345.
- Cooper, Melissa. 2017. *Making Gullah: A History of Sapelo Islanders, Race, and the American Imagination*. Chapel Hill: University of North Carolina Press.
- Mitchell, Thomas W. 2001. "From Reconstruction to Deconstruction: Undermining Black Landownership, Political Independence, and Community through Partition Sales of Tenancies in Common," *Northwestern Law Review*, 95(2): 505–580.
- Mitchell, Thomas W. 2005. "Destabilizing the Normalization of Rural Black Land Loss: A Critical Role for Legal Empiricism." *Wisconsin Law Review*, 2005(2): 557–616.
- Kosek, Jake. 2006. *Understories: The Political Life of Forests in Northern New Mexico*. Durham, North Carolina: Duke University Press.
- Bliss, Laura. 2018. "These communities face a double threat from Hurricane Florence and property rights." *Grist*. September 18, 2018. <https://grist.org/article/these-residents-face-a-double-threat-from-hurricane-florence-and-property-rights/>.
- FEMA. 2021. "FAQ: Verifying Home Ownership in the Disaster Assistance Process." FEMA.gov. www.fema.gov/news-release/20200220/faq-verifying-home-ownership-disaster-assistance-process.
- FEMA. 2020. "How a Disaster Gets Declared." FEMA.gov. www.fema.gov/disasters/how-declared.

- FEMA. 2018. "South Carolina Hurricane Florence." FEMA.gov.
<https://www.fema.gov/disaster/4394>.
- Center for Heirs' Property Preservation. 2020a. "The Value of Land." *Center for Heirs' Property Preservation*. Youtube. May 11, 2020.
https://www.youtube.com/watch?v=Yo9uhysLTC8&t=5s&ab_channel=CenterforHeirs%27PropertyPreservation
- — — 2020b. "In Pursuit of Justice." *Center for Heirs' Property Preservation*.
<https://www.heirsproperty.org/wp-content/uploads/2020/09/Spring2020-web-low-res.pdf>.
- — — 2021. "Protect Your Land." *Center for Heirs' Property Preservation*. February 22, 2021 <https://www.heirsproperty.org/protect-your-land/>.
- — — 2020c. "The Center for Heirs' Property Preservation presents: The Gullah Geechee Preservation Project" *Center for Heirs' Property Preservation*. YouTube. September 1, 2020.
https://www.youtube.com/watch?v=NKVIE9GQsrc&ab_channel=CenterforHeirs%27PropertyPreservation
- Gaither, Cassandra J. 2016. "Have Not Our Weary Feet Come to the Place for Which Our Fathers Sighed?" *US Forest Service, Southern Research Station*: 1–26.
- Uniform Law Commission. 2021. "Real Property Transfer on Death Act." *Uniform Law Commission*. <https://www.uniformlaws.org/committees/community-home?CommunityKey=a4be2b9b-5129-448a-a761-a5503b37d884>.
- Franke, Katherine. 2019. *Repair: Redeeming the Promise of Abolition*. Chicago: Haymarket Books.
- King, Tiffany Lethabo. 2019. *The Black Shoals: Offshore Formations of Black and Native Studies*. North Carolina: Duke University Press.
- McCarthy, Francis X. 2014. "FEMA's Disaster Declaration Process: A Primer." *Congressional Research Service* 7-5700: p.1–28.
- Grabbatin, Brian. 2016. "'The Land Is Our Family and the Water Is Our Bloodline': The Dispossession and Preservation of Heirs' Property in the Gullah-Geechee Communities of Lowcountry South Carolina." *ProQuest Dissertations Publishing*.
- Saint Helena Gullah Geechee. 2020. <http://sainthelenagullahgeechee.com/>,
- National Parks Service. 2019. "Gullah Geechee Heritage Corridor." NPS.gov.
<https://www.nps.gov/places/gullah-geechee-cultural-heritage-corridor.htm>

The Weather Channel. 2017. "A Vanishing Culture, A Vanishing Land - United States of Climate Change - South Carolina." *The Weather Channel. Youtube*. May 14, 2017.
https://www.youtube.com/watch?v=I8Ull-UDDik&ab_channel=TheWeatherChannel