2017

The Role of Weather in the Social and Economic Lives of Plantation Owners in Antebellum Beaufort District, South Carolina

Jennifer A. Simmons

University of South Carolina

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THE ROLE OF WEATHER IN THE SOCIAL AND ECONOMIC LIVES OF PLANTATION OWNERS IN ANTEBELLUM BEAUFORT DISTRICT, SOUTH CAROLINA

by

Jennifer A. Simmons

Bachelor of Science
Arizona State University, 2013

Submitted in Partial Fulfillment of the Requirements

For the Degree of Master of Science in

Geography

College of Arts and Sciences

University of South Carolina

2017

Accepted by:

Amy Mills, Director of Thesis

Conor Harrison, Reader

April Hiscox, Reader

Cheryl L. Addy, Vice Provost and Dean of the Graduate School
Acknowledgements

I would like to thank my family for their support and love during this endeavor and my time in South Carolina.

I would like to thank Dr. Amy Mills for her guidance and support as my advisor at the University of South Carolina. Thank you for steering me through the thesis writing process. I have grown immensely as a student and writer.

Thank you Dr. April Hiscox and Dr. Conor Harrison for their feedback during this thesis process. Thank you Dr. Jean Ellis and A.L.E. for listening and helping me through tough times.

I would also like to thank my friends for their patience and listening to me talk about weather and sea island cotton nonstop for the past two and a half years. Also, thank you Alex for driving me to St. Helena Island and Beaufort to explore the study area with me.
Abstract

Weather can determine social, agricultural, and economic impacts on a society. There has been a lot of contemporary research on adaptation and experiences in severe weather events. However, there is a lack of historical research. This study uses primary sources, such as journals, newspapers, and maps, to look into the impact that weather has on people during a study time. Primary sources, like Thomas Chaplin’s *Tombee Plantation Journal*, provide more than a physical description of the event that occurred. These historical sources present various perspectives, such as personal and emotional, of people in South Carolina’s Beaufort District and its sea islands in the antebellum period. Through the assessment of primary and secondary sources during the Great Carolina Hurricane of 1854, this study shows that these historical sources help explain the social and economic impact on people during a meteorological event. This thesis helps raise questions about other meteorological events and offers suggestions for other sources that might help us find out more about impacts from historical meteorological and climatological events.
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List of Antebellum Terms

The Great Carolina Hurricane of 1854

Ways that damage was described

Dismal
Universal
More or less injured
Irreparably injured
Not a vestige left
Severely injured
Severely suffered
To a considerable extent
Deplorable extent
Most serious
Incalculable
Ruinous

Hurricanes strength

Most protracted
Great violence
Heaviest sea
Blew a hurricane

Appearance of a gale

To blow a gale

A violent storm

violence and long continuance

Heavy storm

Destructive storm

**Hurricane Damage**

“The loss everywhere is incalculable”

“The damage to property has been incalculable”

“It would require the whole of one of our pages to give the particulars of the injury to the roofs, chimneys, and enclosures of private houses”

“It presented the appearance on every side of an angry ocean.”

“Leaving ruin and desolation behind it”
Chapter 1
Introduction

In mid-nineteenth century Beaufort District of South Carolina, the livelihood of plantation owners was strongly dictated by weather and the success of each season’s crops, especially sea island cotton. Sea island cotton was one of two crops, the other being Carolina gold rice, that contributed to the wealth of sea islands and Lowcountry South Carolina as a whole. Sea island cotton was a global, luxury crop that influenced many factors of sea islands: social lives, agriculture, economy, and environmental history (Porcher & Fick, 2005, p. xvii). The Lowcountry coast of South Carolina was vulnerable to events such as floods, droughts, and strong summer coastal storms. Journals and newspapers written during this period provide a first-hand account of the events that occurred, as well as the economic and social impacts that these meteorological events had on plantation owners and their families. As the climate changes over the course of a few years or decades, plantation lives did as well. Thomas Chaplin’s journal shows the connection between time, climate, geographic location, agriculture, and people.

As the inspiration of this thesis, Thomas B. Chaplin was a resident of St. Helena Island and left behind a very descriptive journal about the daily life on his plantation and the island. Chaplin, who inherited a productive, family plantation, should have lived in wealth and well-being; however, due to losing many people he loved, his theme was “loss and disappointment” (Rosengarten, 1992, p. 25). He wrote nearly every day for 13 years sharing experiences, and complaints, about his plantation and family life (Rosengarten,
N. P. Gignilliat, a rice planter living south of Chaplin on a Georgia sea island, left behind his pocket plantation diaries. These diaries provided me with another source describing many experiences with weather, crops, and harvesting (Gignilliat Pocket Plantation Diaries, 1854-1859). Often seen as an agricultural reformer and independent thinker, William Elliott, a planter who was active in state law, left behind letters written to his wife and children (Jones, 1951, p. 381). Often writing while in Beaufort and Bluffton, he wrote about life, weather, and their plantation (Scafidel, 1978). In 1832, Elliott ended his time working in politics. After, he focused on planting, writing, and working in agricultural societies (Jones, 1951, p. 367). These journals and letters provided this study with not only daily comments about the weather and status of crops, but also commentary about their family and social life, the slaves on their plantation, and the plantation's financial status.

The physical geography of the South, especially in South Carolina’s Lowcountry, had a profound impact on plantation life and strongly influenced the lives in it during the antebellum period. Weather is interconnected to many themes of the plantations; for example, it had a large role in the success or failure of agriculture in the Lowcountry. The special microclimate on the coastal South Carolina sea islands’ dictated the ability to grow sea island cotton and rice. However, unfortunately, its climatological and meteorological features also led to the end of the rice industry. This thesis will further the research showing the major role that weather has played in the economic and social past.

This thesis contributes to the scholarly conversation about historical personal-environmental connections during the Great Carolina Hurricane in the antebellum period. It will build on previous event based research to examine the relationships that were
influenced by the changing economics and agriculture due to severe weather events. This hurricane presents how closely agriculture and economics are connected to climate and weather and play a role in people’s social lives (Tuten, 2009; Blanton, Chenoweth, and Mock, 2009; Fleming, 1990, 2012). Learning about this region’s environmental history is important because we need to understand past aspects of human relationships with the environment, such as how people are shaped by and shape the environment. This will help us better understand why many historical events occurred, especially those related to our environment. The Great Carolina Hurricane demonstrates the role that weather and environment had in people’s lives in antebellum Lowcountry plantations and towns.

With plantation owner Thomas Chaplin’s journal and many other primary sources, such as newspapers and personal letters, this study evaluates how the weather impacts the success of crops and the local economy, and its influence on social lives (Charleston Mercury; Gignilliat Pocket Plantation Diaries, 1854-1859; The Charleston Daily Courier; Tombee Plantation Journal, 1845-1886). The journals and other personal documents provide an insight into how this population was impacted by and interpreted weather. As Molly McCarthy (2013) talks about in The Accidental Diarist, the reader can learn so much even from the simplest of things diary keepers said or repeated (p.22). While analyzing these primary sources and the described weather event, I will examine not only social, but also agricultural and economic impacts (Kovacik & Mason, 1985; Kovacik & Winberry, 1989; Porcher & Fick, 2005; Rowland, Moore, & Rogers, 1996). I will construct a complete analysis of Chaplin’s journal while looking at primary sources to determine the role that weather events had on the struggles in his, and the surrounding
community, livelihoods. Weather can impact a person's social and economic life; one problem can create another in even the smallest ways.

This study proves the strength in using primary and secondary sources to determine the social, agricultural, and economic impact on a society during a study time, such as the antebellum period. There are many severe weather events described by Thomas Chaplin in his journal. In this study, other primary documents were used to support an event’s evidence and can help look further into others, such as a drought in 1845. Primary documents help determine a weather’s impact on society and the time period. The descriptions found in first hand historical primary accounts tell more than what happened in the event. They help describe what happened to the people in social and economic ways. Through descriptive writing, the primary sources, such as Chaplin’s journal and newspapers, showed the vulnerability of the sea islands and Beaufort District to climate and weather events. This study’s research presents new scholarship about historical weather events’ impacts on South Carolina’s sea islands’ plantation owners in the antebellum period.

This thesis examines the social, agricultural, and economic impacts of a major meteorological event that occurred in antebellum Beaufort District, South Carolina. The analysis is divided into three subsections. First, historical documents, such as journals, newspapers, and letters, were used to determine how people were impacted by, reacted to, and interpreted this event. Next, the second subsection will examine the agricultural impacts the plantation owners experienced as a result of the meteorological event. The third and final subsection will analyze the economic results of the event both directly in the plantations and indirectly on the Lowcountry as a whole. This research will present
new knowledge about weather's impact on South Carolina's Lowcountry sea island cotton plantation owners from the mid-nineteenth century. The complete analysis of Chaplin’s journal, while looking at other historical primary sources, will show the vulnerability to extreme meteorological events that antebellum plantation owners experienced in South Carolina's Lowcountry and sea islands.
Chapter 2
Physical Geography

The city of Beaufort, South Carolina and adjacent sea islands, such as St. Helena Island, were home to many plantation owners in the mid-nineteenth century. This region is located in the southern South Carolina coastal plain—better known as the Lowcountry. The Lowcountry is a part of South Carolina’s six diverse geographic regions: Blue Ridge Mountains, Piedmont, Sandhills, Inner Coastal Plain, Outer Coastal Plain, and Coastal Zone (Kovacik & Winberry, 1989, p. 15). The Coastal Zone includes geographic features such as beaches, marshes, and sea islands. The sea islands, a chain of the barrier and erosion-remnant islands parallel to the South Carolina coast, grew the highest quality long-staple cotton in the antebellum period (Kovacik & Mason, 1985, p. 80; Kovacik & Winberry, 1989, p. 48; Steinberg, 2012, p. 81). These islands were found in three districts: Beaufort, Charleston, and Colleton (Porcher & Fick, 2005, p. 102). Beaufort District included the South’s wealthiest agricultural areas and St. Helena Island, one of the sea island cotton industry’s most productive locations (Kovacik & Mason, 1985, p. 89; Kovacik & Winberry, 1989, p. 9; Porcher & Fick, 2005, p. 102). Figure 2.1 displays the three long-staple cotton growing districts in South Carolina. This map shows the geographical distribution of sea island, along with Santee long and mains, other types of cotton that was grown in the South Carolina sea islands and mainland adjacent (Porcher & Fick, 2005, p. 102). St. Helena Island, home of the Tombee Plantation and many other wealthy plantations, was one of the twenty-eight major sea islands off the coast of South
Carolina that grew sea island cotton and found in a region economically important to South Carolina in the antebellum period (Phillips, 2007, p. 91; Porcher & Fick, 2005, p. 103). This chapter describes the numerous features of the region’s physical geography that are unique and have important features behind this historical meteorological event.

The natural world, which includes weather, climate, soil, and water, has significantly defined the American past (Steinberg, 2012, p. ix). Whether this was by influencing the landscape, disease, society, or economic life, the physical geography of the South had a profound impact on plantation life during the antebellum period. Climate played a large role in the success or failure of agriculture in the South. For example, between 1893 and 1920, frequent events such as droughts, floods, and hurricanes were a significant factor causing the planters to stop growing rice in the South Carolina Lowcountry (Tuten, 2009, p. 35). The vulnerability of the 19th and 20th century rice industry to climatic issues shows the major role that weather and climate plays in economic and social life in the past, but also today (Tuten, 2009, p. 44). However, the role of the natural world was not always a negative one. Climate played a positive role in the creation of the Cotton South. In the 19th century, the South became the world's leading supplier of cotton. By 1860, it grew two-thirds of the world's supply and some of the world’s finest quality (Steinberg, 2012, p. 82).

Outside of plantation owners, climatic changes were also of interest to physicians beginning in the early settlement of South Carolina. They believed there was a correlation between the climate, weather, and patients’ illnesses, especially after witnessing yellow fever epidemics in the South (Aldredge, 1940, p. 190; Charleston Mercury, September 11, 1854, p. 2). This link was, at least in part, responsible for meteorological
observations. In the 18th century, the first series of instrumental meteorological observations completed in the United States were done by Dr. John Lining in Charleston. He made observations for a year while monitoring his own body to better understand epidemics (Fleming, 1990, p.6). Throughout the 19th and 20th centuries, there was a lot of progress made in the activity of meteorological observation. For example, the Smithsonian displayed the first weather map, telegraphy, rather than trains, offered a quicker mode of reporting, and James Pollard Espy became the first meteorologist to be employed by the United States government (Fleming, 1990, p. 141; Fleming, 2012, p. 74).

As a mid-latitude coastal location with humid subtropical characteristics, South Carolina has a lot of severe and unique weather events and conditions. Tropical cyclones are destructive, meteorological threats to the United States South nearly every summer and fall (Kovacik & Winberry, 1989, p. 38). These storms can bring heavy rain, storm surge, high winds, and tornadoes. Depending on strength, the tropical cyclone can vary in intensity when considering the wind speed: tropical depression (38 mph or less), tropical storm (39 - 73 mph), or hurricane (74 mph and greater) (“Saffir-Simpson Wind Scale”, n.d.). However, in historical context, these storms with strong winds were often referred to as a “gale”. In Fernandez-Partagas and Diaz's (1997) study, "A Reconstruction of Historical Tropical Cyclone Frequency in the Atlantic from Documentary and Other Historical Sources 1851-1880: Part 1", there were four documented and land impacting storms which directly affected South Carolina during the antebellum period. These storms occurred on the following dates: August 16-27, 1851; October 6-10, 1852; September 7-12, 1854; and August 25- September 3, 1856 (p. 6). These are the only
tropical cyclones which were officially documented, in the National Hurricane Center’s
HURDAT Re-Analysis Project (Hurricane Research Division, n.d.) The September 1854
storm came to be known as “The Great Carolina Hurricane”. “The North Atlantic
Hurricane Tracking Chart: 1854” plots the track of this hurricane, along with all storms
of the summer of 1854 (Hurricane Research Division, n.d.). The track shows the storm
making landfall in Georgia as a hurricane on September 8, 1854 and moving into South
Carolina on the 9th. It crosses into South Carolina as a very weak hurricane and weakens
into a tropical storm throughout most of its time in the state (Figure 2.2). There were
likely many other storms that affected South Carolina prior to 1851, but they have not yet
been studied and documented.

Despite severe storms, the climate of Beaufort, South Carolina, rather than some
locations further inland, others desirable living conditions. The sea breeze brings cooler
air to the quickly heating land during the day (Kovacik & Winberry, 1989, p. 37).
Kovacik and Winberry (1989) explain that the significance of the Bermuda High, when
this high pressure system stalls off the coast, provides relief from cold fronts and summer
thunderstorms. However, it creates hot, dry, and sunny days, and can often lead to
drought conditions (Kovacik & Winberry, 1989, p. 36). These conditions can intensify
quickly and impact the local agriculture and its economy.

Cotton and rice were the principal crops in the Beaufort District during the mid-
19th century and are reflective of the physical geography in the region (Rowland et al.,
1996, p. 368). Contributing to the wealthy, agricultural Beaufort District, rice plantations
flourished along areas like the Savannah and other rivers. However, the physical
geography of the region also played a significant role in the crop’s decline in the later
19th century. Weather events, such as hurricanes, hydrometeorological events, and the declining soil fertility, accelerated the failure of the rice industry (Tuten, 2009, p. 35). In the cotton industry, the wealthy plantation owners, along a limited area in the coastal counties of South Carolina, Georgia, and eastern Florida, grew acres worth of the long-staple cotton known as sea island cotton (Phillips, 2007, p. 91; Porcher & Fick, 2005, p. 7; Tombee Plantation Journal, 1845-1886). The significance of St. Helena Island’s location and climate is very important to the value and growth of its plantation’s sea island cotton. As Porcher and Fick (2005) explains,

climatic differences between the sea islands and the mainland are identified…as one of the factors that produced sea island cotton, and that made the difference between the quality of sea island cotton and the other two market classes of long-staple cotton, mains and Santee long. (p. 36)

The warm, humid atmosphere of the sea islands contributed to the high quality of sea island cotton (Porcher & Fick, 2005, p. 106; Turnbull, 1917, p. 41). The sea islands are the only locations that have a climate that supports the sea island cotton’s growing season. Due to four reasons, the sea islands in South Carolina grew the highest quality of cotton: the sea islands’ supreme environment, cultivation methods, isolation from upland cotton, and seed selection method (Porcher & Fick, 2005, p. 107). The control of water in the soil and preventing the saturation of roots, on these islands, created an environment to grow a good cotton crop (Porcher & Fick, 2005, p. 106). Therefore, flooding, from a tropical cyclone’s substantial precipitation and storm surge, could cause severe damage to a year’s crop. These unique characteristics of sea island cotton are due to the soil and climate found on the sea islands, the ideal location for this luxury crop (Porcher & Fick,
2005, p. xvii). The differences, in silkiness, yield, and staple length, found in further inland varieties are why Santee-long and mains long-staple cotton were never of equal quality (Kovacik & Mason, 1985, p. 79).

The state of South Carolina is classified as having a humid subtropical climate. Several factors control its climate: the proximity to the Appalachian Mountains and Atlantic Ocean, elevation, and its location in the northern mid-latitudes (“South Carolina climate,” n.d., para. 1). The average temperature varies by region in South Carolina. The mountain regions have an average temperature in the mid-50 degree Fahrenheit and the coastal areas average annually in the low-60 degree Fahrenheit (“South Carolina climate,” n.d., para. 4). The oceans have a moderating effect on the coastal temperatures (Kovacik & Mason, 1985, p. 80; Porcher & Fick, 2005, p. 106). Without a large fluctuation in temperature, the coastal zone is able to provide sea island cotton with ideal conditions for growth and a longer growing season over all. Sea island cotton is nearly a year-round crop. Figure 2.3, from Porcher and Fick (2005), illustrates the variation in average growing season throughout South Carolina (p. 32). Depending on the distance from the coast, the growing season ranges from 290 days closest to the coast, to 260 days when moving 20 miles inland (Kovacik & Mason, 1985, p. 80). This warmer climate, with enough rainfall and the right precipitation pattern, was essential for the growth of the long-staple cotton in the South Carolina sea islands (Steinberg, 2012, p. 82). While Beaufort and near sea islands can occasionally be threatened by tropical cyclones, summer coastal storms are more common and the proximity to rivers and other bodies of water make flooding a threat when affected by heavy precipitation. Beaufort County’s average annual precipitation is 49.3 inches with the highest monthly mean precipitation
occurring in August (“Beaufort County,” n.d.). There is no monthly average precipitation less than two inches, with no wet or dry season. As a whole, South Carolina has only heavy or light precipitation periods (“South Carolina Climate,” n.d.). Events such as droughts and tropical cyclones can have a drastic impact on the tropical precipitation and weather.

In order to keep track of the daily weather and the agricultural and financial status of their plantation, many plantation owners kept plantation journals or diaries, one of those being the well-known journal of Thomas B. Chaplin. Due to the specific climate needed to produce sea island cotton, as well as many other crops, the journal keeping planters paid close attention to the many weather and climate variables, such as cold, heat, and moisture, occurring on their plantations (Stewart, 1997, p. 242). Chaplin, as well as many of his friends and family on the island, grew sea island cotton. Like many plantation owners, his livelihood relied on each season’s crops’ success. In addition to sea island cotton, on Chaplin’s 376-acre plantation, one could also find a variety of other crops and livestock, such as corn, potatoes, and cattle (Tombee Plantation Journal, 1845-1886). Chaplin spends May 6, 1845 describing the day as:

Tuesday- looks cloudy- & I am hopes we will have some rain through the day. A few drops as a beginning about 10 Oclk—unfortunately it clears off without any rain. (Tombee Plantation Journal, 1845-1886)

The days prior to May 6, 1845, Chaplin had continuously mentioned the heat and lack of rain since late March. This journal entry illustrates the multitude of effects weather had in the thesis study area of Beaufort and its surrounding sea islands, as well as the insight that plantation journals can provide into historical weather patterns (Stewart, 1997, p.
In addition to this insight, the plantation journal keepers and personal documents also left details about the region’s extreme diversity of climates (Scafidel, 1978; Stewart, 1997, p. 243; *Tombee Plantation Journal, 1845-1886*).

Sea island physical geography also played a significant role in the building of plantations. For example, climate was taken into consideration when building Chaplin’s Tombee Plantation. Due to the warm summers, planters built each room with windows on three sides to allow for ventilation (Porcher & Fick, 2005, p. 396). Homes were also built when considering the location of the sun, or the main roads. The south-facing home helped warm the heater-lacking house in the cool winter (Porcher & Fick, 2005, p. 360). However, the house’s location in relation to the main road sometimes determined its location rather than the warmth (Porcher & Fick, 2005, p. 361). Figure 2.4 presents a hypothetical sea island cotton plantation from the 1840s in South Carolina’s Lowcountry. Due to its location, planter’s grew sea island cotton on various types of land, such as reclaimed marsh and low-lying land. The plantation’s buildings and acres worth of crops would have been surrounded by an environment, such as a salt marsh, creeks, and woodlands, as this picture shows. Surrounding woodlands on a planter’s land was often set aside for firewood and occasionally used as animal habitats or lumber (Porcher & Fick, 2005, p. 370). Like in Figure 2.4, plantations were adjacent to a waterway, such as a tidal creek, to assist in transportation of crops (Kovacik & Mason, 1985, p. 83; Porcher & Fick, 2005, p. 359). This plantation’s house is tiny compared to the acres and acres worth of its “money crop”, sea island cotton (Gallman, 1970, p. 5). In figure 2.4, the illustration demonstrates how large the plantations were.
Beginning with Tombee Plantation and the accompanying journal, I can see that the physical geography played a significant role in the life of Thomas Chaplin and antebellum planters. With plantation journals and other personal documents, plantation owners left behind many previously unknown details about the weather and climate in the past, especially contributing to this thesis. The physical geography, as a whole, contributed to the production of the sea island cotton crop. This includes the numerous features of the sea islands’ location along the coast, such as the climate, North Atlantic hurricanes, and surrounding environment. The humid subtropical climate and the coastal location impacted meteorological characteristics of the islands, such as precipitation and the growing seasons. Additionally, the sea islands were frequently in the path of hurricanes which left its impact. Specific features of the environment, such as the landforms and their influence on plantation crops, also played a large role in the production. Therefore, when moving further into this research, it is important to understand the relationship between the environment and the social, agricultural, and economic portions of people’s lives in the past. In the following chapter, I will examine the environmental history in the Lowcountry and, more specifically, the sea islands and Beaufort District.
Figure 2.1 South Carolina sea islands with distribution of long-staple cotton. (Porcher & Fick, 2005, p. 102)
Figure 2.2 North Atlantic Hurricane Tracking Chart: 1854. Track 3 shows the Great Carolina Hurricane making landfall in Georgia as a hurricane on the 8\textsuperscript{th} and moves into South Carolina on the 9\textsuperscript{th}. It weakens and moves throughout SC as a tropical storm. (Hurricane Research Division, n.d.)
Figure 2.3 Sea island cotton’s average length of growing season (days) in SC. (Kish, Wayne, & Toler, 1976, p. 5; Porcher & Fick, 2005, p. 32)
Figure 2.4 Sample sea island cotton plantation from 1840s. This figure includes numerous features from a plantation: planter’s home, slave quarters, crops, woodlands, and the surrounding environment. (Kovacik & Mason, 1985, p. 90)
Chapter 3
Literature Review

This literature review supports the thesis by discussing scholarship to examine the role that weather and climate played in plantations and the surrounding environment during the antebellum period in the Lowcountry South Carolina. Many scholars have stressed that the natural world, and climate specifically, has changed over time, and that these changes play a large role in shaping social and economic life (Steinberg, 2002, p. 803; Stewart, 1997, p. 240-242; Worster, 1988, p. 292). This history is important because society needs to understand past aspects of human relationships with the environment (Worster, 1988, p. 302-303). The key strategy of this thesis is relying on historical journals and personal documents (Gignilliat Pocket Plantation Diaries, 1854-1859; Scafidel, 1978; Tombee Plantation Journal, 1845-1886). Thomas Chaplin’s journal thus provides a rare glimpse into how local residents made sense of, and acted in response to, the daily effects of weather and climate change (Tombee Plantation Journal, 1845-1886). William Elliott’s discussion between his wife and daughter also provide a personal view of weather events and his daily life (Scafidel, 1978, p. 478). Chaplin’s journal determined the scale, or the extent by time and size of place, for my thesis. This location, during the antebellum period, will demonstrate how citizens, many of which were poorly educated in meteorology, were impacted by weather and climate socially, agriculturally, and economically in the past. The following literature reviews these aspects of environmental history, or more specifically, climate and social history. This chapter provides a further
background of antebellum plantation life and the numerous ways that weather and climate were involved in the environmental history. The sequence of events in this chapter proceeds as follows: people and the natural world, scale: time and place, people and environment, and plantation and society.

3.1 People and the Natural World

Generally speaking, scholarship in environmental history examines the historic interactions of people with the natural world, including the climate and all nonhuman living things. In Ted Steinberg’s (2002) forum essay, *Down to Earth: Nature, Agency, and Power in History*, he defines the natural world as plants, animals, climate and weather, soil, and water (p. 799; Steinberg, 2012, p. ix). Steinberg (2002) stresses the importance of seeing nature as an active, shaping force. By better understanding nature’s role to humans in the past, we may better understand its relevance to the lives of people today (p. 803). Mart A. Stewart (1998) and Donald Worster (1988) both state in their respective works that environmental history is about the role and place that nature has in human life. Stewart (1998) elaborates, and includes in his definition, that environmental history is "the history of all the interactions that societies have had with the nonhuman past, in their environments" (p. 352). Stewart understands environmental history as the history about the relationship between all humans and nonhumans in the world. In “*Environmental History, Ecology, and Meaning*”, White (1990) states that Worster “places environmental history at the point where the natural and the cultural intersect and interact with each other” (p. 1111). Worster’s understanding of environmental history as the combined interaction between natural and cultural processes inspired my examination
of how the natural world, through meteorological and climatological events, interacted with, and impacted, Lowcountry South Carolina and surrounding sea island plantation communities.

J.R. McNeill (2003) developed research in environmental history by naming three main strands of environmental history scholarship: material, cultural/intellectual, and political in focus (p. 6). The material in focus strand of environmental history involves the study of changes in physical and biological environments, and how these changes impact human society. This area of scholarship stresses the technological and economic dimensions of human affairs. Research on cultural/intellectual environmental history examines the images and representations of nature in arts and letters, to understand how they have changed, and what they reveal about the people and society that produced them. Lastly, work in the political environmental history considers how law and state policies influence the surrounding natural environment (McNeill, 2003, p. 6). The approach in this thesis is most directly inspired by scholarship in cultural/intellectual history; although, the research is also material in focus because of my consideration of the study site’s physical geography.

Environmental history is a diverse and in-depth field (Atkinson, 1992, p. 8). After selecting the strands in scholarship that inspired this thesis, I determined the theme of environmental history by considering Stewart’s six major themes in environmental history (1998, p. 356-361). Yet, there’s more to determining the theme to environmental history. Pyne (2005) describes that environmental history is a topic that can be described in its own way and that the themes should change and modify with time (p. 72). However, Stewart (1998) asserts that, since the 1990s, the issues related to environmental
history fall into the following themes: 1) what is nature, 2) what is "wilderness" and the "wild", 3) environmental history, social meaning, and justice, 4) green history and green politics, 5) regionalism/bioregionalism, and 6) global history and global discussions.

Stewart’s first theme looks further into the meaning of nature. Nature is complex meaning; it is said to be nearly as complex as culture and looked further into these two terms interactions with each other (1998, p. 356). The second theme defines and examines the many meanings of the terms “wilderness” and “wild”. For example, it can be defined as the last undamaged preserves of nature (Stewart, 1998, p. 358). Stewart also examines the relationship between environmental history, social meaning, and social justice. He states that there has been little attention to race, gender, class, ethnicity, and environmental history and that this needs to be greatened (1998, p. 359). The fourth theme, green history and green politics, evaluates at the many ways history is “green”; for example, is green good? Or, how green is it? Stewart’s fifth theme looks at regionalism. It is often used to organize studies about the interaction between nature and culture; however, in the past few decades, there has been more of a focus on national forces (Stewart, 1998, p. 361). Bioregionalism is the study of the relationships between humans and nature that is defined by bioregions, which are characterized by nature rather than the manmade environment. Lastly, Stewart’s sixth theme, global history and discussions, states that it is important to take on studies that are global and have a cross-cultural focus (1998, p. 361).

This thesis will be looking within Stewart's fifth theme of environmental history: regionalism and bioregionalism. Bioregions are the physical and environmental features of the region such as topography and climate (Stewart, 1998, p. 361). My study site, St.
Helena Island and surrounding plantation communities in Beaufort District, is a specific location that had a unique relationship between its physical geography and economy in the antebellum period due to its climate. As described in Chapter 2, South Carolina Lowcountry’s sea islands were part of the only region that had a climate suitable for sea island cotton production. I will use this community to better understand the relationship between nature and humans on a local level; this, in turn, can illuminate larger or different regional trends (Stewart, 1998, p. 361). I drew upon Stewart’s work because it was important to focus on using a specific region in this study. Moving out of the Lowcountry, and more specifically the Beaufort District, affects the results I got drastically when looking climate and weather events. This relationship between climate and sea island cotton, and its impact in the economy, illustrates the role that bioregions play in nature and culture. This thesis thus contributed to research on bioregionalism with its unique case study.

3.2 Scale: Time and Place

Research in environmental history can be performed while using many different scales. Scale plays a large role in this thesis because it is one of geography’s core concepts and determines relative size. It is one of the core concepts because it allows us, when performing a study, to understand an event in relation to surrounding geographic context (Herod, 2010, p. 5). Two ways that information can be analyzed is by using spatial and temporal scales. Some literature about environmental history is location specific such as Stewart’s coastal Georgia from 1680 to 1920 in What Nature Suffers to Groe (Steinberg, 2002; Stewart, 2002; Tuten, 2009). Other studies examine larger areas
such as those that are regional, national, or global in focus (Cronon, 2003; Crosby, 2004; Fleming, 1990). This thesis employs body, urban, and regional scales in its historical and environmental evaluation; although, the primary scale of focus is that of the body. Body is the building block, or foundation, of larger units or scales (Herod, 2010, p. 59). For example, in this study, a body is a plantation or sea island. It is necessary to be location specific in order to see how these plantation owners of the South Carolina sea islands react and adapt to this very specific climate. The intensity of meteorological events can vary significantly over a small area, even when looking at two locations less than a mile from each other. Drastic differences are often seen when comparing rainfall totals and thunderstorm impacts of two locations affected by the same weather event. Therefore, it is important to remember that intensity can vary by area when looking at the small spatial focus. Although I focus primarily on a small scale, I situate my site within a regional context. The coastal counties of South Carolina, Georgia, and eastern Florida, that grew acres worth of the sea island cotton, were the regional focus (Phillips, 2007, p. 91; Porcher & Fick, 2005, p. 7). Meanwhile, Tombee Plantation and surrounding plantations on St. Helena Island were the smaller, specific focus within the study’s region (Porcher & Fick, 2005, p. 103). A changing climate or meteorological event impacted many of these plantations similarly despite varying locations along the coast.

Literature in environmental history also considers temporal scale. After looking at spatial scale in this thesis, temporal, or time, scale must be evaluated. Temporal scales can be developed by using various lengths: an event, a life, or time period (Wakild, 2014, p. 20). For example, all three played a role when determining my thesis temporal scale: Great Carolina Hurricane (event), Thomas Chaplin (life), and antebellum period (time
period). Chaplin was alive outside of the antebellum period, but I wanted to see the impact that severe weather had on him and his involvement in the sea island cotton industry. Also, his journal only documented days on his plantation from 1845-1861.

Different temporal scales can determine the type of climatological event and its impact on the people and agriculture in the area. Long time scale, climatological events such as droughts, can be alleviated by meteorological events with short time scales such as a tropical cyclone or a flood. There are many examples of this occurring throughout the past two centuries, such as the remnants of Tropical Storm Marco and Hurricane Klaus, which ended the ongoing drought in South Carolina in 1990 ("South Carolina climate," n.d., para. 31). Descriptions of possible drought conditions and its effects on the Southern agriculture were a common theme in Thomas Chaplin's journal. Chaplin wrote,

*September 8, 1845* Had the corn measured that came from the main - 53 1/2 bushels. Weather warm & dry, would like to have a little rain. The slips are all drying. Do not think I shall make see for next year. (*Tombee Plantation Journal, 1845-1886*)

Chaplin’s description of the current weather and his desire for more rain was interwoven within his journal entry about the plantation’s current condition. This entry shows how closely the weather affected his crops even into the successive year.

Floods, tropical cyclones, and extreme cold or frosts are examples of physical geographic processes with short time scales that can impact a population (Fraser Jr., 2007; Mock, 2010; Rohland, 2015). Mock (2010) and Rohland (2015) present historical tropical cyclones that hit Louisiana, in the 18th and 19th centuries, and their numerous societal impacts. Floods, like many other events of a short time scale, are associated with
severe weather and can have long lasting impacts (Blanton et al., 2009, p. 3). Thomas Chaplin's family was frequently impacted by short time scale weather events, such as frosts and floods. For example, Chaplin describes a frost by saying,

*February 4, 1850 Monday. Bitter cold, black frost. Wind very high. Don't think the boat can possibly get to the main. Every green thing in the garden looks completely stewed up with cold - green peas, that are in blood, particularly so.*

*(Tombee Plantation Journal, 1845-1886)*

Thomas Chaplin’s journal entry provides imagery that would not be possible if using a picture alternatively. His excerpt provides a way that the reader can “feel” the event better than a picture would. Many of Chaplin’s descriptive words and phrases, such as “bitter cold” and “stewed up with cold”, give the cold, frosty event a harsh and frigid feeling. This cold and frost had an intense impact on the plantation, especially the corn crops. Chaplin is afraid because his finances, and on a larger scale, Southern economic progress, owed a lot to the climate, topography, and natural resources of the land *(Tombee Plantation Journal, 1845-1886)*. A variety of scholarship proves these journal entries, and life experiences, true (Edelson, 2007, p. 386; Kovacik & Mason, 1985, p. 80-81; Morris, 2009, p. 586; Stephens, 1976, p. 391-392). Much of land’s physical geography contributes to the economic aspects of people’s lives in the past, and present.

### 3.3 People and the Environment

Scholarship has determined that weather events and changing climates have a significant impact on a society’s economy and surrounding culture. Historically, there have been many events that have occurred, such as those covered in my thesis. Events
such as tropical cyclones, droughts, and severe precipitation can leave many results such as flooding, destroyed homes, and endless damaged crops. Ruined crops can interrupt an industry and economy for a season, or more. That is why plantation owners kept plantation journals to keep track of the weather. Literature by many scholars, such as Kovacik and Mason (1985), Stewart (1997), and Tuten (2009), looks at how historical climate events impacted people in many economic and social ways. For example, Tuten (2009) looked at the role the climate had on the rice industry and its collapse in the Lowcountry. His scholarship included not just the effects on the rice economy, but people’s entire social livelihoods on plantations. My thesis will look further into how severe weather events and climates can impact the sea island cotton economy and culture in the Lowcountry.

Weather's role in the failure or success of a crop can impact not only plantation farmers and their economy and society, but also the corresponding industry. As Ulrich B. Phillips (2007) said at the beginning of *Life and Labor in the Old South*,

> Let us begin by discussing the weather, for that has been the chief agency in making the South distinctive. It fostered the cultivation of the staple crops, which promoted the plantation system, which brought the importation of Negroes, which not only gave rise to chattel slavery but created a lasting race problem. (p. 3)

This quote explains that weather had a role in not only the growth of crops, but led to much more. In the history of the South, a lot of the culture and society began with the weather. Due to its unique geology and necessary growing climate, sea island cotton is one example of an exclusively Southern coastal crop (Porcher & Fick, 2005, p. 3). The plantations that grew this cotton required a large labor force. In antebellum Lowcountry,
this labor force was filled by African slaves that worked in the task system and were believed to have the ability to work better in the heat and humidity (Kovacik & Winberry, 1989, p. 73; Porcher & Fick, 2005, p. 136; Stewart, 1997, p. 241; Tuten, 2010, p. 13). Climate thus played a role in slavery as an institution and in South Carolina, as a producer of cotton for the national and global textile industry. Climate events played a role in the collapse of the rice industry in South Carolina in the late 19th and early 20th centuries (Fraser, 2007, p. 201-202, 210; Tuten, 2009, p. 35). As Tuten (2009) explained, a period of intense and numerous tropical cyclones, droughts, and floods contributed to the toll taken on the Lowcountry (p. 35). The rice planter was intimately connected to the larger industry; individual plantation collapses impacted both individual livelihoods and other people within the industry (Tuten, 2009, p. 43). These events had regional impacts, because an industry often relied heavily on one crop, such as the sea islands for long-staple cotton or the South Carolina Lowcountry for rice.

There has been a longstanding question of the relationship between climate and culture, especially in the South (Stewart, 1997, p. 240). Like Phillips states (2007), in the past and present, many geographers, historians, and journals believe that we should begin the discussion with the weather (p. 3; Stewart, 1997, p. 240). Traditionally, Americans tend to derive cultural meaning from their regional climates with this phenomenon exceptionally shown in the South (Stewart, 1997, p. 241, 250). However, cultural change is a rare outcome of a disaster. While already facing economic and political strains, Virginia’s Great Flood of 1771 had two significant impacts on Virginia: "prices of land, much of which was devalued by the flood’s effects, and in losses of stockpiled tobacco in Virginia" (Blanton et al., 2009, p. 3, 16). Weather events can affect more than just the
current years’ crops. Tuten (2009) described that a storm can impact two years' crops when the previous years is stockpiled in a storeroom and affected by flooding, etc. (p. 40). For example, after the Storm of 1910, planters in Edisto gave up rice cultivation after reaching a point that was too much to bear. Duncan C. Heyward, the largest rice grower in South Carolina at the time, lost 75% of his rice crop in the storm (Fraser, 2006, p. 210). In New Orleans, after a hurricane in 1794, the indigo, rice, and tobacco crops suffered so badly that neither subsistence nor cash crops could be marketed (Rohland, 2015, p. 153). Although cultural change is rarely an outcome of disaster, most habits of life are affected by climate. Phillips (2007) explains that things like work, manners, and speech are all impacted by the tiresome heat during hot weather (p. 5). For example, seen in both past and present, there is the risk of food scarcity and threat of migration after a hurricane and areas such as southeastern United States (Rohland, 2015, p. 145).

Considering how severely societies and their economies are impacted by meteorological and climatological events, this shows how significant the physical geography’s role can be in their decline. This thesis contributes to research about the historical meteorological events that have occurred and their role.

Scholarship on environmental history also examines people’s long part of and increasing influence on the environment, as demonstrated by work done by early American planters as environmental agents who were both creative and destructive to the ecology (Edelson, 2007, p. 383; McNeill, 2003, p. 6; Tuten, 2009, p. 41). Changing practices within a culture often influences the evolution of agriculture and people’s land use. Land use change is one example of an antebellum planter’s influence on the environment in Lowcountry South Carolina. While sea island cotton dominated the
agricultural economy for centuries, land use change occurred throughout time due to changing socio-economic conditions and agriculture practices (Kovacik & Mason, 1985, p. 100). Over time, planters have found ways to turn negative or destructive environmental situations on or near their plantations into something positive. For example, due to a similar land use type, as the indigo industry collapsed, planters replaced the crop with another, the sea island cotton (Sharrer, 1971, p. 102). The following scholarship review presents people’s influence, both positive and negative, on the environment. The early American planters produced many large and successful plantation economies on the South Carolina coast. In Georgia and South Carolina, the colonial economic foundations were built on rice and indigo plantations (Chaplin, 1991, p. 175). During the colonial and antebellum period, rice and indigo acted as foundation in the South Carolina sea islands economy (Kovacik & Mason, 1985, p. 77). Throughout time, the role of natural resources in the plantation economy changed depending on need in the local and worldwide economies. During the Revolutionary War, and when the European rice and indigo markets were not accessible, cotton production provided Lowcountry planters with textiles and new uses for land (Chaplin, 1991, p. 181). Many antebellum plantation owners saw a transition between crops. The Lowcountry economy had an impact on the amounts of crops planted and needed throughout time, such as the transition from indigo to sea island cotton industry during the late 18th and early 19th century (Kovacik & Winberry, 1987, p. 87). Indigo thrived in light, sandy soils which covered the sea islands (Kovacik & Mason, 1985, p. 81). Beaufort District consisted of the richest indigo lands in South Carolina; after the fall of the indigo industry, this same
area grew some of the best quality sea island cotton (Kovacik & Mason, 1985, p. 89; Sharrer, 1971, p. 100).

As resources became commodities, people left behind a trail of destruction. For example, as rice cultivation occurred, there was a high ecological cost (Stewart, 2002, p. 108). In the 18th century, planters and slaves cleared thousands of acres of swamplands and forests in South Carolina Lowcountry to create rice fields (Edelson, 2007, p. 382). With the destruction, early Lowcountry planters found many ways to revitalize the land and use surrounding environment. Through the introduction to new innovations, such as improved soil and more wisely selected seed, antebellum planters prevented an early and quick decline of the sea island cotton (Kovacik & Mason, 1985, p. 84). In addition, with the improvements, planters discovered the use of salt marsh grass and salt marsh mud as manures. These new manures contributed many new positive usages on the plantations, such as soil restoration due to over cropping and production stimulated in poor areas (Kovacik & Mason, 1985, p. 84-85).

Human changes to the landscape can lead to problems in other areas or aspects of the landscape and environment. The dredging of the Savannah River, during the Post-Reconstruction Era, altered the flow of the river which hurt rice planters in the area (Tuten, 2009, p. 41). During the Revolutionary War, soldiers had a negative influence on the surrounding environment. They burned plantations, killed livestock, and destroyed property (Sharrer, 1971, p. 98). Today, humans’ negative influence on the environment is apparent and can be exemplified by our role in pollution. Ted Steinberg (2002) draws attention to historic and destructive human-environmental relationships. He describes these relationships as "the connection between the control of water and the demise of
fish, between the rise of cleaner cities and the decline of the working-class's roaming pigs, between conservation for white, middle-class vacationers and its consequences for rural whites and Native Americans” (Steinberg, 2002, p. 820). Steinberg used these historical examples to demonstrate human-environmental relationships that can and did occur. For example, as cities became cleaner, the food available to eat for roaming pigs lessen and therefore, their population decreased. As shown, humans and the environment, often not on purpose, have negative relationships towards each other. This includes situations such as the effects of development on the surrounding trees and crops or building in areas that are susceptible to flooding from hurricanes. In an area like a coastal plain, where many antebellum plantation owners made a living growing cotton and rice, the imposition of the crops on the land made it more prone to destructive flooding (Edelson, 2006, p.108; Tuten, 2009, p. 35). The creation of cultural landscapes, such as the destruction of mangroves in Southern Florida and creation of urbanized land, have created high risk environments (Eudell, 2015, p. 161; Steinberg, 2000, p. 49). The developers transformed the land into something it is not, which makes it more hazardous when experiencing extreme weather events (Eudell, 2015, p. 161; Steinberg, 2000, p. 48). This can be seen today in flooding that occurs in residential areas that were built on flood plains and urban regions that used to be wetlands. Urban development and stress on populations can easily negatively impact the environment when people are adjusting to the results of a severe weather event.

While there are many destructive relationships between natural resources and humans, there are many positive relationships and natural resources that can create the foundation of an economy (Stewart, 2002, p. 2-3). For example, the establishment of the
colonial plantation economy in Lowcountry South Carolina relied on rice and indigo production (Kovacik & Mason, 1985, p. 77). After the Revolutionary War, rice production became more widespread and grew to be the most important crop. It was a valuable crop with the reputation for being of high quality in the South and produced the first generation of wealth in the Lowcountry (Edelson, 2005, p. 354; Tuten, 2010, p. 11). Meanwhile, indigo lost its economic practicality and was replaced with sea island cotton grown on the sea islands (Kovacik & Mason, 1985, p. 77; Kovacik & Winberry, 1989, p. 87). The value of natural resources, such as sea island cotton, depends on cultural values and the available technology in society (Stewart, 2002, p. 3). The export and value of sea island cotton is at its peak during most of Chaplin's journal (Porcher & Fick, 2005, p. 322; Tombee Plantation Journal, 1845-1886). Throughout Chaplin’s writing, the significance of cotton’s success in his family’s life is shown. His daily entries often included details about cotton, and other crops, growth and income from bales (in pounds) sold.

Many Lowcountry plantation owners wrote in their diaries, in great detail, about the weather and its impact on their crops and animals (Stewart, 1997, p. 243). St. Helena Island’s plantation owners, such as Chaplin, relied on the success of the season's crops, especially for sea island cotton (Porcher & Fick, 2005, p. 36; Tuten, 2009, p. 40). This type of cotton is nearly a year-round crop. However, the success of cotton varies depending on the time of year when it is planted; for example, it must escape frosts or droughts (Porcher & Fick, 2005, p. 165). Thomas Chaplin spends July 27, 1845 describing the day as:
Rode down home & over all the crop. Cotton looks very well, but backward.

March corn tolerable --- young, good & very bad in spots. Potatoes very bad. Peas miserable. 3 ¾ acres of slips planted, no rain to plant more. Had only a few drops last eve, thought we had a fine rain at the village. Ground almost as dry as it was before. Cattle suffering for water. *(Tombee Plantation Journal, 1845-1886)*

Chaplin uses many descriptive words in this entry to help show the impact, and to what extent, the weather is having on his plantation. The terms, “miserable” and “suffering”, are used to show the pain and poor condition his cows and peas are in. “Tolerable” is used to explain the decent conditions of his corn. Chaplin’s phrase about the lack of rain he received compared to the village is an example of how even a small difference in location can impact what weather events, and how severe, a place can receive. In the days prior to July 27, 1845, Chaplin had continuously mentioned the heat and temperature outside. This journal entry illustrates the multitude of effects climate had on agriculture in Beaufort and St. Helena Island, as well as the insight plantation journals can provide into historical weather patterns *(Stewart, 1997, p. 240; Tombee Plantation Journal, 1845-1886).*

### 3.4 Plantation and Society

The key themes in Southern plantation scholarship are social integrity and social roles. An antebellum society plays a significant role in a functioning plantation and the surrounding human environment. While researching Southern climate and plantation scholarship, I discovered the distinct social roles in the antebellum period and on plantations. I will briefly discuss research on slavery, and on gender roles and views of
women. Because of the intimate link between climate and economy, research in environmental history has explored how climate played a role in slavery due to slavery’s position in plantation agriculture. The role of slavery is an important theme in the history of the antebellum plantation South. Scholarship has identified various types of management and labor that were used on plantations (Chaplin, 1991, p. 177; Stewart, 1997, p. 249). In the late 1700s, the hand system began. This system represented the slave's labor ability. A healthy male equaled one hand. A slave in poor health would be equal to less than one hand, such as one-half, and children working in the fields equal to one-quarter (Joseph, 1993, p. 66). Therefore, if three hands were required to complete a job, three healthy males, or more than three unhealthy males, were needed. As plantation sizes grew, it provided the opportunity for specialization of work within the slave communities. These skilled slaves, rather than field workers, were of a greater value to plantation owners. Skilled positions of value included bakers, cooks, washer women, cooperers, seamstresses, drivers, boatmen, blacksmiths, bricklayers, and shoemakers (Collins, 2001, p. 9; Joseph, 1993, p. 66). There were also slaves selected to assist the wife with the children and duties around the house. The plantation owner had overseers and specifically selected slaves acting as drivers to oversee and guide the laborers. When the owner was away from the plantation, these slaves were especially important in ensuring that work on the plantation continued smoothly and efficiently in their absence (Taylor, 1954, p. 147). According to Collins (2001), P.C. Weston, a resident of South Carolina, viewed job specialization and hierarchy as a way to create system and accountability (p. 9). In the September 1, 1841 issue of Southern Planter, when discussing plantations, the journal says they "required strict rules 'calculated to command
and control others' and to provide 'system, order, and management.' " (Collins, 2001, p. 8-9). Therefore, in order for the expansive plantations covering acres to remain in order, there must be structure and command to ensure organization and production.

Studies of weather and climate were interconnected to another large theme in antebellum plantations – women’s vital role in the plantation home. Their primary responsibility was to ensure the smooth operation of the domestic portion of plantation life (Weiner, 1997, p. 23). Meteorological and climatological events had a significant impact on the success of a plantation which can carry over into the domestic life. Many historians have defined women as the main caretaker of the infants and the younger children of the family (McMillen, 1994, p. 515). While there were different experiences depending on class, the general structure of production and reproduction under the dominance of men did not change regardless of wealth (Fox-Genovese, 1988, p. 39). Especially in this time period, many men did not view treatment of women as well as Chaplin does. After Thomas Chaplin watched his wife in labor and reflected on all she does throughout life, he wrote in his journal about how no man can treat his wife ill after seeing what she goes through for him.

*Sept. 26th, 1845* How much women suffer for men and how badly some & many of them are treated. I do not think that any male being after seeing how much his wife suffers for him, & can treat her ill after, can have any soul or heart, except so much as will keep life in them. (*Tombee Plantation Journal, 1845-1886)*

This journal excerpt shows that he wrote about much more. While talking mostly about his plantation, weather, and outings, Chaplin also wrote about his family and reflected upon the work his wife did to ensure his family and household stayed together. On the
26th, Chaplin had a relaxing day out and spent it having fun shooting pistols. However, in this entry, he wrote about how women suffer for men and many are treated poorly. After seeing what his wife goes through during labor, he makes it clear that no man should treat a woman badly. When not reproducing and taking care of their husband and children, women were expected to take care of the house and all domestic responsibilities. But despite being busy at home on the plantation, women were found to be active participants in the community as well. Due to the wealth found in Beaufort, the area was unusually social. Much of the social activity was purposeful (Rowland et al., 1996, p. 281). For example, women were often involved in church and missionary societies that raised money for domestic and foreign missions (Johnson, 1969, p. 122; Fox-Genovese, 1988, p. 80).

Another theme in environmental studies is research in women’s education. In the antebellum period, many people still saw school education not fitting for girls (Fox-Genovese, 1988, p. 46). Hagler (1980) describes that it was considered a "miseducation" because it was not teaching young girls the skills, or labors, seen as necessary for a woman to know (p. 407). As the 19th century progressed, Fox-Genovese's (1988) book, *Within the Plantation Household: Black and White Women of the Old South*, shows many occasions where there was still not equal access to education as there was for men, but more and more schools were opening for girls (p. 46). Plantation owners were some of the few people who could afford to send their girls to school. Thomas Chaplin's daughter, Virginia, had the privilege of attending school in the village, as described in the journal in summer of 1855 (*Tombee Plantation Journal, 1845-1886*). However, when experiencing financial struggles, as Chaplin did, education was one of the first things to go, especially
for females. In addition to the few years that they may have had the opportunity to attend to school, girls had years’ worth of training from their mother to help prepare for adult life. This included activities such as cooking, learning how to sew, reading, writing, how to behave, and how to garden (Fox-Genovese, 1988, p. 110). With this knowledge, Weiner (1997) found that girls were then seen as having the necessary primary adult duties and prepared to attract a suitable husband (p. 28-29).

One major theme in the studies of plantation culture is the role of women, servants, and slaves who are described as playing the active roles in the household (Johnson, 1960; Fox-Genovese, 1988). However, McMillen (1994) found that many Southern fathers’ writings from that time revealed that the men had active participation in the lives of their children and wives and often voiced deep concern for their well-being (p. 514). Many fathers’ personal accounts, such as the Tombee Plantation Journal and William Elliott’s letters, show that the fathers frequently cared for ill family members and were determined to see their children succeed (Scafidel, 1978, p. 475; McMillen, 1994, p. 520; Tombee Plantation Journal, 1845-1886). Elliott wrote his wife immediately after the Great Carolina Hurricane insuring he was okay and describing the conditions surrounding (Scafidel, 1978, p. 778). Chaplin’s journal and Elliott’s letters support that idea that despite some accounts of poor treatment of wives and the man’s traditional and superior role within the household, there were many fathers who expressed concern for their wife and children. Throughout many journal entries, the readers can see the true commitment that Chaplin had to his family and the love he had for them.

Understanding the environmental history of the Lowcountry and South, in general, will help better understand what role the weather and climate has played in the
changes in society during the antebellum period. Climate plays a large role in the shaping of the social and economic lives of people, especially those that lived on plantations (Phillips, 2007, p. 3; Scafidel, 1978; Steinberg, 2012, p. 5; Stewart, 1997, p. 240; *Tombee Plantation Journal 1845-1886*). Antebellum plantation owners', like Thomas Chaplin's and William Elliot’s, lives were dictated by the success of each season's crop (*Gignilliat Pocket Plantation Diaries, 1854-1859*; Scafidel, 1978; *Tombee Plantation Journal, 1845-1886*). This success was easily influenced by forces within the natural world such as the climate and its meteorological contributions. This region had long growing seasons, plentiful precipitation, and warm weather which made growing cotton, rice, and tobacco possible (Porcher and Fick, 2005, p. 106; Steinberg, 2012, p. 71). The success of the crops on plantations dictated people's lives; however, weather events easily determined the annual crop success. Climate can demonstrate how strong a role it can play in the social lives of people in plantation, antebellum Lowcountry. Society needs to know about these influences in order to better understand the past and present, especially with the changing climate.

My thesis contributes to this scholarly conversation regarding environmental history. With the assistance of historical primary documents, my research shows the connection between the environment, weather, and culture in Beaufort and its surrounding sea islands. This can contribute to research by scholars, such as Stewart (1997), examining the connection of climate and culture in the South. Additionally, with my research done with personal journals and documents, I connected the economic changes in the antebellum period. Overall, using the methods and many primary sources,
my current research demonstrates the various personal-environmental connections and will add to this diverse, but aging, environmental history scholarship.
Chapter 4
Methods

This thesis utilized a combination of primary and secondary sources including journals, letters, maps, and newspapers. I used these sources to look further into the scholarship examined in the previous literature review while performing my research. My thesis relies primarily on a study of Thomas Chaplin’s journal, but I also examined other documents of personal experiences from antebellum Lowcountry citizens, such as William Elliott and the Gignilliat family. I used newspapers, maps, and personal letters to better situate the journal entries in a historical, regional context. Data and information from National Oceanic and Atmospheric Administration Hurricane Database (NOAA HURDAT) and National Centers for Environmental Information (NCEI) was used to better understand historical weather events. Additionally, I took a field excursion to the study site, Beaufort and local sea islands, to explore the physical environment. With this exploration, I analyzed historical sources from a major meteorological event in antebellum South Carolina Lowcountry to determine the social, agricultural, and economic impacts on the people during the study time. This chapter will further explain the types of data and methods that were used in this thesis to determine the historical impact of weather.

There are many ways that I discovered sources. Since my thesis site location is within South Carolina, there were many sources available in the South Caroliniana Library on the University of South Carolina campus. By searching in the school library
search, I could find many historical state newspapers, personal journals, and letters that were written during my study time. Additionally, the original Tombee Plantation Journal is available at the South Carolina Historical Society in Charleston, South Carolina where I was able to look at not only that, but other historical sources I discovered during my time there. Secondary sources used for the literature review also provided many ways to find other primary sources. By looking at those sources’ bibliography at the end, I found many sources that could benefit my research if I found access to them as well. While some studies might include the mention of weather, I wanted to look at how various conditions impacted people in the past and how they interpreted it.

4.1 Personal Journals and Letters

After inheriting the 376-acre Tombee Plantation when he was 22, Thomas Chaplin kept a very depictive journal about the daily life on his St. Helena Island plantation, Tombee, from 1845-1861 (Rosengarten, 1992, p. 65). Many decades later, in 1868, 1877, and 1886, Chaplin reread his journal and made reflective notations about things he had said previously. This journal not only includes daily comments about the weather and status of his plantation crops, but also includes commentary about his family and social life, the slaves on his plantation, and his plantation's financial status. His journal is rich with descriptions of his many triumphs, failures, quarrels with others, and gossip about fellow plantation owners on the island. As I will demonstrate in this thesis, much of this social commentary is connected to fluctuations in weather and climate. What to Chaplin may have just been a simple synopsis or frustration of his day, provides
insight into both the current weather conditions of his time and how local social events and personal experiences were impacted by daily weather.

When requesting to see the original copy of Thomas Chaplin’s journal, due to its condition, I was asked to look at a photocopied version. Additionally, the journal is transcribed, which helped as I read it. Figure 4.1 is an example of his journal entries, with his handwriting, from May 1853. His cursive handwriting describes the weather almost daily with detail about clear and cloudy conditions over the week span. Details about the cotton on the plantation and his family are mentioned throughout (Figure 4.1; *Tombee Plantation Journal, 1845-1886*). Examples of daily entries, from the transcribed copy, are shown in Figure 4.2. Chaplin describes the cloudy and rainy conditions throughout much of November 1853. He had a thermometer and took note of the temperatures throughout the day on the 9th; it was 46 degrees in the morning and rose to 56 degrees by 2 PM. In addition to the weather notes, Chaplin writes about plantation work and quantities of cotton (Figure 4.2; *Tombee Plantation Journal, 1845-1886*).

My study of Thomas Chaplin’s journal provides a model for how a journal can be used to interpret how the weather affects a plantation owner in antebellum South Carolina Lowcountry (Blanton et al., 2009; Fleming, 1990; Tuten, 2009). Any planter who wanted to have a successful planting season paid close attention to weather patterns, and changes, on the plantation (Stewart, 1997, p. 242). For example, a collection of pocket plantation diaries was kept by plantation owner, Norman Page Gignilliat, who lived along the coast south of Chaplin. He wrote detailed daily entries about the weather and his planting and harvesting crops (*Gignilliat Pocket Plantation Diaries, 1854-1859*). During the thesis event, by using a historical human perspective, it allows for a first-hand insight of how
people were affected by the daily weather or climate patterns in the past. This includes things such as not enough crops for market, not tolerating the heat while travelling, and the destruction of their crops and garden. Journals, such as Chaplin’s, show how people view weather, and their understanding of what is occurring, often revealing their limited education and knowledge of the subject.

These journal entries reveal how the weather affected life for themselves and others in the Lowcountry at the time of the study. Other documentary sources were needed to support Thomas Chaplin’s life stories as well as fill in missing time and locations. An inspirational, and secondary, source for my research was “‘Don’t Want to See No More…Like That!’: Climate Change as a Factor in the Collapse of Lowcountry Rice Culture, 1893-1920” written by James H. Tuten (2009). He used sources, such as family papers and newspapers, to show the vulnerability of the rice industry to climate change and its role in in the economy and social lives. Tuten looked at a different market and time period than mine, but there was a similar issue. One additional source included three transcribed volumes of letters written by South Carolinians, William Elliott and his family, found in Thomas Cooper Library at the University of South Carolina (Scafidel, 1978). While providing the same vivid information about the area and its events, his letters did not include specific data about crops or the weather, like the planters, Chaplin and Gignilliat. This makes sense considering the audience he was writing for. However, Elliott, like Chaplin, was very descriptive, in his letters, during major weather events. The letters written by William Elliott, his wife, and children gave insight into how weather, such as hurricanes and droughts, impacted his family. For example, on April 27, 1845, Elliott wrote to his wife about the dry conditions at home:
It is atrociously dry—every thing suffers—the cotton will not come up and the corn comes up & dies. The garden too! The roses are withered—and would doubtless weep—if they could steal water enough from the atmosphere—to make the experiment. (Scafidel, 1978, p. 478)

Elliott’s descriptive entries about his plantation and garden provides a picture of how severe the conditions were at the time. He also spent paragraphs describing the Great Carolina Hurricane to his wife. This gave great detail about his plantation and the neighbors following the event. In chapter five, I will use his letters to help explain the effect the hurricane had on his family.

Due to the study area’s mostly rural site, with no newspaper, these plantation journals fill in gaps for my research question that were not covered by Charleston and Savannah city papers. The writings in these journals often went into great detail about the impact and damage done to the planters’ land and surrounding properties. Often not knowing what is occurring, with the lack of weather forecasting sources, the diaries and journals were a great reference for how the weather events had a personal impact on people. Journal entries do not only include weather observations; they are tied to agriculture, people’s livelihoods, and the regional population as a whole. For example, in addition to the daily weather conditions, N.P. Gignilliat took tallies of the bushels of crops daily written in small booklets. However, during the hurricane, he stopped the tally and only wrote about the surrounding meteorological impact. By using diaries such as these, this thesis shows the impact that weather had on many aspects of the citizens’ lives with these journal entries showing great examples of the many ways people were affected.
While reading throughout Thomas Chaplin’s journal, I discovered how unique and descriptive he was when writing about weather events occurring around him and his plantation. Terms such as “deplorable extent”, “dismal”, and “incalculable” were used in writing when describing the damage done. Similar terms were used by Gignilliat and Elliott. Their unique terms and descriptions showed emotion, but the responses could have been dramatic. However, this could be a common type of writing for the time period. Often, this descriptive writing is found in the antebellum newspapers as well. The additional comments left by Chaplin in his journal were not needed for my events; however, they could be used for other research with the numerous weather described in Chaplin’s journal.

4.2 Maps

I used maps to analyze the effects that weather had on plantation owners in the study area. The maps of the thesis study areas present the following: how the plantations relate to each other, the geographic landform locations, and where the meteorological events were recorded to have occurred. A historic map of Beaufort District, found in the Mills’ Atlas of South Carolina, assisted in the analysis of the earlier relationship between the people, weather, and geographic locations prior to and during the study time (Lucas, 1825). The maps found in the Mills’ Atlas showed great detail of the physical and social landscape, such as the locations of people's homes and South Carolina sea islands. Many islands’ names have changed over the years, especially as compared to the map from the atlas and Chaplin’s journal. In Figure 4.3, there are some errors in the historic Mills’ Atlas map, as I discovered while on my field excursion and by using today’s technology.
For example, Chaplin’s home is not located directly along the coast, as marked on the atlas map. The historical and current island locations and shapes are not the same as well. However, it’s important to remember that this is where the people thought they lived at the time because they did not have the technology that we do today two hundred years later. The map in Figure 4.3 has the past and current island names, which can be helpful when reading the historical documents. As the plantation homes are mentioned in journals, I made sure to remember their locations, especially in relation to geographic features such as coastal landforms and rivers. Using these maps helped understand where events occurred and how people's locations related to one another as weather events occurred. Also, they helped understand the vulnerability of these areas when faced with an extreme weather event like a hurricane or flood. NOAA’s Office for Coastal Management’s Digital Coast technology provides historical hurricane tracks that are interactive maps and show the path and strength, with the dates, that the Great Carolina Hurricane took (“Historical Hurricane Tracks,” n.d.). I was able to look at its path’s relation to the thesis site location. By using the historical and contemporary maps of the study area, I understood the older relationship of the location, as described in primary sources.

4.3 Field Excursion

I made a field excursion to the coastal region of Beaufort County and its sea islands including Harbor, Hunting, Lady’s, Port Royal, and St. Helena Islands. The major city of Beaufort is located on Port Royal Island. I spent the first day driving and walking throughout all islands exploring the plantation homes and environment. During a visit to
the Hunting Island Lighthouse, built in 1859, I looked at the sea islands’ coastline to understand the landscape, such as how close the islands were and their endless marsh environment. Figure 4.4. is one of the many views from the lighthouse. I could see endless trees, coastline, and if closely, some of the many sea islands. The drive to Hunting Island took me through the land that planters once used for recreation such as hunting. On St. Helena Island, I drove throughout to look at the Coffin and Tombee Plantation homes. I spent the following morning in the Beaufort downtown district. Like mentioned in Kovacik and Winberry (1987), Downtown Beaufort still reflects the historic “grandeur of that [plantation and aristocracy] era” (p. 91). During that time period, sea island cotton was the foundation of wealth. Figure 4.5 was taken as I walked along the waterfront park and saw the downtown marina. Where much of the export and import of goods occurred in the antebellum period, there are still many boats kept today.

During my time on St. Helena Island, I visited two major plantation homes, still standing from the antebellum period: Tombee Plantation House and Coffin Point Plantation House. Tombee Plantation House was built in 1795 by Thomas Benjamin Chaplin, a member of the first generation of sea island cotton planters, and it’s located on the southern end of St. Helena Island (Porcher & Fick, 2005, p. 396). Coffin Point Plantation House was built in 1800 by Ebenezer Coffin, a Charleston merchant turned planter, and it’s located on the far northern end of St. Helena Island (Porcher & Fick, 2005, p. 400; Rowland et al., 1996, p. 281). The view of Coffin’s house, shown in Figure 4.6, is seen from the dirt Seaside Road. This was the only view and access I had due to private property. These isolated homes and dirt roads still exist today. The drive north from the Tombee to Coffin home, down Seaside Road, still exists, much still as a rock or
dirt road. They built homes accessible to public roads so they could easily get to places like churches and summer villages (Porcher & Fick, 2005, p. 359). In Chaplin’s journal, he wrote about travel by buggy, often to Beaufort, possibly using some of these same roads (Tombee Plantation Journal, 1845-1886). The walk and drive throughout the islands provided a wonderful “feel” and look of the landscape. When I reread documents about the plantations and environment, I felt like I was actually there during the times described in the documents. This included things described in journals and newspapers, such as the old plantation homes, marshes, waterfront, marina, and narrow dirt roads. Lastly, exploring and travelling first hand was especially important considering the numerous map errors, such as Tombee plantation home’s location and the general St. Helena Island drawing, which I found while researching.

After looking at the remaining Tombee plantation home and surrounding land, water, and marsh, it made sense that it could easily flood during a severe precipitation event. Like shown in Figure 4.8, Chaplin’s home has a high foundation, but likely the slaves’ homes and other outhouses did not. Therefore, the relatively flat land and surrounding waters could easily flood these buildings when receiving large quantities of precipitation and waters rose. The Tombee plantation home is the only building that still exists from Chaplin’s time on his land (Rosengarten, 1986, p. 66). I can only imagine, from how he described, the map drawn in Mills’ Atlas, and from what I see today, what the plantation used to look like (Lucas, 1825; Tombee Plantation Journal, 1845-1886). Today, the Tombee home is surrounded by trees and grass with a neighbor to his side that likely did not exist in the 1800s (Figure 4.8). I wish that I could explore the backyard of the Tombee home and see the water closer, but I could only look at so much because it
was private property. After seeing the land covered in such green grass and trees, I wonder how severely the land as a whole truly was impacted by weather events such as a severe lack of precipitation.

4.4 Newspapers

Newspapers helped me better understand weather events discussed in the personal journals and letters. During the antebellum period, they were one of the most complete and invaluable sources of data (Aldredge, 1940, p. 255). Newspapers played an integral role in meteorology since early America. Without televisions and the internet, an issue provided a great source of information about meteorological events that occurred and the impact on the community and environment. Like in newspapers read for this thesis, an example of two types of meteorological information contained in an issue included: 1) general news of storm occurrences and 2) marine information containing weather events encountered by vessels (Fernandez-Partagas and Diaz, 1995, p. 1). I studied the following newspapers: The Charleston Daily Courier, Charleston Mercury, Edgefield Advertiser, Savannah Daily Republican, and The Weekly News. Since Beaufort and surrounding areas, such as St. Helena Island, did not have a newspaper at the time, Charleston, Savannah, and other area papers were important in this research. They referred to nearby areas which included Beaufort and many South Carolina sea islands. For example, James, Sullivan’s and Edisto Islands, all with plantations in the sea island cotton industry, were mentioned in numerous articles and referred to in many journals and letters (The Charleston Daily Courier, Charleston Mercury, Edgefield Advertiser, The Weekly News). These newspapers provided weather updates and articles that referenced news and social
events, such as the damage to the shipping industry and the summer residences no longer safe, that occurred in the Lowcountry at the time.

The newspaper format has changed a lot with time. In the antebellum period, with the severe Great Carolina Hurricane, it was rare that I found an article about the event on the front page of the paper. In most, information about the hurricane, or weather, was on the second or third of four pages (The Charleston Daily Courier, Charleston Mercury). The first page usually contained information about social or legal issues. Meanwhile, in current newspapers, you will see an article with a large picture about a severe storm on the front page, especially if it is causing major damage and threats to lives. In The Weekly News and Savannah Daily Republican, pages two or three contained information about the exports, goods, and economy. This is where I found information about the fluctuation in long staple, sea island cotton after the Great Carolina Hurricane (The Weekly News, September 14, 1854, p. 3). Additionally, newspapers often included articles from other cities; for example, Charleston papers added articles from Savannah papers after the hurricane (The Charleston Daily Courier, September 11, 1854, p. 1). Many different scholars use newspapers in their research (Blanton et al., 2009; Chenoweth, 2006; Fleming, 2012; Mock et al., 2010; Tuten, 2009). These scholars’ research introduced me to many available newspapers for my study.

Newspapers were an important resource for this study’s research; I used them to connect weather descriptions from journal entries and letters with the weather and social events described in the various area newspapers. After determining the time frame of the weather event, I found all current newspapers and gathered data by date. For example, I found numerous Charleston and Savannah papers during the month of September 1854,
when the results of the Great Carolina Hurricane would be occurring. Figure 4.9 is an article that describes the gale, or hurricane, and its impact. Chaplin’s journal entry on September 7, 1854, writes that he had never seen such a storm of that strength nor had the oldest citizen. This newspaper article compares the storm to one that hit in 1804 when many of these people had not been born (Figure 4.9; Tombee Plantation Journal, 1845-1886). I analyzed articles describing the event to determine the impact. In September 1854, many newspaper issues included letters mailed to them from citizens in the Lowcountry describing the events that occurred (The Charleston Daily Courier, Charleston Mercury). Additionally, detailed information and stories about the destruction faced by many local businesses and social spaces, such as parks and churches, in Charleston and Savannah, provided a social perspective as well as the economic impact (The Charleston Daily Courier; Charleston Mercury; The Weekly News). I used this information to support findings about weather events that impacted the plantation owners in Beaufort and nearby sea islands.

Personal and community impacts were illustrated by stories and details of events given by the newspaper articles. With much smaller populations than today, the articles were specific, often referring to many individual people and their homes or churches. Additionally, Charleston newspapers provided information from letters sent from citizens nearby, excerpts from Savannah newspapers, and current data about exports and imports. The letters sent to the newspapers were sent from citizens that helped fill in areas that were not covered by urban newspapers such as isolated sea island plantations and rural towns. These letters were from places such as Ashepoo, Edisto Island, Laurel Hill, and Walterboro, all which were impacted by the weather examined in this thesis (The
Figure 4.10 shows *The Charleston Daily Courier* from September 19th and includes two letters from Laurel Hill and Western Branch Cooper River after the hurricane (1854, p. 2). They describe the dramatic results following the storm. The writers gave specific, and varying depending on location, information about crops and the weather. Some writers wrote detailed stories, many multiple paragraphs long, about the weather event, the impact to them and their homes, and the result in the surrounding area. These letters and specifics in newspaper articles helped me better understand the events that occurred in my isolated and rural study area.

Many newspapers, such as *The Weekly News* and *Savannah Daily Republican*, include daily or weekly details about the local economy. This data gathered by the newspapers helped me better understand the people’s losses and the impact the severe weather event had on the area. This data included information about many crops, but especially sea island cotton, which was important to the plantation owners on the sea islands. For example, the *Savannah Daily Republican* provided, in almost every issue, the changes in prices, exports from Charleston, receipts, and the cotton trade in general. *The Weekly News*, based out of Charleston, wrote more specific details about the crops in the area. Included in their weekly “Commercial Report”, there was a “Review of the Charleston Market” which included details about the crops in the market. This included a summary of the receipts and stocks of cotton and rice. In the review of all local crops, following the Great Carolina Hurricane, there was a description about the sale of the cotton crops following the event. I used this information to see how significantly, and for how long, the storm impacted the sale of crops after the event. All details from
newspapers were very important when evaluating the economy during the time of the weather event and how the society was impacted.

4.5 Secondary Sources

There were many secondary sources that helped me better understand the physical geography in the study site, Beaufort and its surrounding sea islands, especially during the occurring weather events in this thesis. Blanton et al. (2009) and Tuten (2009) helped better understand the role that extreme weather events, human affairs, and climate change had with each other. Stewart (1997) showed the strong role that climate played in race and culture during my study period, the 19th century. When researching the Great Carolina Hurricane, I used numerous sources to learn more about its track, timing, and more: Fernandez-Partagas and Diaz (1997), Mayes (2006), and NOAA’s Hurricane Research Division (n.d.). While looking further into weather’s role in South Carolina and its Lowcountry’s physical geography, the South Carolina State Climatology Office and NCEI website provided a lot of information that helped better understand the meteorological conditions being described in the historical personal documents and newspapers.

There were numerous limitations that I faced during this research. I could not find any newspapers that existed in Beaufort during my study period. However, I found many papers from surrounding areas such as Charleston, South Carolina; Edgefield, South Carolina; and Savannah, Georgia. These papers did not only talk about their location. They mentioned the conditions in the South Carolina sea islands and/or Beaufort in articles, as well as the state as a whole. I used these newspapers so that I could learn as
much as possible about how people reacted to weather and climate during the antebellum period. I also faced limitations with journals. The *Gignilliat Pocket Plantation Diaries* did not cover the entire time period as Chaplin; however, N.P. Gignilliat did provide good details during the hurricane and the surrounding day’s weather (1854-1859). Weather conditions can vary greatly over small areas, such as the amount of precipitation, which created another small limitation in this thesis. During this time period, I did not get the ability to measure precipitation over such small distances like many areas have today. However, I did as much as I could to understand what weather conditions happened and in what places. With these sources, and the methods described above, I thoroughly examined the Great Carolina Hurricane and other weather events that impacted the South Carolina Lowcountry in the antebellum period.
Figure 4.1 *Tombee Plantation Journal*, May 1853: original handwriting. Clear and cloudy conditions over the week. (*Tombee Plantation Journal, 1845 – 1886*)
Figure 4.2 *Tombee Plantation Journal*, November 1856: transcribed version. Each day’s temperatures are cloudy or rainy. On November 6th, the temperatures are listed on the mornings and afternoon. *(Tombee Plantation Journal, 1845 – 1886)*
Figure 4.3 Mills’ Atlas of South Carolina: Beaufort District sea islands, 1825. The islands currently, as compared to the map, is as followed: Lady’s (Ladies) St. Helena (St. Helena), Pritchards (Chaplins), Fripp (Prentis), Hunting (Reynolds), Port Royal (Port Royal), Harbor (Harbor), and St. Phillips (Eddings). On St. Helena Island, there are many plantations labeled on the island such as Jenkins, Chaplin, and Coffin. (Lucas, 1825)
Figure 4.4 Atlantic Coast from Hunting Island Lighthouse. The lighthouse was built in 1859 and provides a view of the sea island coastline. (Simmons, 2016)
Figure 4.5 View of the marina in Downtown Beaufort. This is where the import and export of goods in the Beaufort area occurred during in the antebellum period. (Simmons, 2016)
Figure 4.6 Coffin Point Plantation House. This plantation was built in the antebellum period. Due to a private property, this was the only view and picture, from Seaside Road, that was possible. (Simmons, 2016)
Figure 4.7 Seaside Road, St. Helena Island. This is a dirt road running north to south throughout the island. With homes on both sides, and endless live oaks, this street has existed for hundreds of years. (Simmons, 2016)
Figure 4.8 Tombee Plantation House. It was built in 1795 and the Chaplin family were the first residents in the 18th and 19th century. Since, there have been a variety of home owners. Due to a private property, this was the only view I was able to get. (Simmons, 2016)
Figure 4.9 *The Charleston Daily Courier*, September 9, 1854, p. 2. This article describes the gale, or hurricane, in September 1854. This storm impacted South Carolina’s Lowcountry exactly fifty years after “The Great Gale of 1804”. (*The Charleston Daily Courier*, September 9, 1854, p. 2)
Figure 4.10 The Charleston Daily Courier, September 19, 1854, p. 2. This article included two letters from residents in Laurel Hill and Western Branch Cooper River. They both describe the destruction from the Great Carolina Hurricane. (The Charleston Daily Courier, September 19, 1854, p. 2)
Exactly fifty years after the Gale of 1804, in what was often referred to as a
strange coincidence, South Carolina experienced a hurricane of almost equal proportions. The Gale of 1804 was the heaviest storm many had ever seen (Charleston Mercury,
September 9, 1854, p. 2). The storm impacted much of lower Lowcountry South Carolina
and coastal Georgia and brought strong storm surge and many deaths (“Tropical Cyclone
History”, 2016). As described in a local, Lowcountry newspaper,

This is one of the heaviest and most protracted gales that has been experienced
here for many years and it is somewhat singular that it occurred on the semi-
centennial anniversary of the great gale of 1804, so memorable in the minds of
our ancient citizens, which took place on Friday, the 8th of September that year.

(Charleston Mercury, September 9, 1854, p. 2)

Chaplin described an intense storm, or gale, as having a great destruction on his
plantation. His detailed and overly dramatic description caught attention. Chaplin wrote
that he had never seen such a storm in his life; it was so strong and devastating. This
storm, better known as the Great Carolina Hurricane, made landfall in northern Georgia,
not far from my study site and had a significant impact on most of the coastal and
midlands of South Carolina (Hurricane Research Division, n.d.). Cities such as Beaufort,
Charleston, and Columbia all saw an impact from the storm. With the hurricane’s track
near Beaufort and the nearby sea islands, the multiple descriptions of the event in
historical personal documents and newspapers provided a great opportunity to research a major meteorological impact on the antebellum period’s society and economy. The journals, letters, and newspapers illustrate the intimate impact that a severe weather event, like a hurricane, had on people in the antebellum period. This chapter will use the Great Carolina Hurricane to demonstrate the social, agricultural, and economic way a society was impacted during that time.

5.1 The Great Carolina Hurricane

The Great Carolina Hurricane of 1854 made landfall in Georgia on September 8, 1854 (Mayes, 2006; Glenn and Mayes, 2009; Hurricane Research Division, n.d.; NWS Charleston, 2016). The official NOAA HURDAT track shows the storm made landfall near St. Catherine Sound, Georgia as a category three hurricane (Hurricane Research Division, n.d.; Mayes, 2006, p. 42). As a category three hurricane, this storm had major sustained winds at 111 to 129 miles per hour with devastating damage to buildings and trees and a high risk of injury or death to people and livestock (“Saffir-Simpson Wind Scale,” n.d.) As the Great Carolina Hurricane moved north-northwestward, and to the west of Beaufort and St. Helena Island, it crossed into South Carolina as the strength approximately of a weak category one hurricane on September 9, 1854. The hurricane quickly weakened into a tropical storm as it moved northeastward through South Carolina’s Midlands and over the city of Columbia before entering North Carolina and reentering the Atlantic Ocean near the North Carolina/Virginia border (Office for Coastal Management, 2016; Hurricane Research Division, n.d.). The Great Carolina Hurricane’s track through the United States was composed by using numerous historical instrumental
and documentary weather observations from sources such as plantation journals and newspapers (Mayes, 2006). Due to the lack of computers and meteorological instruments, there was no official track of the hurricane. Therefore, we must use weather observations taken by people to compose the track made by the hurricane, like putting a puzzle together (Hurricane Research Division, n.d.; Mayes, 2006; Office for Coastal Management, 2016).

The Great Carolina Hurricane was one of five known tropical cyclones from the 1854 North Atlantic hurricane season and the only one to make landfall along the eastern United States coast (Fernandez-Partagas and Diaz, 1997, p. 6; Hurricane Research Division, n.d.). In many documents, such as the Charleston Mercury newspaper and numerous plantation documents, South Carolina citizens compared the hurricane to previously experienced storms that formed in the early 19th century. When describing the intensity of the Great Carolina Hurricane, there were comparisons made in local newspapers to two previous storms: The Gales of 1804 and 1822 (Charleston Mercury; The Charleston Daily Courier; The Weekly News). The Gale of 1804 made landfall directly in Beaufort and left immense damage along the Lowcountry coast and neighboring sea islands. Eighteen years later, the Gale of 1822 hit further north between Charleston and Georgetown, South Carolina. It was a smaller storm, but the most devastating since which occurred in 1804 (Ludlum, 1963). Following this Gale of 1822, thirty-two years later, the Great Carolina Hurricane in 1854 was the next severe, impact leaving storm to hit this area. Therefore, it was compared to the severe storms hit earlier that century in 1804 and 1822.
By the time The Great Carolina Hurricane of 1854 impacted Beaufort and St. Helena Island, it had an estimated strength of a category one hurricane. There are many associated meteorological impacts of weak category one (74-95 mph winds) or two (96-100 mph winds) hurricanes (“Saffir-Simpson Wind Scale,” n.d.). Plantation locations on sea islands or nearby coastal towns were located on low elevation. Considering these plantations’ locations, storm surge was the most damaging impact associated with hurricanes that these residents of the Beaufort District experienced. A storm surge, which can raise tides 6-8 feet above normal during a category two hurricane, inundates low-lying coastal areas. The salt water intrusion, associated with the flooding from storm surge, can kill vegetation, such as sea island cotton, which was what many of the St. Helena Island residents primarily relied on for income. In Charleston’s The Weekly News, some of the coastal impacts from the hurricane are described as the following:

Letters from the neighboring islands represent that at James, John’s, and Edisto Islands, the destruction of crops has been ruinous, the water rising higher than ever before known. Hundreds of acres of land have been covered. Bridges have been carried away, banks and dams overflowed, and the cotton crop irreparably injured. (September 14, 1854, p. 2)

Along with strong storm surge and coastal flooding, other associated hurricane impacts include strong, dangerous winds and inland flooding (“Saffir-Simpson Wind Scale,” n.d.). The extent of wind damage depends on hurricane strength, and can cause devastating destruction to fences, trees, and buildings. The Charleston Mercury described heavy winds ripping off tin roofs and frame buildings being blown down in Charleston during the Great Carolina Hurricane (September 9, 1854, p. 2). Inland flooding can often
be the most destructive and deadly impact of hurricanes. Flooding, such as river flooding, can cause serious damage especially if the storms stall or slow over land. Wind strength does not necessarily determine the amount and intensity of rainfall. Therefore, it can affect an entire storm's track especially if it is only a tropical depression or extratropical storm.

The meteorological impacts of an event, such as the Great Carolina Hurricane of 1854, can in turn cause many social, agricultural, and economic impacts on a population. This storm was one of the worst hurricanes on record to hit antebellum Beaufort District. While making landfall with strong storm surge, winds, and flooding, the hurricane left many impacts on plantations, crops, cities, and trade. The following sections review the many impacts of the Great Carolina Hurricane: social (how people interpreted, slaves’ experience, compared to the past); agriculture (effect on crops, plantation, surrounding environment); and economic (impact on exports, trade, ability to distribute goods). Many artifacts, including a descriptive journal left by plantation owner Thomas Chaplin, describe significant social impacts and responses that arose as a result of the storm. Plantation journals were critical in this research because these sources included more of the human and social aspect rather than only the physical. The plantations located on the sea islands and affected by the rising storm surge make the connection between physical and social geography. Sea island cotton must be grown in these coastal areas, but low-lying plantations can be severely damaged by storm surge from the hurricane. By compiling multiple firsthand accounts, we are able to see how the impacts of the hurricane varied significantly by location. For the locations of Beaufort and St. Helena Island, the Great Carolina Hurricane of 1854 played a pivotal role in shaping antebellum
plantation life. The storm proved that weather plays a large role in people’s lives in this area and becomes very dangerous when economies so strongly rely on plantations (Blanton et al., 2009, p. 3; Stewart, 1997, p. 240; Tuten, 2009, p. 35).

5.2 Social Impacts

During this time, people understood this event and place in relation to the past and other locations. With no detailed climatological records, people often referred to and compared to storms from the past or “before”. People made sense of it through their recollection of previous events. Memory was important because it was the major source of contextual information with which to understand an event. When comparing to other storms, the Great Carolina Hurricane included specifics such as the water height, tide levels, and the high land covered. For example, many people described the water as rising to that higher than ever before. The damage compared to only that from the Gale of 1804 or of nothing ever before. William Elliot described the storm surge occurring like what he had heard happens during the earthquakes in the West Indies (Scafidel, 1978, p. 778). Many Lowcountry residents had never experienced a storm of that strength. Without electronic media, there were no televised data and details for people to compare to or understand prior to the arrival of the storm. In the antebellum period, the role of the newspaper was to interpret the weather events. For example, an article refers to the early arrival of the Great Carolina Hurricane as, “the first indication and warning appeared at a very early hour of Thursday morning, or soon after the midnight of Wednesday” (The Charleston Daily Courier, September 9, 1854, p. 2). The article included a detailed story about the entire event, which can now also be seen on TV or online. Following the
departure of the hurricane, *The Charleston Daily Courier* received many letters from South Carolina towns about the effects of the storm. Many people compared the effects of the Great Carolina Hurricane of 1854 to those hurricanes that hit in 1804 and 1822.

For example, in a letter from Edisto Island, on Sept. 10, 1854, the citizen wrote:

> The tide during the hurricane of 1804, (which occurred on the same day of the month fifty years ago, on which this commenced) is known only to most of us by traditions which are always uncertain and apt to exaggerate. It may therefore be doubted, whether we have ever before had a higher tide in this neighborhood, than that of the morning of the 8th. (*The Charleston Daily Courier*, September 13, 1854, p. 2)

This citizen wrote about the hurricane of 1804. It’s unknown whether they’ve ever had a tide higher than this on the 8th because, since people tend to exaggerate, previous heights are not official. People also described the height of water to that of a ferry, for example, to understand how high the water was. Letters in the newspapers varied by location, which is nice to receive different viewpoints of the hurricane’s impact (*The Charleston Daily Courier; Charleston Mercury*). Additionally, *The Weekly News* included economic and trade information, such as the review of the Charleston market.

Even before landfall, and as people experienced early signs of a hurricane, many thought a gale, or hurricane, was approaching. This was due to previous experiences, and their close attention to the weather, in the South Carolina Lowcountry (*Gignilliat Pocket Plantation Diaries, 1854-1859*, September 7, 1854; *Tombee Plantation Journal, 1845-1886*, September 7, 1854, p. 443). As the hurricane approached and moved through, Thomas Chaplin made numerous comments in his daily journal entries about the intensity
of the storm. Chaplin wrote, “I never saw such a storm in my life. Neither has the oldest inhabitant” (Tombee Plantation Journal, 1845-1886, September 7, 1854, p. 443). These long journal entries included passionate descriptions about the storm’s heavy and endless rain, thunder, and lightning. On Thursday, many journals had notes about the storm’s appearance which had every sign of a hurricane. This proceeded into Friday when people described the continuing hurricane’s strength and damage done. Gignilliat’s journal included these details and with these meteorological conditions, he accurately knew a hurricane was occurring (September 7-9, 1854). However, many people were not sure what was occurring and purely described the situation taking place around them.

Throughout the Lowcountry, there were thoughts of excitement, anxiety, and confusion about the approaching storm. The unknown strength and potential, due to the lack of technology in this time period, created these feelings. As the storm moved in and the intensity grew, many people knew it was a hurricane approaching.

The assorted and descriptive observations, written in journals, newspapers, and other primary sources, are valuable when analyzing how the residents interpreted what was occurring around them during the hurricanes. These sources provide many first person interpretations of the storm’s impact in all areas. The strength of the hurricane and extent of the damage were described in many different ways. Likely the description of the caused storm surge, William Elliott wrote, “I don’t believe there ever was such an eruption of the sea in this part of the coast” (Scafidel, 1978, p. 779). In the Gignilliat family plantation journals, as the hurricane approached and without knowledge of further weather conditions, the weather was described as it “has every appearance of a Gale” (September 7, 1854). Gignilliat made notes about the heavy winds, clouds, and rain. A
few days after the hurricane, the *Charleston Mercury* wrote an article about the damage and condition of Sullivan’s Island, a sea island north of St. Helena Island in the Lowcountry. They described the island by saying,

> The Island presents a very dismal appearance; trees, fences, and the smaller buildings, lay prostrate in all direction. Near the Cove the storm did much damage. The Point House is gone, and all of the adjacent buildings are more or less injured. Of the Back Beach the damage is universal, all of the houses having suffered more or less. On the Front Beach, those four neat cottages, cast of the Moultrie, House, known as the Tennessee Row, are all swept away. (*Charleston Mercury*, September 11, 1854, p. 2).

This article describes a variety of damage done on Sullivan’s Island. The author uses a variation of terms and descriptive language to describe the impact by the hurricane. The letters included in the newspapers also provide a variety of observations from the Lowcountry rural areas. For example, in Laurel Hill, the author wrote about the approaching storm and meteorological side effects. They also wrote about the severe damage to the near plantations and estates (*The Charleston Daily Courier*, September 19, 1854, p. 2).

In the newspapers and journals, the articles and entries were mostly about the status of the environment and land around them, as well as how the event happened. This included how the hurricane had impacted the urban areas, shipping, and agriculture. However, there was some discussion about the specific families and households after the hurricane. William Elliot’s family was not with him in Bluffton during the hurricane. Therefore, I was expecting a much more detailed letter to his wife, Ann, about the house.
In the letter, after the hurricane on Saturday, September 9th, he wrote about the conditions of their crops and yard after the storm. The property was in very poor condition and he wrote that, due to this state, it had “given me much distress” (Scafidel, 1978, p.778). N.P. Gignilliat and Chaplin’s plantation journal entries during the storm were mostly about the weather conditions, their yard, and their crops. Likely, their families were away during the hurricane, so the crops were the primary focus when experiencing the destruction. This was due to it being customary for families to leave plantations in April, after the crops were planted, and to live in many coastal resort villages or cities, such as Beaufort and Bluffton (Rowland et al., 1996, p. 380). After undergoing the storm in many coastal towns, people declared these summer resort villages unsafe for summer residence. For example, a few decades later, after the hurricane in 1893, the summer village of St. Helenaville was destroyed by erosion and storm damage (Rowland et al., 1996, p. 383). In *The Weekly News*, there was a letter sent to the newspaper which stated that Eddings Island, and the Village of Edingsville, “will no longer afford them safety in future summers as a residence” (September 14, 1854, p. 2). In cities, such as Charleston and Savannah, the flooding and strong winds were a severe problem and caused great damage to homes and buildings. Newspapers described many specific homes flooded, swept away, or fallen (*The Charleston Daily Courier*, September 9, 1854, p. 2; *Charleston Mercury*, September 11, 1854, p. 2). There was debris, such as tin and board, covering the land and streets from damaged roofs and houses (*Charleston Mercury*, September 11, 1854, p. 2). *The Charleston Daily Courier* wrote that the storm left the loss of a few lives on Sullivan’s Island due to the flooding and buildings falling (September 9, 1854, p. 2).
Without many specifics about families after the hurricanes, I was unable to get a clear picture of the condition the strength of the storm left their plantations in.

Although, slavery played a large role in lives in the Lowcountry during the antebellum period (LeClercq, 1996, p. 48). There was little mention of the status of slaves after the hurricane. Slaves were not a traditional part of the household; they were seen as its property and a source of income (Fox-Genovese, 1988, p. 93). Despite slaves being a major source of money during this time, plantation owners were more worried about the money their loss, in crops, would cost. Thomas Chaplin had many slaves on his plantation; yet, there was no mention of how they fared after the deadly storm. Considering the condition of his plantation, and most others in the area, I would expect that there would be some injuries, or deaths, due to drowning or from falling buildings. Neither N.P. Gignilliat nor William Elliott mentioned anything about slaves on their plantations either. There were remarks, either excitement, anxiety, or concern, about their safety made in the newspapers. For example, in The Weekly News, an article was written about the condition of some plantations on the Carolina side of the Savannah River. They wrote about lives lost: “No lives had been lost on these plantations as far as ascertained, but great concern is entertained for the fate of the negroes on them” (The Weekly News, September 14, 1854, p. 2). Due to the flooding, this writer, in an excerpt from Savannah’s Morning News, is concerned as well: “Much anxiety is felt for the safety of the negroes on the plantations in South Carolina, opposite the city [Savannah]. As far as we could see they (the plantations) are all covered with water” (The Charleston Daily Courier, September 11, 1854, p. 1). However, further north in South Carolina, an author of a letter, in The Charleston Daily Courier, showed excitement when writing about their slaves’
safety (September 19, 1854, p. 2). As shown, the safety and feelings vary depending on location within South Carolina; this is due to the landfall of the hurricane and track made throughout the state. For example, with a coastal landfall or skirt by a hurricane, this can have a significant impact on the arrival ships of slaves and coastal plantations. Overall, the variety in agriculture throughout the United States can have an impact on slavery by regions and sub regions.

5.3 Impacts on Agriculture

The Great Carolina Hurricane brought destruction to a large portion of the agriculture within South Carolina’s Lowcountry, especially the sea islands. Many sea islands in South Carolina’s Lowcountry and Georgia were unheard from immediately after the hurricane due to their isolated locations. People were anxious to hear from others on the nearby Lowcountry sea islands, especially on Sullivan’s Island which is mentioned in many articles. In an article written on September 9th, many people had tried to reach those on the island, but had difficulty (The Charleston Daily Courier, 1854, p. 2). Those who reached Charleston from the island spoke of a severely flooded island. At the time of writing in many Lowcountry newspapers, people were fearful of the effect the hurricane had on the crops, especially the cotton and rice. The sea island cotton in all regions was believed to have not dealt well with the Great Carolina Hurricane’s severe winds and resulting storm surge. An excerpt from Savannah Republic, that is included in Charleston Mercury, described the remaining cotton along the Georgia coast south of Savannah. With comparable physical geography, it is likely that South Carolina sea islands had a similar resulting condition:
Nothing has been heard from the Sea Island Cotton plantations on the coast below, but judging from the violence of the gale and the usual luxuriance of the weed, it is believed that the Cotton has been torn and ‘whipped’ out to a deplorable extent. The loss from this source will also be very heavy. (Charleston Mercury, September 12, 1854, p. 2)

While nothing had been heard of from the sea island plantations after the hurricane, Thomas Chaplin left descriptive entries in his journal on September 7th and 8th about the hurricane and its impact on his St. Helena Island plantation and home. This included strong winds and rising waters leaving severe effects on his plantation and surrounding area. Chaplin described, “Friday there was the highest tide I ever saw, the water was 2 feet deep in my yard & extended almost to the stable. Much of the cotton, corn & potatoes were under water” (Tombee Plantation Journal, 1845-1886, p. 443). These similar conditions occurred throughout and were written about in letters sent to local newspapers such as The Charleston Daily Courier after the storm. Rising water in the local rivers, such as the Cooper and Savannah Rivers, and storm surge along the coast caused much of the flooding and destruction in the plantations throughout Beaufort District and the surrounding Lowcountry.

The flooding destroyed the agricultural landscape. The inundation of salt ocean water damaged many cotton and rice crops (Charleston Mercury, September 12, 1854, p. 2; Mayes, 2006, p. 46). Primary accounts, such as plantation journals and newspapers, described numerous situations where flooding, from both storm surge and rivers, brought “considerable” and “great” damage throughout the South Carolina Lowcountry coastline and sea islands (The Weekly News, September 14, 1854, p. 2). The people of the
Lowcountry, and St. Helena Island especially, were growing crops such as long staple cotton, corn, potatoes, and rice. In many coastal areas and sea islands, there was water on the fields and salt water from the storm surge. One South Santee resident described their rice crop as “about half of my crop, which was not ripe, is totally killed by salt water” (*The Weekly News, September 14, 1854, p. 2*). Due to mostly the salt water, this hurricane was destructive to this season’s planting interests on the Lowcountry plantations. Near sea islands, such as James, John’s, and Edisto, saw similar and unfortunate results from the hurricane as Chaplin did on St. Helena Island. A writer to *The Charleston Daily Courier* wrote about the hurricane’s wet and windy conditions on Edisto Island: “there are many fields, and parts of field, which were exposed to it on the sea shore, in which the cotton is totally destroyed” (September 13, 1854, p. 2). A South Carolinian, living at the Western Branch, Cooper River, sent a letter to *The Charleston Daily Courier*, and said that all the plantations in the area were under water from Friday until at least the date of writing, Sunday (September 19, 1854, p. 2). Nearly all Lowcountry citizens, whether in newspapers or journals, wrote that they lost at least half of their crops due to mostly the flooding from the hurricane. There is no mentioning of crop destruction from the 1804 hurricane in newspapers or journals. However, there was comparison to the Great Carolina Hurricane as “heaviest” since 1804 and memorable to only “ancient citizens” (*Charleston Mercury*, September 9, 1854, p. 2). *The Charleston Daily Courier* also wrote that the destruction along the bay was greater than ever before. The 1804 hurricane skirted along the coast and left wind and storm surge damage (“Tropical Cyclone History,” December 22, 2016). With these notes, it appears that the storm left significant coastal damage, but no specifics about the agricultural impact.
The agricultural season, during which the hurricane made landfall, had a significant impact on the severity of its effect on plantations and their crops. This time was prime, or just before, picking season for cotton and rice crops. Many plantations had numerous stacks of crops around the land ready for sale or trade. These crops were later found floating throughout the plantations often in the destructive salt water. William Elliott experienced flooding throughout his plantation and wrote to his wife about the damage:

The state of my property here has given me much distress—the crop is far worse than I had imagined—I shall not make one bushel of prime rice for market at So. Hall. It is all damaged but six acres—that must be kept for seed. The toll mills may beat it—but at great sacrifice to me. It is all discoloured from salt water and all I can say of it, is that it will do for provisions—and is healthy food. (Scafidel, 1978, p. 778)

Throughout much of coastal South Carolina, and in Elliott’s neighborhood, hundreds of acres of land were covered in water that rose higher than the people had ever seen before (The Weekly News, September 14, 1854, p. 2). The crops remaining on the plantation fields were described as being as dead as those in December, or the end of the growing season. A plantation owner, from the Western Branch of the Cooper River, wrote The Charleston Daily Courier: “Nearly the whole crop is afloat, as I had nearly finished cutting, and had all stacked in the field” (September 19, 1854, p. 2). Another Lowcountry resident wrote the paper and described their irretrievable crops:

The storm or rather hurricane has ruined everything. All of our Rice has been swept away. We had 321 acres cut, and all stacked but 34 acres…At high water
on Friday the tide broke over us, and on the high water on Friday night, covered the whole plantation and swept everything before it. (*The Charleston Daily Courier*, September 19, 1854, p. 2)

Like this resident, many plantation owners described their crops as being swept away with the rising tides or rivers. The flooding of the ocean and rivers wiped crops off many plantations or even some completely off islands. *The Charleston Daily Courier* wrote that the hurricane had been very destructive to almost all plantations on some sea islands (September 19, 1854, p. 2). People on plantations, like Chaplin, relied on their crops and livestock for consumption and to sell. However, for supplemental income, many had to sell slaves, stop sending children to school, or sell summer village homes. This was not wanted, but at times, like after this destructive weather event, it was necessary. Many times throughout Chaplin’s journal, he expressed his disappointment due to loss in order for income.

Not only crops on plantations and farms were destroyed, but, additionally, a majority of trees and vegetation throughout the Lowcountry cities and towns. This includes both the planted and natural environment in and surrounding these areas. The sea islands and neighboring coastline were covered by trees and many other types of vegetation, like seen in my field excursion. People’s homes were surrounded by a beautiful landscape. In a letter from Edisto Island, the writer described that the hurricane left behind trees uprooted and dams that were “overflowed by the tide” (*The Charleston Daily Courier*, September 13, 1854, p. 2). In these cities where trees ornament the landscape, destruction, like from this event, left a bare and ruined landscape throughout. Newspapers described fences laying and floating around, gardens destroyed, and fallen
trees and branches. The flooding all over the sea islands also contributed to the numerous gardens, plants, and fences destroyed in personal yards. For example, on September 7th, Thomas Chaplin wrote about his plantation and the surrounding St. Helena Island:

“Crops are all ruined. trees blown down & uprooted, fences all down…all the large bridges on the Island gone” (Tombee Plantation Journal, 1845-1886, p. 443). As displayed by articles and journal entries, in most South Carolina sea islands, especially between Beaufort and Charleston, the Great Carolina Hurricane left great damage to the agriculture and surrounding environment. Due to the damage done throughout the plantations, as I could see through reading primary sources, this storm left great feelings of loss and awe for plantation owners. The following section will look at the economic impact that this storm’s damage had on sea island plantations and surrounding urban societies.

5.4 Impacts on the Economy

Sea island cotton was a major export in antebellum South Carolina. Table 5.1 shows the decadal values of sea island cotton exported from Charleston. The quantities are quite even except for an increase in 1820 and 1860. Due to its unique production in the sea islands, this type of cotton was wanted nationally and globally. Negative impacts to the crop hurt people throughout the world. Plantations in all areas of the Lowcountry, such as St. Helena Island, sent their crops north to Charleston, which was a hub and a major center of trade. Throughout most of my study period and Chaplin’s journal (1835-1860), there were 359 sea island cotton plantations located from Bull to Hilton Head Island in South Carolina. The sea island cotton industry was focused mainly on two of
these sea islands: Edisto and St. Helena. This was because of three reasons: they had the largest plantations, they made the highest yield per acre, and the most improved acreage occurred (Porcher & Fick, 2005, p. 323). In previous sections, it was shown the significant impact the hurricane had on Edisto and St. Helena Island. Both newspapers and journals, such as Chaplin’s Tombee Plantation journal, wrote about the severe flooding and the role that salt water had on crop destruction.

Charleston suffered greatly during the hurricane, especially many of their wharves, ships, and seaside buildings. This created substantial damage to shipping. In addition to wharf property loss, merchandise in the stores, or goods about to be shipped out, were nearly or completely destroyed. There was partial or total loss of merchandise in many stores in the Charleston Harbor. Brown’s Wharf, in Charleston, lost 2,000 stacks worth of salt from the storm’s destruction (The Charleston Daily Courier, September 9, 1854, p. 2). The Charleston Daily Courier reported on Saturday, September 9th that there was an estimated $250,000 to $300,000 loss on the wharves in Charleston. This is equal to approximately $6.9 million and $7.9 million today (U.S. Department of Labor, Bureau of Labor Statistics). Due to the impact on South Carolina’s coast, The Weekly News, for the week ending on September 14th, described the affect the hurricane had on the economy:

The extraordinary and so fatal inclemency of the weather tinting the greater part of the week just closed has materially interfered with business transactions generally, both in our own productions as well as others of importation. (September 14, 1854, p. 3)

Many newspapers in Charleston and Savannah listed many specific vessels, wharves,
warehouses, and buildings that were damaged by the hurricane. In September 9, 1854 issue of *The Charleston Daily Courier*, the article, “A Violent Storm”, wrote about many impacts the storm made on the city of Charleston. They wrote about the damage done to the Battery, wharves, and ships, but includes many “escaping injury” (*The Charleston Daily Courier*, September 9, 1854, p. 2). *Charleston Mercury* included an article about the damage done to Sullivan’s Island after the hurricane. They wrote, “the Ferry Wharf is gone. The wharf at Mt. Pleasant is standing, while the long bridge connecting it with the land is swept off” (*Charleston Mercury*, September 11, 1854, p. 2). This was after they described the portion of the island recently covered with water. Due to the flooding and strong winds from the hurricanes, businesses, such as cotton presses and shipyards, lost thousands of dollars.

Trade throughout the United States and Europe suffered from the storm. This did not only include the plantation owners, but also those looking to import the crops, such as cotton and rice, and all others who were a part of trade. The Industrial Revolution in Europe relied on the cotton exported from the United States (Porcher & Fick, 2005, p. 300). In Liverpool, England, which was the center of cotton trade, buyers set the price of cotton. Therefore, rain, frost, or temperatures affected the price of the crop (Porcher & Fick, 2005, p. 301). As mentioned, planters throughout the Lowcountry experienced severe damage to their fields with many losing all of their crops. Many rice plantation owners stated that all rice was swept away or lost. In one area impacted by the storm, Charleston was the primary market for many crops such as rice and sea island cotton (Porcher & Fick, 2005, p. 308). Due to the considerable loss of cotton and rice, there was a sharp drop in trade of these crops. During the week ending September 12, the market
for long, sea island cotton was at a standstill due to the severe impact (*The Weekly News*, September 14, 1854, p. 3). *The Weekly News* reported that in the week ending September 19, 1854, there had been no transaction in long, sea island cotton within the past week (September 21, 1854, p. 3). While the hurricane was not officially the cause of the drop, there was a significant decrease in the quantity of sea island cotton in 1854 (Porcher & Fick, 2005, p. 323). St. Helena and Edisto islands produced a large portion of sea island cotton, and were severely affected by the hurricane, so it would be likely that there was a significant decrease in production. Table 5.2 shows a drop in production from 11.2 million pounds in 1853 to 10.5 million pounds in 1854. This near one million drop is not surprising considering the strong hurricane that hit the sea islands that summer. The production increases considerably the following year (Table 5.2). Post hurricane, the remaining stock was of poor quality. Cotton trade began to pick up days after the storm, but it was a slow recovery. However, long, sea island cotton took much longer due to the fact that sea islands were impacted worse than most of South Carolina that grew Upland cotton.

Physical geography can impact the ability to distribute goods. For example, this meteorological event, a hurricane, severely affected the annual production of crops and the South Carolina ports. Therefore, with the lack of goods and safe location to ship from, exporting from Charleston was easily impacted by the hurricane. Many Charleston and Savannah newspapers wrote about numerous schooners that were ruined or wharf property that received enough damage to be inoperable. While many people’s homes were damaged, their jobs received a lot as well and forced them to be unable to bring in money. Additionally, many people’s jobs relied on the production of crops. Jobs on the
plantations, wharves, harbor warehouses, and boats transporting the goods all relied on a normal number of annual crops.

As my thesis inspiration, Thomas Chaplin’s experience, during the Great Carolina Hurricane, provided the reader with a descriptive view through a plantation owner and citizen during the antebellum period. He relied annually on the success of his plantation’s crops. With Chaplin’s plantation journal, and the assistance of a few other personal documents and the local newspapers, this chapter provides a description of the effect weather events had on cities and sea island plantations in South Carolina’s Lowcountry during this time. There are various similarities and differences in the weather impacts on societies today compared to the antebellum period. As seen through research and news, people are still left homeless as a result of storms. Today, we give hurricane warnings and evacuation notices, unlike Chaplin’s time, but people still do not evacuate. Therefore, there are still lost lives despite social media, public, and technology warning them. Agriculture and the economy is still impacted by the weather events like storm surge, strong winds, and flooding. With no sea island cotton today, the severe result is not shown in the national and global economy like in the past. As society and the environment has evolved over time, impacts from weather events have changed on the social, agricultural, and economic sides of society. However, there were significant impacts on people in the antebellum period and this chapter presents its results in the Lowcountry.
Table 5.1 Sea island cotton exports, antebellum period, from Charleston, SC. (Porcher and Fick, 2006, p. 310 and 323)

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity (millions of lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1805</td>
<td>8.8</td>
</tr>
<tr>
<td>1810</td>
<td>8.6</td>
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<tr>
<td>1820</td>
<td>11.6</td>
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<td>8.8</td>
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<tr>
<td>1850</td>
<td>8.2</td>
</tr>
<tr>
<td>1860</td>
<td>15.6</td>
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</tbody>
</table>

Table 5.2 Sea island cotton exports, 1853-1855, from Charleston, SC. (Porcher and Fick, 2005, p. 313 and 322)

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity (millions of lbs.)</th>
<th>Annual Avg. Monthly Price (cts. / lb.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1853</td>
<td>11.2</td>
<td>41.2</td>
</tr>
<tr>
<td>1854</td>
<td>10.5</td>
<td>33.4</td>
</tr>
<tr>
<td>1855</td>
<td>13.1</td>
<td>31.6</td>
</tr>
</tbody>
</table>
Chapter 6
Conclusion

While I read throughout the *Tombee Plantation Journal*, while learning about the Great Carolina Hurricane previously, I discovered many other weather events Chaplin described. In addition to the hurricane in 1854, I found continuous dry conditions repetitively mentioned in Chaplin’s journal in spring and summer of 1845. Unlike the hurricane, which is confirmed by many scientific documents and organizations, I cannot find any documents proving this event. However, there were endless primary documents, which include journals, letters, and newspapers, with citizens describing endless dry conditions and referring to them as a drought. I found documents in University of South Carolina’s Caroliniana library, such as Josiah J. Evans’s letters. From these, I found personal letters from the research period that provided information to support the drought and information described by Chaplin, Elliott, and numerous local newspapers (*Edgefield Advertiser*, 1845; *Savannah Daily Republican*, 1845; Scafidel, 1978; *Tombee Plantation Journal*, 1845-1886). Whether in the Lowcountry or further north, much of South Carolina’s land and vegetation suffered for the need for rain and its effects were seen throughout. For example, in the spring and into the summer, people were still seeing side effects of the lack of precipitation. In Society Hill, South Carolina, Evans wrote: “the drought has been very severe and our corn crops will be very short” (August 6, 1845). Newspapers, such as *Edgefield Advertiser* and *Savannah Daily Republican*, further confirmed and added experiences within the South Carolina Lowcountry. Just south of
Edgefield, South Carolina, in Aiken, a citizen wrote to the *Edgefield Advertiser* on May 4, 1845. They said that the gardens in his neighborhood were “burning up” due to the need for rain (*Edgefield Advertiser*, May 14, 1845, p. 2).

With these examples, in addition to the descriptive letters from Elliott, journal entries by Chaplin, and many newspaper articles and letters, this event can be defined as a socio-economic drought. One of the four drought categories, socio-economic, defines a drought that incorporates meteorological, agricultural, and hydrologic features (Wilhite & Glantz, 1985, p. 8). With my thesis’ methods and these additional primary documents, it is possible to look further into this event and determine its impact on that society and time period. This research could add, and begin, new scholarship in an area of climatology and environmental history that does not appear to exist. This research and study would prove the strength in using historical primary and secondary sources to determine the social, agricultural, and economic impacts on people during a study time.

The *Tombee Plantation Journal*, and other primary sources, show that the livelihood of plantation owners in the Lowcountry and its sea islands was strongly dictated by weather and the success of each season’s crops, especially sea island cotton. The analysis of the Great Carolina Hurricane, through these sources, proved that a first-hand account of the event showed the economic and social impacts that these meteorological events had on plantation owners and their families. Through descriptive writing, the analysis of Chaplin’s journal and other sources showed the vulnerability of the sea islands and surrounding Beaufort District to severe weather and climate events. The journals also present the geographic impact and change that these events had on the land during this study time. The research presented new knowledge about meteorological
event’s impacts on South Carolina Lowcountry sea island cotton plantation owners from the mid-nineteenth century.

There is a lot of contemporary scholarship and research on adaption and experience of hazards related to severe or major weather events. However, there is a lack of this scholarship related to historical events in periods such as the antebellum. This thesis helps raise questions or offers suggestions for resources that can help people understand these issues from a personal and emotional perspective. With examples such as the Great Carolina Hurricane and drought in 1845, this study shows that with methods, such as these, it is possible to learn more about past weather event’s impact on social and economic perspectives of people’s lives. We can understand differential impacts based on socioeconomic status-something they know today, but situated in historical context.
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**Theses and Dissertations**
