

ADAPTIVE LEGACY

THE TRANSITION OF LIGHTHOUSES FROM SYMBOLS OF POLITICAL- ECONOMICAL STATEMENTS TO ICONS OF CULTURAL IDENTITY

by

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Lighthouses on the eastern coast, North Carolina are iconic monuments of the scenic and historic landscape of the Outer Banks. The job for which these lighthouses were specifically designed was to aid mariners in navigating treacherous waters. The advancement of modern navigational equipment has diminished the necessity of these lighthouses for that function. However, the lighthouses also have a separate complex and symbolic purpose connected to the values and ideology of the organizations that fund and supported them. Historically, their purpose was to project the ideologies of the government responsible for their construction, design, and maintenance to the foreign and national mariners that relied upon them. Today, the National Parks Service, private organizations, and community associations manage the lighthouses on the Outer Banks for heritage tourism with the goal of positively increasing public interest in lighthouse history. With the increase in public access to the lighthouses, there is the potential hazard of compromising the structural integrity of the buildings. This thesis will study the historic preservation management strategies of three North Carolina lighthouses as case studies: Bald Head Island (Old Baldy), Cape Hatteras, and Currituck Beach lighthouses.

The study evaluates the historic function and purpose of these lighthouses to understand the circumstances of their creation, examines the level of public access and management actions taken to date to determine the effectiveness of their preservation, and the values and opinions of the local community members towards these sites as cultural and historical resources. By studying the transition of their purpose, lighthouses may be seen simultaneously as historic properties with significance that extends beyond their function as navigational aids and includes their purpose as symbols of an institutional ideology and cultural identity.

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ECONOMICAL STATEMENTS TO ICONS OF CULTURAL IDENTITY

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LIST OF ABBREVIATIONS

ACHP	Advisory Council of Historic Preservation
DOI	Department of the Interior
ECU	East Carolina University
GSA	General Service Administration
NHLPA	National Historic Lighthouse Preservation Act
NHPA	National Historic Preservation Act
NPS	National Park Service
OBC	Outer Banks Conservationists, Inc.
OBHC	Outer Banks History Center
SHPO	State Historic Preservation Office
UMCIRB	University and Medical Center Institutional Review Board
USCG	United States Coast Guard

CHAPTER 1: Introduction

The lighthouses on the Outer Banks were constructed to aid in the navigation of treacherous waters along North Carolina's Atlantic coast; however, the advancement of modern navigational equipment has diminished the reliance on lighthouses for this function. Bald Head Island lighthouse, or Old Baldy, suffered from poor upkeep after it was decommissioned in 1938. The lighthouse did not receive much attention after the U.S. Coast Guard sold the property until the tower and property were donated to Old Baldy Foundation, Ltd. in 1985 (Old Baldy Foundation 2015a; Chris Webb 2015, pers. comm.). The National Park Service (NPS) has been responsible for the preservation of the Cape Hatteras lighthouse since it received ownership of the structure from the U.S. Coast Guard (USCG) in 1936 (Cybularz 2015:72). Currituck Beach lighthouse was neglected and fell into disrepair after the last light keeper was relieved of duty in 1938. The property has since been restored and preserved by Outer Banks Conservationists, Inc. after they leased the property in 1980 and the tower in 1990 (Outer Banks Conservationists, Inc. 1999:22). Since each steward gained control over their respective lighthouses, each has conducted both major and minor restoration and improvement projects to preserve the towers and keep them accessible to the public. This study examines the frequency and extent of preservation work undertaken by the steward agencies and the annual public visitation in comparison to the number of days the lighthouses are open to the public offers. By also considering the views of residents towards the lighthouses and stewards in their communities, this investigation provides

insight into the balance between these factors and assesses the challenges that the steward agencies face in maintaining this crucial equilibrium.

The function of a lighthouse, the action for which it is specifically designed, is to serve as a landmark for mariners to aid in navigating potentially dangerous waters. Its purpose, the intention for which the lighthouse exists, is more complex because it acts as an icon to represent the values of the organization that funds and supports it (Bass 1968:26-29). The improvements to shipboard navigational technology in the twentieth century diminished the necessity of the lighthouses' function and the U.S. Coast Guard slowly decommissioned these structures. The purpose of lighthouses built after the establishment of the independent United States was initially to act as representations of the strength and stability of the federal government to aid domestic and international vessels (Miller 2010:13-14). Since the transition of lighthouses from navigational aids to historic tourism destinations, the purpose of lighthouses as emblems of American economic standing and political power shifted to symbols of American cultural heritage in their roles as historic places.

The lighthouses on the Outer Banks were constructed to aid in the navigation of coastal waters along North Carolina's Atlantic coast. Warm air and water are carried north up the coast from the Caribbean Sea, and cool water and air move south from the North Atlantic (Figure 1).

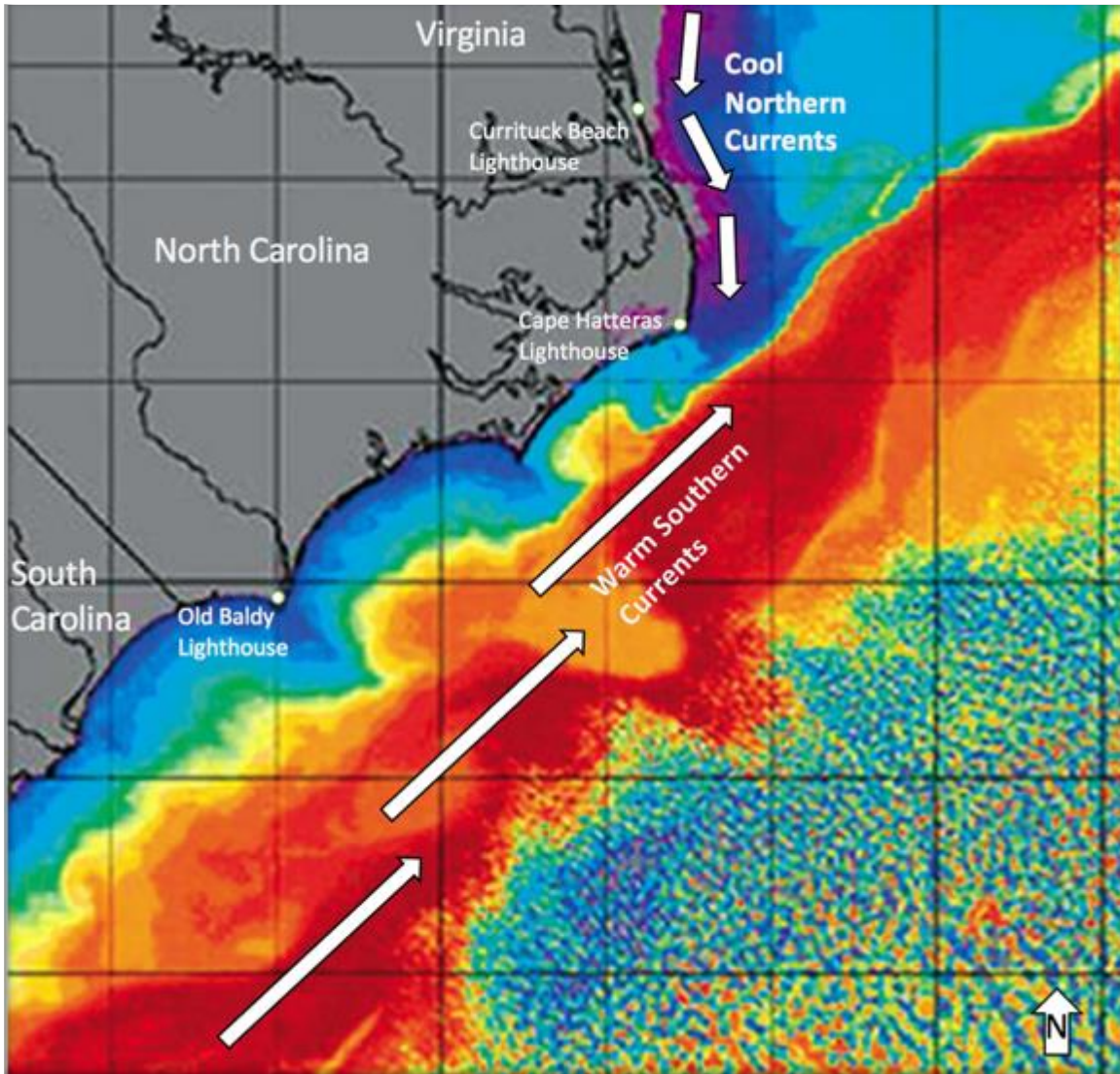


FIGURE 1. Map of North Carolina offshore currents (Courtesy of Woods Hole Oceanographic Institution, 2016. Altered by author, 2017).

Between these two currents, the Outer Banks barrier islands, and the shoals that extend offshore, there is a slim margin by which to safely sail along the coast (National Park Service 1978:3). Bald Head Island lighthouse was constructed to aid in navigating the mouth of the Cape Fear River, while Cape Hatteras lighthouse was built to warn sailors of Diamond Shoals, and Currituck Beach lighthouse was similarly built to aid navigation past False Cape (Flowers et al. 1975:2; National Park Service 1978:3; Outer Banks Conservationists, Inc 1999:16-17). These three lighthouses were selected as case studies

for this thesis because they fulfilled key criteria. The lighthouses are all located in North Carolina, not only in close physical proximity to the university but also in different communities of various economies and societies (Figure 2). The Outer Banks islands are high traffic tourist destinations, especially in the summer months, thus providing a market of visitors to the lighthouse sites. All the lighthouses are accessible and open to public visitation for a portion of the year. Each lighthouse is listed on the National Register of Historic Places, and each is managed by a different steward organization with different management strategies (Appendix A). The differences between these lighthouses allow for comparison, while their similarities act as controls to isolate the variables of preservation, public access, and local resident opinions under study.



FIGURE 2. Map of case study lighthouses on NC Outer Banks (Google Earth, 2016).

There are approximately 1,500 lighthouses and light stations located within the continental United States, of which over 500 are listed on the National Register of Historic Places (Rowlett 2016; National Park Service 2015e). The Register was established as part of the National Historic Preservation Act of 1966. This federal legislation was passed to encourage the preservation of places that are significant in American history. The National Registry distinction not only identifies the lighthouses as historically significant, but also promotes their preservation by providing documented evidence of that significance, support for local preservation activities, and enabling federal, state, and local agencies to consider historic properties during early stages of

planning developments. Provided that certain guidelines are followed, the National Registry qualifications for nominees encourage the rehabilitation of income-producing historic properties by offering federal tax incentives. The implications this legislation has on the lighthouses, and other historic places, are that it places a level of accountability to ensure their preservation from new developments and it provides incentives for their historical preservation (Tyler et al. 2009: 47-49). In 2000, the National Historic Preservation Act (1966) was amended by the National Historic Lighthouse Preservation Act, which serves as a means to transfer ownership of federal historic light stations deemed in excess to new, qualified stewards (U.S. Coast Guard et al. 2014:2-4). To accommodate the transfer of ownership, the National Park Service released guidelines to the historic preservation of lighthouses. These two additions to historic preservation law ensure that the release of lighthouses listed or with the potential to be listed on the National Register to non-government organizations are managed to minimum standards set by the Department of the Interior (National Park Service 1997a).

Before the signing of the American Constitution in 1789, the port of Wilmington submitted a proposal for a lighthouse to be built at the mouth of the Cape Fear River to assist in navigating the entrance and approaches (Figure 3). One of the conditions of the institution of the new federal government was the responsibility and ownership of all lighthouses in the new United States (Weiss 1926:2-3). Construction of the Old Baldy Lighthouse on Smith Island was completed in 1817 using salvageable materials from the ruins of the first Bald Head Island lighthouse. The construction of the lighthouse resulted in the establishment of a small settlement on the island consisting of river pilots and their families and the lighthouse keeper (Stick 1994:33-34). The island was temporarily

occupied during the Civil War by Confederate forces that constructed and occupied Fort Holmes (Stick 1994:43-46, 57). The Cape Fear Lifesaving Station was established in 1882, which also contributed to the population on the island. In 1903, a new light was constructed to better serve the lighting needs of the entrance to the Cape Fear River and the government officially decommissioned Old Baldy. The lighthouse remained the property of the government until 1938, at which time the U.S. Lighthouse Service amalgamated with the U.S. Coast Guard and the newly established USCG sold the property and island to Frank O. Sherrill. The lighthouse was privately sold in 1963 after attempts to develop it into a resort destination failed (Stick 1994:101-105). Old Baldy was added to the National Register of Historic Places in 1975 (Flowers et al. 1975:3). Since 1985, the Old Baldy Foundation has been responsible for the maintenance and preservation of the lighthouse (Outer Banks Conservationists, Inc. 1999:22) (Appendix B).



FIGURE 3. Chart of Cape Fear River approaches and Bald Head Island (National Oceanic and Atmospheric Administration, 2015)

The first Cape Hatteras lighthouse was constructed in 1802 and lit in 1803 in response to the increase in commercial shipping along the coast (Holland 1968:1). This original lighthouse was ineffective as a navigational reference because it was too short and the light was not strong enough to be seen by mariners. An attempt to improve this structure was made in 1854 by raising the height of the light tower and installing a First Order Fresnel lens, but these alterations did little to improve the quality of the light. The current lighthouse was built in a more prominent location with a higher light in 1870 (Figure 4). The U.S. Lifesaving Service established a new station at Cape Hatteras, although local residents had assisted ships wrecked on the shoals prior to 1883. Due to the persistent threat of coastal erosion to the structural integrity of the lighthouse, the U.S. Lighthouse Service ended service of the lighthouse in 1938 and ownership was transferred to the National Park Service. Lighthouse operation and maintenance have since remained the responsibility of NPS, and it was added to the National Register in 1978 (National Park Service 1978:1-3) (Appendix C).

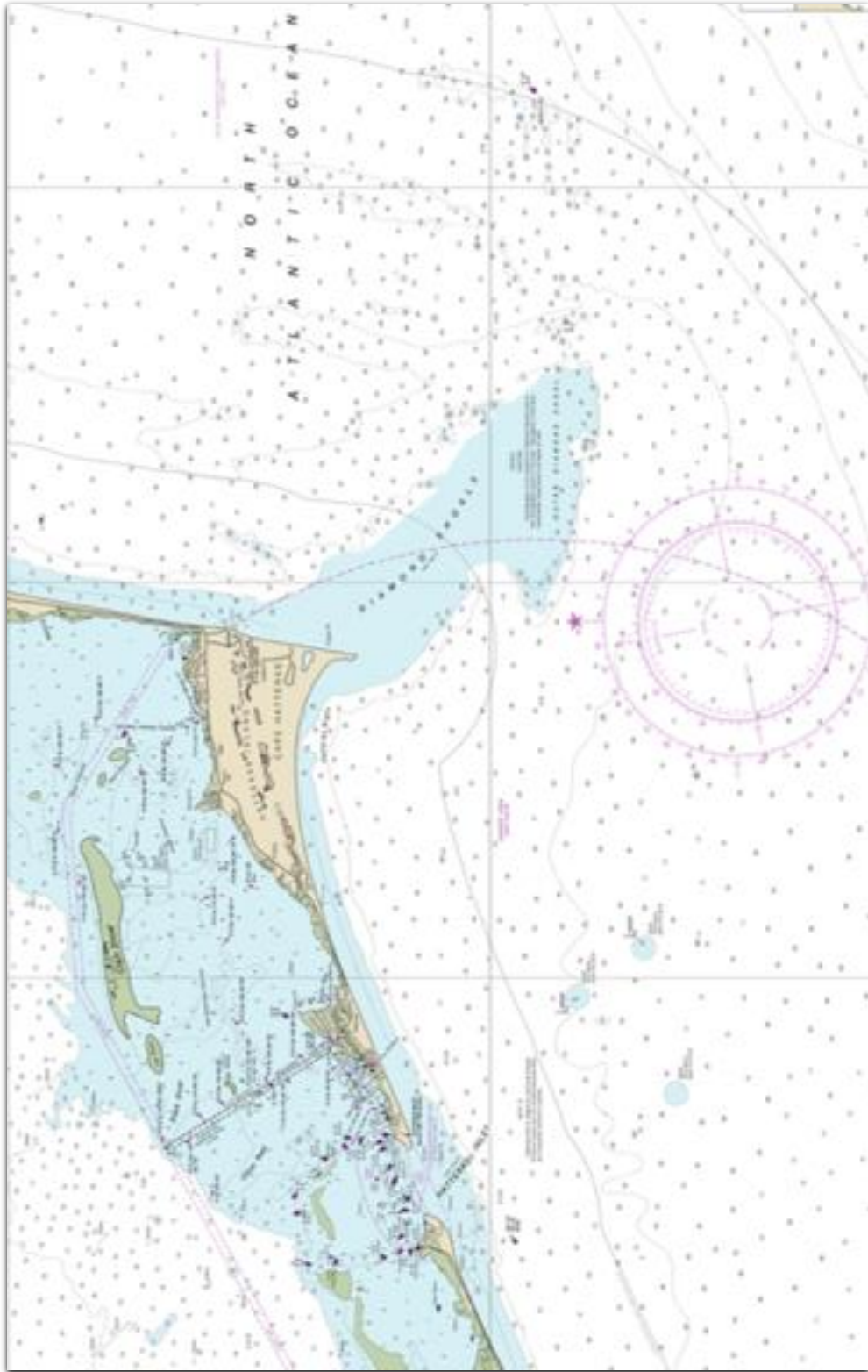


FIGURE 4. Chart of Cape Hatteras lighthouse and Diamond Shoals (National Oceanic and Atmospheric Administration, 2015).

Shortly after the completion of the second Cape Hatteras lighthouse, the lighthouse at Currituck Beach was completed in 1875 to provide navigational aid to mariners between Cape Henry, Virginia, and Bodie Island lighthouse. It was to complete a network of lighthouses to aid navigation along the eastern seaboard (Figure 5). The creation of the lighthouse, in addition to the establishment of the Jones Hill Lifesaving Station and the Lighthouse Club, led to the settlement of the community of Corolla. The lighthouse was owned and operated by the U.S. Light-House Board until 1939, and the lighthouse was maintained until 1947. Between 1947 and 1980, the property was vacant and fell into disrepair despite its conditional transfer from the Federal Government to the State of North Carolina (Outer Banks Conservationists, Inc. 1999:15-22). The light station was first nominated to the National Register in 1973. In 1979, property ownership became the responsibility of the North Carolina Department of Cultural Resources and the following year the keepers' quarters were leased to Outer Banks Conservationists, Inc. In 1990, Outer Banks Conservationists, Inc. entered a twenty-year lease agreement with the State of North Carolina to preserve and maintain the light station property and a lease with the U.S. Coast Guard to preserve and maintain the lighthouse tower. Under these lease agreements, the nonprofit organization has raised and spent more than four million dollars of private funds to restore, maintain, and operate the light station. The property was listed as excess property under the National Historic Lighthouse Preservation Act of 2000 and ownership was transferred to Outer Banks Conservationists, Inc. shortly thereafter (Outer Banks Conservationists, Inc. 2003:16-35) (Appendix D).



FIGURE 5. Chart of Currituck Beach between Duck, NC and Cape Henry, VA (National Oceanic and Atmospheric Administration, 2014)

Once instrumental to the safe navigation of the North Carolina's coastal shoals and inlets, the lighthouses have been relegated to cultural tourism destinations. Today, the National Park Service, private organizations, and community associations manage the lighthouses on the Outer Banks. The management of sites became visitor focused in recognition to the number of tourists that sought out historic places as tourism destinations. This innovative repurposing of lighthouses by these organizations for heritage tourism initiatives, while potentially compromising the structural integrity of the buildings, positively increases public interest in lighthouse history (McKercher and du Cros 2002:1). Looking at the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses as examples of the process of transition from symbols of national strength to representations of American culture, the effectiveness of the historic preservation of these sites were evaluated by examining the management actions taken to date by their respective organizations. Additionally, the level of public access to each lighthouse tower was assessed. Finally, interviews with local residents were conducted in each community nearest these lighthouses to gauge the level of local support for the lighthouses and their steward organizations.

While the utilitarian function of a lighthouse is singular, its purposes are multifaceted. The construction of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses on the Outer Banks were funded by the government in response to increased commercial activity on the North Carolina coast; thus, providing economic value at the State and federal levels for their construction, repair, and maintenance (Weiss 1926:2-3). The impact of the presence of the lighthouses at the local level, however, was social as well as political. These lighthouses have been a significant feature of their communities

throughout their history, particularly due to the strong ties to the light keepers and lifesaving employees, as well as their families. It is for that reason that this investigation focuses on the locals' opinions towards their local lighthouses (Bernard 2011:157-158).

The focus of this study is to analyze the transition of the purpose of three North Carolina lighthouses from emblems of American economic standing and political power to symbols of American cultural heritage in their roles as historic places. Using the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses as case studies, the history of their initial establishment, the preservation management strategies utilized by their managing organizations, and the opinions of local residents were evaluated to determine the process and effectiveness of transitioning their purpose for heritage tourism. From this study, it may be determined if their individual circumstances and management strategies are applicable in other states or countries in which lighthouses have ceased to be maintained by the government, as well as indicate the potential level of local support other lighthouses may experience depending on their proximity to established communities.

Research Questions

This thesis evaluates the effectiveness of the historic preservation of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouse sites by examining the management actions to date and the values and opinions of the local community members towards these sites as cultural and historical resources.

Primary Research Question

- How have the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses transitioned from their purpose of representing the strength of the federal government to their role as envoys of American culture as historic places?

Secondary Research Questions

- In repurposing these lighthouses for heritage tourism, how effective have the management strategies of the Old Baldy Foundation, the National Park Service, and Outer Banks Conservationists, Inc. been in managing public visitation and historic preservation efforts?
- How effective are the management strategies implemented by the organizations responsible for these lighthouses based on the historic preservation requirements of the National Historic Lighthouses Preservation Act of 2000?
- How do community members in Bald Head Island, Buxton, and Corolla value and view their local lighthouses and what do they think of the actions taken to preserve the lighthouse?
- Would it be possible to successfully apply any of the management strategies to other lighthouses locally, nationally, or internationally?

Thesis Structure

The success of any research objective relies on an effective procedure to explore the possibilities of the subject and present the findings clearly and succinctly. Chapter Two, *Methodology*, describes the approaches used to research the histories of the

lighthouses as emblems of American political and economic strength, the economic and legislative changes that have influenced their management and care, and the opinions of the local residents in each lighthouse's community. This chapter also explains the different tools used to collate and interpret the various data on the lighthouses.

In order to understand the character of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses as historic places and culture tourism destinations, it is imperative to understand the context under which the lighthouses were initially constructed. Chapter Three, *History of the Lighthouses' Purpose*, provides a comprehensive history of the lighthouses not only in their functional capacity as aids to navigation, but primarily in their purpose as symbols of political unity and economic strength of the federal government. The impact such symbolism had for foreign powers directly reflected the ideology of the federal government under which each lighthouse was constructed.

Chapter Four, *Historic Preservation and Public Access*, covers the history of the lighthouses since they were decommissioned by the USCG in the late 1930s, as well as the history of changing historic preservation legislation in the United States. This history provides insight into the challenges each current steward organization has faced in their efforts to restore and preserve their respective lighthouses. The level of historic preservation undertaken and the public visitation numbers to each lighthouse are evaluated based on a Condition Rating scale and a Public Access Rating scale. These ratings qualify the structural condition and public visitation numbers to later evaluate the level of balance each steward has achieved in managing their lighthouses.

In recognition of the influence of local residents to the successful management of the lighthouses, Chapter Five, *Perceptions and Viewpoints of Community Members*, discusses the concepts of stakeholders and sense of place in relation to each community. The results of the interviews conducted in each community are also discussed and qualified on a rating scale similar to those used to evaluate the condition and public access numbers of each lighthouse.

Chapter Six, *Synthesis of Findings*, combines the qualitative findings of the three previous chapters to compare and contrast the effectiveness of each management strategy. The advantages and disadvantages of each management strategy are also discussed in general terms with the intention of determining if any one management strategy, or a combination of strategies, may be applied to other lighthouses locally, nationally, or internationally. The concluding chapter discusses general observations, limitations, and conclusions for this current study. Recommendations for the potential for further research are also presented.

CHAPTER 2: Methodology

Introduction

This study incorporates an interdisciplinary data set consisting of a combination of historical, historic preservation, and anthropological approaches to research. Each case study was examined individually to determine the processes by which these lighthouses transitioned from symbols of political and economic strength to icons of American cultural heritage as historic places. Each component of these data has also been independently analyzed for each lighthouse to arrive at a single assessment of their management strategies. The individual case studies were then compared and evaluated to determine which management strategy, or combination thereof, has provided the greatest balance between promoting public visitation and optimal historical preservation.

Due to the interdisciplinary approach, this study relied heavily on gathering and connecting information from various, and sometimes only partially related, sources. The only previous studies conducted at the lighthouses include archaeological studies at the sites of Old Baldy and Cape Hatteras lighthouses (Loftfield et al. 1986; Porter 1938), as well as the inspection and maintenance reports at each lighthouse, which were used to assess their structural integrity (Cybularz 2015; Finkle 2014; International Chimney Company 2005; Outer Banks Conservationists, Inc. 1999, 2006a, 2006b, 2008; Robinson 1988; U.S. Coast Guard et al. 2012, 2014; Vincent 2003; Vinson 1984).

Historical Research

The historical portion of this study covers the political and economic aspects of the histories of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses. It focuses on the motivations of the federal government and the circumstances that facilitated the establishment of these lighthouses not simply as navigational aids, but as grand monuments built to impress (Appendix E).

Historical data was gathered from a combination of primary and secondary sources. Sources were found at the Outer Banks History Center (OBHC) and Fort Raleigh in Manteo, NC, the State Archives in Raleigh, NC, the Library of Congress, the U.S. Coast Guard Archives, and the Parliamentary Archives of the United Kingdom. Digitized versions of primary sources were found at Hathi Trust Digital Library, Archive of Americana, the U.S. Census Bureau, and the U.S. Government Publishing Office digital database systems. Archival research into primary sources such as U.S. Light-House Board, U.S. Coast Guard, and government documents provided details of the histories of the lighthouses while operated as a navigational aid. The *Annual Reports of the Light-House Board*, in particular, were the most reliable primary source on lighthouse operation beginning in 1852. However, there is a curious gap in the records between 1853 and 1864. After a lengthy investigation of every university library and the National Archives, the Library of Congress was the only repository to have the *Annual Reports* from these missing years; however, although the records from 1860 to 1865 are listed in their database, these volumes were missing from the shelves. Early sources dating before the establishment of the Light-House Board are scarce and, in some instances, were not to be found. The majority of early data was found in State and federal legislature documents.

Secondary sources were consulted for the general history of the state and federal level circumstances that impacted the lighthouses. A literature review shows that the majority of the published works available target a general audience for the purpose of tourism promotion, giving basic information and general timeline histories of the lighthouses. Academic sources, especially peer-review works, focus on a wider history of the Outer Banks and North Carolina, or on the history of the U.S. Coast Guard rather than the local history of a specific lighthouse. Information about the history of Bald Head Island was found in a secondary work by David Stick (1994). Unfortunately, he does not include proper sources for his information, and certain facts were unable to be located in the primary record.

Secondary sources were also gathered from numerous online journal databases. The most influential secondary sources to this study are articles by Bass, Miller, and Schiffer. Carl J. Bass' (1968) article is a philosophical debate that discusses the difference between function and purpose based on their concepts, not their literal definitions. Allen S. Miller (2010) presented in his article the idea of early federal lighthouses as representations of American economic strength and political unity. In Michael Schiffer's (2005) article, he analyzes the construction of lighthouses in the latter half of the 19th century from a behavioral archaeological perspective. Other secondary sources were consulted regarding American history, from American and British perspectives, as well as basic economic theorems.

Historic Preservation and Public Access Research

The focus of the historic preservation research was to examine the effectiveness of the steward organizations in their attempts to balance the historic preservation of their respective lighthouse with the amount of public visitation each site receives. Bob McKercher and Hilary du Cros' (2002) text on culture tourism was instrumental in developing the historic preservation approach of this study. This text was used to form the theoretical basis for evaluating the effectiveness of the management approaches based on the balance between the historic preservation and public access.

The research into the historic preservation of each lighthouse consists of research into archival and government documents that report on the construction, condition, maintenance, and restoration conducted on the three lighthouse structures. This information provided insight into the initial condition of the lighthouses at the time of construction compared to their conditions at the time of their transfers to new stewards prior to undergoing restoration or historical preservation efforts. It also provided details on the types of restoration or preservation work undertaken by their current stewards, both before and after the National Historic Preservation Act of 1966. Each lighthouse organization also houses a collection of sources related to their specific lighthouse. Records concerning evaluation and management reports of the Cape Hatteras Light Station conducted by NPS are available through the archives located at Fort Raleigh in Manteo, NC. The Old Baldy Foundation and Outer Banks Conservation, Inc. also maintain private collections of records pertaining to their lighthouses.

The objective of developing historic sites for public visitation is sustainability, which is achieved by finding a balance between historic preservation management, public

access, and local resident support and opinions (McKercher and du Cros 2002:11; Nicholas et al. 2009:394). A system to qualify the conditions of the lighthouses was created based on a condition scale utilized in the latest assessment report of the Cape Hatteras lighthouse (Cybularz 2015:213-214). The rating scales qualify the condition of preservation work as Good, Fair, or Poor and the public access numbers as High, Medium, or Low. Although the lighthouses share fairly similar traits, they each face unique circumstances. Use of the rating scales provides tools to summarize the conditions of each lighthouse and facilitates comparisons between them. These qualifiers are later analyzed against a qualitative rating scale of local resident support for the lighthouses as High, Medium, or Low. Consideration of the three rating scales in the evaluation of the preservation balance lends insight into the individual ability of each steward organization to manage their lighthouses.

Stakeholder and Sense of Place Research

Anthropological sources for this research included Russell H. Bernard's (2011) text on anthropological research methods, as well as a collection of studies that evaluated different aspects of the sense of place and stakeholder theory. Bernard's *Research Methods in Anthropology: Qualitative and Quantitative Approaches* (2011) provided the basis for the survey and interview strategies used in this study. The other studies provided examples of different approaches to implementing sense of place and stakeholder theory in anthropological research. The study of place in anthropology is the examination of the construction of a culturally determined physical or symbolic area by a community with shared emotion, meaning, and history (Cobb 2016:368-369; Rodman 1992:640-641).

Stakeholder theory is an approach used in business, particularly management, during the planning stages of any development to identify the parties influenced or invested in a particular project. Culture tourism recognizes the value of establishing and maintaining a sustainable site that is able to balance the potential harm caused by visitor access while facilitating and encouraging visitation (Davidson and Preston 1995:67; Nicholas et al. 2009:399-400).

In this study, the development projects under consideration are the individual lighthouses in each community. I employed ethnographic research to determine the values and views of the community members in Bald Head Island, Buxton, and Corolla regarding their local lighthouses and their thoughts on the actions taken to preserve their lighthouses. The anthropological principle of sense of place, in which the development of a rooted sense of place is directly correlated to residential status, acknowledges that individuals with greater experiences and connections to places have greater investment in those places, and, therefore, hold higher stake in their condition (Hay 1998:5; Shamsuddin and Ujang 2008:399-400). By investigating local opinions towards the local lighthouse, I was provided with emic insight into the management of each lighthouse (Bernard 2011:157-158).

Through the means of semi-structured interviews of a select sample of community members, I used a quota sampling strategy and implemented a prepared questionnaire to conduct my interviews (Appendix F). I chose quota sampling because this method allowed me to interview a specific, stratified demographic of local residents in regards to cultural data concerning their community lighthouses and their opinions on the management of those lighthouses. The people I interviewed are permanent residents that

live year-round in the community and that have lived in the community for a minimum of ten years. I have interviewed an equal number of individuals under the age of 50 and over the age of 50 (Table 1): thus, the participants are experienced with living in both the tourist and off-seasons, have lived in the community long enough to be considered part of the community, and represent an age demographic with different life experiences and motivations (Bernard 2011:144).

Permanent Residents that Live Year-round
(minimum 10-year residency)

Under Age 50	Over Age 50
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TABLE 1

STUDY SAMPLE GRID
Source: Bernard 2011:144

I am interested in the values and opinions of local residence, so my criteria for participants included residents that I believe have a stronger sense of place and, therefore, hold a greater stake in their lighthouses.

This type of research, which involves living human informants, required the approval of the University and Medical Center Institutional Review Board (UMCIRB) at East Carolina University (ECU) prior to the commencement of research. The purpose of this process is to ensure that the research is conducted in a manner that “protects the rights and welfare of the human participants” (Division of Research and Graduate Studies 2016) (Appendices G and H). I received UMCIRB approval for this research on 3 March 2016 to conduct interviews until March 2017 (Appendix I).

Conclusion

As an interdisciplinary study, this thesis required the integration of a variety of methods of approach to each section to best answer the research questions outlined in *Chapter 1: Introduction*. Archival research and secondary source materials were used to complete the history section. The research methods used in the historic preservation section were a conglomerate of archival research, investigation of each lighthouse steward organization, and a review of the historic preservation legislation. The ethnography methodology is based on sense of place and stakeholder theory to set the parameters of a quota sampling strategy.

CHAPTER 3: History of the Lighthouses' Purpose

Introduction

In his article discussing the difference between "function" and "purpose," J. Carl Bass (1968) explains that the concepts these terms embody are more complex than their definitions. According to Bass, function "bears a strictly mechanical, utilitarian denotation" and "the structures function within the characteristic limitations of inherent capacities and those established by the environment" (Bass 1968:26). Purpose, Bass explains, exists "as a particular function of the mind" and is comprised of the "care, motivation, and direction" of the individual or individuals responsible for the design (Bass 1968:29). Applying these concepts to the function and purpose of lighthouses, the function of a lighthouse is the job it was built to perform operating within the limits of the capacity of its physical structure and the limits determined by the coastal environment of its locations. The purpose is the implicit statements the structure conveys that reflect the intentional or unintentional reasoning of the creator's agenda.

The function of a lighthouse, the action for which it is specifically designed, is to serve as a landmark for mariners to aid in navigating potentially dangerous waters. The lighthouses on the Outer Banks were constructed to aid in the navigation of coastal waters along North Carolina's Atlantic coast. Bald Head Island lighthouse, also known as Old Baldy, was constructed to aid in navigating the mouth of the Cape Fear River and to warn sailors of Frying Pan Shoals (Flowers et al. 1975:2). Cape Hatteras lighthouse was built to alert sailors of Diamond Shoals (Warfield 1978:3). Finally, Currituck Beach lighthouse was needed to distinguish the Currituck Banks from False Cape, Virginia (Outer Banks Conservationists, Inc.1999:16-17) (Figure 6).



FIGURE 6. Map of case study lighthouses on NC Outer Banks (Google Earth, 2016)

The purpose of a lighthouse, the implicit reason for which the lighthouse exists, is more complex because the structure acts as an icon to represent the values and ideology of the government behind its funding and continual support (Bass 1968:26-29).

Lighthouses built after the establishment of the independent United States and, again, after the American Civil War were intended to act as representations of the strength and stability of the federal government as they aided the navigation of domestic and international vessels (Miller 2010:13-14). It was the long-held belief of the Light-House Board that “[n]othing indicate[d] the liberality, prosperity or intelligence of a nation more

clearly than the facilities which it affords for the safe approach of the mariner to its shores.” (U.S. Light-House Board 1868:4). Lighthouses were recognized by all the major powers in the 19th century as symbols of national prosperity and were a way to advertised that fortune to all other nations via the mariners that relied on the lighthouses for navigation (Schiffer 2005:296-298). The North Carolina lighthouses, like all other lighthouses, were primarily built for the function of aids to navigation. Unintentionally, at least not explicitly stated, the purpose of the lighthouses was as a reflection of the American identity and was a representation of the status of the federal government: a symbol of longevity, strength, and power; and an attempt to demonstrate their equality with the European powers of Britain and France (Miller 2010:12-14; Schiffer 2005:278-280).

The Creation of American Identity

The American Revolution was a culmination of years of grievances between the colonists in the Thirteen Colonies and British officials in Parliament. The core of the issues centered on the debate over the qualification of colonial assemblies to parliamentary status to represent their jurisdictions within an empire that propagated the liberty of its subjects. The American Colonies argued that they had developed to a level in which they could represent themselves independently within their colonies; and that, as British subjects living abroad, they deserved the same liberties as native British subjects. Parliament, on the other hand, still viewed their colonies as tools of British imperial power and believed that the strength of the empire was based on its centralized single legislature. Britain, therefore, attempted to reassert its control over the American

Colonies through extensive taxation, direct interference in internal colonial affairs, and funding a substantial, standing military force in the Colonies (Greene 2013: 227-228, 244, 271, 276).

At the time of the outbreak of the Revolution in 1775, the American Colonies were not expressing a particular identity or unified loyalty. The colonists were desperate for Britons to concede that the components of colonial society were on par with those of the British metropolitan, recognition which they sought as early as the 1740s. Their every attempt to gain such recognition was denied with increasing aggression from Britain to the point that the American colonists were vilified as unworthy subordinates in the national propaganda. This dismissal only served to ignite colonists to further their efforts and finally resulted in an impromptu political revolution, which led to the unforeseen consequence of establishing an independent nation. Faced with the prospect of redefining their entire identity, Americans modeled the basis of their new national identity on their ideal of British heritage, particularly the concept of liberty. This identity was one that denounced a monarchy in favor of a republic, in which they envisioned themselves as the proper heirs of British identity (Greene 2013:273-275, 334-340). The lighthouse system became one form of expressing this new identity (Miller 2010:15-16).

With a general distrust for any form of centralized government resembling the British Parliament and Monarchy following the Revolution, the States' legislative power within their own jurisdictions was left mostly intact, including control over internal taxation. The States did agree to transfer the regulation of commerce, which at this time consisted primarily of maritime trade, to the newly established federal government. Under the Tonnage Act of 1789, the federal government gained control over the shipping

duties of the United States, which taxed all goods and merchandise entering any American port to support costs and debts accrued by the government. Since the lighthouses were one of the programs funded by the collected shipping duties, the States could no longer afford the expenses associated with building and maintaining lighthouses (Miller 2010:13-14). Therefore, under the Lighthouse Act of 1789, the federal government was given the responsibility of construction, maintenance, and operation of lighthouses from the individual States, which included the final decision on the location and style of any newly constructed lighthouse:

Be it enacted [...] that all expenses which shall accrue [...] in the necessary support, maintenance, and repairs of all light-houses, beacons, buoys, and public piers erected, placed, or sunk before the passing of this act, at the entrance of, or within any bay, inlet, harbor, or port of the United States, for rendering the navigation thereof easy and safe, shall be defrayed out of the treasury of the United States (Congress of the United States 1789).

Lighthouses were one of the earliest formal representations of the federal government. In the early years of the nation, there were few avenues to express the new nation's unity or independence. The lighthouses offered a form of solidifying the unification of the states and the government's authority through the nationalization of commerce and the commitment to public safety (Miller 2010:13-14). These monuments of American identity directly reflected the involvement of the Presidents in the process of negotiation and authorization of early lighthouse design, location, and construction

(Coutu 2006:4-7; Noble 1997:6). The function, form, location, construction techniques and materials, and operational technologies were all discussed and decided upon by government officials, which reflected the national identity and ideologies they endorsed (Miller 2010:16). The National Park Service, the federal entity now responsible for many of the nation's historic lighthouses, recognized that, in addition to "helping to instill confidence in ship captains," lighthouses also "symbolically impl[ied] that the United States was a responsible world power worthy of due recognition" from foreign governments (National Park Service 1997a:2-3). The representation of the unity of the nation through the lighthouse system was not only symbolically represented in the characteristics of individual towers, but in the ambition of creating a chain of lighthouses to foster economic and political unity between the northern and southern states. As such, the site locations of the lighthouses built under the federal government were in gradually more remote areas to best facilitate national trade routes rather than specifically benefit the navigation of any one harbor (Miller 2010:18-24). From this perspective, it then became less about establishing internal signs of unity and more about grandstanding to foreign powers. The foreign government that America was particularly interested in gaining "due recognition" from in their continued pursuit of equality was Britain (Greene 2013:273-275).

The early lighthouses were simplistically styled and focused on function rather than decoration or effigies. This design choice was a way to distance the federal government from the grandeur and ostentatiousness that American citizens associated with the British monarchy and empirical rule (Miller 2010:18). The style chosen for new lighthouses constructed shortly after the passing of the Lighthouse Act was modeled on

the construction and design of Sandy Hook lighthouse in the approaches of New York harbor (Figure 7). This decision was in part due to its recognition to mariners familiar with New York harbor and in part due to the preference of influential New Yorkers involved in the decision-making process. The design consisted of a simple octagonal stone tower with a copper dome and an iron lantern; even after contractors deviated to a conical form, the ratios of height and width at the top and bottom of the tower remained the same (Miller 2010:17).



FIGURE 7. Sandy Hook (1790), Old Baldy (1817), and the first Cape Hatteras (1803) lighthouses (Courtesy of the National Park Service, 2016 and the Old Baldy Foundation, 2016)

In North Carolina, the state transferred responsibility for all existing and future lighthouses to the federal government with the promise that the federal government would prioritize the building of lighthouses at the mouth of the Cape Fear River and Cape Hatteras (Weiss 1926:2-3). Although the official mandate was to build lighthouses using stone, in practice this was interpreted as a suggestion (Miller 2010:18-20). Initial surveys and assessments to develop budgets for the construction of new lighthouses, such as Old

Baldy and the first Cape Hatteras lighthouses, were drawn up to compare the expenses associated with constructing towers using wood versus stone. Each lighthouse could have been built for a fraction of the cost if constructed of wood. Even if the wooden structures required more maintenance or more frequent replacement than stone, the price was still more economical. In the case of the first Cape Hatteras lighthouse, the Secretary of the Treasury recommended to “erect a light-house, of the first order, on Cape Hatteras” to facilitate the navigation of United States vessels “through and across the shoals without sailing around them,” which would offer “a profitable dispatch in times of peace and safety in times of war” (Treasury Department 1794:265). Despite the strong endorsement of a first-rate light, the Treasury Department offered estimates of the expenses of constructing “a small wooden lighthouse” (a sum of \$1,500) and “a stone lighthouse of the first rate” (a sum of \$20,000) (Treasury Department 1794). Additionally, the cost of transporting materials and labor to the remote location sites of the lighthouses were taken into consideration (Miller 2010:23). The tone in these communications to Congress from the Treasury Department imply that the Secretary of the Treasury favored the construction of wooden towers; nevertheless, the federal government approved building the lighthouses using stone (Treasury Department 1794).

As the only deep-water port in North Carolina, Wilmington developed into the center of trade and shipbuilding in the colonial period. Prior to the signing of the American Constitution in 1789, the port of Wilmington submitted a proposal to the State for a lighthouse to be built at the mouth of the Cape Fear River to assist in navigating the entrance and approaches. Until this time, the primary method of navigating the approaches for mariners unfamiliar with the waters was to employ one of the many Cape

Fear River pilots. Additional shipping duties were charged to vessels accessing the Cape Fear port to raise the necessary funds to build a lighthouse that would assist vessels in avoiding Frying Pan Shoals (Clark 1994:589-590). This responsibility transferred to the new federal government under the *Act for the Establishment and support of Lighthouse, Beacons, Buoys, and Public Piers* (Congress of the United States 1789). Land for the lighthouse was acquired from Benjamin Smith, granting the land to the State for the construction of a lighthouse on Smith Island in 1790 (Flowers et al. 1975:3). Completion of the first lighthouse occurred in 1794; however, due to the poor choice of location, the tower was severely damaged by erosion within the first ten years of its operation. This tower was demolished, and the salvageable materials were used in the construction of the new lighthouse, Old Baldy, which was completed in 1817 (Stick 1994:33-34). The first Cape Hatteras lighthouse was constructed in 1802 and lit in 1803, in response to the increase in commercial shipping along the Atlantic Coast (Holland 1968:1). This original lighthouse design was similar to Old Baldy in that it was an octagonal lighthouse approximately 90 feet tall. However, the lighthouse was ineffective as a navigational reference because it was too short and the light was not strong enough to be seen by mariners (National Park Service 1978:3). Despite its inefficiency, no significant attempts were made to improve the lighthouse until after the establishment of the Light-House Board in 1852 (National Park Service 2015b).

The Unification of American Identity

Although the country gained independence after the Revolutionary War, Britain continued to treat America as if it was still a colony. With the endorsement of the British

government, the Admiralty encouraged indiscriminate impressment of both American sailors and British subjects sailing on American vessels to compensate for the number of deserters from the British Navy. The lack of respect the British held towards the young United States has been argued to be the root cause of the War of 1812. As such, the significance of the War of 1812 was very similar to that of the War of Independence in regards to achieving national unity while in pursuit of recognition as Britain's equal (Daughan 2011:413-417).

The aspirations for recognition as equals to Britain continued in America until 1850 (Greene 2013:334-340). Prior to the creation of the Light-House Board in 1852, the responsibility for the construction, maintenance, and service of the lighthouses fell under the general responsibilities of the United States Light-House Establishment, specifically under the jurisdiction of the fifth auditor, Steven Pleasonton (Noble 1997:6-7).

Pleasanton was an accountant; he had no experience with maritime, scientific, or engineering matters. His interest was in maintaining the lighthouse system at the lowest yearly expense possible (Levitt 2013:129-132). As early as 1838, Congress wanted to appoint naval officers or army engineers to lighthouse districts to offer advice (Noble 1997:9). In the years leading to the change in navigation laws, political movements were made to change the Light-House Establishment and replace Pleasanton with a board of naval and military officers. Pleasanton did not go without a fight (Noble 1997:10-11). In 1842, an investigation into the quality of the lighthouse system and the effectiveness of the Light-House Establishment administration was conducted at the demand of eighty-two merchant ship captains (Levitt 2013:129-132). The submitted report described the lighthouse system as confusing, extravagant, and impotent; however, Pleasanton denied

the accusations and the issue was dropped at the time, but not forgotten (Levitt 2013:144-146).

The American zeal for territorial expansion to the west in the 1840s resulted in significant government investment in technological advancements such as railroads, steam power, and telegraphs. This spending spree also extended to an interest in updating the lighthouse system. Recognized in Britain and Europe as the pinnacle of coastal lighting technology, the Fresnel lens was seen as an invention that facilitated the increase of trade and was considered the gold standard of lighting technology (Levitt 2013:151). Therefore, the issue of the effectiveness and quality of the lighthouse system was revisited. In 1851, Thornton A. Jenkins, the Secretary to Light-House Establishment, sent requests to mariners for information and their professional opinions “as to the comparative superiority or inferiority of such lights of this and of other countries” (U.S. Light-House Establishment 1871:735-736). The general consensus relating to the state of the Cape Hatteras lighthouse was of its ineffectiveness (U.S. Light-House Establishment 1871:736-753). Despite its reliance on maritime trade, America “had a second-rate system of lighthouses” that Pleasonton could no longer deny, no matter his frantic attempts to hide that fact (Noble 1997:26; Treasury Department 1852a). The Light-House Board was established in May 1851 to replace the Light-House Establishment largely in response to the anticipated increase in shipping after the repeal of the navigation laws in Britain and the corresponding changes to the navigation and commerce legislation in the United States (Treasury Department 1852b:3-5).

The amendment of the British navigation laws took effect on 1 January 1850. By *An Act to amend the Laws in force for the Encouragement of British Shipping and*

Navigation, all predating navigation acts were repealed. This included, in particular, the *Act for the Encouragement of British Shipping and Navigation*, the *Act to regulate the Trade of British Possessions abroad*, the *Act for the general Regulation of the Customs*, and the *Act for granting Duties of Customs* (12 & 13 Victoria I. 1849:70-72). The new Navigation Act meant that trade to British ports was opened to foreign vessels without suffering duties exceeding those charged to British vessels provided that British vessels receive equal privileges and preference as national vessels, and that American built and/or repaired vessels could be registered as British if owned by British subjects (12 & 13 Victoria I. 1849:74). The change in American navigation legislature took initial effect shortly thereafter, but the general revenue law was not finalized until 1854 (Treasury Department 1854). The key to the implementation of an immediate response to new British navigation laws was the initial agreement between the American and British governments in which the United States “conced[ed] to British vessels in American ports the same privileges and advantages which [were] granted to American vessels in British ports”, that the trade between the ports on the east and west coasts of the United States were open to foreign trade (as oppose to being restricted to domestic trade), and that British-built vessels be eligible “to the advantages of the American register” if owned by American citizens (Bulwer 1850:1-2). For the first time since the American Revolution, Britain was negotiating with the United States on equal terms.

By this agreement, which was of “much importance to the shipping interests of the United States and the world,” American foreign commerce more than doubled in the following ten years (Hunt et al. 1849:542; Table 1). The most efficient demonstration of the significance of the change in navigation laws to American commerce is to look at the

census data for all foreign merchandise exports and imports in the ten years immediately following 1850 and represent the value in percentage change. The *Historical Statistics of the United States* is a collation of economic, social, and political statistics from 1789 to 1945 (Sawyer 1949:V). The values provided in the section on Foreign Trade Exports and Imports are given in American dollars without reference to changes in the gold content of the dollar or accounting for inflation (Sawyer 1949:239). The economic principle of percentage change illustrates the change in merchandise trade by representing the values as a percentage increase or decrease, which indicate the degree of gain or loss of value. A positive percentage represents a percent increase in trade value, or a value gain, and a negative percentage accounts for a percent decrease in trade values. To calculate percentage change, the old value is subtracted from the new value; the result is then divided by the old value and multiplied by one hundred (Appendix J) (Experimental Economics Center 2006).

Table 2 highlights the census data for foreign trade imports and exports between 1850 and 1860. These data do not include domestic trade; however, the change in foreign trade values emphasizes the drastic impact the modification in British and American navigation legislation had on American commerce. In 1850, before the change in navigation laws could take effect, the total value of merchandise exports and imports in the United States equaled \$317,882,000. Ten years later, in 1860, the total value of merchandise exports and imports in the United States equaled \$687,192,000. Using the standard equation of percentage change, the total value of commerce between 1850 and 1860 showed a percent increase of 116%. This means that the growth of American commerce more than doubled in the ten years following the change in navigation laws.

YEAR	TOTAL EXPORTS	TOTAL IMPORTS	TOTAL COMMERCE (Total Exports + Total Imports)	Percentage Change ¹ ($\frac{\text{new-old}}{\text{old}} \times 100$)
1850	144,376,000	173,509,000	317,882,000	N/A
1860	333,576,000	353,616,000	687,192,000	116%

TABLE 2

U.S. FOREIGN TRADE: VALUE OF MERCHANDISE EXPORTS AND IMPORTS, 1850-1860 IN DOLLARS

¹ See Appendix J for Percent Change calculations.

Source: Sawyer 1949:248-251

The increase in American commerce between 1850 and 1860 indicates not only that the federal government was collecting greater wealth through taxes and duties, but that the amount of coastwise traffic on the eastern seaboard also increased, including along North Carolina’s Outer Banks. This justified the reorganization of the lighthouse administration, resulting in the creation of the Light-House Board in 1851, as well as the expenses required to improve their “second-rate system of lighthouses” (Noble 1997:26; Treasury Department 1852b:3-5). Within the first few years of the Light-House Board’s establishment, the Board conducted a thorough investigation and inventory of the state of lighthouses in the nation. One of its first projects was the renovation and upgrade of the Cape Hatteras lighthouse, approving the installment of a Fresnel lens and raising the height of the tower in 1854 (National Park Service 2015b). The incentive and funding for this project would not have been available if not for the increase in coastal trade resulting from the change in the navigation laws.

The Reaffirmation of American Identity

At the time of the change in navigation laws, President Taylor declared that “the United States at [that] moment present[ed] to the world the most stable and permanent government on earth... the object of affection and admiration with everyone worthy to bear the American name” (Congress of the United States 1849:16). It is doubtful anyone would have predicted the turmoil that would arise within twenty years of Taylor uttering this statement. The American Civil War began in 1861 after seven southern states separated from the United States over differing political and social views to establish an independent nation; the Confederate States of America. Hostilities were instigated in Charleston, South Carolina with the Confederate Army’s attack on a federal garrison (McPherson 2014). An early strategy employed by the Federal, or Union, forces was a maritime blockade of all southern ports between Texas and North Carolina that was in effect from 27 April 1861 until the end of the war in May 1865. Dubbed the Anaconda Plan for its intention to subdue the South into submission by constricting its maritime trade, the endeavor was viewed by foreign powers such as Britain and France as unrealistic in scope (Soley 2014).

Once again referring to the census data provided in the *Historical Statistics of the United States*, Table 3 clearly demonstrates the major political and economic impacts of the Civil War to foreign trade, and presumably reflects a parallel impact on domestic trade, between 1860 and 1870. In 1860, a year before the outbreak of the Civil War, the total value of merchandise exports and imports in the United States equaled \$687,192,000. Five years later, at the end of the war in 1865, the total value of merchandise exports and imports in the United States equaled \$354,775,000. Using the

standard equation of percentage change, the total value of commerce between 1860 and 1865 showed a percent decrease of 48% (Appendix J). This means that American commerce decreased by almost half its value as a result of the policies and wartime strategies implemented during the Civil War. The rebound in total commerce in the five years following the end of the war, between 1865 and 1870, further emphasizes the negative impact the war had on foreign trade. In 1865, the total value of merchandise exports and imports in the United States equaled \$354,775,000. Five years after the end of the war in 1870, the total value of merchandise exports and imports in the United States equaled \$828,730,000. Once again applying the equation for percentage change, the total value of commerce from 1865 to 1870 showed a percent increase of 134%. This means that the growth of American commerce more than doubled in the five years immediately following the end of the Civil War (Sawyer 1949:248-251).

YEAR	TOTAL EXPORTS	TOTAL IMPORTS	TOTAL COMMERCE (Total Exports + Total Imports)	Percentage Change ¹ $\frac{\text{new-old}}{\text{old}} \times 100$
1860	333,576,000	353,616,000	687,192,000	N/A
1865	166,029,000	238,746,000	354,775,000	-48%
1870	392,772,000	435,958,000	828,730,000	134%

TABLE 3

U.S. FOREIGN TRADE: VALUE OF MERCHANDISE EXPORTS AND IMPORTS, 1860-1870 IN DOLLARS

¹ See Appendix J for Percent Change calculations.

Source: Sawyer 1949:248-251

If foreign commerce fluctuated to such a degree during the Civil War and Reconstruction periods, it is not too outrageous to assume the same impacts were reflected in the domestic commerce. Indeed, “[i]t [was] now well understood that whatever affect[ed] the commerce of the nation affect[ed] all its interest, those of the interior as well as those of the immediate vicinity of the sea” (U.S. Light-House Board

1868:4). The impacts to the North Carolina lighthouses paralleled those of the American commerce. Lighthouse service in North Carolina was interrupted early in the war (U.S. Light-House Board 1862). Within the first year of the war, the Confederate Army hastily built and occupied two forts on Hatteras Island to control the Hatteras Inlet and to use the Cape Hatteras lighthouse as a lookout for Union vessels. This Confederate occupation was short lived, and the Union forces captured the island in the fall of 1861 (Carr 2000:45-46). In an attempt to thwart Union blockade efforts, the Confederates failed to destroy the lighthouse prior to their retreat from Hatteras Island; however, they were able to remove the Fresnel lens from the lighthouse, rendering it temporarily unserviceable (Carr 2000:46-49). In the *Annual Report* of 1862, the Light-House Board noted that, although “the authority of the United States [was] not yet...reestablished... efforts [had] been made to restore disconnected lights” and that “the lights, main and beacon, at Cape Hatteras [had] been restored and reestablished” (U.S. Light-House Board 1862:149).

After the Union captured Hatteras Island, followed quickly by Roanoke Island and Beaufort Inlet, the Cape Fear River became even more critical to the Confederate effort. With a limited number of southern ports available to the Confederates, Wilmington was strategically vital in the attempt to evade the Union blockade. In 1863, the port of Wilmington was one of the busiest in the South; therefore, to protect the approaches, Fort Holmes was constructed on Bald Head Island near the lighthouse. There are no records specifying the status of Old Baldy lighthouse during the war period; however, damage may have been sustained from the Confederates destroying the magazines, stores, and structures of Fort Holmes during their evacuation in January 1865 (Stick 1994:43-46, 57).

The immediate aftermath of the Civil War in the Confederate States became known as the Reconstruction Era. Beginning in 1864 with the passing of the Wade-Davis Bill, the federal government was authorized to put each Confederate State under temporary martial law until the white male citizens of each state demonstrated a suitable level of reform in line with northern ideologies, particularly northern views on slavery. The critical aspect of this occupation was that each white male citizen was not reinstated to vote until they swore an unconditional oath that they had never voluntarily supported the Confederates (Stampp 1965:39). In regards to the reestablishment of the Light-House Board, this meant that the Board did not have to consult with the State on the location, design, or construction of lighthouses built during the period of disenfranchisement. Construction of a new, more effective lighthouse at Cape Hatteras and the construction of a lighthouse between Cape Henry and Cape Hatteras were necessary to function as aids to navigation (U.S. Light-House Board 1868:48). However, the purpose for building the new Cape Hatteras lighthouse (1870) and the Currituck Beach lighthouse (1874) purely reflected the sovereignty, strength, and endurance of the federal government (Miller 2010:29).

The style and construction chosen for the new Cape Hatteras and Currituck Beach lighthouses were based on the design of the Cape Lookout lighthouse that was also used for the lighthouse on Bodie Island (Zepke 1998:49-50). The lighthouses were built of brick, with brick and granite bases, and iron and glass lanterns and “[t]he base of the tower is an octagonal pyramid, surmounted by a conical shaft” (Nation Park Service 2015b; U.S. Light-House Board 1874:47). The current Cape Hatteras lighthouse was built to replace the damaged tower in 1870 and was erected in a more prominent location with

a taller light (Cybularz 2015:46-47). Once complete, it was anticipated to be “the most imposing and substantial brick light-house on this continent, if not in the world” (U.S. Light-House Board 1869:47). The lighthouse at Currituck Beach was completed in 1875 to provide navigational aid to mariners between Cape Henry, Virginia, and the Bodie Island lighthouse, a previously extent “of dangerous coast [...] unmarked by any light” (U.S. Light-House Board 1867:22). Each lighthouse was given unique paint patterns and light sequences to distinguish them from one another both during the day and at night (U.S. Light-House Board 1872:6-7). Cape Hatteras, Bodie Island, and Cape Lookout lighthouses were painted with various patterns of black and white paint while Currituck Beach lighthouse kept its natural brick color (Figure 8) (Zepke 1998:5). The Currituck Beach lighthouse was the last constructed in North Carolina and once it was complete, “there [was] no unlighted space on our Atlantic coast from the mouth of the river St. Croix, on our northern frontier, to Cape Hatteras,” although “our coast line far exceeds in extent that of any other nation [...] it is second to none in the means which it offers for the safety of the mariner” (U.S. Light-House Board 1872:7; U.S. Light-House Board 1868:4). The lighthouse system had finally reached the level of sophistication desired and aspired to by the early American government, one that was “to exist as long as our government endures” (U.S. Light-House Board 1874:9). After the completion of the chain of lighthouses, the Light-House Board felt that America had reached the pinnacle of refinement greater than that of Britain: “nothing marks more distinctly the stage of civilization to which any nation has attained than the character of the aids to safety which it furnishes the mariner in approaching and leaving its shores” (U.S. Light-House Board 1874:5).



FIGURE 8. Cape Hatteras (1870) and Currituck Beach (1875) lighthouses (Photos by author, 2016)

Conclusion

The lighthouses on North Carolina's Outer Banks were constructed for the function of providing aid to mariners in navigating the coastal waters but served the purpose of representing the ideas of the government that created them. The purpose of the lighthouses, at the time of their constructions, was a display of the strength, wealth, and endurance of the federal government to demonstrate their equality to European foreign powers (Miller 2010:12-14; Schiffer 2005:278-280). In the early years of the federal government, the new American nation desired recognition as an independent yet equal entity to Britain (Greene 2013). Equality, to an extent, was achieved with the negotiations and agreements made between the British and American governments to change their

navigation laws in 1850, resulting in the consolidation and unification of the lighthouse system under the Light-House Board. The American identity was severely strained as the nation dissolved into civil war. Both maritime commerce and the integrity of the lighthouse system were damaged until the post-Civil War years. The completion of the lighthouses in North Carolina in the Reconstruction Era were the final links in the chain of lighthouses stretching the extent of the east coast, visible and vital to all foreign and national mariners, and representing the endurance and unity of the American nation (U.S. Light-House Board 1874:9). After ownership of the lighthouses transferred from the U.S. Coast Guard to new stewards beginning in 1938, the purpose of the lighthouses as emblems of American economic standing shifted to symbols of American cultural heritage in their roles as historic places.

CHAPTER 4: Historic Preservation and Public Access

Introduction

The desire to create a network of lighthouses connecting the entirety of navigation along American's eastern coast was a continuous theme carried throughout the existence of the Treasury Department's duty to the lighthouse system until it was officially transferred to the United States Coast Guard (USCG) in 1939 (Miller 2010:18-21). In the early 20th century, the U.S. Coast Guard underwent the process of discontinuing the use and maintenance of the lighthouse stations and replacing the existing lighting technology with automated lights. In addition, properties considered "surplus lands and buildings" that were "no longer needed for the purpose of maintaining aids to navigation" by the U.S. Coast Guard were transferred in large part to other federal departments with the acknowledgement that the properties that included older lighthouses were "worthy of preservation for their historic interest" (U.S. Department of Commerce 1939:130). Old Baldy was decommissioned in 1938 when the U.S. Coast Guard discontinued the light keeper service and changed to an automated light system (Stick 1994:68). The U.S. Coast Guard transferred ownership of the Cape Hatteras lighthouse in 1938 to the Department of the Interior, and it has since remained under the stewardship of the National Park Service (Cybularz 2015:71-72; Warfield 1978:1-3). The Currituck Beach lighthouse was owned and operated by the U.S. Light-House Board until 1939. At that time, the U.S. Lighthouse Service became the U.S. Coast Guard, and the lighthouse was maintained until 1947. Between 1947 and 1980, the property was vacant and left in disrepair regardless of its conditional transfer from the Federal Government to the State of North Carolina. From 1980 to present, Outer Banks Conservationists, Inc. has been a steward of

the lighthouse and station (Outer Banks Conservationists, Inc. 2003:16-35) (Appendix E). Although the function of the lighthouses as navigational aids continued uninterrupted, the transferred ownership of the lighthouse towers and stations altered the purpose of the lighthouses; thus, setting them on a new course as historic places that eventually resulted in their current status as icons of American culture.

The transformation process of lighthouses from representations of federal economic and political strength to symbols of the American cultural identity occurred over the 20th century and involved the growing national awareness of historic places and the importance of their preservation. This increased awareness is reflected in the development of historic preservation legislation in United States federal laws, the expansion of the number of National Parks and privately owned historic properties, and the continually increasing number of historic properties nominated and listed on the National Register of Historic Places (Tyler et al. 2009:27-35). Along with the development of historic preservation legislation at the federal level, the management of sites became visitor focused in recognition to the number of tourists that sought out historic places as tourism destinations (McKercher and du Cros 2002:1).

Public access to lighthouse stations and the promotion of public education are important aspects of the National Historic Lighthouse Preservation Act (NHLPA). As an amendment to the National Historic Preservation Act (NHPA), the NHLPA was enacted into 2000 to outline the responsibilities of historic lighthouse stewards taking over ownership of properties from the federal government deemed in excess. Just before the enactment of the NHLPA, the National Park Service (NPS) developed and produced an extensive preservation manual to assist all stewards in maintaining and restoring the

unique structures to preserve their historic integrity (National Park Service 1997). Allowing public access to historic lighthouse sites, especially access to climbing the towers, is an important education tool since it provides tangible heritage to visitors, which is not only more effective, but can also inspire a sense of place in visitors (McKercher and du Cros 2002:65-67). It is through the education of the public that the historical significance of lighthouses comes into awareness and, in turn, redefines the purpose of lighthouses as icons of cultural heritage.

There is the potential for public access to cause damage to historic property structures (McKercher and du Cros 2002:58-59). This potential threat is one of the major concerns of developing sites for cultural tourism. The objective of developing historic sites for public visitation is sustainability, which is achieved by finding a balance between historic preservation management and public access (McKercher and du Cros 2002:11). The historic preservation activities of each lighthouse since they were decommissioned by the U.S. Coast Guard were examined to determine if the current stewards of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses are achieving the desired balance. The level of public visitation at each lighthouse between 2011 to 2015 was also assessed to determine the effectiveness of each management system. To facilitate this evaluation, two rating scales were established to qualify both the level of historic preservation and public admissions of the lighthouses.

Institutionalization of Historic Preservation Legislation

The sophistication of historic preservation legislation that occurred primarily in the 20th century resulted from the growing awareness and recognition of the importance

of preserving historic places in the American consciousness, which began in the 19th century (Appendix K). Prior to official legislation, the federal government's first action to preserve historically and culturally significant sites was in 1889 with the designation of the Casa Grande ruin in Arizona as the first National Monument. Even with National Monument and National Park designations, looting and destruction of federally owned sites still occurred without any legal means to penalize trespassers: therefore, in 1906 the Antiquities Act was passed. The Act not only established harsh penalties for vandals, but also gave the president authority to further designate historically significant sites on federal lands that, in turn, prompted the active survey and documentation of historic sites under the administration of the newly established Department of the Interior (DOI) (Tyler et al. 2009:27-35).

Prior to 1916, care of the National Parks and the administration of preservation initiatives under the Antiquities Act fell under the purview of the Department of the Interior. However, the increasing responsibilities for federally owned natural and historic sites necessitated the development of an administrative agency within the DOI to handle sites that exceeded the preservation capabilities of the private sector. Thus, the National Park Service (NPS) was established and it has since become responsible for the administration of the majority of federal historic preservation programs (Tyler et al. 2009:32-34).

The entirety of preservation initiatives culminated in 1966 with the enactment of the National Historic Preservation Act (NHPA). Even though amendments have since been made, the NHPA remains the standing national policy for preservation today. The fundamental aspects of the act include the establishment of an intergovernmental

framework for historic preservation, the Advisory Council of Historic Preservation (ACHP) and State Historic Preservation Offices (SHPO), the responsibility of federal supported projects to consider impacts to historic properties (Section 106), and the National Register of Historic Places (Tyler et al. 2009:27-35) The ACHP and SHPO were both created to promote historic preservation within their spheres of influence, nationally in the case of the ACHP and within state borders for SHPO: however, the majority of their duties involve identifying and nominating historic properties eligible for listing on the National Register, and in advising and assisting in Section 106 review processes (Advisory Council on Historic Preservation 2015:1-2).

The National Register is "the official Federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture" (National Park Service 2015e). Listing eligible properties is important because it ensures that the properties are considered in the Section 106 review process of any federally endorsed development project. Listed properties are also eligible for certain tax credits and the property may qualify for certain federal historic preservation grants (National Park Service 2015e). In the legislature, Section 106 of the NHPA mandates that proper consideration of the effects of government supported development projects be taken to reduce the impact such projects have on historic properties in order to prevent "adverse effects" (Congress of the United States 1966). An historic property is not required to be listed on the Historic Registry, but it must at least be eligible for listing to be protected under Section 106. Also, this legislation only applies to projects in which a federal agency is involved either through funding, occurring on federally owned or controlled property, or a project that requires a federal permit, license,

or approval (Advisory Council on Historic Preservation 2015:8-9). The process of ensuring that Section 106 is followed is known as the Section 106 review process, which details the conditions that federally supported agencies must follow to be in compliance: identify historic properties in the project area that may be affected, determine how the project may affect those historic properties, brainstorm mitigation measures to avoid or reduce “adverse effects” to historic properties, and reach agreement with the SHPO on the mitigation options to resolve any adverse effects. Section 106 reviews do not determine the approval or denial of project developments, but ensure that historic preservation issues and public opinions concerning said properties are considered during the planning process (Advisory Council on Historic Preservation 2015:4-7).

Adverse effects refer to any alteration to an historic property that jeopardizes its historic significance and/or its integrity. In addition to causing direct physical damages, adverse effects also include any alterations not in agreement with the Standards for the Treatment of Historic Properties as mandated by the Secretary of the Interior, relocation of the property, change to its use or setting, neglect and deterioration, and the “transfer, lease, or sale of a historic property out of federal control without adequate preservation restrictions” (Advisory Council on Historic Preservation 2015:6-7).

The National Historic Lighthouse Preservation Act was passed in 2000 “in order to provide a national historic light station program” (Congress of the United States 2000). As an amendment to the NHPA, the NHLPA mandates preservation restrictions to facilitate the transfer or sale of historic light stations that have been deemed “excess property” out of federal control; thus, mitigating a potential adverse effect under Section 106 (Advisory Council on Historic Preservation 2015:7). The legislation defines “excess

property” as “property under the control of any Federal agency which is not required for its needs and the discharge of its responsibilities, as determined by the head thereof” (Congress of the United States 2002). The process of conveying lighthouse properties to new stewards includes the USCG, the NPS, and the General Services Administration (GSA) in cooperation with local communities to identify lights that are in excess at the beginning of each fiscal year, announcing eligible lighthouses and stations through a Notice of Availability, providing applications to interested parties after receiving an Expression of Interest, and assessing submitted applications “on the merits of preservation, the reuse plan, financial viability, and how the light will be managed” with preference given to public entities and nonprofit organizations. If no interest is expressed or there are no suitable applicants, then the property is put up for public sale through public auction (U.S. Coast Guard et al. 2014:2-3).

The precise criteria to determine if an applicant is suitable are detailed in the Terms of conveyance listed in the NHLPA. In general, the Terms outline the responsibilities of the stewards once awarded the properties and those of the United States. Under the Terms stewards are responsible for the care, maintenance, and upkeep of the properties with their own funds and in accordance with the Standards for the Treatment of Historic Properties. The lighthouse must be made available to the general public for “education, park, recreation, [and] cultural or historic preservation purposes” (Congress of the United States 2000:2). Finally, stewards cannot “sell, convey, assign, exchange, or encumber” the lighthouse or any artifacts associated with the lighthouse nor may stewards conduct any commercial activities at the historic light station or with associated artifacts unless such actions are approved by the Secretary (Congress of the

United States 2000:2). In addition, the Terms stipulate that the lighthouses still function as aid to navigation and that the signal apparatus, not the tower structures, remain the personal property of the United States, which is responsible for their maintenance and operation. No steward may interfere or allow interference with the aid to navigation and the United States has the right to access any aid to navigation at any time without advance notice for the purpose of operating, maintaining, and inspecting the apparatus. The United States also has the right, as outlined in the Reversions of the NHLPA, to retract ownership of any lighthouse property if stewards fail to meet any of the Terms or if the property is needed for national security (Congress of the United States 2000:2).

The conditions of the NHLPA have allowed the Federal government to not only dictate the conditions of the historic property transfer, but also require that the Terms of conveyance be upheld through the duration of the new stewardship. The NHLPA program has become a continuously annual process since the first conveyance of historic light stations in 2002. As of 2014, a total of 113 light stations or towers have been transferred to public and private owners with a total of six properties transferred in the inaugural year including the Currituck Beach lighthouse (U.S. Coast Guard et al. 2014:2-4). Although the Currituck Beach lighthouse is the only lighthouse of the three case studies to undergo the process of the NHLPA program, the Act still applies to the Cape Hatteras and Old Baldy lighthouses should either ever wish to undergo a change of ownership.

Condition and Public Access Ratings

The primary missions of the Old Baldy Foundation, NPS, and OBC focus on the preservation of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses that have, intentionally or unintentionally, benefitted present and future generations by providing enjoyment and education. The aspect of their mandates that stipulates that they provide access be granted to the lighthouses for the purpose of public education and interpretation is not considered a direct means of supporting the lighthouses financially, but as a way to raise awareness of the historic value of these properties to encourage funding in other ways (Outer Banks Conservationists, Inc. 2003:33; Cybularz 2015:73; Old Baldy Foundation 2015b:2-3). While the potential for damage to the lighthouse structure caused by public access is a concern to preservation efforts, none of the stewards reported any damage directly caused by public access to the individual lighthouses (Outer Banks Conservationists, Inc. 2003; Finkle 2014; Chris Webb 2015, pers. comm.; Cybularz 2015; Meghan Agresto 2017, elec. comm.).

If the concern for damage is not a factor in restricting the volume of public access, the only conditions under which the lighthouses could otherwise be closed to the public are extreme weather conditions that pose a safety risk and major repairs to the lighthouse structure. The three lighthouses all close or greatly reduce their hours of operation for a portion of the year, typically between November/December and March/April, since these months are less busy in terms tourist numbers and give the stewards time to address maintenance issues undisturbed. Besides their hours of operation, there are other influencing factors that impact the number of visitors to each lighthouse, location and accessibility being the most prominent concerns.

Bob McKercher and Hillary du Cros (2002) point out that “cultural tourism can, could, and should achieve both cultural heritage management [...] and tourism management [...] objectives.” In order to compare and assess the structural condition and public visitation rates to the interior of the lighthouses, a simplified rating scale was adapted for this study. The Condition Rating scale was adopted from the “Qualitative Condition Ratings” developed by the NPS to assess the condition of the Cape Hatteras lighthouse in the *Cape Hatteras Lighthouse Historic Structure Report* (2015). The Public Access Rating scale is an adaptation of this same scale (Cybularz 2015:213-214).

Condition Rating

The Qualitative Condition Rating scale was created by the NPS for the most recent assessment of Cape Hatteras lighthouse. The Condition Rating qualifies the state of the lighthouse structure as either Good, Fair, or Poor (Cybularz 2015:213-214). Table 4 outlines the definitions of each Condition Rating.

Rating	Qualitative Criteria
Good	“Routine maintenance should be sufficient to maintain the current condition and/or [a] cyclic maintenance or repair/rehabilitation project is not specifically required to maintain the current condition or correct deficiencies.”
Fair	“The [structure] generally provides an adequate level of service to operations, but [...] requires more than routine maintenance, and [c]yclic maintenance or repair/rehabilitation work may be required in the future.”
Poor	“[The structure] requires immediate attention; routine maintenance is need[ed] at a much higher level of effort to meet significant safety and legal requirements; [c]yclic maintenance should be scheduled for the current year; and/or [a] special repair/rehabilitation project should be requested consistent with [steward] requirements, priorities, and long-term management objectives.”

TABLE 4

CONDITION RATING SCALE – CRITERIA FOR GOOD, FAIR, AND POOR RATINGS.

Source: Cybularz 2015:213-214

Old Baldy Lighthouse

Old Baldy Foundation Ltd. is a private, nonprofit company that was established in 1985 to provide stewardship of the Old Baldy lighthouse. The Mitchell family, the family behind Bald Head Island, created the company to preserve and maintain the lighthouse and property. There is little record of any maintenance of the Old Baldy lighthouse from the time the U.S. Coast Guard decommissioned it in 1938, before its inclusion in the private sale of the island to Frank O. Sherrill in 1963, to the time when the Old Baldy Foundation gained ownership.

The first recorded inspection of Old Baldy was conducted in 1984. The report outlined the condition of the lighthouse and made recommendations for restoration work. The recommended work consisted of masonry repair, structural wood replacements, and window repairs to the lighthouse. The report also included recommendation for

renovation of associated buildings and grounds (Vinson 1984). The condition report does not include details about the associated light station buildings; however, an archaeological report produced by the University of North Carolina Wilmington noted that the “keepers cottage was no longer extant” (Loftfield et al. 1986:1).

In 1988, a preliminary structural investigation made recommendations to close the lighthouse to visitation due to damaged floor framing and suspected damage to the floors. The 1988 report called for a more detailed investigation of the floors to determine the extent of the damage, further inspection of the roof since water damage was suspected, and a more detailed inspection of the lantern supports (Robinson 1988:4-6). Work to repair these features began in 1990 and focused on repairing the brick, stone, and stucco masonry, the iron railing and hardware, architectural woodwork, and the roofing and sheet metal (Ray 1990). A non-compliance concern arose a year into the contract over non-conformity of the stucco color between the North Carolina SHPO and the contracting company, with the Old Baldy Foundation playing mediator (Brooks 1991). After the contracted company refused to assume responsibility, the decision was made to continue the restoration work using a different engineering company (Benner 1991). The work was finished in 1992, to the SHPO’s satisfaction, and the lighthouse reopened to the public the following year (Adolphsen 1992).

By 2002, assessments and plans for historic preservation work to both the interior and exterior masonry were again conducted (Chambers 2002). Work to decrease the amount of moisture from the roof and lantern room was completed by International Chimney Company by 2005. In addition to sealing gaps in the ball and roof, modifications were also made to the inside vent ball, and a new louvered door was

installed to decrease water leakage. International Chimney Company also assessed the condition of the roof stucco and confirmed that the majority of existing stucco was loose or soft. It was recommended that the stucco be replaced or repaired to improve the interior moisture issues; however, this roof patch was an intermediary fix (International Chimney Company 2005). As of 2015, the Old Baldy Foundation has plans to undergo a complete preservation project with the hope that work will be complete in time for the lighthouse's bicentennial celebration in 2017 (Chris Webb 2015, pers. comm.). Work on the light is currently being undertaken to refurbish the vent ball and curtain wall in the lantern room to repair water damage and help weatherproof the lantern room from future leaks. Further recommendations include work on the sandstone cap at the top of the lighthouse and repairs to stucco on the exterior and interior (Chris Webb 2016, pers. comm.).

The greatest challenge the Foundation has faced in terms of their efforts to restore and preserve the lighthouse has been funding. The lighthouse was in critical need of repair at the time that the Foundation took ownership due to its long period of neglect. The Foundation has been able to secure funds through government and private grants in addition to their own initiatives to fundraise at the local level, special event fees, public donations, retail sales, and lighthouse and museum fees, but the cost of repairs exceeds the current budget (Chris Webb 2015, pers. comm.). Considering the amount of restoration work already undertaken by the Old Baldy Foundation and the current condition of the lighthouse structure, the Condition Rating for the Old Baldy lighthouse is Poor (Table 4).

Cape Hatteras Lighthouse

The National Park Service is an agency of the federal government within the Department of the Interior. NPS is responsible for the care and maintenance of the national parks for the purpose of preserving “the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations.” (National Park Service 2015e). As a federal agency, the majority of NPS funding is provided by federally annual budgets approved by Congress (National Park Service 2015a).

After the NPS took ownership of the Cape Hatteras lighthouse from the U.S. Coast Guard, Charles Porter surveyed the lighthouse and grounds in 1938. In his report, Porter documented the state of the lighthouse, and made recommendations for repair and improvement to adapt the structure for public visitation. Porter deemed the lighthouse to be “in a rather good state of preservation” at the time, and the majority of his recommendations were minor additions to ensure safety and facilitate public admission (Porter 1938:1-2). These proposed repairs were delayed due to the United State entering World War II (December 1941 to August 1945), during which time the lighthouse was leased to the U.S. Coast Guard for use as a lookout station (Vincent 2003:20).

Prior to the Porter report, annual updates of the lighthouse condition, repairs, and maintenance were reported to the Light-House Board by the individual lighthouse keepers. While the light keepers submitted annual condition reports, these documents focused on the condition of the lighthouse pertaining to its continued functioning as an operational lighthouse (U.S. Light-House Board 1852). As the earliest existing historic preservation assessment conducted on the Cape Hatteras lighthouse, the damages Porter

notes provide a baseline for the condition of the lighthouse prior to any NPS preservation efforts. In his investigation report, Porter noted that the lighthouse exhibited some cosmetic and structural damage. The changes and additions he recommended to provide greater safety for visitors included the installation of a railing around the lantern gallery and the replacement of several cast-iron posts for the railing around the watch tower parapet. The most significant damage he reported was that the interior wall of the main tower had a long, thin crack extending several floors (Porter 1938:1-2). A Cultural Landscape Report, completed in 2003, which summarizes the site history of the Cape Hatteras Light Station, states that no significant work was reported to have occurred between 1949 and the beginning of Mission 66 in 1956 (Vincent 2003). Although there is no mention if Porter's recommendations were implemented, the lighthouse was opened to the public in 1953, so it can be inferred that the NPS applied at least some of his suggestions to improve safety in the post-war years (National Park Service 2015c).

Mission 66 was a ten-year plan for the repair and revitalization of the Cape Hatteras National Seashore. Beach stabilization and erosion control were the primary concerns and received the most funding; however, a portion of the plan invested in improvements to the facilities around the lighthouse and light station, consisting of a parking area and pathways, in order to make the site more accessible to the public. The infrastructural changes seem minor both in terms of the contribution to historic preservation and the financial expense compared to the investment in erosion control efforts (Binkley 2007:4,160).

Beach erosion posed a continuous threat to the lighthouse. As early as 1986, investigations recommended moving the entire lighthouse structure rather than continue

attempts to shore up the seawalls. A more in-depth study was conducted and a report released in 1988 that addressed this issue in detail (Cybularz 2015:105-109). The proposal for relocation was accepted in 1989; however, it took ten years of planning and preparation to orchestrate the move. Restoration work was needed in order to stabilize the tower prior to the move, the route and new location needed to be determined and cleared, and funds needed to be raised for the relocation cost (Cybularz 2015:112-118). The move began in January 1999 with the oil house and keepers' quarter buildings being the first moved. The lighthouse was moved in June and took twenty-three days to reach its new location 2,500 feet from its original spot (Cybularz 2015:131-138).

Within two years of the move, the lighthouse's interior metal spiral stairs were in need of repair. The lighthouse was closed to the public until the work was completed. This also provided the opportunity to repaint the lighthouse prior to reopening in 2003. Following this repair, climbing restrictions related to the load capacity of the stairs were put in effect to ensure public safety. Over the course of 2005 and 2006, a partnership agreement with the Graveyard of the Atlantic Museum in Hatteras, NC saw to the restoration of the lighthouse lens, which was already held in museum storage. This partnership also facilitated the removal of the lens pedestal and clockwork from the lighthouse to be reunited with the lens in the Museum (Cybularz 2015:144-145). Currently, the NPS is proposing to undertake a major restoration project of the Cape Hatteras lighthouse similar to the scope of work that has recently been completed at Bodie Island lighthouse (Jami Lanier 2017, pers. comm.).

With the backing of the Federal Government, the NPS seemingly faces few challenges to their cultural resource management efforts. However, as is the case with

most government institutions, the challenge exists in receiving funding that exceeds the annual budget; therefore, restoration projects tends to consist of minimal repairs until it becomes critical to undertake major rehabilitation work. Another challenge the Park Service has encountered regarding the preservation of the Cape Hatteras lighthouse has been soured relations with the local community. The community's animosity towards NPS is routed in disagreements concerning the management of the National Seashore, particularly beach access, but came to include the management of the lighthouse since it was moved in 1999 (National Park Service 2005:57-58). Due to the pattern of undertaking major restoration projects every few decades to manage historic preservation concerns, the Condition Rating for the Cape Hatteras lighthouse is Fair (Table 4).

Currituck Beach Lighthouse

Outer Banks Conservationists, Inc. (OBC) is a private, nonprofit organization that was founded for the sole purpose of restoring and preserving the Currituck Beach Light Station with the mentality that its historical significance was of greater importance than even its educational value. The primary sources of funding for the maintenance and preservation of the lighthouse, outbuildings, and grounds are through private donations, gift store sales, and income generated by visitor admission fees to the climb the lighthouse (Outer Banks Conservationists 2003:33-34).

From the time the State of North Carolina gained ownership of the Currituck Beach Light Station from the U.S. Coast Guard in 1947 to the time that the property was leased to Outer Banks Conservationists, Inc. in 1980, the property was abandoned and fell into disrepair. Between 1980 and 1990, OBC invested in the restoration of the Double

Keepers' Quarters and other station buildings. The damage consisted of more than just weathering: vandalism and looting to the site were also factors. In 1990, OBC signed a lease with the U.S. Coast Guard under the condition that the tower be protected, maintained, and in good order. The condition was also added that any work with the potential to affect the historic fabric of the property would only be done in accordance with the Department of the Interior guidelines, which have since been set out in the Historic Lighthouse Preservation Handbook (National Park Service 1997a). Between 1990 and 2000, Outer Banks Conservationists completed substantial restorative work to the lighthouse. The scope of work completed during this time period included dehumidification of the tower during off hours; interior and exterior painting; replacement of the cedar shingle roof of work rooms; major iron and masonry repairs of the gallery brackets, belt course, iron window frames, cornices, exterior door and railing, and lantern area; and installment of interpretive exhibits at the base of the tower (Outer Banks Conservationists, Inc. 2003:33-35).

Since OBC obtained ownership of the lighthouse tower in 2003, historic preservation work has been minimal. The majority of work consists of annual maintenance consisting of grounds keeping work and painting small sections of the lighthouse interior and the keepers' dwellings, which are only documentation if there is the potential of change to the historic fabric (Meghan Agresto 2017, elec. comm.). Three minor repairs to the lighthouse are documented since 2003: repair to the lighthouse Fresnel lens and lens room windows in 2006, and repair to the first marble windowsill in 2008 (Outer Banks Conservationists, Inc. 2006a, 2006b, 2008).

The main challenge OBC has faced in their efforts to preserve and manage the lighthouse has been past interference from Currituck County and current, potential interference from private property developers (Meghan Agresto 2017, elec. comm.). Although OBC was the only organization expected to apply for ownership of the lighthouse tower under the NHLPA, Currituck County also submitted an application. The tower was granted to OBC under the standard of “best stewardship” in 2003. The County submitted a memorandum on *de novo* review, but the Review Committee voted in favor of OBC (Manson 2003:6-7). At the beginning of 2004, the County pushed for OBC to conform to the new Unified Development Ordinance (UDO) to operate the light station under the requirements for business in a residentially zoned area. The demand would require OBC to provide greater on-site parking facilities and restroom facilities to accommodate visitors (Scanlon 2004). Outer Banks Conservationists refused on the grounds that to do so would jeopardize the historical integrity of the property and the issue went to court. The court ruled in favor of OBC due to the fact that their management of the property was grandfathered prior to the establishment of the zoning laws (Nance 2004). OBC has not had any further issues since the lawsuit settlement. OBC continues to face outside challenges by private development projects that may potentially interfere with the view lines (Meghan Agresto 2017, elec. comm.). Despite the challenges OBC has faced in managing the lighthouse, the Condition Rating for the Currituck Beach lighthouse is Good because the structure’s condition is maintained with routine annual work (Table 4).

Public Access Rating

Even though the managing stewards have developed their historic lighthouses for tourism, there are several factors that influence the level of visitation to a site. McKercher and du Cros (2002) identify “access and proximity” and “time availability” as the most significant factors that influence the volume of visitors a site receives. Access and proximity can affect visitation numbers based on the distance visitors must travel to visit a site: “[r]eadily accessible attractions will enjoy greater visitation than out-of-the-way assets, unless the compulsion to visit them is so great that remoteness becomes a nonissue” (McKercher and du Cros 2002:35). Time availability refers to the limited amount of time tourists have to visit any one site. The amount of time a visitor is willing to invest in a cultural tourism experience is dependent on the amount of time available and the number of competing uses of that time. This is especially true of tourists that do not plan to visit cultural sites, but do so incidentally (McKercher and du Cros 2002:35).

The public visitation numbers from 2011 to 2015, a five-year sample, were selected to evaluate the level of public visitation to each lighthouse. For this study, visitors include any guest that steps foot in the lighthouse. This does not necessarily include staff members, special guests and events, or contract workers that access the lighthouse tower without paying. The Public Access Rating scale was adapted from the “Qualitative Condition Ratings” developed by the NPS to assess the condition of the Cape Hatteras Lighthouse (Cybularz 2015:213-214). Due to confidentiality agreements with the management organizations, dollar amounts collected from visitor admission fees are unavailable for this study. Instead, monthly and annual admission numbers for each lighthouse will be analyzed. The frequency of public visitation compared to the number

of days the lighthouse is open to the public will be qualified using a rating scale. The Public Access Rating qualifies the amount of public traffic as High, numbering greater than 15,000 visitors per month and greater than 100,000 people per year; Medium, numbering less than 15,000 visitors per month and less than 100,000 people per year; or Low, numbering less than 10,000 visitors per month and less than 50,000 people per year (Table 5).

Rating	Number of Visitors per Year	Average Number of Visitors per Month
High	>100,000	>15,000
Medium	<100,000	<15,000
Low	<50,000	<10,000

TABLE 5

PUBLIC ACCESS RATING SCALE – VALUES FOR HIGH, MEDIUM, AND LOW RATINGS.

Source: Cybularz 2015:213-214

Old Baldy Lighthouse

One of the factors influencing the number of guest visiting the Old Baldy lighthouse is its location. Access and proximity combine with time availability to influence visitation to this lighthouse (McKercher and du Cros 2002:35). The site is out of the way, inaccessible by road, and a bit more expensive than either the Cape Hatteras or Currituck Beach lighthouses. To visit Old Baldy lighthouse, visitors need to pay to take a ferry from the mainland to the island. The ferry departs every hour from Southport, NC to Bald Head Island, and currently cost 22 dollars per adult round-trip ticket. Vehicles are not permitted on the island, so visitors must park at the ferry terminal, which costs between eight and ten dollars depending on the time of year (Bald Head Island

Limited 2016). While vehicles are not permitted, the lighthouse is within walking distance from the ferry terminal. The lighthouse grounds are easily accessible to the public with a six-dollar fee for adults (three-dollar fee for children) if visitors wish to enter the buildings and climb the lighthouse. The Old Baldy lighthouse, keepers' house, and oil house are open to the public year-round, but are restricted to appointment visits only between December and March. Hours are extended from June to August to accommodate their busiest months (Old Baldy Foundation 2015a). The lighthouse is not well known even in North Carolina, so Bald Head Island must be a deliberate destination for visitors rather than a whim decision even if only for a day trip.

Year	Number of Visitors	Average Number (visitors/month)
2011	26,837	2,982
2012	23,553	2,617
2013	24,636	2,737
2014	23,686	2,632
2015	24,475	2,719

TABLE 6

BALD HEAD LIGHTHOUSE: NUMBER OF VISITORS PER YEAR, 2011-2015.
Source: Old Baldy Foundation 2016

The average monthly admission numbers were calculated by dividing the annual admission numbers with the number of months the lighthouse is open. Since the lighthouse is under restricted hours from December to March, these three months are excluded from the calculations. Between 2011 and 2015, the Old Baldy Foundation recorded an average of 23,958 visitors annually and between 2,600 and 3,000 visitors per month (Table 6). Based on the Number of Visitors per Year, the Public Access Rating is Low and based on the Average Number of Visitors per Month, the Public Access Rating

is Low for Old Baldy. Therefore, the overall average rating for monthly and annual public admissions to Old Baldy lighthouse is Low (Table 5).

Cape Hatteras Lighthouse

Of the three case studies, Cape Hatteras lighthouse benefits the most in terms of access and proximity or time availability (McKercher and du Cros 2002:35). Located in Buxton, NC off Highway 12, the Cape Hatteras lighthouse is located on a well-travelled route that is easily accessible as a last minute, unplanned attraction for visitors of the Cape Hatteras National Seashore. The lighthouse is nationally iconic and NPS actively promotes visitation. The Cape Hatteras lighthouse is open to the public between Easter and Columbus Day (April to October), which is the shortest season of the three lighthouses. Visitors are able to access the grounds and light keepers' buildings free of charge and the fees to climb the lighthouse are between four dollars for children and seniors, and eight dollars for adults. The NPS is also the only steward of the three that places restrictions on visitors that wish to climb the lighthouse, such as a height, physical endurance, and minimum age restrictions (National Park Service 2015d).

The average monthly admission for these years can be calculated by dividing the annual admission numbers with the number of months the lighthouse is open (seven months). Between 2011 and 2015, the Cape Hatteras lighthouse received an average of 110,997 visitors per year and between 14,000 and 18,000 visitors per month (Table 7). Based on the Number of Visitors per Year, the Public Access Rating is High, and based on the Average Number of Visitors per Month, the Public Access Rating is High for Cape

Hatteras lighthouse. The overall, average rating for monthly and annual public admissions to Cape Hatteras lighthouse is High (Table 5).

Year	Number of Visitors	Average Number (visitors/month)
2011	99,316	14,188
2012	120,212	17,173
2013	100,511	14,359
2014	125,294	17,899
2015	106,549	15,221

TABLE 7

CAPE HATTERAS LIGHTHOUSE: NUMBER OF VISITORS PER YEAR, 2011-2015.
Source: National Park Service 2016

Currituck Beach Lighthouse

Although the Currituck Beach lighthouse is accessible via Highway 12, the Corolla area is a dead end in terms of driving routes. The turn-off to the mainland is in Kitty Hawk, so people visiting the lighthouse are either visiting that area of the banks or have intentionally planned their visit. Visitors are able to access the grounds, light keepers' buildings, and gift shop free of charge and the fees to climb the lighthouse are four dollars for children and seniors, and eight dollars for adults. Currituck Beach lighthouse also allows visitors they refer to as “peepers” to enter the lighthouse to the base of the stairs without having to pay to climb. For safety reasons, children under the age of 12 must climb with an adult. Outer Banks Conservationists, Inc. does not actively market their site; the only advertising the site receives is from outside organizations (Meghan Agresto 2017, elec. comm.).

Table 8 shows that between 2011 and 2015, the Currituck Beach lighthouse received an average of 108,418 visitors per year and between 11,000 and 14,500 visitors per month.

Year	Number of Visitors	Average Number (visitors/month)
2011	113,756	14,220
2012	116,716	12,968
2013	112,501	12,500
2014	104,501	12,294
2015	94,618	11,132

TABLE 8

CURRITUCK BEACH LIGHTHOUSE: NUMBER OF VISITORS PER YEAR, 2011-2015.

Source: Outer Banks Conservationists, Ltd. 2016

Based on the Number of Visitors per Year, the Public Access Rating is High for Currituck Beach lighthouse. Based on the Average Number of Visitors per Month, the Public Access Rating is Medium for Currituck Beach lighthouse. The overall, average rating for monthly and annual public admissions to Currituck Beach lighthouse is Medium to High (Table 5).

Conclusion

The transfer of surplus lands and buildings from the ownership of the U.S. Coast Guard to other federal agencies, as well as private owners, beginning in the late 1930s came about after it was determined that these properties, specifically older lighthouses, had become obsolete in a new age of improved marine communication and navigation (U.S. Lighthouse Service 1939:130). Among the earliest transferred lighthouses were those at Currituck Beach, Cape Hatteras, and Smith Island. There could be no clearer

indication that the purpose of the lighthouses had changed. No longer considered the pinnacle of the nation's civilization, the imposing structures' worth became rooted in their nostalgia (U.S. Light-House Board 1874:5; U.S. Lighthouse Service 1939:130). Legislation over the 20th century established and endorsed the historic preservation of lighthouses, and other historic properties, for their historic significance in "American history, architecture, archaeology, engineering, and culture" (National Park Service 2015e). Most recently, the National Historic Lighthouse Preservation Act has specified the conditions stewards must maintain their historic lighthouses properties in order to ensure their continued existence for the enjoyment and education of current and future generations (National Park Service 2015a). For visitors accessing the lighthouses, the tangible experience of climbing the lighthouse not only increases the educational value of the lighthouse by exposing visitors to an aspect of the lives of the lighthouse keepers, but also establishes a connection and sense of place between the visitors to the lighthouse (McKercher and Hillary du Cros 2002:65-66). It is through the education of the public that the historical significance of lighthouses is brought into awareness and in turn redefines the purpose of lighthouses as icons of cultural heritage.

Public access to lighthouses fulfills the public education requirement of the NHLPA, and provides a source of funding for steward organizations that can be put towards historic preservation work. However, a balance between public access and historic preservation work must be established and maintained by stewards to avoid the deterioration of the lighthouse structures (McKercher and Hillary du Cros 2002:11-12). Based on the criteria established in the NPS's Qualitative Condition Rating scale, the Old Baldy lighthouse has a Condition Rating of Poor and a Public Access Rating of Low;

Cape Hatteras lighthouse has a Condition Rating of Fair and a Public Access Rating of High; and Currituck Beach lighthouse has a Condition Rating of Good and a Public Access Rating of Medium-High (Tables 4 and 5) (Cybularz 2015:213-214). The balancing act of historic preservation with public visitation may also be influenced by the level of support the steward organizations receive from the local stakeholders.

CHAPTER 5: Perceptions and Viewpoints of Community Members

Introduction

Just as the culture tourism sector has recognized the need to balance historic preservation efforts with the amount of public visitation to ensure a site is sustainable (McKercher and du Cros 2002:11-12), so too has the tourism management sector acknowledged the importance of balancing their consultation of stakeholders with the business' interests in creating sustainable heritage tourism developments (Byrd 2007:6). In the case of three North Carolina lighthouses, these sites have developed as heritage tourism destinations under the stewardship of different types of organizations. As historic properties, these sites have existed for generations as places that represent the identity of their local communities and residents (Relph 1976:42-43; Rodman 1992:642; Hay 1998:7; Bird 2002:521-523).

The purpose of this study was to determine the opinions and views of local residents of Bald Head, Buxton, and Corolla regarding the management and preservation of their lighthouses. My interest in this research is the sense of place historic places inherently possess and the attachment permanent local residents have to such places. The scope of this study also recognizes the importance of stakeholder consultation and the way in which local residents have increased stake in the lighthouses as a result of their place attachment. Regarding the relationship between local community members and their lighthouses, I hypothesized that the local community members have strong attachments to their lighthouses regardless of their relationships with the steward organizations. Regarding the relationships between local community members and the steward organizations of the lighthouses, I hypothesized that the lighthouse stewards that are

more inclusive and receptive to community interests have greater support from local residents than stewards that are less inclusive.

Sense of place is a feature of study for many disciplines. The anthropological principle of sense of place, in which the development of a rooted sense of place directly correlates to residential status, acknowledges that individuals with greater experiences and connections to places have greater investment in those places, and, therefore, hold higher stake in their condition (Hay 1998:5; Shamsuddin and Ujang 2008:399-400).

Investigating local opinions towards the local lighthouse provides emic insight about the importance of the lighthouses for individual community members and the community as a coherent unit (Bernard 2011:157-158). It is important to consider the insider point of view to understand the impact changes to the lighthouses may have on the people that will be most impacted by said changes (Byrd 2007:10; Shamsuddin and Ujang 2008:400).

Determining the Amount of Stake a Stakeholder Holds

The amount of influence a stakeholder has over the decision-making processes of project developments depends on their level of influence in said project. One aspect that determines their level of influence is the stakeholder's attachment to the development's location, which would impact their sense of place, especially for historic sites (Relph 1976:42-43; Rodman 1992:642; Hay 1998:7; National Park Service 2002:2; Bird 2002:521-523).

Stakeholder Theory

The term stakeholder refers to any individual or group with the potential to affect or be affected by an organization's development activities within a particular market or community (Freeman 1984:25; Donaldson and Preston 1995:67; Sautter and Leisen 1999:313; Nicholas et al. 2009:391-392). Stakeholder theory, as Freeman (1984:25) introduced, is based on the belief that stakeholders "play a vital role in the success of the [developing] business' enterprise." This theory has since been accepted and practiced by managers and planners, especially after a decrease in public opinion and trust in policymakers in the 1990s (Byrd 2007:8). It is now common practice and widely acknowledged that consulting stakeholders for their input is a crucial step to ensure the success of any development project (Freeman 1984:25; Donaldson and Preston 1995:65; Aas et al. 2005:34). This conclusion is especially true in sustainable tourism and heritage tourism enterprises (Chirikure and Pwiti 2008:476; Griffith and Griffith 2012:530). Byrd (2007:11) observed that, in the tourism industry, the tangible aspects, such as the businesses directly involved in a tourism site, are often given more focus than the intangible aspects, such as the experiences and interests of all stakeholders. The identification of all stakeholder groups is the first step in the stakeholder process and can be the most challenging. Stakeholders may include local businesses, landowners, residents, politicians and government officials, tourists, activist groups, and competitors, to name a few (Sautter and Leisen 1999:315; Chirikure and Pwiti 2008:468).

There are two schools of thought within the realm of stakeholder theory that concerns the way managers and planners ascribe various stakeholders sway over the project. One approach, which Byrd (2007) calls "collaborative," gives all stakeholders

equal influence to one another in the planning of a development project. In contrast, a “non-collaborative” approach gives the stakeholder groups different levels of influence depending on their perceived power in influencing the development project (Byrd 2007:9). Regardless of the approach, both schools agree that all stakeholders need to be consulted because their interests have intrinsic value in the planning process (Donaldson and Preston 1995:67-68; Sautter and Leisen 1999:314; Byrd 2007:9-10).

To include all stakeholders in the planning process, regardless of their level of influence, means that planners and managers need to consult the stakeholder groups that fall within the intangible group as much as with the tangible stakeholders. In tourism developments, the group classified as the intangible stakeholders are present tourists, the present host community, future tourists, and the future host community. As permanent residents in the community around the development area, present host community members are the most accessible of these stakeholder groups, and, therefore, the easiest to contact and consult. They are also the group that will experience the greatest impact of changes made within the community, either positive or negative (Byrd 2007:9-10).

In the small communities of Bald Head, Buxton, and Corolla, the present host communities have an even greater stake in any development plans than seasonal residents, tourists, or employees to local business that live elsewhere. Many of the local residents are also local business owners or employees of those businesses, which includes the restaurants, accommodations, and other attraction businesses that support and benefit from the local tourism industry (Byrd 2007:10; Nicholas et al. 2009:405). I decided to focus my study on local permanent residents because they are most frequently present, offer insight into the local perspective, and they are most likely to be emotionally

invested in their lighthouses in addition to any financial concerns for their livelihoods. The present host communities also have a greater amount of stake than the other intangible groups due to their connection to their local lighthouses as places of community and personal identity.

Sense of Place

Multiple disciplines address the definition and subject of *place*. *Place*, as a region of physical space, falls into the domain of geographers (Relph 1976:6). *Place*, as a site with sense of place that influences and is influenced by people, is a topic studied by anthropologists and sociologists (Rodman 1992:641). Planners are concerned with sense of place in trying to emulate such feelings in new spaces (Relph 1976:37). With the various approaches to studying sense of place or places come multiple definitions for *place*. The anthropological definition of *place* is a physical location with cultural significance created and maintained through interactions with people and communities (Relph 1976:6; Bird 2002:521; Shamsuddin and Ujang 2008:400). Sense of place is the examination of the construction of a culturally determined physical or symbolic area by a community with shared emotion, meaning, and history (Cobb 2016:368-369; Rodman 1992:640-641).

Attachment to a specific place and sense of place are established and reinforced through the creation of multiple experiences and narratives with a place (Bird 2002:520-521). The greater number of narratives, increased opportunities to share those narratives, and more frequent reaffirmation of ownership through periodic contact results in strengthening rootedness to a place (Relph 1976:37; Hay 1998:6; Shamsuddin and Ujang

2008:405). Regarding my cases studies, the permanent residents of Bald Head, Buxton, and Corolla have greater opportunities to share their stories with each other and with visitors, which contributes to their sense of place and ownership of their lighthouses (Rodman 1992:642; Bird 2002:521). In his studies on the development and rootedness of sense of place in New Zealand, Hay (1998) found that insider status and local ancestry were instrumental in creating a stronger sense of place. The groups found to have a more rooted sense of place were those with ancestral connections, such as members of the indigenous population, and those with generational connections, people whose family lived in the area for generations. Hay (1998:24-25) interpreted this to be the case because such individuals had more ties through personal and familial narratives associated with important places. Due to their permanent, year-round residence in Bald Head, Buxton, and Corolla, the locals have greater and more frequent visitation and interaction with their lighthouses. Places, such as the lighthouses, are maintained with effort and periodic contact, which tends to be “limited to those who have a long-term presence” with the place (Hay 1998:6). Contact extends beyond visitation to the lighthouse tower to the surrounding area including the grounds, pathways, and even the beaches or sound. As long as the lighthouse is visible, people are interacting with them as *places* (Hay 1998:6; Stedman 2003:683).

Although there are multidisciplinary interests in sense of place, it is a largely understudied topic with very limited research done on studying historic sites or places (Cobb 2016:368). Instead, studies have focused more on researching place attachment, place dependence, and place identity (Shamsuddin and Ujang 2008:400). Sense of place studies have focused almost exclusively on the place attachment of present generations.

Although researchers have presented strong cases that generational residence strengthens sense of place (Hay 1998), and others have acknowledged that places can hold meaning in and of themselves, little study has been done on places with preexisting historic presence (Relph 1976:43; Rodman 1992:642; Hay 1998:7; Shamsuddin and Ujang 2008:400).

The Criteria for Evaluation listed under the *National Register Criteria for Evaluation* (2016) specifies the conditions a site must possess for it to be eligible for listing on the National Register of Historic Places:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, *feeling* [emphasis added], and association [...] (National Park Service 2002:2).

“Feeling” is defined by the Department of the Interior as the “quality of integrity through which a historic property evokes the aesthetic or historic sense of past time and place” (National Park Service 1997b:IV-2). By this definition, the lighthouses in and of themselves possess an inherent sense of place established by the experiences of past generations.

My study of sense of place focuses on the historic sites and not directly on the people attached to said sites. Sense of place and place attachment play an important role in this study. I evaluate the level of attachment, and, therefore, the stake that local

residents have invested in the lighthouses as features of their communities (Relph 1976:43; Hay 1998:7; Bird 2002:521; Stedman 2003:672).

Study Participants

Since the establishment and significance of *places* are determined by the cultures in which they exist, the study area boundaries of each community were based on the geographical landscape and the historical development of Bald Head, Buxton, and Corolla around the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses. Located on the Outer Banks, the physical landscapes of the barrier islands and Bald Head Island limit the distribution and direction of development of the communities geographically (Figure 9). The Old Baldy and Currituck Beach lighthouses were constructed in remote locations that were not settled until after the lighthouses were established (Outer Banks Conservationists, Inc. 1999:15-22; Stick 1994:33-34). As these areas were settled, people kept close to the lighthouse properties. Today, the areas around the Old Baldy and Currituck Beach lighthouses are referred to by locals as the "historic area" or "historic center" of town. There were some settlers already in the area, from whom the government purchased land, when the first Cape Hatteras lighthouse was built in 1803 (Cybularz 2015:32). Even after the current Cape Hatteras lighthouse was built in 1870, the village of Buxton centered around the lighthouse. All three lighthouses are central features of their respective community's identity, and local residents feel a strong attachment to the structures.

In this study, I look at each community and their respective lighthouses separately, so the interviews conducted in one community only relate to the lighthouse

within that community. The Bald Head Island interviews only refer to the Old Baldy lighthouse. The Buxton interviews concern only the Cape Hatteras lighthouse. Finally, the Corolla residents' interviews only relate to the Currituck Beach lighthouse. I am interested in the values and opinions of local residents, so my criteria for participants included residents that I believe have a stronger sense of place and, therefore, a greater stake in the lighthouses. I used a semi-structured interview instrument with a quota sampling of community members (Appendix F). The people I interviewed are permanent residents that live year-round in the community for a minimum of ten years. I established this minimum requirement based on my belief that a permanent resident of ten years has settled and integrated into the communities. I interviewed an equal number of individuals under the age of 50 and over the age of 50. I decided upon this criteria in recognition that my case studies are retirement communities, so individuals under the age of 50 will have different motivations and priorities than individuals over the age of 50. Due to the population demographics of Bald Head Island, the age criteria of my quota sampling strategy did not work. Instead, I focused on residents that have lived on Bald Head Island for at least ten years regardless of the age criterion. Permanent residents are experienced with living in both the tourist and off-seasons, have lived in the community long enough to be considered part of the community, and represent an age demographic with different life experiences and motivations (Bernard 2011:144).

To help interpret and evaluate my study data, I used a qualitative rating scale similar to those used in *Chapter 4: Historic Preservation and Public Access* (Cybularz 2015:213). The Community Relations scale rates the current relationships between the community members and lighthouse stewards based on the data collected from this study

on a qualitative scale of Good, Fair, or Poor (Table 9). I will use this rating scale to evaluate and qualify the findings from my interviews with local community members to compare the results from each community with each other, and as part of my overall assessment of the management strategies practiced at each lighthouse.

Rating	Qualitative Criteria
Good	<ul style="list-style-type: none"> Residents are satisfied with the management of the lighthouse by the steward organization and have no complaints. Residents are willing to volunteer or support steward fundraising or preservation initiatives. Stewards are open to community involvement and consider community interests in management decisions.
Fair	<ul style="list-style-type: none"> Overall, residents are satisfied with the management efforts of the steward organization, but feel improvements could still be made to better the condition of the lighthouse. Residents are willing to volunteer or support steward fundraising or preservation initiatives. Stewards consider community interests in management decisions, but communication with the community could be better.
Poor	<ul style="list-style-type: none"> Residents either feel apathetic to the lighthouse steward or residents do not feel the stewards are doing an adequate job managing the lighthouse. Residents are unlikely to support steward-run programs or events due to their poor relationship. Stewards do not consult the community, nor do they consider their interests in management decisions.

TABLE 9

COMMUNITY RELATIONS RATING SCALE – CRITERIA FOR GOOD, FAIR, AND POOR RATINGS.

Source: Cybularz 2015:213

Research Findings

Upon completion of the interview process in the three communities, the following data was gathered.

Bald Head Island – Old Baldy Lighthouse

Although the land of Bald Head Island was owned by Benjamin Smith, there was no permanent settlement on the island. Smith granted land to the government for the construction of a lighthouse in 1790 (Flowers et al. 1975:3). Construction of the Old Baldy lighthouse was completed in 1817 using salvageable materials from the ruins of the first Bald Head Island lighthouse. The construction of the lighthouse resulted in the establishment of a small settlement on the island consisting of river pilots, the lighthouse keepers, and their families (Stick 1994:33-34). The island was temporarily occupied during the Civil War by Confederate forces that constructed and occupied Fort Holmes (Stick 1994:43-46, 57). The Cape Fear Lifesaving Station was established in 1882, which also contributed to the population on the island. There are an estimated 171 permanent residents living in Bald Head village as of May 2016 (U.S. Census Bureau 2015b).

The Old Baldy lighthouse is located on Bald Head Island at the mouth of the Cape Fear River. The settlement is concentrated along the southeastern shore and around the western shore overlooking the Cape Fear River (Figure 9). To visit Old Baldy lighthouse from the mainland, visitors need to take a ferry from Southport. The lighthouse is within walking distance from the ferry terminal (Bald Head Island Limited 2016).

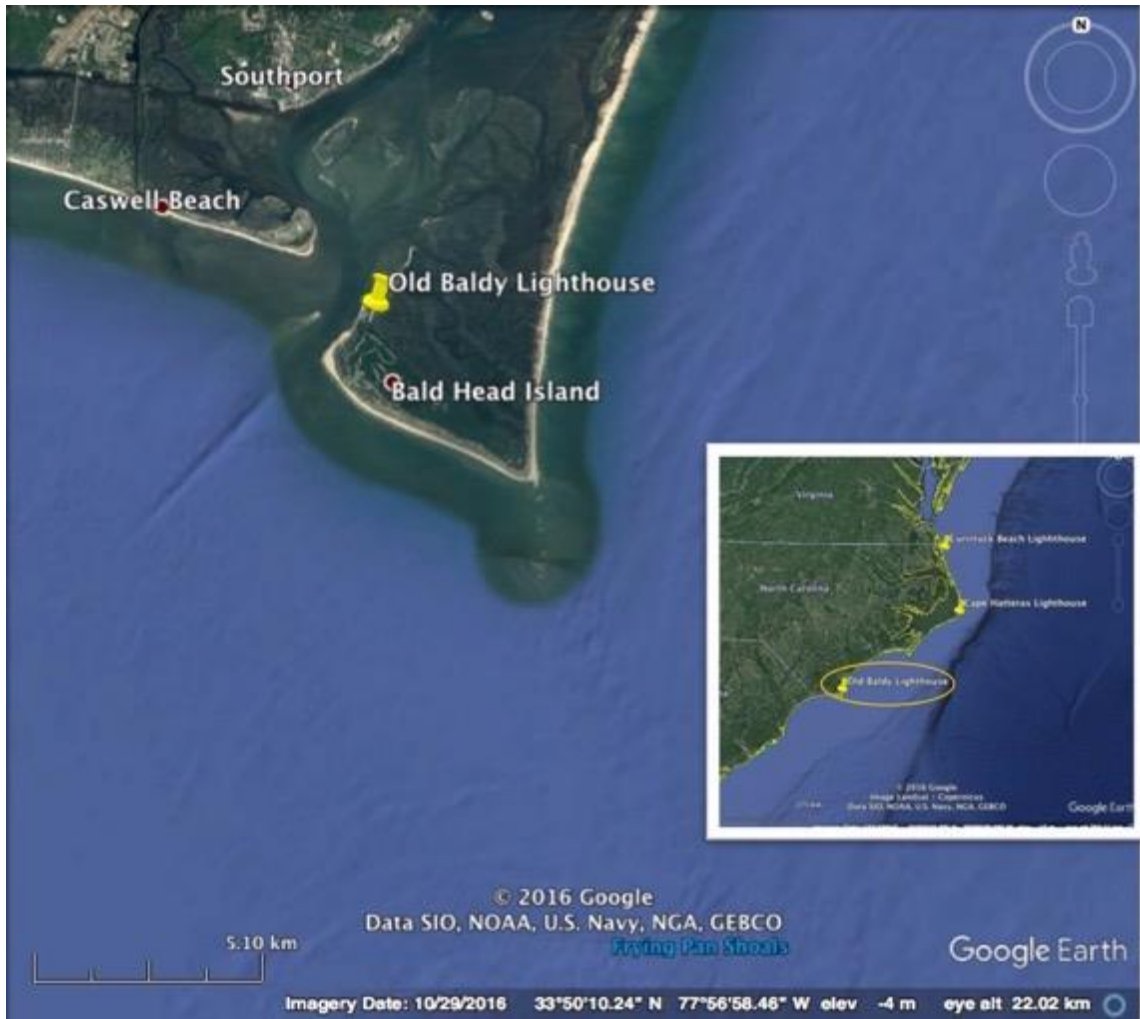


FIGURE 9. Map of Bald Head Island - lighthouse in relation to community (Google Earth, 2016)

The demographics of the permanent residents on the island consists of 72% of the population over the age of 60. This demographic imbalance is largely due to the high cost of living and property values on the island; therefore, the majority of the population consists of well-established retirees (U.S. Census Bureau 2010). Many of the people that work on Bald Head, especially the younger generations, live on the mainland and commute via the ferry. Participant criteria for Bald Head residents, therefore, required adaptation due to these demographics, and the unavailability of eligible individuals at the time of field research. I needed to eliminate the criterion for a minimum permanent

residence of ten years, especially for the younger participant group. Instead, participants needed to have lived or worked on Bald Head for a minimum of ten years, but be a current permanent resident. I also needed to disregard the age demographic of interviewing an equal number of individuals under and over the age of 50. There was only one participant under the age of 50, two others are between 50 and 60, and the remaining five participants are over the age of 60.

All participants express strong attachment to the lighthouse, especially through the stories they shared about the lighthouse. The majority of participants didn't specify any particular story about the lighthouse history, but included the entirety of the lighthouse history as important. Half of the participants also mentioned the importance of the lighthouse for navigation, and, of those four, two participants included the keepers' history and river pilots' connection to the lighthouse. Six of the eight participants shared positive personal stories associated with the lighthouse. Three recalled times when people took refuge in the lighthouse during hurricanes. Another three shared personal experiences that occurred in the lighthouse or on the grounds. Many have frequent opportunity to share their narratives of the lighthouse with visitors and tourists, indicating strong attachment to the lighthouse and reaffirming feelings of ownership (Rodman 1992:642; Bird 2002:521).

Participants reported visiting the lighthouse site occasionally to rarely, but six participants visit the area at least once a day and the other two are in the area at least once a week. The frequency of visitation is in part due to the locations of the post office across the street from the lighthouse and the chapel next door, resulting in regular physical reaffirmation of their connection to the lighthouse (Hay 1998:6; Stedman 2003:683).

Should something happen to permanently damage the lighthouse, all participants expressed strong feelings of loss for themselves and the community. Half stated, voluntarily, that the lighthouse is an important part of the community's identity.

The overall impression of the community's relationship with the Old Baldy Foundation, as steward of the lighthouse, is mostly neutral. This assessment is based on a combination of participants expressing either slightly positive or slightly negative opinions of the Foundation, or participants indicating that they do not know enough about the organization's preservation efforts of the lighthouse. Seven of the eight participants felt that the Foundation does not currently do enough to inform the community and the need for more information concerning the lighthouse. However, four of those seven stated that community outreach has improved in recent years. All the participants described at least one aspect of the lighthouse management that could be improved upon, though only one specifically mentioned the preservation of the lighthouse as a concern. Despite the negative comments, all the participants would, have, or are volunteering or donating to the lighthouse to help support it. All but one also felt comfortable directly contacting Chris Webb, director of the Old Baldy Foundation with whom these participants are on a first-name basis, if they wished to voice any thoughts or concerns regarding the lighthouse. Overall, all the participants are satisfied with the preservation and management of the lighthouse even if they noted room for improvement. For these reasons, I have determined that the community relations rating for Bald Head and the Old Baldy Foundation to be Fair-Good (Table 9).

Buxton – Cape Hatteras Lighthouse

There was a small settlement of a few families at the time that the first Cape Hatteras lighthouse was built in the early 19th century (Cybularz 2015:32). The lighthouse is located in the modern village of Buxton, NC (Figure 10). Today, the population of Buxton is estimated to be approximately 1,250 permanent residents, 863 of whom are over the age of 18 (U.S. Census Bureau 2015a). The cost of living in Buxton is much lower than Bald Head, so the community is more well-rounded with younger families, as well as retirees. I was able to adhere to my original quota sampling strategy in Buxton: I interviewed eight individuals with an equal number of individuals under the age of 50 and over the age of 50, and all of whom have lived in the community for a minimum of ten years. Interviews with Buxton residents required more time on average than either Corolla or Bald Head due to general discontent with NPS management in the area. This discontent originated with broken promises made by the NPS that community members would still be able to access the beaches if they sold their land to create the Cape Hatteras National Seashore in 1966 (*The Coastland Times* 1952a, 1952b). The poor relations are perpetuated by the feelings community members have that the NPS is too controlling and regulated, and that their concerns are not important or considered by the NPS.

Displeasure about beach closures, and regulated access to beaches and fishing were among the first comments made when asked about the lighthouse. Rephrasing and further questioning during interviews were required to uncover participants' views of the lighthouse specifically.

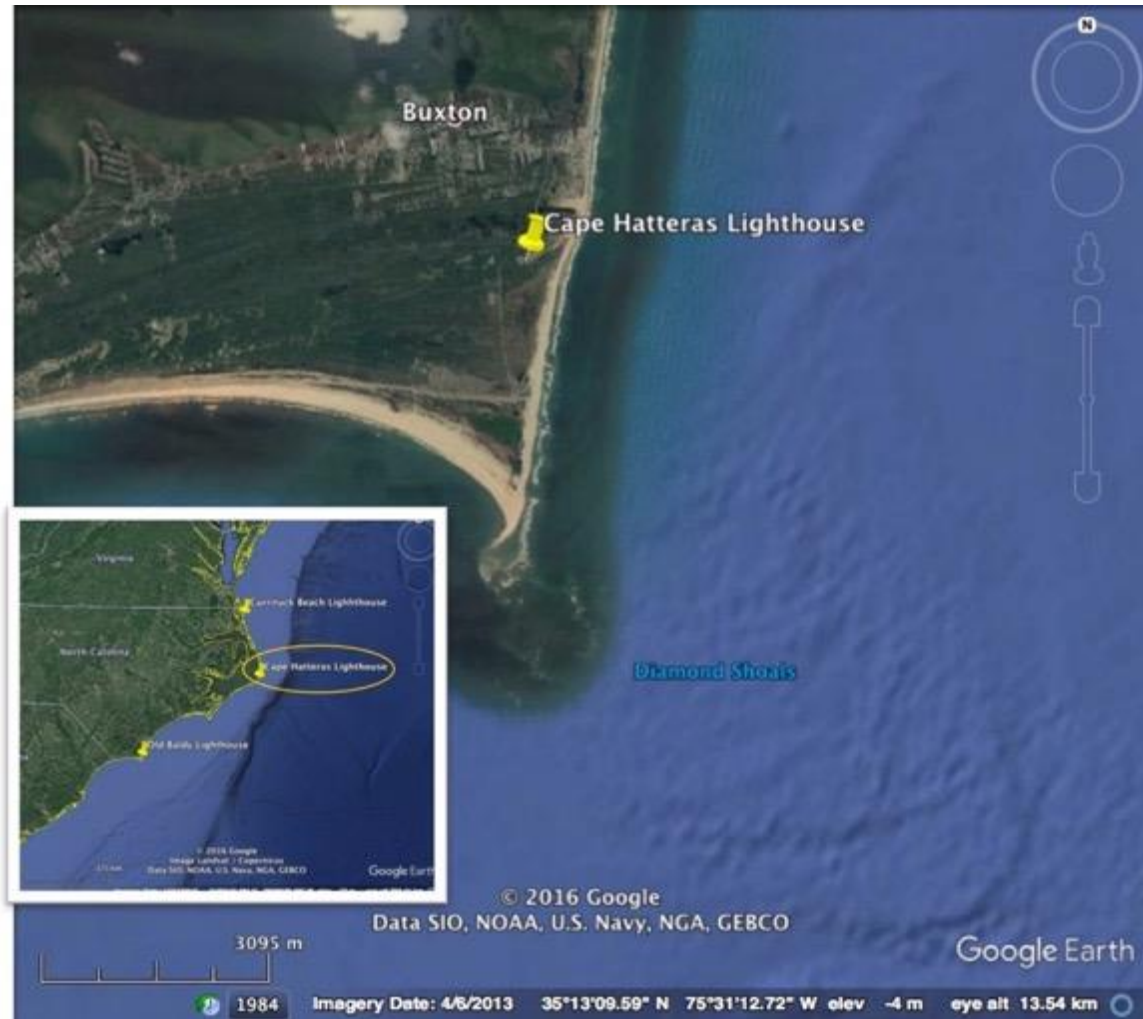


FIGURE 10. Map of Buxton - lighthouse in relation to community (Google Earth, 2016).

From their responses, I identified shared opinions among all participants and some patterns that are specific to the age groups. Based on the information gathered from interviewing eight community members of Buxton regarding the Cape Hatteras lighthouse, the community is strongly tied to the lighthouse through personal memories, family history, and the stability of the lighthouse as a constant fixture in the community. All the participants expressed negative emotional responses at the thought of the lighthouse somehow suffering irreparable damage: six of the eight participants specified feeling sadness at the loss, while the other two didn't know how they would respond in

such a situation. Based on the overall feeling and theme of their interviews, I interpreted this response to mean that they could not imagine such a scenario rather than an expression of apathy. Five of the eight have volunteered or supported events related to the lighthouse in the past, the majority of whom were in the older group of participants. When asked if they would be willing to volunteer in the future, four (two from each age group) said yes, one did not know, and the three remaining said their decision would depend on the situation with NPS at the time, or if it was a community-based initiative. For the relationship with the NPS to improve, it seems changes to community outreach and consultation are necessary. Five of the eight participants confirmed that there were some meetings and information distribution, while the other three were not aware or didn't follow it. Two participants explained that part of the problem in voicing suggestions or complaints is the need to go through the governing body in Manteo and that there are no community liaisons in Buxton.

It was interesting that the participants share similar themes of narratives within their age groups; for example, the under 50 group all feel that the lighthouse keepers' stories are the most important aspect of the lighthouse's history, while the over 50 group narratives emphasize the importance of the lighthouse as a navigational aid. This variation in views may reflect the decreased reliance of modern mariners on the lighthouse for navigation. When asked if they recommend others visit the lighthouse, all responded in the affirmative. The main reason for visiting were to experience climbing the lighthouses to understand the daily duties and lives of the keepers that tended the lighthouse before an automated light was installed (six of eight responses). The other most-stated reason for climbing the lighthouse is for the view from the top (five of eight

responded). The level of participants' visitation to the lighthouse and surrounding area also varied by age group. The younger group of participants visit the area around the lighthouse more frequently, and three of the four under 50 group frequented the lighthouse more regularly. Although all participants visit the surrounding area, the majority a couple of times per week, two participants (one from each age group) stated that they had not visited the lighthouse since the NPS started charging a fee. In these specific interviews, the participants explained that they used to climb the lighthouse a couple time a week at least. In addition to the fee, the NPS implemented more rules to accessing and climbing the lighthouse. Prior to the new regulations, the participants could climb the lighthouse any time of day and go their own pace, thereby avoiding the busy periods of visitation by tourists. Considering that these participants continue to frequent the surrounding area several times a week, their refusal to climb the lighthouse is in part a form of boycott; however, I also suspect some of their reasoning was based on feeling a loss of ownership of the lighthouse (Rodman 1992:642; Bird 2002:521; Shamsuddin and Ujang 2008:405).

Despite sour relations between the NPS and the local community over beach access and fishing rights, the majority of the participants expressed satisfaction with the management and preservation of the lighthouse by the Park Service. Although the overall impression was negative, participants could acknowledge at least one good aspect of the NPS's stewardship, which includes their upkeep of the grounds and structures on site, as well as the protection they provide to the site and community from big tourism developments.

There is a strong, long-established “us versus them” attitude towards the NPS, which five of the eight participants explained exists because they feel the NPS is too controlling and doesn’t consider the community’s concerns. The lighthouse is recognized as a symbol of the community’s maritime heritage. The community feels ownership of the lighthouse, but the government does not respect or consult with them as stakeholders. Although the positive outreach of the new superintendent has the potential to improve relations with the community, the antagonism between the community and the NPS is still strong since community member continue to feel disenfranchised from decisions made that directly affect them. Although the participants can separate the preservation of the lighthouse from the management of the Cape Hatteras National Seashore, the same distinction does not carry over into their overall relationship with the NPS. Therefore, I have determined the community relations rating to be Poor-Fair (Table 9).

Corolla – Currituck Beach Lighthouse

The creation of the Currituck Beach lighthouse, in addition to the establishment of the Jones Hill Lifesaving Station and the Lighthouse Club, led to the settlement of the community of Corolla (Outer Banks Conservationists, Inc. 1999:15-20). This section of barrier islands consists of a long, narrow strip of sand separating the Atlantic Ocean and Currituck Sound. The width of the landform is approximately one kilometer (0.61 miles) at any point on Currituck Beach, resulting in the settlement of Corolla to expand north and south along the beach from the lighthouse and historic section (Figure 11). The current population of Corolla is an estimated 500 people (Destination Commerce Corporation 2016).

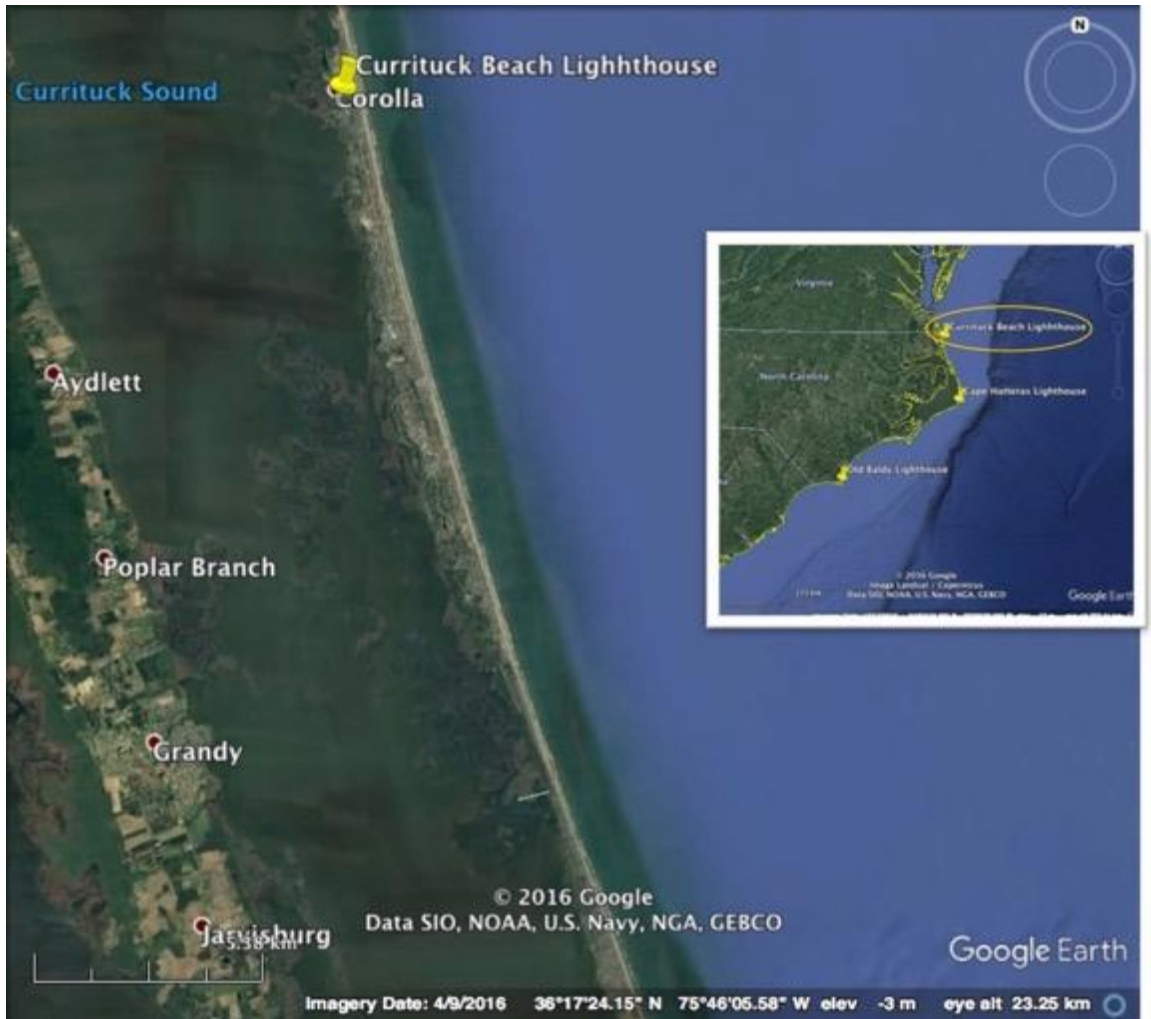


FIGURE 11. Map of Corolla - lighthouse in relation to community (Google Earth, 2016).

I interviewed eight local residents that have lived permanently in Corolla for at least ten years, half of whom were under the age of 50 and half over the age of 50. From their responses, I identified shared opinions between all participants and some patterns that are specific to the age groups. All the participants feel personally attached to the lighthouse and expressed feelings of loss and regret if something were to damage or destroy it. All participants have narratives related to the lighthouse's history; although, the younger group shared more stories of their personal experiences with the lighthouse than the older group. These narratives act to strengthen feelings of attachment to and ownership of the

lighthouse (Rodman 1992:642; Bird 2002:521). The majority of all participants visit either the lighthouse or historic area around the lighthouse grounds at least once a week, physically reaffirming their connection to the lighthouse regularly (Hay 1998:6; Stedman 2003:683). Those that visit less frequently, a few times per year, visit the lighthouse with visiting friends and family, giving them the opportunity to share their lighthouse narratives with others, which also strengthens their personal ties to the lighthouse (Rodman 1992:642; Bird 2002:521). Unprompted, half of the participants specifically stated that the lighthouse is an important part of the community identity. This recognition indicates that the community members are aware of and acknowledge the significance of the lighthouse to their personal and community identity.

The overall impression regarding the management of the lighthouse was positive. Five of the eight participants have previously supported or volunteered for events associated with the lighthouse. All participants said they would support the lighthouse if asked in future, with five of the eight saying they would volunteer their time, two others would if their schedules allowed, and one specified they would volunteer if the lighthouse did not charge admissions. Although few participants attended or were involved with community outreach efforts concerning the lighthouse, most could recall meetings being advertised and held in town. Two participants specifically indicated that they felt community consultation was important in the decision-making process of any changes that would affect the Currituck Beach residents (Freeman 1984:25). These responses indicate that at least seven of the eight participants have a positive relationship with the Outer Banks Conservationists as steward of the lighthouse. This positive relationship was further affirmed by the distinct lack of complaints or negative reviews about the way the

lighthouse is managed and most participants are on a first-name basis with Meghan Agresto, the Site Manager at the lighthouse. Five of the eight participants had absolutely no complaints, while the other three commented on the condition of the grounds, not the management of the lighthouse itself. From these responses, I have determined that the community relations rating between the OBC and Corolla is Good (Table 9) because all the participants are satisfied with the OBC's preservation of the lighthouse, as well as their consideration of community interests in their management strategy.

Discussion and Conclusion

I posed the following research questions to determine the relationship between community members and steward organizations about the lighthouses: how do community members in Bald Head, Buxton, and Corolla value and view their local lighthouses; and what do they think of the actions taken to preserve their lighthouse? From the interviews, all participants from each community have a strong attachment and sense of place to their lighthouses. Regarding the relationships between local community members and the steward organizations of the lighthouses, the Old Baldy Foundation and OBC, which are more inclusive and receptive to community interests, have greater support from local residents than the NPS, which is less inclusive.

Comparison of the three communities shows similarities and differences in the types of narratives shared by participants between the communities. Overall, the Bald Head Island narratives are more general, whereas the Buxton and Corolla participants shared stories about more specific aspects of their lighthouses' histories. All three communities had participants mention the importance of the lighthouses as navigational aids

historically; however, the same correlation was not apparent in the reasons given for endorsing visitation to the lighthouses. Participants in all three communities mentioned the view from the top: Bald Head Island participants emphasized the view of the island, but Buxton and Corolla participants emphasized the view of the ocean or shoals, perhaps indicating a better understanding of the lighthouse as a navigational feature. There are also some interesting differences in narratives based on age group. For example, an equal number of participants from both age groups in Bald Head stated navigation as an important part of their lighthouse history. In Buxton, participants that emphasized the importance of navigation were all over the age of 50. In Corolla, the participants that mentioned navigation were all under the age of 50. Another pattern of narratives that emerged based on age group was the participants that mentioned the lives or histories of the lighthouse keepers. In Bald Head, only participants over the age of 50 mention the keepers, but in both Buxton and Corolla only participants under the age of 50 mentioned the keepers. This discrepancy could be explained by the population demographics of the three communities: Bald Head has an older population in general than either Buxton or Corolla.

The relationships between the lighthouse stewards and the community residents are reflected in the community relations ratings (Table 9). I've determined that the Community Relations Rating for Bald Head and the Old Baldy Foundation to be Fair-Good because all the participants are satisfied with the preservation of the lighthouse, but all expressed room for improvement and the majority felt the Foundation needs to do more to involve and inform the community concerning the lighthouse. The community is already a huge supporter of the Foundation to keep it going and the community would

step up to take care of the lighthouse should the Foundation be unable to for any reason. The Community Relations Rating for the relationship between Buxton residents and the NPS as stewards of the Cape Hatteras lighthouse is Poor-Fair. Although the Buxton participants could separate the preservation of the lighthouse from the management of the Cape Hatteras National Seashore, the same distinction does not carry over into their overall relationship with the NPS. The community would step up to care for the lighthouse if the NPS were no longer steward of the lighthouse. Finally, I have determined that the Community Relations Rating between the Outer Banks Conservationists and Corolla to be Good because all the participants are satisfied with the OBC's preservation of the lighthouse, as well as their consideration of community interests in their management strategy. Based on this rating, the community would step up to help prevent the OBC from losing stewardship of the lighthouse if possible.

Outer Banks Conservationists has good relations with Corolla because they maintain an open dialogue with community members. Participants expressed satisfaction with the information they receive from the lighthouse and are comfortable directly approaching the site manager with any concerns. As a result, the community members are willing to assist in any events to support the lighthouse. The Old Baldy Foundation has a similar relationship with the community on Bald Head Island. They have the strong support of the community members to maintain the lighthouse, but communication with the community about the lighthouse has room for improvement. The NPS could benefit from improving their relationship with community members in Buxton. It will be a challenging and long process; however, interviews with local residents indicate that some have hope that the efforts of the new superintendent will start to repair the relationship between the

NPS and the community. The approach to community relations practiced by OBC in Corolla is the most desirable model, especially to lighthouse stewards that rely on the support of a local community. Although the relations in Bald Head and Buxton still have room for improvement, they have the potential to better their relationships with the local community members in future depending on the decisions made by the stewards.

The lighthouses no longer receive funding from the U.S. Coast Guard for their upkeep except to keep the lights in Currituck Beach and Cape Hatteras lighthouses operational. Once the lighthouses' purpose was remarketed for heritage tourism, the communities benefitted from the increased visitation. Although the lighthouses are not the only attractions in their communities, tourism would be negatively impacted if they were damaged beyond repair. If the lighthouses were gone, the cultural identities of their local communities would be negatively altered. While the purpose of the lighthouses has changed and their functions have diminished, their role as focal points to reinforce community identity remains unchanged.

CHAPTER 6: Synthesis of Findings

Introduction

How have the Bald Head Island, Cape Hatteras, and Currituck Beach lighthouses transitioned from their purpose of representing the strength of the federal government to their role as envoys of American culture as historic places? Answering this question required the examination of the historic preservation management, the level of public access, and the relationships between the local community members and the steward organizations at each lighthouse. Such examination facilitated the evaluation of the management strategies practiced by the Old Baldy Foundation, National Park Service (NPS), and Outer Banks Conservationists, Inc. (OBC) to balance the level of public visitation with their historic preservation efforts. The level of historic preservation conducted at each lighthouse was determined by comparing the records of the lighthouses' conditions at the time the current stewards first took responsibility for the sites to the records of preservation work contracted under the stewards, including their most current condition assessments. The level of public access was also evaluated because of its potential to cause damage to the sites and the recognized need to establish a balance between visitation and preservation (McKercher and du Cros 2002:11). Finally, an investigation into the relationships between the local communities and steward organizations was undertaken. As important stakeholders with personal and professional interests in the management of the lighthouses, local community members should be consulted and informed by the steward organizations of projects involving the lighthouse (Nicholas et al. 2009:394).

Results

To evaluate the conditions of the lighthouses' preservation management, the qualitative aspects of each needs to be represented in a comprehensive manner. The method employed by the surveyors in the Cape Hatteras Lighthouse Historic Structure Report (Cybularz 2015) is a grading system to rate the condition of the lighthouse as Good, Fair, and Poor. As discussed in CHAPTER 4: *Historic Preservation and Public Access*, this rating scale has been adopted to rate the current condition of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses to assess their current conditions.

The same qualitative scale template was used for rating the level of public access to the lighthouses. The Public Access Rating scale represents the annual public visitation in comparison to the number of days the lighthouses are open to the public. For this study, a five-year sample (2011 to 2015) of public visitation numbers were selected to evaluate the level of public visitation to each lighthouse. The level of public access was rated as High, Medium, or Low depending on the frequency of public visitation compared to the number of days the lighthouses are open to the public. A similar qualitative scale was used to evaluate the relationship between the lighthouse stewards and the local communities. The Community Relations Rating scale qualifies the relationships between the local communities and the steward organizations as Good, Fair, or Poor depending on the level of communication between the two parties, the level of satisfaction felt by community members in the management of their lighthouse, and the community members' willingness to support or volunteer for steward-run events.

The Condition Rating, Public Access Rating, and Community Relations Rating will be used to determine the Balance Rating for each lighthouse. The Balance Rating

qualifies the balance between historic preservation work, the level of public access to the lighthouses, and the relationship between the local communities and the lighthouse stewards. A rating of Well applies to a lighthouse that shows that medium to high public visitation numbers can be supported, that the condition of the lighthouse is fair to good, and that the community relations are fair to good. A rating of Average indicates that the public visitation is not hindered, the condition of the lighthouse is not in jeopardy of worsening due to high visitation rates, and the community is at least tolerant of the stewards' management approaches. Finally, a rating of Poor means that the lighthouse condition is poor to fair and medium to high public visitation numbers may not be supported without potentially causing further damage and relations with the local community are poor to fair.

Bald Head Island – Old Baldy Lighthouse

Old Baldy lighthouse is in need of immediate attention, but plans have been made to invest in the necessary repair projects, which were discussed in greater detail in CHAPTER 4: *Historic Preservation and Public Access* (Finkle 2014; Chris Webb 2016, pers. comm.). Although Old Baldy lighthouse is in poor condition, the public visitation numbers are low, so the structure is not in jeopardy of further damage due to visitation. The relationship between the Old Baldy Foundation and the permanent residents of Bald Head is fair to good, and the community is supportive of Foundation's efforts to generate funds to afford the costs of repair work. Overall, the Old Baldy Foundation is acceptably balancing the historic preservation, public access, and community relations factors. This condition is expected to improve in the next few years based on the planned restoration

work to improve the condition of the Old Baldy lighthouse. Efforts to improve outreach and information distribution to the local residents within the last few years may potentially improve the community relations (Table 10). The overall Balance Rating for Old Baldy and the Old Baldy Foundation is Average (Table 11).

Buxton – Cape Hatteras Lighthouse

Cape Hatteras lighthouse has already undergone an historic structure investigation, which reveals modest maintenance deficiencies (Cybularz 2015:4). Although the NPS practices the pattern of undertaking major restoration projects every few decades to manage historic preservation concerns, the NPS is acceptably balancing the historic preservation and public access levels despite the high volume of public visitation the lighthouse experiences annually. NPS currently is waiting on funding to make major restorations to the Cape Hatteras lighthouse based on the recommendations proposed in the *Historic Structure Report*, which will improve the condition of the lighthouse (Cybularz 2015; Jami Lanier, 2017, pers. comm.). While relations between the NPS and the local residents is poor due to feelings Buxton participants have that their concerns are not taken into consideration by the NPS in the decision-making process, residents grudgingly acknowledge that the NPS does a good job of preserving and caring for the lighthouse (Table 10). The Cape Hatteras lighthouse received an overall rating of Average (Table 11).

Corolla – Currituck Beach Lighthouse

Major restoration work early in their stewardship stabilized the Currituck Beach lighthouse to the point that routine maintenance and occasion professional restorative work is needed to maintain the lighthouse condition (Outer Banks Conservationists, Inc. 1999, 2003, 2006a, 2006b, 2008; Meghan Agresto 2017, elec. comm.). The structure can support the volume of public visitation it receives. The OBC also has the support of the community in their preservation of the lighthouse. Many residents actively support events at the lighthouse and none had any complaints with the way in which the lighthouse is managed (Table 10). The Currituck Beach lighthouse received an overall Balance Rating of Well because the condition of the lighthouse can support the amount of public visitation without impacting the structure and the relationship between OBC and the community is good (Table 11).

Steward Organization	Condition	Public Access	Community Relations
Old Baldy Foundation	Poor	Low	Fair-Good
National Park Service	Fair	High	Poor-Fair
Outer Banks Conservationists	Good	Medium-High	Good

TABLE 10

RATINGS FOR CONDITION, PUBLIC ACCESS, AND COMMUNITY RELATIONS.
Source: Cybularz 2015:213-214

Discussion

The Condition Rating, Public Access Rating, and Community Relations Rating were used to determine the Balance Rating for each lighthouse. The overall Balance Rating for Old Baldy and the Old Baldy Foundation is Average. The Cape Hatteras

lighthouse, and the NPS, received an overall rating of Average. The Currituck Beach lighthouse received an overall Balance Rating of Well because the condition of the lighthouse can support the amount of public visitation without impacting the structure, and the relationship between OBC and the community is good (Table 11).

	Old Baldy Foundation	National Park Service	Outer Banks Conservationists
Balance Rating	Average	Average	Well

TABLE 11

BALANCE RATING OF MANAGEMENT STRATEGIES.

Source: Cybularz 2015:213-214

Despite the difficulties funding necessary, large-scale preservation work as a result of low visitation levels, the Old Baldy Foundation has the strong support of the local community in their endeavor to manage the Old Baldy lighthouse. With the assistance of grant funding and inventive fundraising initiatives to afford necessary repairs, Old Baldy has the potential to reach the point at which annual maintenance is minor and only require infrequent repairs. However, due to the lower visitation numbers than either Cape Hatteras or Currituck Beach lighthouses, it is most likely that the Foundation will continue to rely on alternate fundraising events and programs, such as auctions, dinners, and sponsorships, to offset their overhead costs.

The status of the NPS as an agency of the federal government is a double-edged sword regarding the preservation management at Cape Hatteras lighthouse. The support of federal funds ensures the stability of the NPS continuing their stewardship of the lighthouse; however, relying on federal funds for major repairs can take years to receive through a quagmire of political bureaucracy. The renown of the NPS and the marketing

of the Cape Hatteras lighthouse as a destination for visitors guarantees a high volume of annual visitation to the site. High visitation during the season is balanced by reducing the number of months the lighthouse is open to visitation without jeopardizing business. As a federal entity, the NPS can exist and carry on business with or without the support of the local community. Until recently, little to no effort has been made to foster good relations with local residents in Buxton. The animosity between the local residents and Parks employees was so poor at one point that employees could not patron local businesses while in uniform. In the past few years, the new NPS superintendent has made efforts to bridge the gap and interact with the community with positive if hesitant responses.

The management system practiced by OBC at Currituck Beach lighthouse has established the most stable historic preservation, public access, and community relations balance of the three case studies. The lighthouse needs only small-scale annual maintenance to preserve its cultural integrity with infrequent work necessitating the employ of outside professional contractors. The site receives a considerable number of visitors and is self-sustaining in terms of incoming funds covering overhead expenses. Finally, the OBC has established and maintained good relations with the local community to the point that community members are on a first-name basis with the people at the lighthouse and feel comfortable directly addressing their concerns to the site manager. The key to balancing the lighthouse condition, the public visitation levels, and the community relations is that changes to any factor can alter the balance. These ratings for the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses are assessments of their current status and have the potential to change in future depending on the decisions and actions made by their stewards.

Conclusion

In repurposing these lighthouses for heritage tourism, it was important to evaluate the effectiveness of the management strategies practiced by the Old Baldy Foundation, NPS, and OBC in terms of balancing their historic preservation efforts with the annual public visitation (McKercher and du Cros 2002:11). Other important aspect considered were the views and opinions of the community members in Bald Head Island, Buxton, and Corolla. As established residents, the lighthouse has a sense of place related to the cultural identity of the community. Their stronger place attachment also makes local residents greater stakeholders who should be consulted about developments planned for their lighthouses (Freeman 1984:25; Nicholas et al. 2009:394).

In addition to evaluating and comparing the three case studies, this study also endeavored to determine which, if any, of the management strategies could be replicated elsewhere. Of the three management approaches of the Old Baldy Foundation, NPS, and OBC, the strategy practiced by OBC at the Currituck Beach lighthouse is currently the most stable and well balanced. The NPS is unlikely to take responsibility for any other lighthouse, especially considering that the National Historic Lighthouse Preservation Act (2000) was established as a means for government agencies to dispose of any excess lighthouse properties. The NPS's management strategy, which is based on federal support, would be beyond the capabilities of the majority of non-government organizations. It would greatly depend on the environment, location, and circumstances of any other lighthouse attempting to emulate this approach. OBC's management strategy is the most desirable model of the three case studies; however, a lighthouse property just

transferred to new ownership is more likely to be in a similar state to the condition of the Currituck Beach lighthouse at the time OBC began its stewardship, neglected and in disrepair. In this case, although OBC's model is more desirable, the situation may be more similar to the challenges faced by the Old Baldy lighthouse.

CHAPTER 7: Conclusion

This thesis set out to examine the transition of three North Carolina lighthouses from representations of federal strength and economic power to culture tourism destinations. A study of the history of the political and economic conditions under which the Bald Head Island, Cape Hatteras, and Currituck Beach lighthouses were constructed presents their original purpose, as well as the circumstances that resulted in their transfer to new owners. An examination of the historic preservation to date and a sample of the level of public visitation indicates the current structural conditions of each lighthouse and the management strategies practiced by each steward organization to maintain the historic integrity of active tourism sites. Finally, discussion with local residents in each community offered insight into their connection to their lighthouse and their views on the management of their lighthouse by the steward organizations. Together, the results from these sections were evaluated to determine the degree to which each steward organization is balancing the historic preservation, public access, and community relations of their lighthouse to see which would be the most desired and attainable method of management to emulate elsewhere.

Research Questions

This thesis evaluated the effectiveness of the historic preservation of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouse sites by examining the management actions to date and the values and opinions of the local community members towards these sites as cultural and historical resources.

Primary Research Question

- How have the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses transitioned from their purpose of representing the strength of the federal government to their role as envoys of American culture as historic places?

Secondary Research Questions

- In repurposing these lighthouses for heritage tourism, how effective have the management strategies of the Old Baldy Foundation, the National Park Service, and Outer Banks Conservationists, Inc. been in managing public visitation and historic preservation efforts?
- How effective are the management strategies implemented by the organizations responsible for these lighthouses based on the historic preservation requirements of the National Historic Lighthouses Preservation Act of 2000?
- How do community members in Bald Head Island, Buxton, and Corolla value and view their local lighthouses and what do they think of the actions taken to preserve the lighthouse?
- Would it be possible to successfully apply any of the management strategies to other lighthouses locally, nationally, or internationally?

The lighthouses on North Carolina's Outer Banks were constructed for the function of providing aid to mariners in navigating the coastal waters, but served the purpose of representing the ideas of the government that created them. The purpose of the lighthouses was as a reflection of American identity and a representation of the status of

the federal government: a symbol of longevity, strength, and power; and an attempt to demonstrate their equality with the European powers of Britain and France (Miller 2010:12-14; Schiffer 2005:278-280). In the early years of the federal government, the new American nation desired recognition as an independent yet equal entity to Britain (Greene 2013). Lighthouses were one of the earliest formal representations of the federal government, and the Old Baldy and first Cape Hatteras lighthouses were among the firsts build under the new government. The construction of new lighthouses then became less about establishing internal signs of unity and more about grandstanding to foreign powers.

Equality, to an extent, was achieved with the negotiations and agreements made between the British and American governments to change their navigation laws in 1850, resulting in the consolidation and unification of the lighthouse system under the Light-House Board. The American identity was then severely strained as the nation dissolved into civil war. Both maritime commerce and the integrity of the lighthouse system were damaged until the post-Civil War years. The completion of the lighthouses in North Carolina in the Reconstruction Era were the final links in the chain of lighthouses stretching the extent of the east coast, visible and vital to all foreign and national mariners, and representing the endurance and unity of the American nation (U.S. Light-House Board 1874:9). After ownership of the lighthouses transferred from the U.S. Coast Guard to new stewards beginning in 1938, the purpose of the lighthouses as emblems of American economic standing shifted to symbols of American cultural heritage in their roles as historic places.

The sophistication of historic preservation legislation occurred primarily in the 20th century, and resulted from the growing awareness and recognition of the importance of preserving historic places in the American consciousness (Tyler et al. 2009:27-35). In the early 20th century, the U.S. Coast Guard underwent the process of discontinuing the use and maintenance of the lighthouse stations and replacing the existing lighting technology with automated lights. Properties considered “surplus lands and buildings” that were “no longer needed for the purpose of maintaining aids to navigation” by the U.S. Coast Guard were transferred in large part to other federal departments with the acknowledgement that the properties that included older lighthouses were “worthy of preservation for their historic interest” (U.S. Department of Commerce 1939:130). Although the function of the lighthouses as navigational aids continued uninterrupted, the transferred ownership of the lighthouse towers and stations altered their purpose; thus, setting them on a new course as historic places that eventually resulted in their current status as icons of American culture.

Public access to lighthouse stations and the promotion of public education are important aspects of the National Historic Lighthouse Preservation Act. As an amendment to the National Historic Preservation Act, the NHLPA was enacted in 2000 to outline the responsibilities of historic lighthouse stewards taking over ownership of properties from the federal government deemed in excess. Just before the enactment of the NHLPA, the NPS developed and produced an extensive preservation manual to assist all stewards in maintaining and restoring the unique structures to preserve their historic integrity (National Park Service 1997a). Allowing public access to historic lighthouse sites, especially access to climbing the towers, is an important education tool since it

provides tangible heritage to visitors, which is not only more effective, but can also inspire a sense of place in visitors (McKercher and du Cros 2002:65-67). It is through the education of the public that the historical significance of lighthouses comes into awareness, and, in turn, redefines the purpose of lighthouses as icons of cultural heritage.

There is the potential for public access to cause damage to historic property structures (McKercher and du Cros 2002:58-59). This potential threat is one of the major concerns of developing sites for cultural tourism. The objective of developing historic sites for public visitation is sustainability, which is achieved by finding a balance between historic preservation management and public access. The frequency and extent of preservation work undertaken by the Old Baldy Foundation, NPS, and Outer Banks Conservationists, and the level of annual public visitation offer insight into the level of balance maintained between these factors (McKercher and du Cros 2002:11). The level of public access may be influenced by factors such as access and proximity and time availability of the visitors. The balancing act of historic preservation with public visitation may also be influenced by the level of support the steward organizations receive from the local stakeholders (Freeman 1984:25).

Consulting with local community members in Bald Head, Buxton, and Corolla about their views and opinions of the lighthouses' management offered insight into their connection to their lighthouses and their relationships with the lighthouse steward organizations. Local residents have increased stake in the lighthouses as a result of their connection to their local lighthouses as places of community and personal identity. Attachment to a specific place and sense of place are established and reinforced through the creation of multiple experiences and narratives with a place. The greater number of

narratives, increased opportunities to share those narratives, and more frequent reaffirmation of ownership through periodic contact results in strengthening rootedness to a place (Relph 1976:37; Hay 1998:6; Bird 2002:520-521; Shamsuddin and Ujang 2008:405). Due to their permanent, year-round residence, the locals have greater, more frequent visitation and interaction with their lighthouses to create more narratives. The community members have an even greater stake in any development plans than seasonal residents, tourists, or employees to the local business that live elsewhere. Many of the local residents are also local business owners or employees of those businesses, which includes the restaurants, accommodations, and other attraction businesses that support and benefit from the local tourism industry (Freeman 1984:25; Byrd 2007:10; Nicholas et al. 2009:405). Their feelings of ownership of and proximity and connection to the lighthouse gives local residents a vested interest in its care and management, and provide a potential source of support to the lighthouse stewards depending on the relationship between the two parties.

The Qualitative Condition Rating scale established by the NPS was applied and adapted to a Condition Rating scale, Public Access Rating scale, and Community Relations Rating scale to evaluate each lighthouse (Cybularz 2015:213-214). Based on these criteria, the Old Baldy lighthouse has a Condition Rating of Poor, a Public Access Rating of Low, and a Community Relations Rating of Fair-Good. The overall Balance Rating for Old Baldy and the Old Baldy Foundation is Average. Cape Hatteras lighthouse has a Condition Rating of Fair, a Public Access Rating of High, and a Community Relations Rating of Poor-Fair. The Cape Hatteras lighthouse received an overall balance rating of Average. Finally, Currituck Beach lighthouse has a Condition Rating of Good, a

Public Access Rating of Medium-High, and a Community Relations Rating of Good. The Currituck Beach lighthouse received an overall rating of Well because the condition of the lighthouse can support the amount of public visitation without impact to the structure, and the relationship between OBC and the community is good.

Between the management strategies practiced at each lighthouse, the management system practiced by OBC at Currituck Beach lighthouse has established the most stable historic preservation, public access, and community relations balance. The NPS's management strategy, which is based on federal support, would be beyond the capabilities of the majority of non-government organizations. It would greatly depend on the environment, location, and circumstances of any other lighthouse attempting to emulate this approach. The Old Baldy Foundation has the potential to reach a similar balance at Old Baldy as the one achieved at Currituck Beach lighthouse once they manage to stabilize the condition of the lighthouse. Currently, OBC's management strategy of the Currituck Beach lighthouse is the most desirable model of the three case studies.

Study Limitations

As a multidisciplinary study, there are numerous possible avenues of research. It was a challenge to curtail the impulse to follow and expand upon every facet of interesting research. Time restraints presented the first limitation to this research. Given more time, more extensive research could have been done into the historical and archival records to include specific studies of the communities' settlement patterns, or the

development of Bald Head, Buxton, and Corolla social structures in relation to the lighthouses.

A limitation to the extent of historic preservation research was the privacy of financial records. The National Park Service, as a federal and public institution, had their financial records available online. The private, nonprofit organizations were not required to be publicly accessible and the steward organizations preferred not to release their financial records for this study. Without the financial records of each institution for corresponding years, there was little information to be gained and no comparison to be made that could contribute to this research.

Another limitation encountered during this research was the availability of participants. Due to the nature of life on the Outer Banks, the majority of residents work extensive hours every day of the week during the busy tourist season between May and October. However, finding participants that met the criteria of the study parameters during the holidays or offseason was extremely difficult since many locals use these months to travel. Therefore, interviews in the communities needed to be conducted in the months preceding or following the busy season in order to meet the availability of local residents.

Further Research

As a multidisciplinary study, there are numerous possible topics for further research. Every aspect of this thesis has the potential for greater and more in-depth research, either to expand upon the research presented in this thesis or new avenues of research in any of the individual disciplines.

It would be interesting to expand upon the history of these lighthouses to include specific studies of Bald Head, Buxton, and Corolla in their settlements and social developments before and following the construction of the lighthouses. In addition to amalgamating the primary source data to fill a gap in the secondary historical record, the social history of these communities may reveal more details about the development of the cultural identity of the villages with their lighthouses. Such study may include an evaluation of the census data to determine population variations over time to determine the correlation of village settlement to events impacting the lighthouses or the country. Further study may also look at land ownership and settlement patterns over time to determine if there is any correlation to the location of the lighthouses, which would benefit from the uses of mapping software programs to illustrate any changes to the layout of the communities. These studies could concentrate on single or multiple communities on the North Carolina coast or may even be applied to settlements around any other lighthouse nationally or internationally.

The potential for further research into the views and perspectives of the lighthouses is unlimited in these communities. There is the option of expanding on the research questions presented in this study to include a larger sample of local residents and expand to include seasonal residents or tourists. There also exists the potential to conduct sense of place research related to historical places within long-established communities. For example, studying the place attachment to Currituck Beach lighthouse during the period of neglect under the ownership of the USCG; or a sense of place study focused on the 1999 move of the Cape Hatteras lighthouse, which some participants of this study felt should not have occurred. The study of historic sense of place is an aspect of

anthropological and sociological research that has barely been explored by researchers (Shamsuddin and Ujang 2008:400; Cobb 2016:368). The fact that the federal government, through the Department of the Interior, has a criterion of qualification for listing on the National Register of Historic Places that acknowledges the existence of place “feeling” means that sense of place studies on historic places are not limited to lighthouses, but may be conducted on any site that lists this criterion on their nomination form (National Park Service 2002:2).

Final Remarks

Conducting research such as this is important for the information that may be gained from understanding the management strategies of established stewardship of historic places to evaluate what works, what doesn't, and why. The case studies presented in this thesis have been established for decades in a country with established historic preservation legislation, but with limited financial resources and decreasing federal stewardship of historic lighthouses. The National Historic Lighthouse Preservation Act (2000) is more than a piece of historic preservation legislation; it was specifically established to allow the federal government to dispose of lighthouse properties deemed to be in excess. In other words, the federal government does not have the funds or resources to continue to maintain historic lighthouses and is looking for private sector interest groups to take over the responsibility of preserving these sites. Studying the transition processes of the Old Baldy, Cape Hatteras, and Currituck Beach lighthouses to historically significant places that represent local, state, and national identity offers insight into the importance of preserving historic lighthouse sites. Examining the

management strategies of the Old Baldy Foundation, NPS, and Outer Banks

Conservationists offers examples of the challenges these organizations have faced and overcome in financing necessary repairs and preservation work, inspiring public interest and visitation, and fostering good relations and support from the local community. The strategies employed by these organizations may be used by other lighthouse stewards locally, nationally, or even internationally in their efforts to preserve their historic lighthouses.

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APPENDIX A: Table of Lighthouse Statistics

	Currituck Beach	Cape Hatteras	Bald Head
Location (closest community)	Corolla	Buxton	Smith Island
Type of structure	LIGHT STATION	LIGHT STATION	LIGHTHOUSE
Is it on the National Registry	Y	Y	Y
ARCHAEOLOGY			
Condition (standing, partial, foundation)	Standing	Standing	Standing
LH keeper's house	Y (x2)	Y	Y
Is it threatened (enviro)	N	Y	N
Were there previous assessments and restorations conducted on the site	Y	Y	Y

HISTORY

Has it moved locations	N	Y	N
Is the current LH the original	Y	N	Y
Year of original construction	1875	1802	1792
Is it still operational	Y	Y	N
Is it occupied?	N	N	N
What shoal/waterway is it protecting	NE NC Coast, False Cape	NC Coast, Diamond Head Shoals	Frying Pan Shoals
For what purpose was it built	Part of a chain of 4 L from Cape Henry LH (VA) & Cape Hatteras LH to illuminate the NC Coast	Part of a chain of 4 L from Cape Henry LH (VA) & Cape Hatteras LH to illuminate the NC Coast	To aid navigation around Frying Pan Shoals
Primary sources	Y	Y	Y

TOURISM

Who's responsible for it	Outer Banks Conservationists, Inc.(NP)	National Park Service	Old Baldy Foundation
Open for public visitation (inaccessible, accessible, partial, open)	open - seasonal	open - seasonal	open - seasonal

Fees (entrance, tours, etc)	Y	Y	Y
Website	www.currituckbeachlight.com	www.nps.gov/caha/planyourvisit/chls.htm	www.oldbaldy.org

APPENDIX B: Old Baldy Lighthouse Important Dates

DATE	DESCRIPTION
1796	First Bald Head Island lighthouse constructed.
1817	Old Baldy lighthouse completed.
1882	Cape Fear Life-Saving Station established on Bald Head Island.
1903	Old Baldy lighthouse decommissioned.
1938	USCG sold Old Baldy lighthouse with Island to Frank O. Sherrill.
1963	Light station and island sold to private buyer.
1975	Old Baldy nominated to National Register of Historic Place.
1984	Earliest preservation inspection of lighthouse. Recommended masonry repair, structural wood replacements, and window repairs to the lighthouse
1985	Old Baldy Foundation Ltd established to act as steward of Old Baldy lighthouse.
1986	Archaeological and historical survey conducted on lighthouse and light station.
1988	Preliminary structural investigation reported damage requiring the lighthouse to close due to damaged floor framings and timbers.
1990	Work conducted to repair damages reported in 1988 investigation. Repaired brick, stone, and stucco masonry, iron railing and hardware, architectural woodwork, and roofing and sheet metal.
1991	Non-compliance concern arose between NC SHPO and the contractor company over non-conformity of the stucco color.
1992	Work completed by different contractor.
1993	Lighthouse reopens to the public.
2002	Assessment and plans for preservation work to interior and exterior masonry conducted.
2005	Work completed to reduce moisture in roof and lantern room. Additional recommendations were made for restoration work.

APPENDIX C: Cape Hatteras Lighthouse Important Dates

DATE	DESCRIPTION
1803	First Cape Hatteras lighthouse completed.
1854	Cape Hatteras lighthouse improved: tower was raised and First Order Fresnel lens installed.
1862	Annual Report announces that Cape Hatteras lighthouse had been restored and reestablished after Confederate retreat.
1870	Current Cape Hatteras lighthouse completed
1883	U.S. Life-Saving service established at Cape Hatteras.
1938	Cape Hatteras light station ownership transferred to NPS.
1938	Charles Porter surveyed lighthouse and grounds.
1941-1949	Lighthouse taken over by USCG for duration of WWII to be used as lookout station.
1956-1966	Mission 66 to establish and revitalized the Cape Hatteras National Seashore. Facilities improved to lighthouse were new parking and pathways.
1977	Cape Hatteras light station nominated to National Register of Historic Places.
1986	First recommendations made to move the lighthouse.
1988	More in-depth report released to address lighthouse move.
1989-1999	Work done to stabilize tower prior to move and clear route and location.
1999	Oil house and keepers' quarters first to be moved, followed by lighthouse.
2001	Lighthouse closed to public to repair lighthouse interior metal stairs. The lighthouse was also repainted.
2003	Lighthouse reopened to public.
2005-2006	Lens pedestal and clockwork removed from lighthouse and donated to the Graveyard of the Atlantic Museum.

APPENDIX D: Currituck Beach Lighthouse Important Dates

DATE	DESCRIPTION
1875	Currituck Beach lighthouse completed.
1939	Management of light station transferred to USCG. Maintained until 1947.
1947-1980	Property neglected and fell into disrepair.
1973	Light station first nominated to National Register of Historic Places.
1979	Property ownership transferred to NC Department of Cultural Resources (lighthouse tower not included).
1980	Outer Banks Conservationists, Inc. leased property from NC State.
1980-1990	Double keepers' quarters and other station buildings restored by OBC.
1990	OBC entered 21-year lease agreement with NC State.
1999	Renewed nomination with expanded boundaries submitted to National Register.
1990-2000	OBC completed substantial restorative work to lighthouse
2000	Lighthouse tower one of the first listed as excess property under NHLPA.
2003	Ownership of lighthouse granted to OBC.
2006	Repairs made to Fresnel lens and lens room windows.
2008	Repairs made to first marble windowsill.

APPENDIX E: Timeline of Important Historic Events

DATE	DESCRIPTION
1764	The Sandy Hook Lighthouse first lighted.
1775-1783	American Revolution between the Thirteen Colonies and Britain.
1789	Tonnage Act passed. Regulation of commerce, which consisted primarily of maritime trade, was transferred to the Federal government.
1789	Lighthouse Act passed. Federal government was given the responsibility of construction, maintenance, and operation of lighthouses. Lighthouse Establishment created to administer all navigational aids.
1812-1815	War of 1812 between the United States, Britain, and Canada
1842	First investigation into the quality of the lighthouse system and effectiveness of the Lighthouse Establishment.
1845	Lt. Jenkins and Bache sent abroad to conduct study into potential improvements of lighthouse system.
1850	British Navigation laws amended. British ports open to foreign vessels without incurring duties exceeding those of national vessels, provided foreign nations offer the same concessions to British vessels in their ports.
1851	Jenkins request for mariners' information and opinions about the effectiveness of the lighthouse system.
1851	Light-house Board established. Board consisted of two Naval officers, two officers of the Engineer Corps, and two civilians of high scientific attainment.
1852-1909	Annual Report of the Light-house Board published each year during this period.
1854	American Navigation laws amended to facilitate the amendments made to the British Navigation laws.
1859	Light-house Board authorized by Congress to discontinue lighthouses deemed useless for any reason.
1861-1865	American Civil War. The Union placed all southern ports between North Carolina and Texas under a maritime blockade known as the Anaconda Plan.
1861	Union forces seize control of Hatteras Inlet from Confederate forces.
1864	Wade-Davis Bill signed. Confederate States placed under temporary martial law with government representatives appointed by Washington.
1866	Majority of lighthouses discontinued during the Civil War repaired or relit by this point.
1903	The Light-house Board transferred from the Treasury Department to the Department of Commerce and Labors
1910	Light-house Board replaced by Bureau of Lighthouses.
1912	Lighthouse Service Bulletin first published.

- 1915 Lighthouse Service experiments with temporary, unwatched gas lights.
- 1917 Lighthouse Service tested automatically occulting lights.
- 1919 Coast Guard installed telephones in 139 light stations.
- 1939 Bureau of Lighthouses transferred and consolidated as part of the Coast Guard.

APPENDIX F: Interview Questions

ID: _____

No. of Years in Residence: _____

Value of Lighthouse:

1. Tell me what you think is the most important part of the lighthouse's history.
 - a. What is your favorite story about the lighthouse?

2. What is your main reason for taking visiting friends and family members to the lighthouse?
 - a. How do you pitch it to them?

3. How would you react if a visitor shrugged off the lighthouse as unimportant or not worth their time?

Investment in Lighthouse:

4. How often do you visit the lighthouse or the area around the lighthouse (beaches, trails, etc)?
 - a. How often in the last month?

5. Which other lighthouses have you visited (locally, nationally, or internationally)?

6. Do you (or have you) ever volunteered or participated in a community group that supported (even if only once) the lighthouse?
 - a. When, where, how often? Tell me more about the group?

- b. What are the community groups who are involved with the lighthouse management?

7. Can you tell me about any committee or community meetings that offered an opportunity to speak about personal opinions regarding the lighthouse?
 - a. When, where, how often?
 - b. Do you think this is sufficient?
 - c. If not, are there ways you can make your opinions known?

8. How would you feel if the lighthouse was no longer there?
 - a. What do you think it would mean for the community if, for some reason, the lighthouse was no longer staffed or couldn't be maintained?

9. What are your personal plans for volunteering in support of the lighthouse?
 - a. If asked, would you volunteer to support the lighthouse in the future?
 - b. If yes, in what capacity?

10. Could you tell me at least one good thing and one not-so-good thing that has been a result of the preservation efforts by (management group of LH)?
 - a. One pro and one con from having that group manage the lighthouse.

11. Please describe your contribution to the support of the lighthouse...
(see what comes up... then you could offer "what do you think about donating money? What about food sales? Etc.)
 - a. If yes, what type?
 - b. How much? How often?

Personal Information

Age: _____ Gender: _____ Marital status: _____ No. of

Children: _____

Occupation: _____

Income: _____ under 30 000 30 000 to 50 000 over 50 000

Do you OWN or RENT ?

Hometown (original home town): _____

APPENDIX G: Interview Cover Letter

Dear Participant,

I am a student at East Carolina University in the Maritime Studies Program in the history department. I am asking you to take part in my research study entitled, *Adaptive Legacy: The Repurposing of Lighthouses from Navigational Aids to Heritage Tourism Destinations*.

The purpose of this research is to study the relationship community member have with their lighthouse and the lighthouse stewards. By doing this research, I hope that this information will assist us to better understand the relationship between the community, the lighthouse, and the lighthouse stewards and perhaps improve management practices. Your participation is completely voluntary.

The survey will take at least fifteen minutes to complete. If you agree to take part in this survey, you will be asked questions that relate to the lighthouse, its history, its importance to you and to the community, and your involvement with the lighthouse. You will also be asked some questions concerning personal information for the purpose of observing demographic trends.

This research is overseen by the ECU Institutional Review Board. Therefore some of the IRB members or the IRB staff may need to review my research data. You are asked to provide identifying information; however, your responses will be kept confidential. The interview will be recorded using a combination of an audio digital recorder and hand-written notes. No data will be released or used with your identification attached. I will take precautions to ensure that anyone not authorized to see your identity will not be given that information.

Please call Lauren Christian at 252-364-5305 for any research related questions or the Office of Research Integrity & Compliance (ORIC) at 252-744-2914 for questions about your rights as a research participant. If you would like to report a complaint or concern about this research study, call the Director of ORIC, at 252-744-1971.

Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study. Do you understand and agree to these terms?

Thank you for taking the time to participate in my research.

Sincerely,

Lauren Christian, Principal Investigator

APPENDIX H: Participant Consent Form

Dear Participant,

You are being invited to participate in a **research** study being conducted by Lauren Christian, a graduate student at East Carolina University in the Maritime Studies Program. It is hoped that this information will assist us to better understand the relationship between the community, the lighthouse, and the lighthouse stewards. The survey will take at least fifteen minutes to complete. We are asking you to provide identifying information. However, your responses will be kept confidential. No data will be released or used with your identification attached. Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study. Please call Lauren Christian at 252-364-5305 for any research related questions or the Office of Research Integrity & Compliance (ORIC) at 252-744-2914 for questions about your rights as a research participant. Do you understand and agree to these terms?

Name:

Signature:

Date:

APPENDIX I: IRB Approval Letter



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
Office
4N-70 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284**
www.ecu.edu/irb

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
To: [Lauren Christian](#)
CC: [Christine Avenarius](#)
Date: 3/21/2016
Re: [UMCIRB 15-002223](#)
Adaptive Legacy: The Repurpose of Lighthouses from Navigational Aids to Heritage Tourism Destinations

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 3/18/2016 to 3/17/2017. The research study is eligible for review under expedited category # 6, 7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Name	Description
Interview Cover Letter	Consent Forms
L.Christian_Thesis Prospectus_Approved	Study Protocol or Grant Application
Lighthouse Interview Questions.docx	Interview/Focus Group Scripts/Questions

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX J: Equations and Calculations

Percentage change was used to demonstrate and evaluate the change in U.S. Foreign Imports and Exports values between 1850 and 1870, which were impacted by the change in British and American navigation laws and Civil War naval blockades. This data was taken from Historical Statistics of the United States, 1789-1945 (Sawyer 1949:248-251).

$$\text{Percentage Change} = \frac{(\text{New Value} - \text{Old Value})}{\text{Old Value}} \times 100$$

1850-1860 Percentage Change:

$$\frac{(687,192,000 - 317,882,000)}{317,882,000} \times 100 = \frac{369,310,000}{317,882,000} \times 100 = 116.18\%$$

1860-1865 Percentage Change:

$$\frac{(354,775,000 - 687,192,000)}{687,192,000} \times 100 = \frac{-332,417,000}{687,192,000} \times 100 = -48.37\%$$

1865-1870 Percentage Change:

$$\frac{(828,730,000 - 354,775,000)}{354,775,000} \times 100 = \frac{473,955,000}{354,775,000} \times 100 = 133.59\%$$

1870-1875 Percentage Change:

$$\frac{(1,079,714,000 - 828,730,000)}{828,730,000} \times 100 = \frac{250,984,000}{828,730,000} \times 100 = 30.29\%$$

APPENDIX K: Legislative Act that Impacted Lighthouse Preservation

DATE	DESCRIPTION
1789	Tonnage Act passed. Regulation of commerce, which consisted primarily of maritime trade, was transferred to the Federal government.
1789	Lighthouse Act passed. Federal government was given the responsibility of construction, maintenance, and operation of lighthouses. Lighthouse Establishment created to administer all navigational aids.
1864	Wade-Davis Bill signed. Confederate States placed under temporary martial law with government representatives appointed by Washington.
1889	Casa Grande designated the first National Monument.
1906	Antiquities Act passed. Established harsh penalties for vandals and gave the president authority to designate historically significant sites on federal land. Led to the establishment of the DOI.
1916	NPS created within the DOI. Became responsible for the administration of many federal historic preservation programs.
1966	National Historic Preservation Act established an intergovernmental framework for historic preservation, the ACHP and SHPO, the responsibility of federal supported projects to consider impacts to historic properties (Section 106), and the National Register of Historic Places.
2000	National Historic Lighthouse Preservation Act mandates preservation restrictions to facilitate the transfer or sale of historic light stations that have been deemed excess property out of federal control, thus mitigating a potential adverse effect under Section 106.

