OF BLOOD, SALT, AND OIL: AN ARCHAEOLOGICAL, GEOGRAPHICAL, AND HISTORICAL STUDY OF NORTH CAROLINA’S DOLPHIN FISHERY

By

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The purpose of this study is to examine the influences of North Carolina’s historic dolphin fishery at Hatteras and how it changed over time. Little research has been conducted to date and only echoes of the dolphin fishery’s history and archaeology still exist. Preliminary historical records, material culture, and archaeological sites related to the dolphin fishing industry of North Carolina suggests a study of the influences that led to its origin, development, and decline is possible. By analyzing artifacts and materials using Schiffer’s behavioral chain model, it may be possible to shed light on an overlooked area of North Carolina’s maritime archaeology and history.

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CHAPTER ONE: INTRODUCTION

Introduction

North Carolina's coastal landscape has given humans the opportunity to thrive off much of its marine resources for thousands of years. Operating within this complex landscape were several historical fisheries since the mid-seventeenth century (Whisnant 2015:78). One fishery that was prevalent to this area was the bottle-nose dolphin fishery or commonly referred to as the porpoise fishery. Dolphins were valued for their oils, hides, and meat. Their oils were specifically utilized for fertilizer and industrial lubricants (Cecelski 2000:85; Whisnant 2015:83). While it may have been possible that the dolphin fishery evolved from the whaling industry or vise-versa, these industries shared several similarities. Evidence suggests that dolphin fishers would eventually have their own set of techniques and methods for their respective industry (Clark 1887:308-309; Dunbar 1958:76; Angell 1981:20; Parr 1996:50; Cecelski 2000:82-83)

Per the traditional narrative, the industry traces its origins to 1793. Entrepreneurs, John Gray and John Wallace started a dolphin fishery at Shell Castle (an island close to present-day Ocracoke Inlet, NC) using their lighter vessel, *Beaver* (Dunbar 1958:76; Whisnant 2015:83). The first mentions of dolphin hunting ventures appeared in 1790 when John Fulford inquired about participating in dolphin fishing and possibly building boats for the operation. Shell Castle's dolphin fishery operated seasonally from January through March. Unfortunately, little to no details on specific activities and techniques can be gleaned from the extant record other than the existence of the fishery's operations (McGuinn 2000:77; Figure 1.1).

FIGURE 1.1: Ceramic depicting Daily Life at Shell Castle (Source: North Carolina Museum of History).

By 1803, this industry continued to develop when enslaved watermen ran a dolphin factory near Ocracoke Inlet. Unlike Shell Castle's dolphin fishery, the dolphin fishermen between Bear Inlet and Cape Hatteras operated on the coast. The crews consisted of between fourteen to eighteen men. They surrounded dolphin pods in small boats (dories) and snared them in heavy, wide-meshed seines approximately eight hundred yards long (Figure 1.2). Once trapped, the dolphin fishermen waded into the water and stabbed the dolphins that had not already drowned with knives. They then gaffed the animals and dragged them ashore for processing (Angell 1981:21; Cecelski 2000:82; McGuinn 2000). From 1810 to 1860 the industry continued to thrive as dolphins were hunted up and down the coast of North Carolina (Dunbar 1958:76).

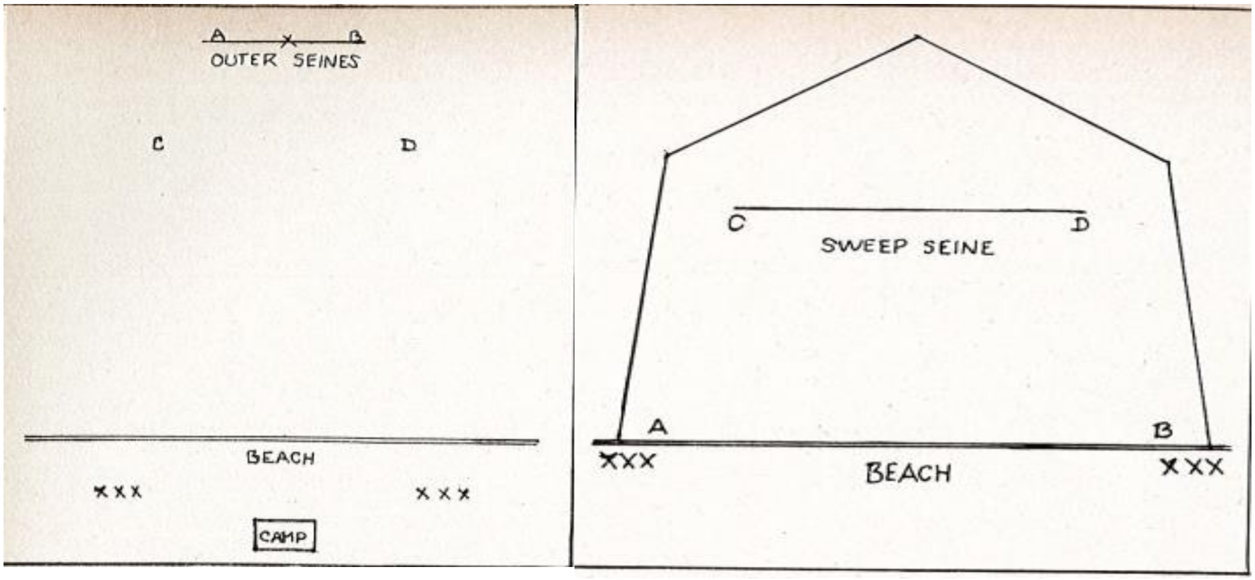

FIGURE 1.2: Hunting techniques used by the dolphin fishermen at Hatteras (Source: Angell 1981).

The dolphin fishery continued until the Civil War (Parr 1996:45; Cecelski 2000:82). Shortly after, it quickly experienced growth in activity for several reasons after the Civil War. The North Atlantic whaling industries of New Bedford and Nantucket were mainly responsible for the North Carolina dolphin fishery's revival. During the Civil War, many whalers were forced into conscription, and their ships were often used to blockade Confederate harbors. In addition, fleets of whaling ships were lost in the Arctic Ocean due to stranding. Thus, the companies involved in the whaling industry, such as NYE Lubricants, were forced to look elsewhere if they were to continue their economic enterprise (Parr 1996:45). This made North Carolina's dolphin fishery a very appealing enterprise to the whaling merchants of New Bedford and elsewhere.

During the winter of 1874-1875, dolphins were so prevalent in Hatteras Inlet that the waters "seethed and foamed" with them, and the dolphin harvesting industry was revived. By the

1880s, the active markets in Elizabeth City, New Bedford, and Philadelphia encouraged the development of dolphin factories at Creed's Hill, Diamond City, and Rice Path. Many of these factories had absentee ownership from whaling merchants in New Jersey and New Bedford (Whisnant 2015:83). From 1885-1891, the fishery had reached its peak with four or five factories processing upward of 4,000 dolphins (Dunbar 1958:76; Cecelski 2000:85).

Commercial-fishing boosters dreamed that the dolphin industry would become one of the state's leading fisheries, possibly even on par with the mullet fishery that stretched from Ocracoke Inlet to Bear Inlet and the shad fishery centered on the lower Neuse River. The editors of the *Weekly Record* even encouraged local fishermen "to at once engage in the catching of Porpoise" (*The Weekly Record* 1887:1). Unfortunately, this was not the case as the market quickly diminished in the early 1890s (Cecelski 2000:85).

The reasons for the market failure were many. Dwindling numbers of fishermen and shrinking fortunes were ultimately the cause for the decline in the market (Impact Assessment, Inc 2005a:282-283). Cecelski argues that overharvesting may have also been a factor in the industry's decline. Most of the factories had closed by the 1920s. The only remaining fishery was the Hatteras Porpoise Factory operated by Nye Lubricants (Cecelski 2000:85). By 1929, Nye Lubricants ordered the closing of the factory officially ending North Carolina's dolphin fishery (Cecelski 2015:77)

Research Questions

The primary objective of this study is to gain a greater understanding of North Carolina's dolphin fishery at Hatteras through a combination of historical research and archaeological analysis. By utilizing this combination of historical research and archaeological analysis, it provides the opportunity to apply Schiffer's behavioral chain model to an under studied area of maritime archaeology. If done successfully, this study will gain insight into a maritime subculture that has yet to be subjected to an extensive study of its kind.

Primary Research Question

- How did technology, economics, and culture affect the North Carolina dolphin fishery?

The question above is a desire to seek potential evidence and knowledge of the exchange of goods and ideas, technology, and techniques between people engaged in dolphin harvesting along the east coast of North America. In addition to the question above, several secondary questions may be asked based on the data collected.

Secondary Research Questions

- Can technological change studies shed light on North Carolina's dolphin fishery?
- Does geospatial and material cultural analysis shed light on our understanding of the North Carolina dolphin harvesting industry? Do such analyses reveal:
    - Where dolphin harvesting practices occurred in North Carolina?
    - What prompted the desire shift from deep sea to shore-based dolphin harvesting and the ultimate influencing of factors regarding site selection?
- Does material culture analysis of dolphin fishery artifacts suggest patterns of object use or technological change that are like that of other US-based and possibly global dolphin harvesting cultures or the development of an industry that adapted to several factors that include environmental, cultural, and industrial realities of the North Carolina Coast?

- Does geospatial analysis of North Carolina dolphin fishery illuminate environmental patterns that are similar patterns located outside of North Carolina?

Thesis Structure

Following this introductory chapter, Chapter Two provides a brief history of dolphin hunting among various cultures around the planet and ending with the current historical narrative of North Carolina's dolphin fishery. Chapter Three provides a brief introduction on archaeological theories of technology and concludes with a discussion of Michael B. Schiffer's behavioral chain model and its use in this study. Chapter Four mentions the methodologies employed in historical research, archaeological fieldwork, and material culture recording. Chapter Five elaborates on the archaeological research conducted on both material culture assemblages from collections and site-specific *in-situ* material culture descriptions from fieldwork. Chapter Six is the application of Schiffer's Behavioral Chain Model to the data accumulated in the previous chapter. Chapter Seven provides a conclusion and addresses the research questions, limitations of this study, and ideas for future research.

Fisheries represent a large, if not the largest, area of humanity's interaction with the maritime environment and yet it is an uncommon theme for maritime archaeological research (Stanbury 1994; Allen 2002; Raupp 2004, 2015; McNeary 2007; Erlandson and Torben 2008; Moss and Cannon 2011; Bradley 2015). This thesis seeks to contribute to the limited research undertaken to date to contribute to a greater understanding of the people and culture of the Outer Banks and the fishery associated with it. Analysis of artifacts related to the dolphin fishery may be able to reveal insights into the technology, economics, and culture of the industry. The historical record surrounding the industry is fragmented, and the archaeology is largely understudied. This thesis aims to not only fill in some of the gaps but also serve as the first study of its kind. The biggest concerns of this study are historical documentation throughout the state and material culture collections related to the dolphin harvesting industry. An historical and archaeological study of this industry provides an opportunity to contribute significantly to the greater understanding of North Carolina’s maritime heritage.

CHAPTER TWO: HISTORICAL UNDERSTANDINGS OF DOLPHIN FISHERIES

Introduction

The development of systematic dolphin hunting in America has roots in prehistoric hunter-gatherers. These dolphin hunting cultures ranged from the Mediterranean to the Pacific and primarily utilized shore-based hunting techniques. The methods and technology developed by these ancient maritime cultures only experienced relatively little changes over time. That said, a link exists between these maritime cultures and those of North Carolina's dolphin fishery (Porcasi and Fujita 2000; Cecelski 2015; Cooke et al. 2015; Maninno et al. 2015). A study of the methods, the technology employed, and the developments of early in-shore dolphin hunting industry is essential in understanding how it was once pursued in North Carolina.

This chapter provides the traditional historical narrative of the cultures that engaged in dolphin hunting. It is comprised of three parts and investigates how these fisheries once operated. It will find focal points that suggest possible cultural continuities or similarities and discontinuities or differences between cultures across time and space. The first part provides an overview of the earliest evidence of dolphin hunting. It gives a brief history and analysis of the technology used, methods of hunting, and potentially shed light on the maritime cultures and landscapes associated with it. The second part looks at dolphin hunting in the United States. This part is critical as it will provide the foundational influences of North Carolina's dolphin hunting industry. Finally, the last part explores the historical origins, development, and the overall decline of North Carolina's dolphin hunting industry.

Earliest Evidence of Dolphin Hunting

Tursiops truncates, commonly referred to as bottle-nose dolphins are one of the most widespread species on earth; ranging from the Mediterranean to the Pacific. It should come to no surprise that there is widespread evidence of their consumption and utilization in maritime cultures across the planet. Early evidence suggests that dolphins were primarily consumed for their meat by hunter-gatherers (Porcasi and Fujita 2000; Savelle and Kishigami 2013; Cecelski 2015; Cooke et al. 2015:733; Maninno et al. 2015). Over time, humans found other uses for dolphin parts such as fertilizers and lubricants (Hiraguchi 1993; Cecelski 2015). While the hunting techniques are largely under-researched, many speculate that these early dolphin hunters were opportunistic and took advantage of mass strandings when possible (Porcasi and Fujita 2000). This section looks at early evidence of dolphin hunting in areas such as the Mediterranean, Panama Bay, and Japan.

Mediterranean

One of the earliest examples of prehistoric dolphin hunting is Grotta dell'Uzzo site in Northwest Sicily. Large concentrations of dolphin bone were found in the site's stratigraphy. According to Mannino et al. (2015), hunter-gathers along the Mediterranean coast took advantage of mass cetacean strandings approximately 8,200 years ago. They argue the reason for these mass strandings was primarily due to the shifting climate of the region. The effects of the shifting climate in the region are significant because it contributed to shaping the landscape. In doing so, it allowed hunter-gatherers to take advantage of mass cetacean strandings (Mannino et al. 2015). This type of landscape is key as it demonstrates a pattern displayed among other cultures that engaged in dolphin hunting (Figure 2.1).

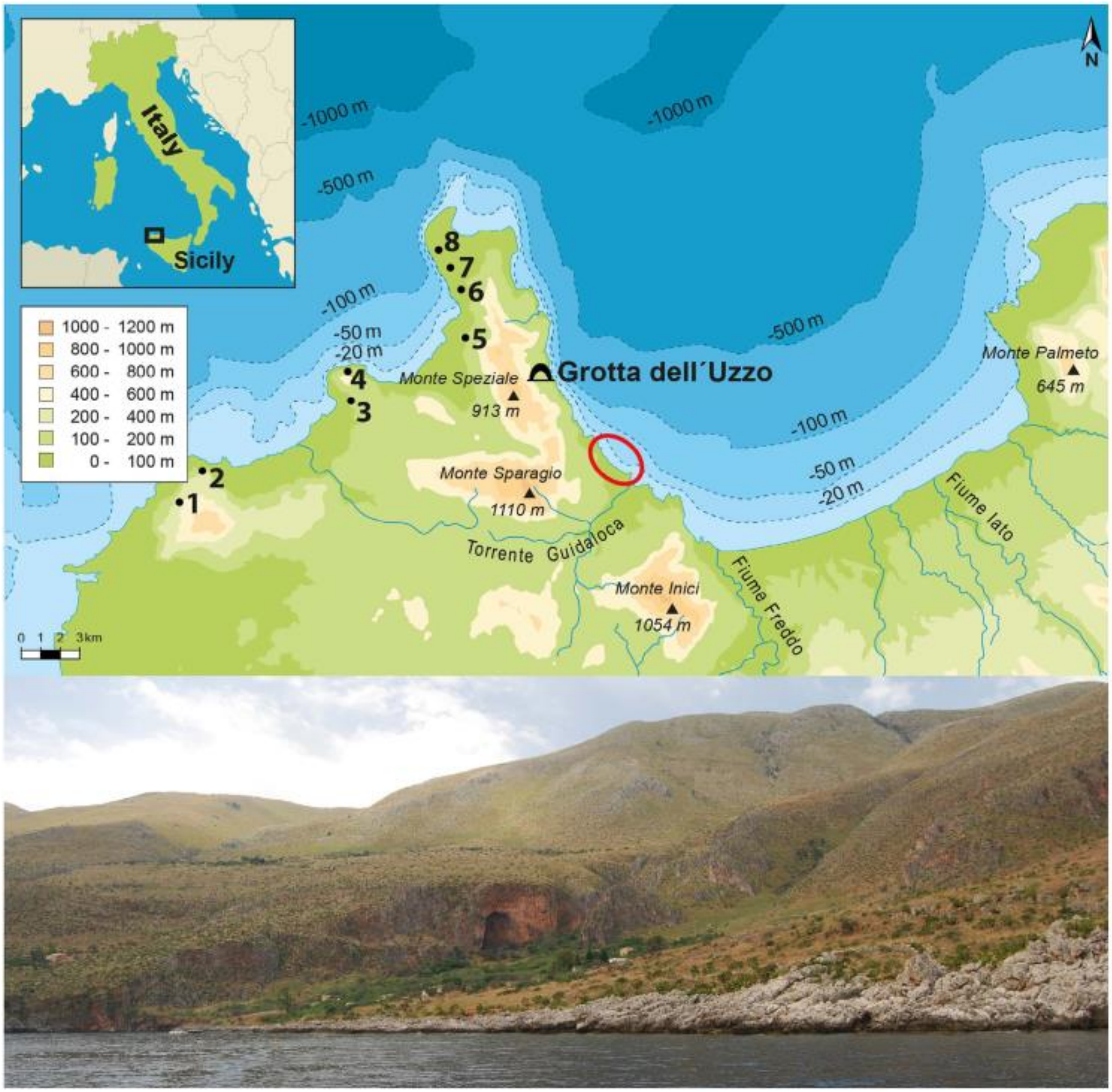

FIGURE 2.1. Location of Grotta dell'Uzzo (San Vito lo Capo peninsula) on the Gulf of Castellammare and view of the cave from the north (Maninno et al. 2015).

Panama Bay

On the other side of the planet, a similar form of dolphin hunting existed. Prehistoric cetacean exploitation was taking place at the Don Bernardo Bay archaeological site in the Pearl Island archipelago of Panama (Figure 2.2). Remains of several different species of dolphin with evidence of anthropogenic modifications were found in shell-bearing midden dated between

6200 and 5600 cal BP (Cooke et al. 2015:734-35). Cooke et al.'s analysis of the dolphin remains offers four possible avenues of acquisition of these dolphins in not only the Pearl Islands but also in other dolphin hunting cultures.

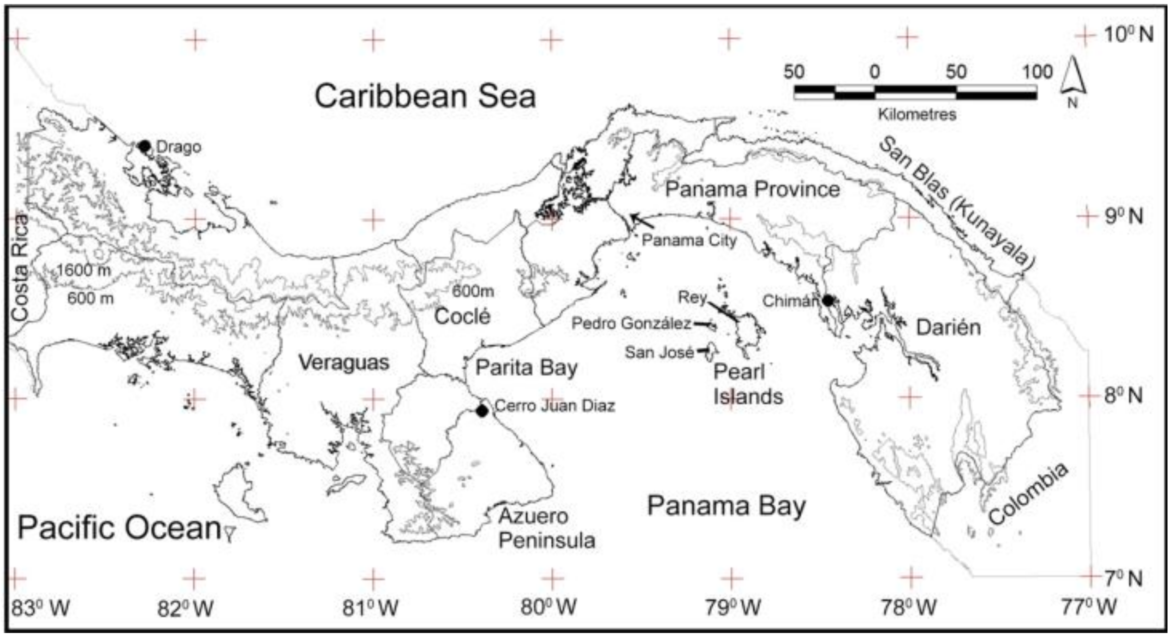

FIGURE 2.2. Map of Panama showing the location of the Pearl Island archipelago, other geographic highlights, and mainland Pre-Columbian sites mentioned in the text (Cooke et al. 2015).

The first possible method of extraction is seen through the stranding behavior between single dolphins versus herds of dolphins. The behavior of dolphins differs significantly between whether they are alone or are in large groups. When looking at single dolphins, evidence suggests they strand themselves when they are either sick or possibly incapable of reproduction (Danil and Chivers 1998). Herds of dolphins, however, have been observed floundering onto coastal landforms while herding shoals of small fishes under the direction of a leading dolphin (Gazda et al. 2005). Recent studies also report that noise pollution from boats and ships, which affect the acoustic communication of mass herds of dolphins, play a significant role in the stranding of herds of dolphins (Jepsen et al. 2013). An example of this can be seen in Japan where they utilize motorized watercraft and noise machines to drive dolphins to the coast (Psihoyos 2009; Cooke et al. 2015:749).

The second possible method of extraction is the accidental entrapment of dolphins in other fishing technology. Dolphins are known to forage around fish-farm cages and to take fish from gillnets and crab traps. In doing this, they sometimes entrap themselves, and incidental mortality will occur (Wells and Scott 1999). Fishing technology such as crab traps or gill nets have not been found at the Don Bernardo Bay site. However, raw materials such as the island's dry tropical woods and terrestrial plants are sufficient to create this type of technology (Cooke et al. 2015:749).

The third possible method of extraction is the in-shore movement of dolphins as an evasion response to shark attacks. The primary predators of dolphins in tropical and sub-tropical waters are large and aggressive sharks such as *Galeocerdo cuvier* (Corkeron et al. 1987; Mann and Barnett 1999; Heithaus and Dill 2002). Two perforated shark teeth were recovered from the site. This suggests that residents of the area may have taken advantage of stranded dolphins after shark attacks drove them in-shore essentially creating a symbiotic relationship between sharks and humans (Cooke et al. 2015:749).

The final possible method of extraction, which is evident in several cultures, is the systematic and intentional driving of dolphins to the shore using watercraft, nets, and noise. This technique today is known as dolphin drive hunting. While there is no archaeological evidence to suggest that dolphins were driven to the shore as a result of humans, the landscape of Don Bernardo Bay on Pedro Gonzalez Island shares a topographic resemblance to other dolphin hunting cultural landscapes (Porcasi and Fujita 2000; Savelle and Kishigami 2013; Cecelski 2015; Cooke et al. 2015:749-750; Maninno et al. 2015).

Japan

With a rich maritime cultural history, Japan represents one of the oldest longstanding traditions of dolphin hunting that continues to operate today (Hiraguchi 1993; Savelle and Kishigami 2013). Japan's dolphin hunting has sparked animal welfare concerns recently due to the perceived brutality of its practice. The film that most notably put Japan in the spotlight for the harvesting of dolphins was *The Cove* (2009). This film highlighted the methods of how the fishery operated and the increasing risk of Minamata disease due to high levels of mercury present in dolphin meat (Psihoyos 2009; Figure 2.3).

FIGURE 2.3. Photo of modern dolphin hunting taking place in Taiji, Japan (Psihoyos 2009).

Aside from potential activism bias, *The Cove* offers captivating insights into the methods, technology, and the landscape used in Japan's modern dolphin fishery (Psihoyos 2009). These not only suggests a cultural connection between the early and contemporary Japanese dolphin fisheries but also a pattern that is seen among some of the other dolphin fisheries that operated throughout the world (Porcasi and Fujita 2000; Savelle and Kishigami 2013; Cecelski 2015; Cooke et al. 2015:733; Maninno et al. 2015).

The earliest evidence of prehistoric dolphin hunting in Japan can be found at the Early Jomon Mawaki site on the Noto Peninsula. Archaeologists date the site to approximately 5,000 years BP. The remains of at least 286 dolphins were identified in one stratum associated with a village and ceremonial complex (Savelle and Kishigami 2013:3; Figure 2.4). Most of the archaeological research conducted on the dolphin remains found at the site was by Dr. Tetsuo Hiraguchi. Through his research, Hiraguchi was able to shed light on a great deal of information that included the economic, spatial, and technological aspects of the early dolphin fishery (Hiraguchi 1993).

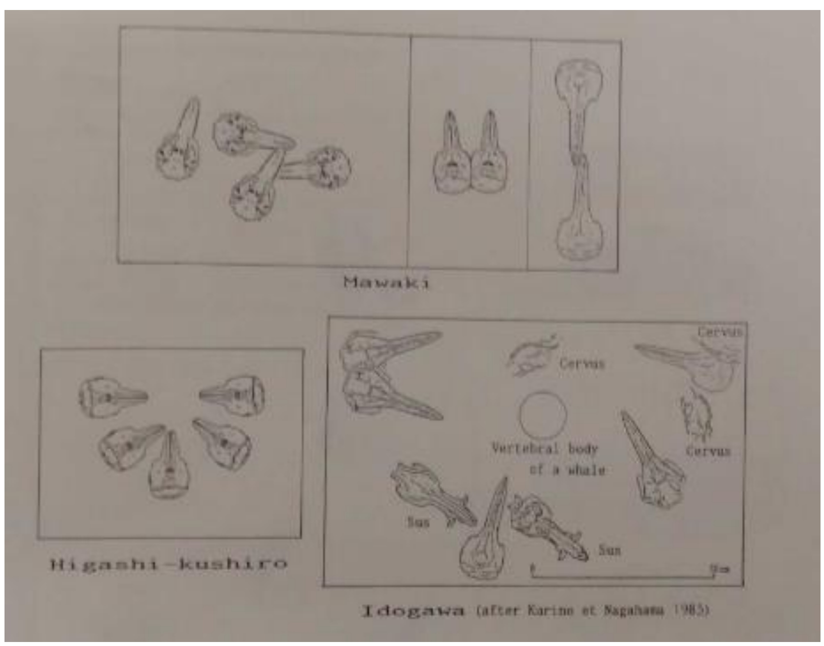

FIGURE 2.4. Alignments of dolphin crania from three Jomon period sites (Hiraguchi 1993).

Hiraguchi argues that dolphin remains had several cultural and economic uses in the Jomon culture. The most evident use was they were consumed. Cut marks were present on several areas of the dolphin remains suggesting they were butchered for consumption. It also indicates their remains were used for tools. There were two artifacts found at separate sites; a spatulate tool crafted from the base of a dolphin mandible and a pendant made from a dolphin's tooth. Finally, there is also evidence that the dolphin remains were used in a religious context. At the Higashi-Kushiro shell mound, several crania of dolphins were found in a circle with bills all directed toward either the center or the outside suggesting a ceremonial purpose (Hiraguchi 1993:42).

With regards to the spatial aspects, Hiraguchi elaborates on the environment that the Jomon dolphin hunters utilized. The Mawaki site is located on the eastern edge of the Noto peninsula facing the entrance of Toyama Bay. Within Toyama Bay are several coves or small bays that may have been used to drive the dolphins closer to land. The Mawaki site itself is located on a small alluvial plain that is between six to twelve meters above sea level (Hiraguchi 1993:36).

Finally, Hiraguchi explains the role of technology by classifying the methods of dolphin extraction in the Jomon period into three general types. He did this based on fishing gear found on site and in reference to ethnological examples. He refers to the first type as the "net method" which utilizes either a wall of netting, casting nets, or fixed shore nets. The second type is the "thrusting method" which employs the use of harpoons or spears. Finally, the "shooting method" uses projectile points (Hiraguchi 1993:38-39).

The American Dolphin Hunting Industry

As seen throughout the world, the hunting of dolphins was not exclusive to one region. There is evidence of dolphins being hunted in the United States. Not many Americans today would imagine people once used to hunt dolphins on the shores of the United States. Rather, they would be horrified to hear a beloved animal killed for food or other purposes. Animal rights activists, scientists, and several others played a significant role in changing the cultural attitude on how dolphins were once perceived. Because of this altered perception, dolphins were added to the list of species protected under the Marine Mammals Protection Act of 1972.

While this was a significant step in protecting the species from near extinction, it is important to understand, from an archaeological and historical perspective, the nature of these fisheries and what they offer when interpreting the archaeological record. The earliest evidence of dolphin hunting in the United States can be found at California's Channel Islands. Native Americans in the region hunted them between 6440 BCE to 1400 AD (Porcasi and Fujita 2000:548). Supposedly, dolphin fisheries existed in states like Texas and Florida. However, there is not enough evidence to shed light on the nature of those fisheries. That said, there were two relatively well-known dolphin fisheries in the United States. They were in Cape May, New Jersey and the coast of North Carolina. This section investigates the Cape May's historic dolphin fishery and sheds light on aspects that are evident in America's dolphin fishery.

The Cape May Porpoise Fishing Company

On the Atlantic seaboard of the United States, there were two dolphin fisheries that once operated; one of which being in Cape May, New Jersey. Located on the Southernmost tip of New Jersey, Cape May has always had strong maritime heritage. Prior to the arrival of Europeans, the Lenni-Lenapes tribe, a branch of Algonquin Native Americans occupied the Cape May region (Stevens 1897:9-25). With the arrival of Europeans, Cape May underwent a significant transformation because of the early colonial settlers, whaling, and other fisheries, the Revolutionary War, the establishment of the new American government, the War of 1812, the

Civil War, and much more. Today, Cape May is a quiet fishing town known for its scallop, fluke, and tuna commercial fisheries (Stevens 1897; Levine and McKay 1987:243). Cape May's dolphin fishery, also originally known as the porpoise fishery, was a short-lived industry that operated during the late 19th century.

The influences behind Cape May's dolphin fishery are unclear. It may have been partially motivated by North Carolina's dolphin fishery (*Star of the Cape* 1883:3). What is known is the fishery was started by three men by the names of John A. Cook, George L. Sparks, and William Peacock, none of whom had any commercial fishing experience (Cape May County Corporation Book 1883:1.3-4). According to census records from the late 19th century, John Cooke was a cabinet maker, George Sparks was a telegraph operator, and William Peacock was a common laborer (Cape May County Census Records 1880:3-18). Seafaring men had also long asserted it was impossible to capture dolphins using nets because they could readily escape (*Philadelphia Inquirer* 1884:2). Regardless, their company had a short but relatively successful industry in Cape May.

The fishery began in 1875 when Cook, Sparks, and Peacock applied for a certificate of organization for their corporation, "The Atlantic Oil and Fertilizing Company," in the state of New Jersey. Their primary intent was to catch dolphin in the Atlantic Ocean and Delaware Bay and to convert them into oil and fertilizing material (Cape May County Corporation Book 1883:1.3-4). In addition to oil and fertilizing material, there is also evidence of the consumption of dolphin meat. Dolphin meat was considered a delicacy in New Jersey. According to the *Star of the Cape* newspaper, "Porpoise steak has become so popular on the Jersey coast that the children blubber for it" (1885:3).

By 1884, the company had been enjoying relative success. Dolphin products were highly desired in the global economy. An example of this is evident in an English advertisement showing porpoise leather shoes were popular among men because they were waterproof and very durable (Figure 2.5). Because of this success, the board of directors decided to change the name of the company to “The Cape May Porpoise Fishing Company” (*Star of the Cape* 1884a:3).

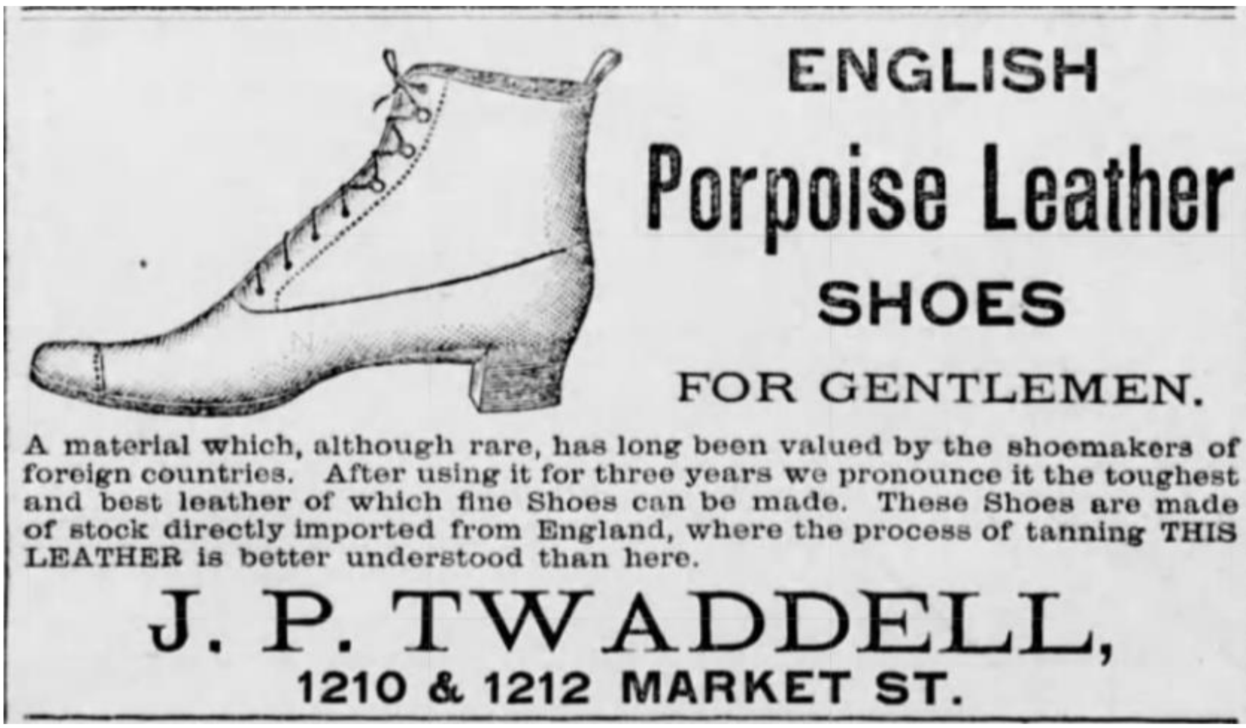

FIGURE 2.5. Porpoise Leather Shoe Advertisement (*The Times* 1886:7).

Within that same year, The Cape May Porpoise Fishing Company had begun making arrangements to expand their enterprise in North Carolina’s waters. Superintendent Cooke traveled to North Carolina to start the process of using the company’s nets off the coast. Shortly thereafter, the Cape May Porpoise Fishing Company began offshore dolphin hunting off the coast of North Carolina, leading to a significant boom in their stock (*Star of the Cape* 1884b:3).

While the expansion of their business interests in North Carolina led to an initial success for the Cape May Porpoise Fishing Company, it was short lived. On 4 November 1884, one of the company's steamers, *John Taylor,* dealt with an unfortunate demise. After undergoing substantial repairs, *John Taylor* went underway to begin dolphin fishing operations. Within a few hours of starting, a strong gale carried the steamer on to the beach and destroyed a portion of the ship. Fortunately, the company was able to salvage their nets and certain machinery parts. However, they did not have insurance for their ship which led to the eventual downfall of the company (*Cape May Wave* 1884:3; *New York Times* 1884:5; *Star of the Cape* 1884b:3).

The wrecking of *John Taylor* contributed heavily to the company's bankruptcy. Shortly after, a petition was started to begin foreclosure of the company. By July 17th, 1886, the company's land had been put up for sale by the county sheriff and the Cape May Porpoise Fishing Company discontinued (*Cape May Wave* 1886:3). While the Cape May dolphin fishery did not last long, the historical record surrounding it provided an excellent glimpse into how culture, economics, and technology played pivotal roles in dolphin hunting.

Hunting Dolphins on North Carolina's Shores

The earliest historical mentions of dolphins hunted off North Carolina was possibly noted in 1683 in the Lord's Proprietors of Carolina Charter. The charter permitted "fishing of all sorts of fish, whales, sturgeons and all other royal fishes…" (Powell 1958:1-2) It is unknown if dolphins were taken into consideration. In the early 1700s, the French may have hunted dolphins off the coast of North Carolina. English surveyor, John Lawson, mentioned:

> Bottle-Noses are between the Crampois and Porpois, and lie near the Soundings. They are never to swim leisurely, as sometimes all other Fish do, but are continually running after their Prey in Great Shoals, like wild Horses, leaping now

and then above the water. The French esteem them good Food, and eat them both fresh and salt (Lawson in Lefler 1967:158; Lawson in Cecelski 2015:52).

The first mentions of systematic dolphin fishing ventures in Shell Castle appeared in 1790 when John Fulford inquired about participating in dolphin fishing and building boats for the operation (McGuinn 2000:77). Three years later, the Shell Castle dolphin fishery officially began when entrepreneurs John Gray and John Wallace used their lighter vessel *Beaver* to catch dolphins for their jaw oil (Dunbar 1958:76; Whisnant 2015:83). Shell Castle's dolphin fishery typically operated seasonally from December to April. Unfortunately, little to no details on specific operations and techniques can be gleaned from the extant record other than the existence of the fishery's operations (McGuinn 2000:77).

The success of the Shell Castle dolphin fishery led to the development of dolphin fisheries throughout the coast of North Carolina. This success continued until around the American Civil War. The effects of the Civil War had limited North Carolina's fishing industry (Mallison 1998:169). As such, the dolphin fishing industry had vanished at this point (Angell 1981:20; Cecelski 2015:53). Interestingly, North Carolina was not the only fishing state that was experiencing these effects.

The whaling industry of the North Atlantic was also experiencing the crippling effects of the Civil War (Parr 1996:45; Cecelski 2000:82). During the Civil War, many whalers were conscripted, and their ships were often used to blockade Confederate harbors. Several fleets of whaling ships were lost in the Arctic Ocean due to ice stranding. Thus, the companies involved in the whaling industry were forced to look elsewhere if they were to continue their economic enterprise (Parr 1996:45). As a result, Northern soldiers such as Colonel John Wainwright saw the potential of North Carolina dolphin fishery and later helped restart the fishery (*The Morning News* 1885:1).

The success from the previously mentioned Cape May Porpoise Fishing Company during the 1880s also contributed significantly to the revival of the North Carolina dolphin fishery. With the knowledge gained from Cooke, Sparks, Peacock, and several others, the Cape May Porpoise Fishing Company was effective in restarting the North Carolina dolphin fishery in the spring of 1884. Their success led to many other Northern companies getting involved with the fishery (*Star of the Cape* 1884; Dunbar 1958:76; Cecelski 2000:85).

By the late 1880s, the dolphin fishery had reached its peak with dolphin fisheries and processing factories thriving in surrounding areas such as Beaufort, Morehead City, and Fort Macon (*New Berne Weekly Journal* 1887; *The Union Republican* 1887; *Weekly State Chronicle* 1887). Many saw the dolphin fishery potentially becoming the state's leading fishery. The editors of the *Weekly Record* even encouraged local fishermen "to at once engage in the catching of Porpoise" (Salomen 1887:1). Unfortunately, this was not the case as the market quickly diminished in the mid-1890s (Cecelski 2000:85).

The reasons for the market's failure were many. Dwindling numbers of fishermen and shrinking fortunes were ultimately the cause for the decline in the market (Impact Assessment, Inc 2005a:282-283). Cecelski argues that overharvesting may have also been a contributing factor in the industry's decline (Cecelski 2000:85). While the industry suffered from a gradual decline, it did not entirely disappear in North Carolina. The industry would eventually start again in 1907 with under the organization of the William Nye Company (Cecelski 2015:49).

The gradual downfall of the whale fishery posed a serious threat to the William Nye Company of New Bedford, Massachusetts during the late 19th century. The Nye company began to experiment with other products such as animal, vegetable, fish, and mineral sources. However, neither of these experiments yielded the lubricating consistency of whale oil. Coincidentally, dolphin oil (known as porpoise oil at the time) was highly desired during this period for its uses in watchmaking, chronometers, and other heavy industrial tools. The William Nye Company quickly jumped on that industry and began to enjoy relative success (Parr 1996:45).

After a brief stint of hunting blackfish in the inlets of Cape Cod, the William Nye Company began to explore other geographic regions that would allow for porpoise hunting (Parr 1996:45). In 1907, William Nye sent his son, Joe Nye, to Cape Hatteras, North Carolina where dolphins were known to migrate in large numbers from December to April. Shortly after visiting, Joe Nye helped restart the Hatteras dolphin fishery (Figure 2.6; Parr 1996:50)

FIGURE 2.6. Crew members of the Hatteras Porpoise Plant posing for picture (Source: New Bedford Whaling Museum).

The Porpoise Factory, as it would come to be called, used local workers under the supervision of a manager employed by Nye. The organization's operations were simple but physically demanding. Fifteen men made up a beach crew. Several were stationed over a ten-mile stretch of beach. Each crew had four boats and a seine net about 1,800 feet long. One man was designated as the ‘spy.’ The spy’s job observed for dolphins and raise a flag to signal their arrival (Figure 2.7). Once the flag was waved, the boat crews would quickly move out and surround the schools of dolphins with nets. After they were surrounded, they were swept toward the shore (Angell 1981:21-22; Parr 1996:50; Cecelski 2015:68).

FIGURE 2.7. A Hatteras dolphin ‘spy’ waiting to give the signal to the dolphin hunting crews (Source: New Bedford Whaling Museum).

The process of bringing the dolphins onto shore was perhaps one of the most grueling aspects of this fishery. Once in shallow enough water, a man with a giant steel hook, known as the ‘hooker,’ would drive it into the dolphin’s blowhole (Figure 2.8). Several men would then drag these dolphins on the beach where they would struggle helplessly. After the men pulled the dolphins from the water, a man known as the ‘stabber,’ would sometimes deliver a killing blow to any dolphins that were still alive. With the catch all dead, the men would process the dolphins by cutting away the blubber portions where they would be loaded into carts and taken to be processed for oil, skin, and meat (Angell 1981:22; Parr 1996:51).

FIGURE 2.8. Hatteras dolphin fishermen hauling dolphins on shore to prepare them for processing (Source: New Bedford Whaling Museum).

Joseph Nye's dolphin hunting operations in Hatteras saw great success. The Hatteras dolphin fishery gave him a sense of personal notoriety. Interestingly, Joseph Nye was also involved with dolphin conservation. In 1914, he donated seven dolphins to the New York Zoological Society to be exhibited to the public. The entire process of catching and transferring the animals from Hatteras to New York was even captured in motion pictures by a Society official. For his generosity, the Society made Joseph Nye a lifetime member (Parr 1996:52-53; Cecelski 2015:75-76).

By the 1920s, the fishery saw a decline, and would eventually disappear (Parr 1996:53). In 1923, Joseph Nye died at the age of sixty-five. At this time, the age of petroleum was also contributing to the downfall of the popularity of whale oil. In February 1928, the company ordered: “that the fishery be closed down at the end of the month” (Cecelski 2015:77). Some accounts suggest the fishery continued by islanders for a short time, possibly selling their oil to the William Nye Company, but that was short-lived. The company continued to own assets and pay taxes on Hatteras Island until at least 1930, but there is no evidence of continued dolphin hunting operations. By then, the industry disappeared bringing an end to one of the state’s oldest fisheries (Cecelski 2015:76-77; Whisnant 2015:84).

Conclusion

This chapter provided context for this research by providing an overview of dolphin hunting globally. From its prehistoric beginnings in the Mediterranean to the systematic dolphin hunting of present-day Japan, the understanding of the history of these fisheries is useful in examining the archaeology of North Carolina’s dolphin fishery at Hatteras. This chapter also communicated the history of dolphin hunting in North Carolina from the early 18th century to its downfall in the early 20th century. This was necessary because it established the foundation on which new data can be collected to augment or challenge existing information. The historical resources used in this chapter revealed many gaps in its history. There is still a plethora of information to discover surrounding the dolphin fishery of North Carolina, including the potential for material culture and *in situ* archaeological evidence to provide new opportunities to deepen our understanding of this industry. The following chapter will cover the theoretical framework employed to best derive valuable information from North Carolina dolphin hunting material culture.

CHAPTER THREE:

THEORIES OF TECHNOLOGY AND TECHNOLOGICAL CHANGE

Introduction

The study of technology and technological change is the primary intent of this research. To effectively examine the technology and technological change of North Carolina's dolphin fishery, Michael Schiffer's behavioral chain model will be utilized in this study. Schiffer defines the behavioral chain model as "a fine-grained model that includes the entire set of activities that took place during the life history of a component, product, or complex technological system" (Schiffer 2011:30).

The justification for using Schiffer's behavioral chain model is not only its effectiveness in examining technology and technological change but also its ability to visualize and describe the interrelations between behavioral and spatial material aspects of a specific cultural element's life history. The application of the behavioral chain will also be useful in visualizing the role technologies and complex networks of North Carolina's dolphin fishery. It will provide insights on groups, activities, and places such as the location of hunting grounds, processing areas, and the fishermen associated with the industry. Before this is possible, an understanding of theories related to technology and technological change is necessary. Studies related to technology and technological change exist in various theoretical movements in archaeology (Schiffer 1995, 2011; O'Brien et al. 2005; Trigger 2006).

This chapter will do two things. It will first contextualize various theoretical perspectives on technology and technological change in both terrestrial and maritime archaeology. Finally, it will discuss the specifics of each component of Schiffer's behavioral chain model and its applicability in this study.

Archaeological Studies on Technology

Schiffer argues that technology "is known by several different terms such as artifacts, products, objects, material culture, objects, gadgets and gizmos, or just plain things. Technology encompasses everything that people make or modify" (Schiffer 2011:4). This view of technology stems from a long line of theoretical perspectives that have not only shaped technology and technological change studies but also archaeology as a discipline (Schiffer 1995, 2011; O'Brien et al. 2005; Trigger 2006; Johnson 2010). To better understand these theoretical perspectives, it is important to contextualize them in both archaeology and maritime archaeology.

Prior to 1960, some historians of archaeology argue the culture history period was known as the 'long sleep' of archaeological theory, in which very little theoretical discussion took place. Cultural historical archaeologists focused more on collecting mass amounts of archaeological material within an unquestioned, generally assumed framework (Johnson 2010:15). Others argued the theoretical debates of culture history period were used to assert national and racial superiority (Trigger 2006:240-241).

Cultural historical archaeologists viewed culture and the artifacts differently than later archaeologists. In his earlier years, V. Gordon Childe argued artifacts occurring together were part of a complex of associated traits. Childe termed this a "cultural group" or just a "culture." This complex of associated traits is the material expression of what today would be called a "people" (Childe 1929:v-vi). This idea of a "cultural group" or "culture" is known as "normative." Normative essentially means that artifacts are expressions of cultural norms and those norms are what define the culture (Johnson 2010:17).

Culture historical archaeologists preferred to view artifacts in groups. The reason behind this was they believed that to translate the present into the past, placing artifacts in groups was necessary. These groups would then be known as the archaeological cultures (Johnson 2010:18). An example of this idea is displayed in Figure 3.1 where Childe essentially builds a complex mosaic detailing the prehistory of Europe (Trigger 2006:244)

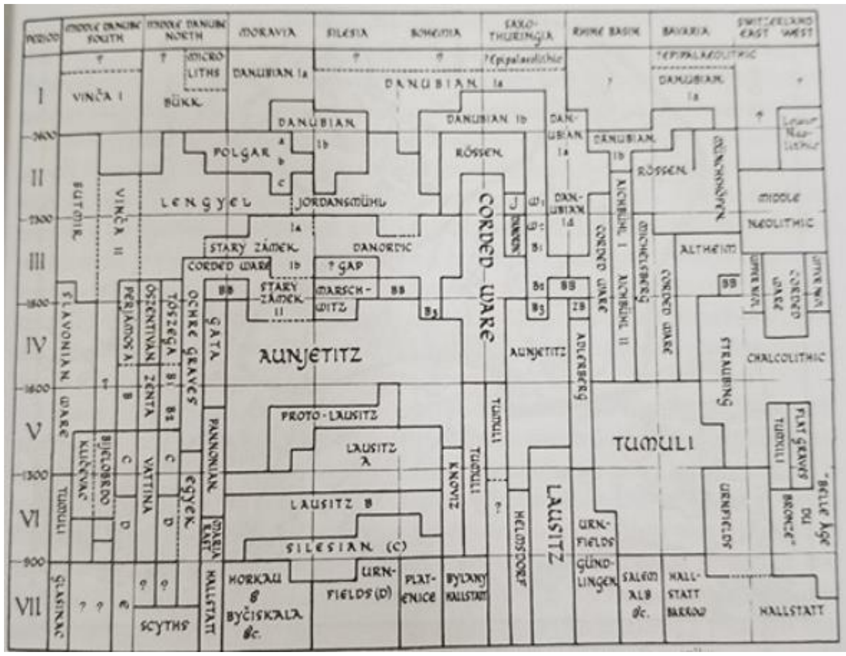

FIGURE 3.1 Table giving correlations of the several cultures in time and space (Childe 1929:418)

While the culture historical period remained prominent for several more years (and remains a tradition in present-day archaeological theory), a dissatisfied faction of archaeologists emerged during the 1950s. Some individuals were particularly unhappy with the inadequacies of culture-historical archaeology's understanding of how prehistoric cultures operated and changed. This dissatisfaction ultimately ushered in a new wave of thought in archaeology, one based on systematic anthropological and sociological investigations of human behavior. This new wave would come to be known as processualism or the 'New Archaeology' (O'Brien et al. 2005:18-35; Trigger 2006:314; Johnson 2010:21-23).

The traditional narrative contends that processualism had its beginnings in the early 1960s when a new generation of 'young Turks' would ultimately shape the course of archaeological thought (Johnson 2010:21). Among this new generation of archaeologists was Lewis Binford: the face of ‘New Archaeology’ (O’Brien et al. 2005:40). Binford argued that archaeology needed to be more anthropological and more scientific (Binford 1962:217). This change in archaeological thought significantly altered how interpretations were later made, especially regarding technology.

The stated goal of the ‘New Archaeology’ was to study cultural processes and to contribute to anthropological theory. To study archaeology as more of a process, two things were required. First, the basic notion of culture needed to be restructured from a normative, idea-based concept to one that was behavioral, systemic, and materialist. Second, archaeology needed to be conducted scientifically. This meant that archaeologists had to work deductively rather than inductively and use ethnographic analogy in a rigorous manner (O’Brien et al. 2005:37; Johnson 2010:21-23).

With this restructured and more scientific approach in hand, studies surrounding technology in archaeology were vastly different. The American Southwest became a breeding ground for much of the terrestrial archaeological case studies on technology that took place during the processualism movement (Cronin 1962; Longacre 1963; Flannery 1964). There are several reasons for this, but for this chapter’s purposes, they provide excellent examples of technological studies in archaeology (O’Brien et al. 2005:67-91).

An example of how technology was studied during this period is evident in Constance Cronin’s “An Analysis of Pottery Design Elements, Indicating Possible Relationships between Three Decorated Types” (1962). In this work, Cronin analyzed Southwestern pottery and found that specific design elements would occur on pottery from one site but not another. She concluded that “decoration of pottery might reflect the learning frameworks of mothers teaching daughters, who taught their own daughters and so on" (Cronin 1962; Longacre 2000:294; O'Brien et al. 2005:68). This conclusion demonstrated several key points regarding interpreting technology during this period.

Cronin utilized a systems-thinking approach by employing a type-variety system of analysis on Southwestern pottery types. She also identifies cultural evolution in her conclusion by pointing out the stylistic changes of pottery decoration overtime. Lastly, she identified variability in her study by pointing out that some specific design elements would occur on pottery from one site but not another. Each of these key points are some of the many hallmarks of the processualism movement (Cronin 1962; O'Brien et al. 2005:68; Johnson 2010:23-27).

Cronin's work is one of many studies that demonstrates the key points of processualism for terrestrial archaeology during this time. By the 1970s, the works of Binford (1962, 1972) and many others demonstrated that processualism was dominating the archaeological discussions. Interestingly, processualism was also making headway in maritime archaeology.

Early theoretical perspectives in maritime archaeology were implicit, and along the lines of historical particularist approaches as seen in the works of George Bass (1966). It was not until the mid and late 1970s when processualism influenced maritime archaeological thought. In 1978, Keith Muckelroy published *Maritime Archaeology* differing significantly from the earlier historical particularist perspective. Influenced heavily by the processual leanings of his mentor David Clarke, Muckelroy introduced revolutionary ideas to the field of maritime archaeology such as site formation processes and interpretive frameworks for understanding a ship in its social context (Muckelroy 1978:160-225).

While Muckelroy applied many of these new ideas to several historic wreck sites of Great Britain, he is primarily known for his work on the *Kennemerland* wreck site (1976, 1978). The

Kennemerland was a merchant ship of the Dutch East India Company that was bound for the East Indies but wrecked in the Out Skerries of Shetland in 1664. The site experienced several centuries of salvaging until the 1970s when preliminary archaeological investigations were conducted. While the site itself experienced years of salvaging it still offered a wealth of knowledge (Muckelroy 1976:280-281).

Muckelroy's works primarily focused on early maritime site formation theory (Muckelroy 1975, 1978). However, he provides several examples of processual interpretations regarding the technology found at the *Kennemerland* site. This is especially present in his work on extracting filters. Extracting filters essentially refers to the processes of wrecking, salvaging, and disintegration of perishables and how they lead to loss of material from a wreck-site. Each process thus generates an output column shown in a diagram (Muckelroy 1978:165; Figure 3.2).

Muckelroy reinforces a couple of key points of processualism interpretations of technology specifically in maritime archaeology. Muckelroy emphasizes a systems-thinking approach by arguing that "the artifact assemblage itself is defined as a system, defined by the necessary characteristics of the ship as a means of transport and as a social unit, which has undergone a series of transformations through time within the constraints imposed by the larger system" (Muckelroy 1976:281). To reiterate, the different parts Muckelroy argues as a system were interrelated as part of a larger functioning cultural system (Muckelroy 1976:281-284; 1978:165-169; Johnson 2010:23-25).

Muckelroy also utilizes a scientific approach and expresses explicit biases in his analysis of the technology found at the Kennemerland site. He does this by openly specifying his hypotheses, the procedures for investigation, constraints, results, analysis, and conclusions. Each of these represents the very core of the scientific approach and processualism (Muckelroy 1976; 1978:165-169; O'Brien et al. 2005:92-120; Johnson 2010:26).

	Excavated	Salvaged	Disintegrated	Floated away
Ship's structure			some	some
Sails		69	some	some
Rigging	11 pieces rope	7 cables; tackle	some	some
Anchors	8	2	none	none
Ballast bricks	*c.* 10,000		some	none
Grindstone	1		none	none
Iron		some	none	none
Lead	17 pieces		none	none
Nails	*c.* 400		none	none
Cannon	8	7	none	none
Cannon balls	10		none	none
Musket shot	*c.* 2,000	1 chest	none	none
Scatter shot	*c.* 3,000		none	none
Munitions accessories	9 items	15 lining sheets	some	some
Navigation instruments	3 items		some	some
Specie	61 coins	3 chests	none	none
Jewellery	35 pieces		none	none
Eating utensils	7 spoons		some	some
Personal items	31		some	some
Quills etc.		1 chest	some	some
Writing paper		8 chests	some	some
Clay pipes	*c.* 150		some	none
Bridle bits		some	none	none
Stirrup irons		some	none	none
Tar	some	19 puncheons	some	none
Tallow		9 casks	some	none
Rosin	some	15 casks	some	none
Mercury	2 flagons	1 chest	none	none
Olive oil	*c.* 100 bottles	1,320 gallons	some	none
Brandy	and *c.* 100	1,604 gallons	some	none
Wine	flagons:	1,254 gallons	some	none
Vinegar	*c.* 3 pints each	145 gallons	some	none
Beer		8 casks	some	none
Preserved fruits	1 jar		some	none
Butter		5 barrels	some	none
Flour		2 half-barrels	some	none
Meat	39 bones	2 pieces bacon	some	some
Shoes	7	120 pairs	some	some
Linen		337 yards	some	some
Serge		300 yards	some	some
Woollen cloth		116 yards	some	some
Other cloth		236 yards	some	some

FIGURE 3.2. System outputs for the *Kennemerland* wreck site (Muckelroy 1978)

The works of Cronin (1962), Muckelroy (1978), and many others heavily shaped the course of archaeological thought during this period and beyond. However, like many theoretical movements, processualism also experienced problems and criticisms. The main problem was the arguments surrounding the systematic processes that produce the archaeological record (O'Brien et al. 2005:210; Johnson 2010:65).

Binford argued material remains of a cultural system leave behind a "fossil" record of an extinct society (Binford 1962:219; O'Brien 2005:210-211). If this and other assumptions related to this were true, then the archaeological record would indeed show a clear reflection of past human behavior. However, Binford failed to consider human behavioral aspects in relation to the patterning and processing in the archaeological record. One of Binford's students, Michael Schiffer would augment processualism by placing a greater emphasis on the role of human behaviors on the interpretation of archaeological sites.

Schiffer's Behavioral Archaeology

Early discussions on the role of behavior in archaeological interpretation were made by figures like Leslie White who argued "culture thus becomes primarily a mechanism for harnessing energy and of putting it to work in the service of man, and, secondarily, of channeling and regulating his behavior not directly concerned with subsistence and offense and defense" (White 1949:390-391). By the 1970s, discussions regarding the role of human behavior in archaeological site formation processes were taking place (Johnson 2010:65). Contrary to Binford argument, Schiffer contended that the archaeological record was far from a perfect reflection of past human behaviors and that understanding cultural and non-cultural processes were necessary to sift through the distorted behavioral patterns reflected in the archaeological record (Schiffer 1987:7; O'Brien et al. 2005:211-212; Trigger 426-428). Binford rejected this claim and openly attacked Schiffer for "retarding the field." This rejection gave rise to the field of behavioral archaeology and significantly changed how technology would be analyzed (Schiffer 1995:19-21; O'Brien et al. 2005:65; Trigger 2006:426; Johnson 2010:65).

This rejection of Binford's argument ultimately created a mutation in processualism, and thus behavioral archaeology was born. As the primary proponent of behavioral archaeology, Schiffer defines it as the:

> … study of relationships between people and things in all times and space. The relationships between people and artifacts are discussed in terms of regularities discerned in process of manufacture, use, and disposal that make up the life histories of material things, as in flow models and behavioral chains (Schiffer 1995:13).

Behavioral archaeology focuses more on the need to create a science of material culture (Trigger 2006:426). This new focus on creating a science of material culture had the most profound change in technology studies and even emphasized the process of technological change.

Many studies arose out of this new focus of formalizing the relationship between artifacts and human behavior (Rathje 1974; Schiffer 1995; O'Brien et al. 2005:211). A famous example of this is seen in William Rathje's work on the Tucson Garbage Project. The goal of Rathje's garbage study was to examine the link between present human behavior and material debris (Johnson 2010:65). He did this by conducting interviews that asked questions pertaining to patterns of consumption in relation to matters of health. The intention behind this was to record traces of drug, alcohol, cigarette, vitamin, and nutrient consumption. Once completed, Rathje and other members of the Tucson Garbage Project would test the results from these interviews by searching through the garbage of a selected sample of neighborhoods and comparing (Rathje 1974:236-237). The results of this study were astonishing for many reasons.

Rathje found significantly more vitamins were consumed in Tucson by people with intermediate incomes than those with lower ones. The garbage data, however, show exactly the opposite in that the largest quantities of vitamin containers were discarded by those on a very low-income scale. Another pattern Rathje found was that one might expect there is a high rate of expensive waste of pastry and takeout meals but, the most significant waste was of staples such as beef, fruits, and vegetables (Rathje 1974:237-239).

There were two reasons why Rathje chose modern people for this study. He wanted to show that assumptions about the way material culture is related to behavior in past civilizations can be tested in a familiar, ongoing society. Also, by applying these archaeological methods to such a society can provide valuable insights into the society itself (Rathje 1974:236-237). Rathje could successfully identify certain regularities and patterns between people and objects in specific times and places. This is a hallmark of behavioral archaeology (Johnson 2010:65).

Another case of examining the relationship between artifacts and human behavior can be seen in Schiffer’s work on electric technology in nineteenth-century lighthouses. As the first structures to install the world’s first generator-powered electric lights, lighthouses have a special place in the histories of electrical technology. Interestingly, electric-arc technology was not widely adopted for lighthouse illumination. Its distribution was curiously uneven: most maritime nations had none, a few had one or two, and the United States only had the Statue of Liberty. France and Britain, however, roughly had half a dozen to a dozen. In this piece, Schiffer is particularly interested in the large-scale technological change process of adoption regarding electric lights in lighthouses (Schiffer 2005:275-276).

To answer this uneven adoption of electric-arc technology among nations, Schiffer employs two heuristic tools of behavioral archaeology, the performance matrix, and the life-history framework. These help to identify the common factors and others that might explain why most nations, including the United States, only had one or a few arc lights while Britain and France adopted them on a much larger scale (Schiffer 2005:275-287).

The performance matrix is a table that allows the investigator to compare performance characteristics (PCs) of two or more competing technologies (Figure 3.3). Within the internal and external factors that affect the course of technological change, the performance characteristics represent behavioral capabilities, which can be assessed in relation to specific activities and social groups. Performance characteristics ultimately allow an analysis to incorporate both qualitative and quantitative factors allowing the researcher to deal with multiple causes of adoption (Schiffer 2005:287).

The life history framework is beneficial in organizing performance characteristics of the performance matrix. It is built on the foundation that technology has a life history consisting of processes such as manufacture, use, and adoption. Different performance characteristics can come into play during each process which in this case refers to the specific activities that groups will carry out. Schiffer divides the life histories of the competing illumination technologies into the following gross processes: (1) acquisition of the components and installation of the system; (2) functions—practical and symbolic—during use; and (3) operation, regular, and repair (Schiffer 2005:287-288).

Acquisition of Components and Installation of System	Electric	Oil
System components commercially available	+	+
System can be installed in lighthouses anywhere	-	+
System can be easily installed in existing lighthouse structures	-	+
Affordable "first costs"	-	+
Existing expertise adequate for designing and installing system	-	+
Functions during Use	**Electric**	**Oil**
Yields whitest, brightest, most penetrating light	+	-
Can produce sufficiently steady light	+	+
Long outages are avoidable	+	+
Does not cast confusing shadows	-	+
Can avoid blinding mariners	-	+
Can symbolize special concern for safety of ships and sailors	+	-
Can symbolize a nation's wealth and political power	+	-
Can symbolize modernity	+	-
Can symbolize scientific/technological prowess	+	-
Operation, Regular Maintenance, and Repairs	**Electric**	**Oil**
Operable with traditional staff of keepers	-	+
Operable without complete backup systems	-	+
Breakdowns easily repaired	-	+
Affordable operating expenses	-	+
Ease of administration	-	+

FIGURE 3.3. Performance matrix for lighthouse illumination, 1860-99 (Schiffer 2005).

By applying the performance matrix and life history framework, Schiffer could conclude the primary pattern in the performance matrix shows that electric light was competitive only in use-related functions. It was excellent for guiding mariners in haze and light fog. However, performance characteristics related to costs specifically show that electric light was too expensive when compared to oil. This, in turn, indicates the rejection of electric lights was a decision, made repeatedly by lighthouse organizations, that weighted utilitarian and financial factors over use-related factors (Schiffer 2005:294-305).

The works of Rathje (1974) and Schiffer (2005) strongly show that behavioral archaeology has played an influential role in not only shaping the interpretations surrounding material culture but also establishing it as a science (Trigger 2006:426). Because of this, the processes of technological change come more into play because technology is the material culture component of activities that represent behavioral characteristics (Schiffer 2011:4). This is especially seen in maritime archaeology where the application of behavioral archaeology and technological change has yielded some fascinating results over the last few years.

An example of this is Will Sassorossi's Master of Arts thesis which analyzed the processes of commercial fishing trawlers being adapted and transformed for military operations during World War Two. The selected vessels in Sassorossi's study were *YP-389,* HMT *Bedfordshire,* and HMS *Senateur Duhamel.* To determine the methods for converting and adapting these vessels, Sassorossi utilized two main paradigms: site formation theory and theories of technological change (Sassorossi 2015:36).

Regarding the theories of technological change, Sassorossi draws from four theoretical models that incorporate different influencing factors which bring about innovation, adaption, or change. The first model is entitled the *heroic inventor* and focuses on the exceptional advances of a single person. As defined by Don Leggett and Richard Dunn, "the heroic inventor model of technological change of a single individual is claimed to make great leaps in innovation, seemingly from contemporaries, constraining institutions or the requirements" (Leggett and Dunn 2012:5; see also Sassorossi 2015:48).

The second model Sassorossi uses is *technological evolution,* which strongly opposes the heroic inventor model. The technological evolution model "weaves technological change into the fabric of maritime history without reflexive consideration, by shrouding the agency of actors and the cultural specificity of technical decision making" (Leggett and Dunn 2012:5). Unlike the heroic inventor model, the technological evolution model rejects the idea of singular actors as sole creators and proposes technological change as a progressive movement, incorporating a larger set of actors working toward technological change (Sassorossi 2015:51-52).

Like the technological evolution model, the third model Sassorossi used is *technological determinism.* Technological determinism emphasizes that technological change is determined by laws or by physical and biological conditions rather than by human will (Bimber 1994:86). In this sense, technological changes are more formulaic and continue progressively without regard to social, political, or cultural factors (Sassorossi 2015:53-54).

The final model Sassorossi utilized is *technological momentum*. Compared to the technological determinism model, technological momentum suggests that social development is responsible for shaping and is shaped by technology (Hughes 1994:102). This emphasis on the idea that technological change is affected by social influences as well as effecting social change allows for a more inclusive model for determining the process of modification or adaption (Sassorossi 2015:57).

By applying these four models along with site formation process theory, Sassorossi came to a couple of interesting conclusions. He demonstrated that the conversion and alteration processes of these vessels certainly fit within a model of technological change. He argues that social and economic factors were ultimately responsible for these processes because military leaders in World War Two needed more naval vessels to fill the role of patrol and convoy duties. Sassorossi's study also highlights the imperativeness of analyzing modern wreck sites for determining models of technological change (Sassorossi 2015:183-185).

This emphasis on technological change in behavioral archaeology is drastically different from how its predecessors in culture history and processualism viewed technology in the scope of archaeology. By using technological change to guide this material culture study, it will be possible to understand the influences of North Carolina's dolphin fishery. This next section will do precisely that and discuss the theoretical framework that is employed in this study.

Schiffer's Behavioral Chain Model

As seen in his previous work on nineteenth-century lighthouses, life history models are highly effective tools for studies in archaeology and the history of technology (Schiffer 2005, 2011:30). One of the most well-established life history models is the *behavioral chain.* The behavioral chain allows the visualization of linkages or networks among various groups, changing technologies, activities, and places. By understanding these levels of complexity and interconnectivity, the behavioral chain furnishes insights into technological changes (Schiffer 2011:30-34).

The application of the behavioral chain will be useful in establishing and illustrating the complex networks of North Carolina's dolphin fishery. It will provide insights on groups, activities, and places such as the location of hunting grounds, processing areas, and the fishermen associated with the industry. This section will do a few things. It will define and discuss the behavioral chain model. It will then provide examples of how it has been applied in previous studies. Finally, it will then briefly mention how the behavioral chain model will be applied to this study in later chapters.

Behavioral chains are not new in archaeology. Rather, they are Schiffer's explicit interpretation of a form of reasoning employed to arrive at the activities that were performed at a site and their test implications. In this case, he was heavily influenced by Marvin Harris (1964). However, Schiffer places more emphasis on the life history of system elements over Harris' actor-activity orientation. The reason for this shift in perspective relates to the material nature of the archaeological record and some of the predictive properties of behavioral chains. As Schiffer puts it, “properties that permit the investigator to circumvent the apparent limitations of the archaeological record” (Schiffer 1995:57).

With this background in mind, Schiffer defines the behavioral chain as “the entire sequence of activities that took place during the life history of a component, product, or complex technological system.” A behavioral chain may represent a singular artifact, such as a trypot or mass-produced products such as dolphin oil (Angel 1981; Schiffer 2011:30). Once the material culture is selected for the study, the behavioral chain is presented in the form of a table (Figure 3.4).

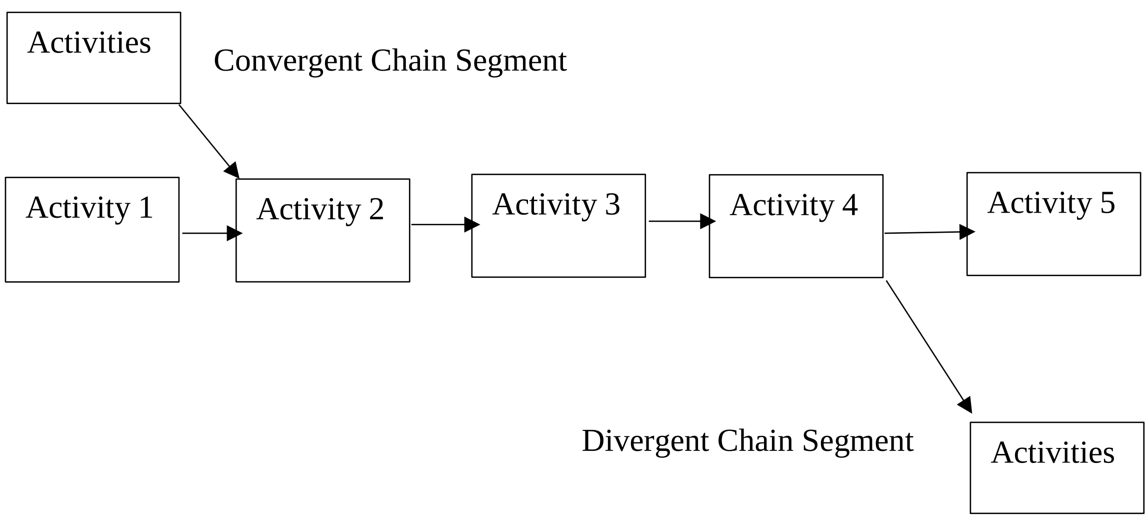

FIGURE 3.4. Behavioral chain with convergent chain segment (upper left) and divergent chain segment (lower right) (Source: By George Huss, after Schiffer 2011:31).

The table is comprised of *activities* which are defined as “occurring in a particular place, an activity is a series of related interactions among a set of interactors that includes at least one person or artifact” (Schiffer 2011:191; Figure 3.4). Each activity is then structured based on certain *elements*. Elements are essentially the components of an activity and can be based on many things (Schiffer 1995:58). Depending on the research question, elements can include any or all of the following characteristics: (1) nature of the social group conducting the activity (size, age/gender composition) and its mode of recruitment, such as family, work party, or graveyard shift in a factory; (2) participating artifacts and externs; (3) interaction-relevant performance characteristics; (4) specific interactions; (5) location of performance; (6) times and frequency of performance; (7) the relational knowledge possessed by members of the social group that makes possible skillful and socially competent interactions; and (8) intersections with convergent or divergent segments. The latter may include an "out-put" column which indicates where a discarded material begins its journey to the archaeological record (Schiffer 2011:30-31). An excellent example of these elements employed in the activities of a behavioral chain model can be seen in Figure 3.5 which illustrates the use of maize in the Hopi culture (Schiffer 1995:59).

As seen in Figure 3.5, the behavioral chain provides an excellent visual of the entire sequence of activities that took place during the life history of a component, product, or complex technological system (Schiffer 2011:30). Schiffer specifically chose these elements for the behavioral chain because they are effective in describing the interrelations between behavioral and spatial material aspects of activity performance with reference to the life history of cultural elements. However, more explicit definitions will be necessary to better understand what Schiffer means by these elements (Schiffer 1995:58-61). These next few subsections will give definitions for each element and then provide examples of them in Figures 3.6 and 3.7. It will then briefly mention how they will be specifically applied to North Carolina's dolphin fishery in later chapters.

ACTIVITY	ENERGY SOURCES: SOCIAL UNITS / NON-HUMAN	CONJOINED ELEMENTS	TIME AND FREQUENCY	LOCATION	OUTPUTS	INTERSECTIONS: ADDITIONS / DELETIONS
HARVEST	ABLE VILLAGERS OF BOTH SEXES 3, 4	BASKETS 4	SEVERAL DAYS IN SEPTEMBER 4	FIELDS OF H.H. 3, 4	STALKS, WASTED OR UNHARVESTED MAIZE	
TRANSPORT	ABLE VILLAGERS OF BOTH SEXES 3, 4	BASKETS BLANKETS 3, 4	ONCE IN SEPTEMBER	FROM FIELDS TO ROOF OF H.H. AREA	POLLEN	
HUSK	WOMEN OF H.H. AND OTHER FEMALES 3,4	WOODEN OR BONE PEG 6	ONE OR SEVERAL DAYS IN SEPTEMBER	ON ROOF OF H.H. AREA 3, 4	POLLEN	HUSKS
DRY	4 SUNLIGHT	ROOF OF H.H. AREA 4	SEVERAL DAYS IN SEPTEMBER	ON ROOF OF H.H. AREA 3, 4	POLLEN	
TRANSPORT	WOMEN OF H.H.	BASKETS	ONCE IN SEPTEMBER	FROM H.H. AREA TO STOREROOM	OCCASIONAL KERNELS, POLLEN	
STORAGE		STOREROOM 3,4,6	1 TO 100 WEEKS - 6	STOREROOM 3,4,6	OCCASIONAL KERNELS, POLLEN	
TRANSPORT	WOMEN OF H.H.	BASKETS	SEVERAL MORNINGS WEEKLY	FROM STOREROOM TO HABITATION ROOM		
REMOVE KERNELS	WOMEN OF H.H. 3	SHORT STICK YUCCA BASKET 3	SEVERAL MORNINGS WEEKLY	HABITATION ROOM	OCCASIONAL KERNELS, POLLEN	COBS
COARSE GRIND	WOMEN OF H.H. 1	MEALING BIN, STICK, COARSE MANO AND METATE, YUCCA BASKET - 1,2	SEVERAL MORNINGS WEEKLY	HABITATION ROOM 1	WASTED KERNELS AND MEAL POLLEN	
REMOVE CHAFF	WOMEN OF H.H. / WIND	YUCCA BASKET 3	SEVERAL MORNINGS WEEKLY	OUTSIDE OF STRUCTURE	CHAFF	
MEDIUM GRIND	WOMEN OF H.H. 1	MEALING BIN, STICK, MEDIUM MANO AND METATE, BOWL 1, 2	SEVERAL MORNINGS WEEKLY	HABITATION ROOM 1	WASTED MEAL	
FINE GRIND	WOMEN OF H.H. 1	MEALING BIN, FINE MANO AND METATE STICK, BOWL 1, 2	SEVERAL MORNINGS WEEKLY	HABITATION ROOM 1	WASTED MEAL	
TRANSPORT	WOMEN OF H.H.	BOWLS 2	SEVERAL MORNINGS WEEKLY	HABITATION ROOM TO STOREROOM	WASTED MEAL	
STORAGE		BOWLS 2	SEVERALS DAYS TO A WEEK	STOREROOM	WASTED MEAL	
TRANSPORT	WOMEN OF H.H.	BOWLS 2	TWICE DAILY	STOREROOM TO HABITATION ROOM	WASTEDMEAL	
MAKE DUMPLINGS	WOMEN OF H.H.	COOKING JAR, BOWL	TWICE DAILY	HABITATION ROOM	WASTED MEAL	WATER, OTHER INGREDIENTS
COOK	FIRE	JUNIPER TWIGS COOKING JAR FIRE PIT - 6	TWICE DAILY 3	HABITATION ROOM	SPILLAGE-WASTE	
SERVE	WOMEN OF H.H.	SERVING BOWLS COOKING JARS LADLES - 5	TWICE DAILY 3	HABITATION ROOM	SPILLAGE-WASTE	
EAT	ENTIRE H.H.	BOWLS 5	TWICE DAILY 3	HABITATION ROOM	WASTE	
DIGEST TRANSPORT	ENTIRE H.H.		ALMOST CONTINUOUSLY	LOCATIONS OF H.H. MEMBERS		OTHER FOODS
DEFECATE DISCARD	ENTIRE H.H.	A BROAD LEAF	ONCE DAILY	AWAY FROM OCCUPIED ROOMS	A BROAD LEAF, RESIDUES	

KEY

1 - BARTLETT (1933)
2 - BARTLETT (1936)
3 - BEAGLEHOLE (1937)
4 - STEPHEN (1936)
5 - TURNER AND LOFGREN (1966)
6 - WHITING (1939)
H.H. HOUSEHOLD

FIGURE 3.5. Behavioral chain of maize for the Hopi culture, circa A.D. 1900 (Schiffer 1995).

Nature of the Social Group Conducting the Activity

In his earlier work, Schiffer refers to *social groups* as *energy sources.* Energy sources refer to humans associated with an activity performance. This element is applied minimally on two levels: the individual level, and the societal level. Schiffer gives an example of these two levels by applying it to the grinding of maize in Hopi culture. On an individual level, a post-pubescent woman does the coarse grinding of maize. On a societal level, however, it is important to specify that the recurrent social unit of maize-coarse-grinding is all post-pubescent women of a society (Schiffer 1995:60; Figure 3.5). In the case of North Carolina's dolphin fishery, it includes individuals involved with the hunting of dolphins and individuals involved with the processing of dolphins.

Participating Artifacts and Externs

Schiffer defines an artifact as "any material phenomenon modified or manufactured, wholly or in part, through the interactions of people" (Schiffer 2011:191). He also defines an extern as "a type of interactor that arises independently of people, such as sunlight and clouds, wild plants and animals, and landforms" (Schiffer 2011:192). Schiffer groups these two elements together as *conjoined elements*. Conjoined elements are essentially the artifacts and externs of a given activity performance excluding the human energy sources (Schiffer 1995:60).

An example of conjoined elements in Figure 5 can be seen in the process of "maize-coarse grinding. Maize-coarse-grinding requires at least two elements with hard surfaces capable of breaking the endocarp of maize kernels. One of these elements must be capable of sustained manipulation by the human energy source (Schiffer 1975:110). In the case of the North Carolina dolphin fishery, the hunting and processing of dolphins are excellent examples of activities that require conjoined elements such as knives, trypots, and nets.

Interaction-Relevant Performance Characteristics

Interaction-relevant performance characteristics are defined as "a capability, competence, or skill that could be exercised by an interactor – i.e., 'come into play' – in a specific, real-world performance" (Schiffer 2011:193). This is essentially the practical knowledge necessary to carry out an activity by the interactor. Schiffer does not mention this in Figure 3.5. However, an example of this could be the skills necessary for maize-coarse-grinding. When applying this element to North Carolina's dolphin fishery, many skills are necessary for both hunting and processing.

Location of Performance

The location of an activity performance essentially refers to the location or multiple locations within an area. They can be specified relative to each other or to stationary features (Schiffer 1995:60). As seen in Figure 3.5, Schiffer mentions several locations where activities would take place for the Hopi culture. The same can be said about North Carolina's dolphin fishery where several locations were being used to hunt and process dolphins.

Times and Frequency of Performance

The times and frequency of an activity's performance is easy to establish but often rather difficult to determine. Reference is made here to the class of usual performance times and frequencies with the stipulation that variability can be encompassed in specific applications such as location (Schiffer 1995:110). When looking at Figure 3.5, time and frequency of a performance can vary between daily to yearly. In the case of North Carolina's dolphin fishery, time and frequency of a performance varied depending on the activities taking place.

Intersection of Convergent and Divergent Chain Segments

One can easily indicate where other behavioral chains intersect that of the reference artifact by including *convergent* and *divergent chain segments.* A *convergent chain segment* is an addition to the behavioral chain. A *divergent chain segment,* on the other hand, indicates a removal of a by-product or waste product of the behavioral chain. Within the behavioral chain model, Schiffer labels these *convergent* and *divergent chain segments* as 'additions' and 'deletions' (Figure 3.5). Schiffer makes the example of making salsa as a behavioral chain. In making salsa, the addition of diced onions is indicated by a convergent chain segment that joins the onion's behavioral chain to that of the salsa. In contrast, a divergent chain segment indicates a removal in the formation of a by-product or waste product such as onion skins (Schiffer 2011:30). An example in the North Carolina dolphin fishery might be the harvest of certain objects, such as oil, skin, and bones, but the discard of teeth.

Outputs or Pathways

The last activity is the outputs or pathways which discusses the artifacts or practices that had fallen out of use. Schiffer notes that at every stage in the behavioral chain there is an "output" path through which materials may or will eventually become a part of the archaeological record. The example he uses for outputs in the Hopi culture behavioral chain model includes pollen and grains. This material may undergo no further transport or discard.

Other pathways may also be more complex. Using the example of Hopi culture, waste products from cooking or mixing activities can constitute an inconvenient and unsanitary residue that would likely be cleaned up, transported, and discarded as refuse (Figure 3.5). Furthermore, in societies with highly developed refuse disposal systems, most elements will end up in the archaeological record at locations other than those of their use. This is necessary to specify in the output column of the behavioral chain exactly how and where these discard activities take place (Schiffer 1975:111).

Previous Applications of Behavioral Chain Modeling

Schiffer's development and application of the behavioral chain model has allowed for other scholars to learn a great deal of knowledge in not just archaeological studies but also in fields such as history, ethnography, and other material focused studies (Schiffer 2011:30-34). With a better comprehension of the technical jargon he uses in this framework, it is now possible to understand the results other scholars have found using the behavioral chain. This next section will provide two case studies on how the behavioral chain has been used. The purpose of this will be to demonstrate how the behavioral chain model has been an effective theoretical framework and how it is suitable for the application to the case of North Carolina's dolphin fishery.

Yucca Remains at Antelope House

One of the first examples of the behavioral chain being applied can be seen in the work of Frances Stier (1975) at the Antelope House site in Arizona.

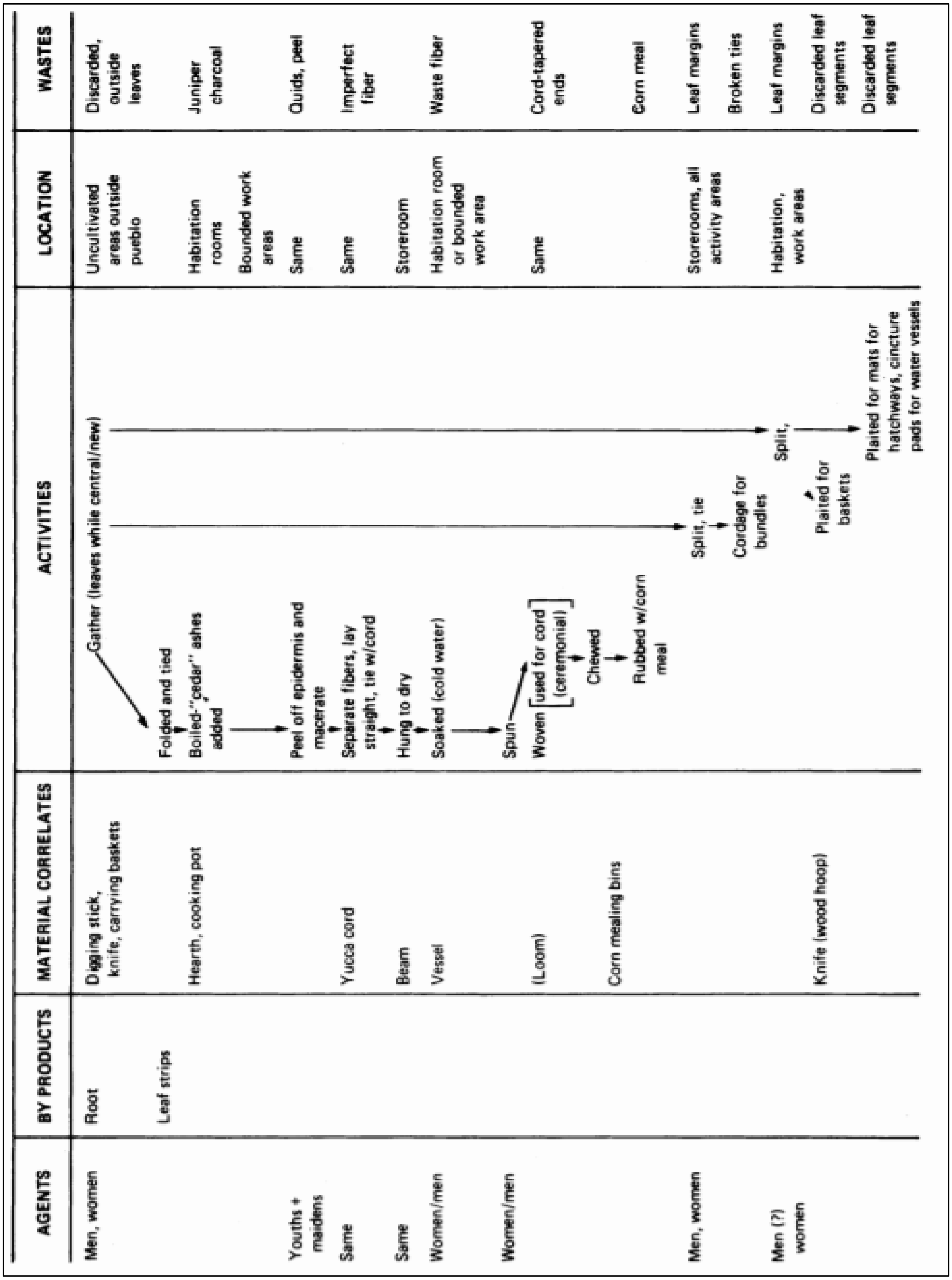

FIGURE 3.6. Behavioral chain for Zuni uses of *Yucca bacatta* leaves (Source: Stier 1975).

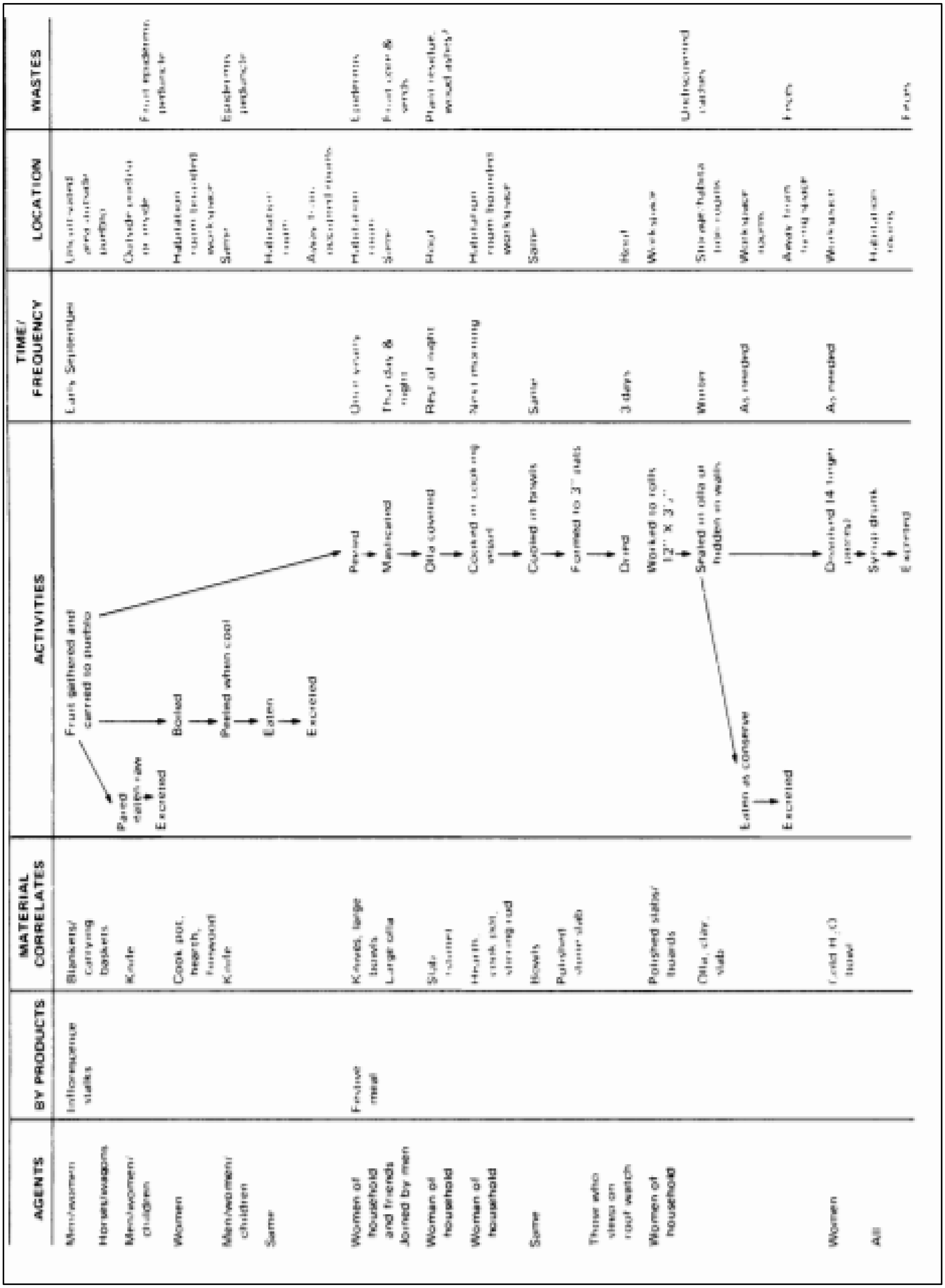

FIGURE 3.7. Behavioral chain for Zuni uses of *Yucca bacatta* fruits (Stier 1975).

Stier's goal was to reconstruct prehistoric economic activities by analyzing manufacturing methods and use patterns of the two species of yucca plant: *Y. baccata* and *Y. angustissima*. The reason why yucca was chosen as her study's emphasis is due to the fact it made up seven percent of the total vegetal refuse weight found at the site. Stier argues that this suggests some idea of economic importance (Stier 1975:57).

As seen above in Figures 3.6 and 3.7, Stier outlines her behavioral chain model using agents, by products, material correlates, activities, location, and wastes as his elements. She specifically chose these elements for this study primarily because of the nature of the yucca plant's ecology and pollination characteristics. By organizing it in this manner, Stier came to a couple conclusions. First, the behavioral chain found was useful in clarifying the origin and location of vegetal wastes that were transported and abandoned in specific areas. She was also able to find evidence of technological change on the yucca-based cords. Cords were found randomly throughout the site, often with their ends cut. The distribution of these cords suggests the inhabitants recycled cord from robes for use as ordinary cordage. When placed within a behavioral chain, this shows a pattern of reuse (Stier 1957:58-63; Schiffer 2011:194).

Lithic Analysis at the Longhorn Site (41KT53)

The behavioral chain model has also been useful in the identification of activity areas through lithic analysis. In Kathyrn Smith's master's thesis, she utilizes the behavioral chain model on lithics and debitage found at a Protohistoric Native American encampment known as the Longhorn Site (41KT53). Studies surrounding the archaeology of the Longhorn Site (41KT53) had been going on since the 1950s (Smith 2010:vi-3).

What separates Smith's study from other behavioral chain studies is her use of lithics rather than the variety of material culture seen in other studies (Schiffer 1975, 2011; Stier 1975. Schiffer points out that "a behavioral chain may be represented by singular artifact, such as Renoir's painting *Luncheon of the Boating Party*; a craft item, such as the rice-cooking pots made by all potters in Dangtalan, a village in the Philippines; or a mass-produced product, such as a Hershey's milk chocolate bar with almonds" (Schiffer 2011:30). With that in mind, lithics, while different compared to the material culture mentioned by Schiffer, still offer a wealth of knowledge when applied in a behavioral chain model (Smith 2010).

In her study, Smith used six steps to identify activity areas based on the distribution of 7,644 pieces of debitage and 161 lithic tools. These steps include activities that could have taken place, identifying activity areas, additional information, additional activities, recurring activities, and aspects of social organization. These steps were chosen because of the studies focus which is flintknapping technology and its life history (Smith 201:34-69). By visualizing her behavioral chain model through those six steps, Smith could reach a couple conclusions. First, she could identify the tool manufacturing, use, and maintenance activities that took place at the Longhorn Site (41KT53). Secondly, she could identify the animal hide processing activities that were taking place in her area of focus. Finally, she related the spatial organization of the site through the distribution of its activity areas (Smith 2010:157-160).

Conclusion

Archaeological studies of technology have vastly changed over the last century. The works of Childe (1929), Binford (1962a), Schiffer (2011) and several others played pivotal roles in how technology is interpreted in archaeology. By understanding the works of these key figures, it is understandable how Schiffer came to his definition of technology and the processes surrounding its change (Schiffer 2011:4).

The behavioral chain model is an excellent framework to study technology and its changing processes. It gives the investigator the ability to visualize linkages or networks of groups, technologies, activities, and places. In doing this, it shows potential changes that took place during the activities and processes of a technology's life (Schiffer 2011:4). The behavioral chain model has never been applied to the maritime archaeology of fisheries. By utilizing this theoretical framework, a wealth of knowledge can be gleaned not only from North Carolina's dolphin fishery but also fisheries as whole.

CHAPTER FOUR: METHODOLOGY

Introduction

To apply Schiffer's behavioral chain model to North Carolina's dolphin fishery, a multistage methodology is necessary. The methodology for this study is divided into three phases; a historical research phase, an archaeological research phase, and a data compilation phase. The historical research phase focused on identifying and utilizing archival and historical sources related to North Carolina's dolphin fishery. The archaeological methodology comprised of several stages. The first stage involved locating potential repositories from public and private collections and documenting material culture related to North Carolina's dolphin fishery. The second stage involved utilizing historical resources to locate any potential areas of activity related to the industry including hunting grounds and processing factories. The third stage utilized the historical and archaeological phases to create a material culture database and maps depicting areas of activity. By collecting and processing the data in this manner, it allowed for behavioral chains to be effectively collated and analyzed.

Historical Research

Preliminary historical research for this project began with a survey of previous studies on North Carolina's whaling industry. Whaling researchers such as Mitchell and Reeves' *History of Whaling in and near North Carolina* (1988), Simpson and Simpson's *Whaling on the North Carolina Coast* (1990), and Bradley's "Where were the Whalers?" (2015) mentioned on several occasions that dolphin fishing occurred on the Outer Banks but was vastly different from the whale fishery. After examining the sources of these previous researchers, the search led to several institutions throughout the eastern part of the United States. These institutions included museums, archives, companies, and local historical societies. A list of these institutions visited or consulted with is provided below (Table 4.1).

Table 4.1. List of Institutions visited or consulted.

INSTITUTION	LOCATION
History Museum of Carteret County	Morehead City, NC
Beaufort Maritime Museum	Beaufort, NC
Cape Fear Museum of History and Science	Wilmington, NC
Coastal Voices	Harker's Island, NC
Core Sound Waterfowl Museum	Harker's Island, NC
East Carolina University Joyner Library	Greenville, NC
Fort Macon State Park	Atlantic Beach, NC
Graveyard of the Atlantic Museum	Cape Hatteras, NC
Hatteras Island Genealogical & Preservation Society	Cape Hatteras, NC
Museum of the Albemarle	Elizabeth City, NC
New Bedford Whaling Museum	New Bedford, MA
Newspapers.com	Internet Database
North Carolina Museum of Natural Sciences	Raleigh, NC
North Carolina Maritime Museum at Southport	Southport, NC
North Carolina State Archives	Raleigh, NC
Nye Lubricants	Fairhaven, MA
Ocracoke Preservation Society	Ocracoke, NC
Outer Banks History Center	Manteo, NC
Smithsonian Institution	Washington, DC
UNC Chapel Hill Library	Chapel Hill, NC
US Coast Guard History Program	New London, CT
Wildlife Conservation Society	New York City, NY

In addition to visiting or consulting with these public institutions, oral history interviews were conducted with two Outer Banks community members who had a connection to the dolphin harvesting industry. Because interviews with the public were carried out, an Institutional Review Board application was submitted and accepted by the University and Medical Center Institutional Review Board 17-000911. The Institutional Review Board application included a digital recruitment form, media recruitment form, a consent waiver, and interview question form.

The digital recruitment form was a short advertisement intended for internet, email, and social media-based recruitment (Figure 4.1). This form was primarily used as most of the advertisements were sent through social media platforms such as Facebook (Figure 4.2). The media recruitment form is like the digital recruitment form, but it was intended for digital and print-based flyers for recruitment (Figure 4.3). The consent waiver was the most essential form because it was necessary to have signed before oral histories could be used in this study. It informed the interviewee of the goals of the interview and how the data would be used (see Appendix A). Finally, the interview question form showed the two primary questions that would be asked to interviewees (Figure 4.1). These questions were framed with the concepts of Schiffer's behavioral chain model in mind (Schiffer 2011).

HUSS & RICHARDS– OF BLOOD, SALT, AND OIL: AN ARCHAEOLOGICAL, GEOGRAPHICAL, AND HISTORICAL STUDY OF NORTH CAROLINA'S DOLPHIN FISHERY

APRIL 2017

THE FOLLOWING TEXT WILL BE USED IN INTERNET, EMAIL, AND SOCIAL MEDIA-BASED RECRUITMENT

If you or someone you know is a descendant of North Carolina's porpoise fishery families, please feel free to contact George Huss at hussg16@students.ecu.edu (email) or 252.214.2281 (cell phone). George is a graduate student in the Maritime Studies Program at East Carolina University who is looking for artifacts related to this industry that may still be located in private collections among the communities of the Outer Banks to include in his thesis.

Porpoise hunting artifacts may include trypots (large, cast iron cooking pots used to boil porpoise oil), seine nets, blunt steel hooks (short hooks to pull the porpoise), mincing knives, and other objects used in fishing. George is also very much interested in hearing personal stories of the industry.

This is not only an opportunity to learn more about North Carolina maritime heritage, for some it may be an opportunity to share knowledge of this historic local industry.

FIGURE 4.1. Digital Recruitment Form (IRB application 2017).

FIGURE 4.2. UNC Coastal Studies Institute Facebook Advertisement (Facebook).

HUSS & RICHARDS – OF BLOOD, SALT, AND OIL: AN ARCHAEOLOGICAL, GEOGRAPHICAL, AND HISTORICAL STUDY OF NORTH CAROLINA'S DOLPHIN FISHERY

APRIL 2017

THE FOLLOWING TEXT WILL BE USED IN DIGITAL AND PRINT BASED FLYERS FOR RECRUITMENT

The History and Archaeology of North Carolina's Porpoise Fishery

Do you have an artifact associated with the porpoise industry of the Outer Banks?

Perhaps you have seen a seine net, a trypot, or a steel hook once used in this industry? Perhaps you are a descendant of a NC porpoise hunting family with a story to tell?

If you answered yes to any of these, please contact MA student George Huss (email: hussg16@students.ecu.edu; cell phone 252.214.2281). George hopes to use these artifacts and stories in his research that looks into the activities of North Carolina's porpoise fishery.

FIGURE 4.3. Media Recruitment Form (IRB Application 2017).

UMCIRB 17-000911: Interview questions

- *What do you know about North Carolina's(*) Porpoise Fishery?*
- *Do you have any material culture that you believe was once used in North Carolina's(*) Porpoise Fishery?*

* location will be altered according to specific area connected to participant or participant's knowledge (e.g. "Hatteras Island").

FIGURE 4.4. IRB Interview Questions (IRB Application 2017).

Archaeological Research

The archaeological research phase was a multi-stage approach. The first stage involved locating and documenting material culture related to North Carolina's dolphin fishery. The second stage utilized archival and historical resources to identify and survey archaeological sites associated with North Carolina's dolphin fishery. The final stage focused on creating maps in ArcGIS to geospatially analyze the datasets collected and create visuals depicting the interrelations between behavioral and spatial-material aspects of activities with reference to their life history (Schiffer 1995:61).

Stage One: Artifact Documentation

In March of 2018, a Dare County Government Educational Television Program Grant, titled "Local Programming Development Initiative" was obtained, which provided funding to support travel to visit public repositories listed in Table 1 (see McCord et al. 2018). After consulting with these public institutions, material culture related to North Carolina's dolphin fishery were found at the Graveyard of the Atlantic Museum, the University of North Carolina at Chapel Hill, the North Carolina Maritime Museum at Beaufort, the Smithsonian Institution, the New Bedford Whaling Museum, and the World Conservation Society. To locate private repositories, the previously described advertisements calling for individuals with connections to North Carolina's dolphin fishery were sent to various media outlets. Social media platforms, such as Facebook, were proven to be the most effective tool in locating individuals who had a connection to North Carolina's dolphin fishery. Unfortunately, no artifacts were found within private repositories. Once the artifacts were located, the next component focused on artifact recordation and documentation.

The University of North Carolina Coastal Studies Institute's Maritime Heritage Program provided a portable artifact photography kit, which included two lights with stands, a Giottos ST120 small portable light tent, background screen in various colors, and a tripod. Additional equipment included photographic scale bars, a portable weight scale, additional lights, a white background, and Nikon D300 SLR camera, controlled via a laptop running *digiCamControl* software. Lights were positioned behind the tent to provide a shadow-less background. The dimensions of each artifact varied and required different sized scale bars (Figure 4.5).

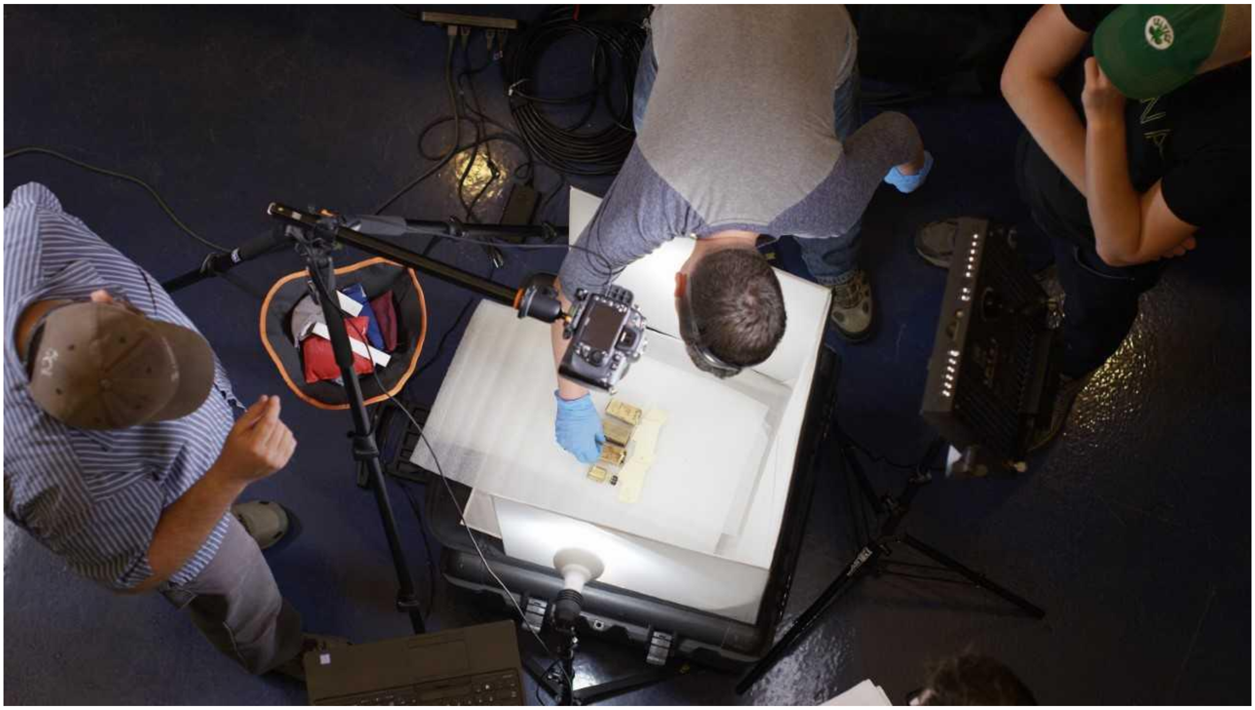

FIGURE 4.5. Nathan Richards and George Huss preparing bottles of dolphin oil for artifact photography (John McCord).

Once photographs were taken, a field journal and artifact catalogue were assembled noting all the data obtained. The artifact catalogue contained information such as (1) current owner, (2) current location (in appropriate public institutions latitude and longitude), (3) materials of the artifact, (4) measurements and dimensions and any additional important information for analysis, and (5) any additional information on the artifact (Figure 4.6).

ID	ObjectNo	Recorder	Date Recorded
(New)			

Object Name	Current Location Object

Location Depicted	Latitude	Longitude
	0	0

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
	0				

Fabric	Function	Subfunction

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
0	0	0	0

Additional Information

Provenience

Object History

FIGURE 4.6. Dolphin Fishery Artifact Data Form (Source: Author).

Collation of this additional information involved defining other important categories of analysis such as use, reuse, and function (in association with Schiffer's behavioral chain model framework). To define terminology, this study adapted the material culture categorization system defined by Annalies Corbin in *The Material Culture of Steamboat Passengers* (1999) -- a system that has been modified by other scholars for thematic research. For example, Kathryn Cooper utilized Corbin's methodology for gender, status and racial meanings within a material culture assemblage in the museum ship *Success*, and quotes:

> While her [Corbin's] topic is temporally similar to the *Success*, her book, *The Material Culture of Steamboat Passengers* (1999) covers an entirely different subject. Corbin nonetheless developed a method of cataloguing artifacts, by using a taxonomic categorization strategy applied to each artifact in each assemblage, which could prove useful in cataloguing *Success*'s material culture. She identified a hierarchy of attributes applicable to each artifact from which to infer the extent to which it expresses different cultural constructs such as gender or age. These attributes were then compared against one another to get an idea about the general character of the assemblage and the wide variety of ways it can be interpreted (Cooper 2014: 96-97, and see Corbin 1999:23-25).

In addition to photographing and recording the artifacts, photogrammetric models were also created to provide 3D models of larger artifacts. This allowed for greater interpretation of technologies and environments associated with the dolphin fishery.

Stage Two: Archaeological Site Documentation

After the material culture documentation was complete, stage two involved conducting archaeological fieldwork. The methods employed in the archaeological fieldwork stage were strictly non-invasive and included photography, videography, and pedestrian surveys. After consulting the historical and archaeological records, research pointed to three sites that were known to have had activity related to North Carolina's dolphin fishery.

The first site was the Hatteras Porpoise Processing Factory. Located on a marshy island (Durant's Island) north of Hatteras Village, the Hatteras Porpoise Processing

Factory was one of the largest and longest continuously operating factories on the Outer Banks (Figure 4.7). The factory was known to have processed goods such as porpoise oil, skin, and meat. Today, only very little remains of the factory existence (Figure 4.8).

Prior to conducting fieldwork, permission was required from private landowners. After searching through the Dare County GIS Portal requests for permission to conduct non-intrusive surveys were mailed to private landowners (Figures 4.9-4.10). Permission was eventually granted in some areas on the stipulation that all data compiled would be shared with landowners (Table 4.2). Once permission was granted in specific areas, pedestrian surveys were carried out using photography, videography, and pedestrian surveys.

FIGURE 4.7. A 1923 aerial photograph taken by the US Army Air Corp for conducting vulnerability tests of naval forces to aerial bombardment of the Port of Hatteras. In the bottom left corner is a rare image of what might be the Hatteras Porpoise Factory (US Airforce Historical Research Agency).

FIGURE 4.8. Unscaled building pilling found on the shore of Durant's Island possibly in relation to the Hatteras Porpoise Factory (Source: Author).

FIGURE 4.9. Division of land ownership of Durant's Island (Dare County GIS).

Table 4.2. List of land parcels permitted to survey (Table by Author).

PARCEL NUMBER	PERMISSION GRANTED	SURVEYED
1	Yes	Yes
2	Yes	Yes
3	Yes	Yes
4	Yes	Yes
5	Yes	Yes
6	No	No
7	No	No
8	No	No
9	No	No
10	No	No

30 November 2017

Dear Land Owner,

Request to access and photograph land for archaeological research

In conjunction with the MA thesis research of Mr. George Huss, the UNC-Coastal Studies Institute in Wanchese is interested in recording features of the remains of the former Porpoise Processing Plant on Durant's Island in Hatteras. We are seeking your permission to access your property to record (draw, photograph, and video) any architectural remains of the Porpoise Processing Plant.

The research is part of MA thesis student George Huss with ECU's Program in Maritime Studies and CSI's Maritime Heritage Program. I am interested documenting the history and archaeology of the North Carolina Porpoise/Dolphin Fishery. Its intention is to help preserve the maritime heritage of the Outer Banks. The work we do is totally non-invasive – **we do not move, damage, deface, or remove anything on your property.** The work we will do will involve using kayaks and cameras on both land and water. All researchers are professional and trained individuals. In addition, a safety briefing will be conducted.

In return for your assistance, we are happy to provide you copies of all photographs, drawings, or information related to any structural remains you have on your property upon request.

If you have any questions about this project, I am more than happy to correspond via email or telephone (details below.) Thanks in advance for any assistance you can provide.

Best Regards,

George M. Huss II
Masters Student
Graduate Assistant, University Archives
Program in Maritime Studies
East Carolina University
Email: hussg16@students.ecu.edu
Phone: 252-214-2281

FIGURE 4.10. Letter requesting permission to access and photograph land for archaeological research (Source: Author).

The next two sites were located within the Cape Hatteras National Seashore and required a federal Scientific Research and Collecting Permit (CAHA-2018-SCI-0005) to be submitted and approved by the National Park Service (see Appendix B). The second site is known as the Bight of Hatteras (Figure 4.11). This area was ripe for dolphin hunting as many dolphins were known to travel along the bight. Along the bight were 'spy' camps where a dolphin fisherman would wait patiently and give the signal when a pod of dolphins was in sight (Kellogg 1927:12). It was unlikely that any artifacts could be found given the site's changing geography. However, the purpose of surveying this site was to photograph and record surface finds or landforms that could illuminate the use of the area.

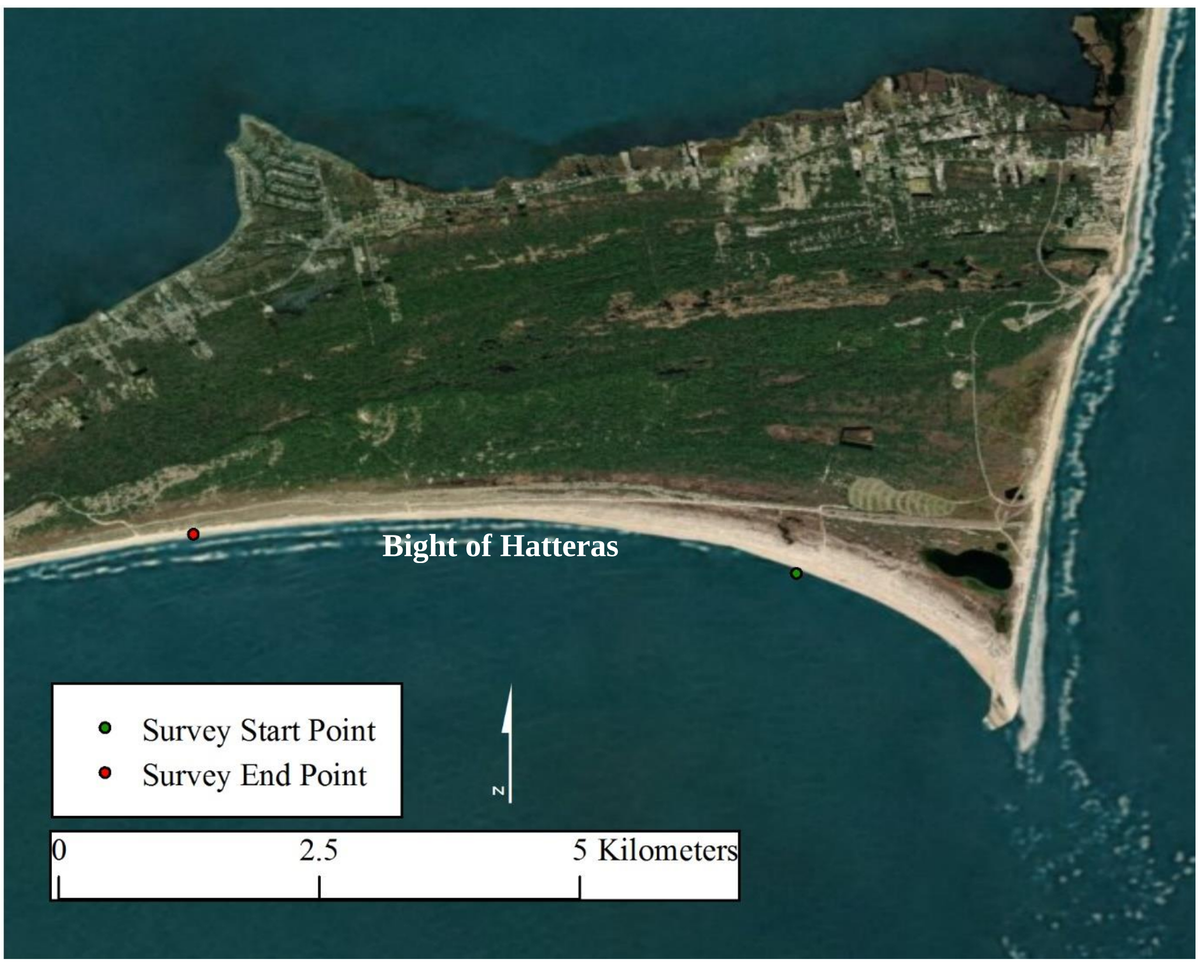

FIGURE 4.11. Archaeological survey area of the Bight of Hatteras (Source: Author).

The final site is known as Try Yard Creek. Located on Ocracoke Island, Try Yard Creek was possibly a hunting ground and processing area for both whales and dolphins (Figure 4.12). Above-surface artifacts were unlikely. Unfortunately, the entire area was impossible to survey due to brush reaching heights of up to six feet. The permit prevented any destructive techniques from being used, and no data was collected.

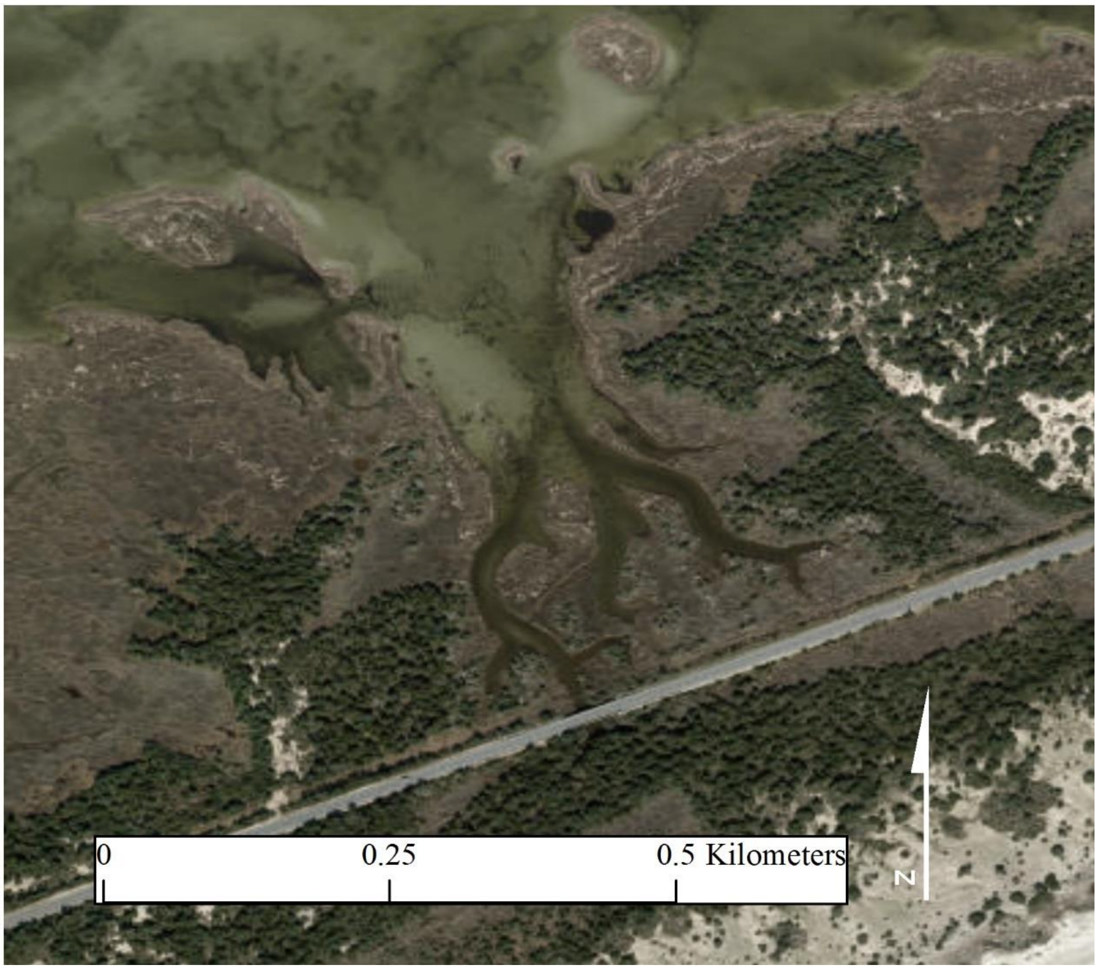

FIGURE 4.12. Try Yard Creek, Ocracoke (Source: Author).

Stage Three: Data Compilation

The final phase involved the analysis of the data compiled and will be further expanded upon in later chapters. The data compilation phase was split into two sections. The first section deals with the material culture collection. The creation of a material culture database table in Microsoft *Access* was necessary for illustrating important aspects of the artifacts (Figure 4.13). Queries related to the database were also created to visualize areas such as current location of objects, fabric count, function of objects, functions and subfunctions of objects, and objects' manufacture and presence dates (Figures 4.14-4.19).

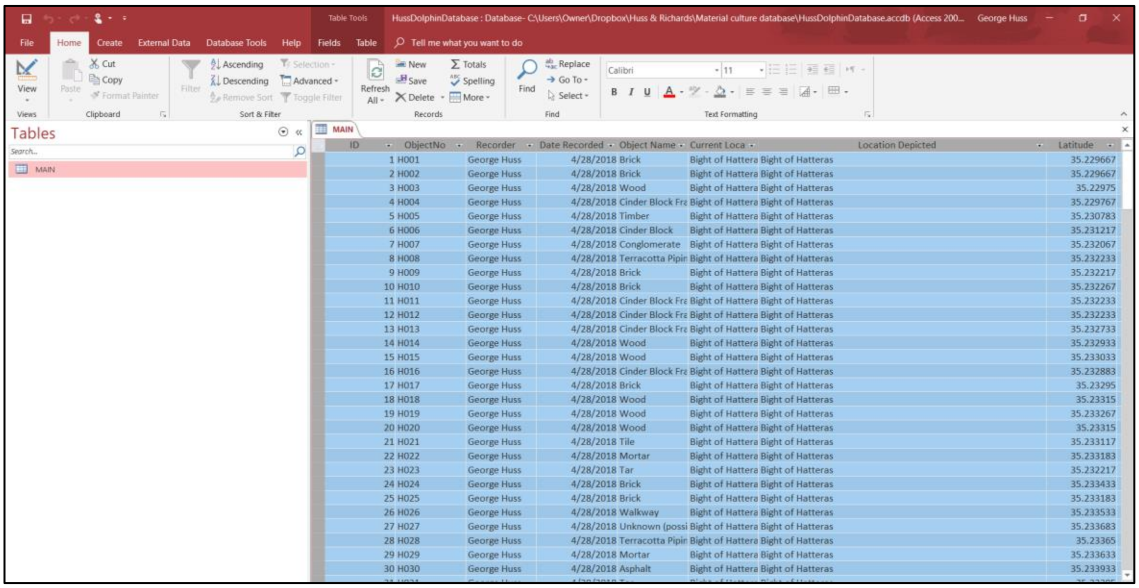

FIGURE 4.13. Microsoft *Access* sheet detailing the list of tables created for graphs and charts (Source: Author).

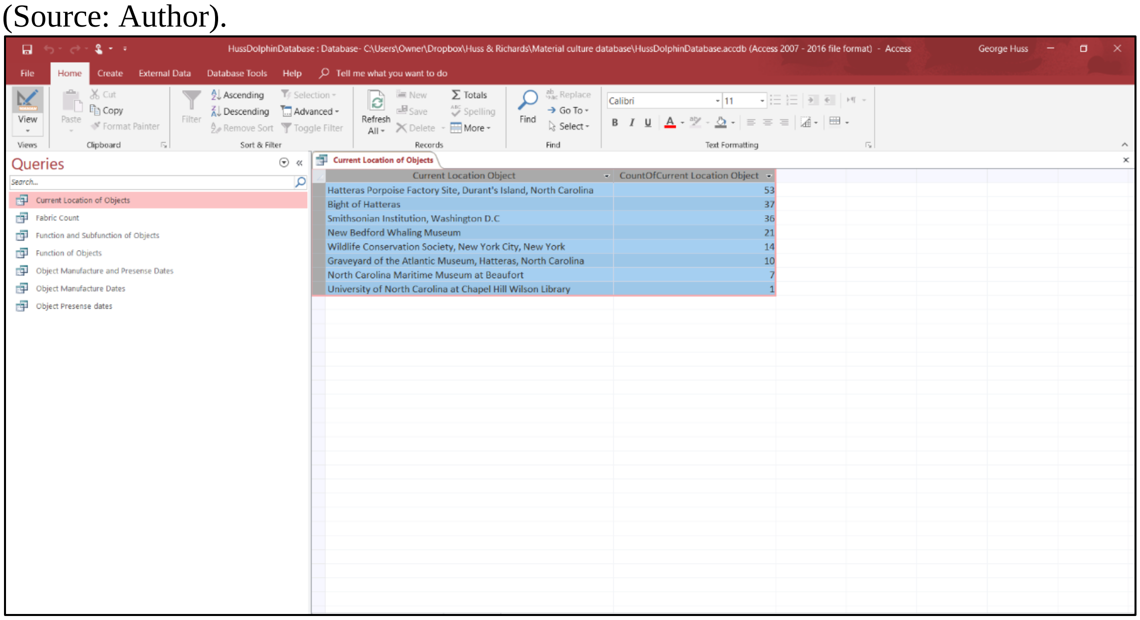

FIGURE 4.14. Microsoft *Access* query detailing the current location of objects (Sources: Author).

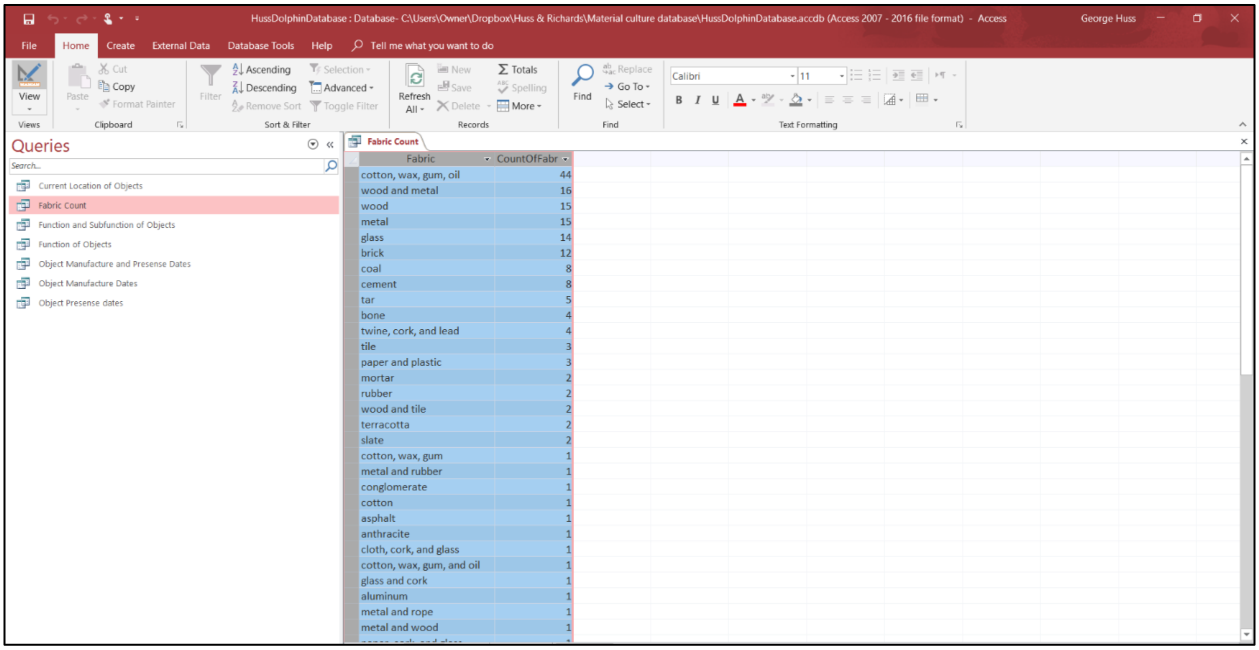

FIGURE 4.15. Microsoft *Access* query detailing the fabric count of objects (Source: Author).

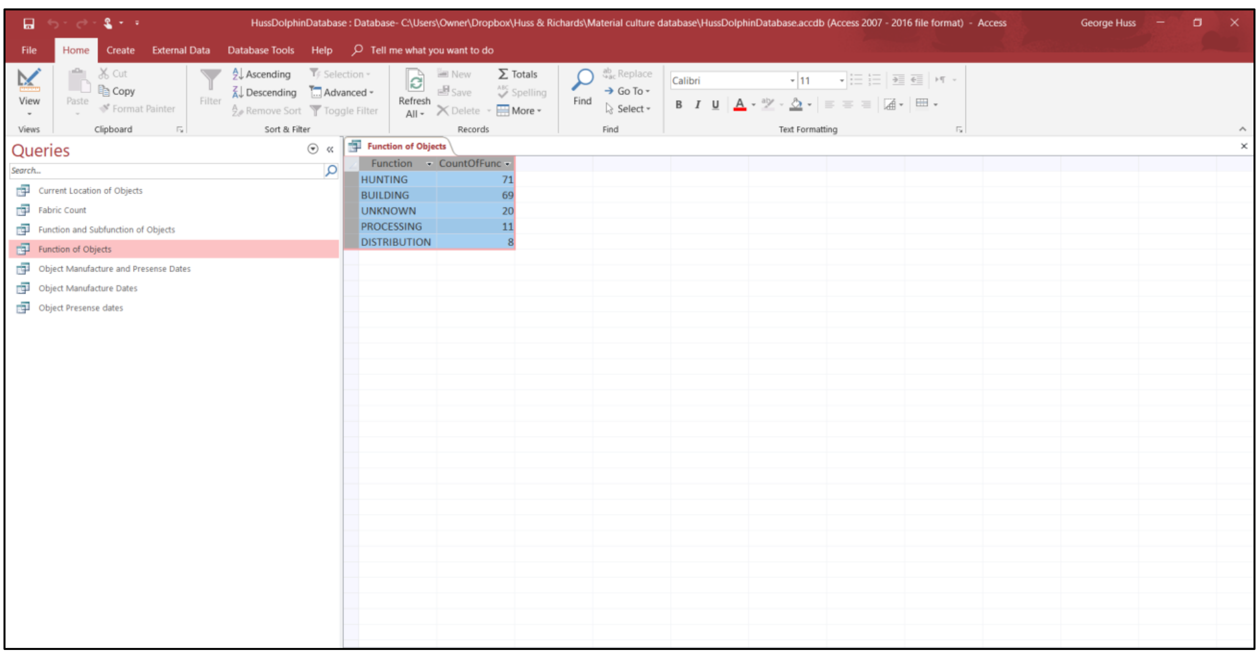

FIGURE 4.16. Microsoft *Access* query detailing the function of objects (Source: Author).

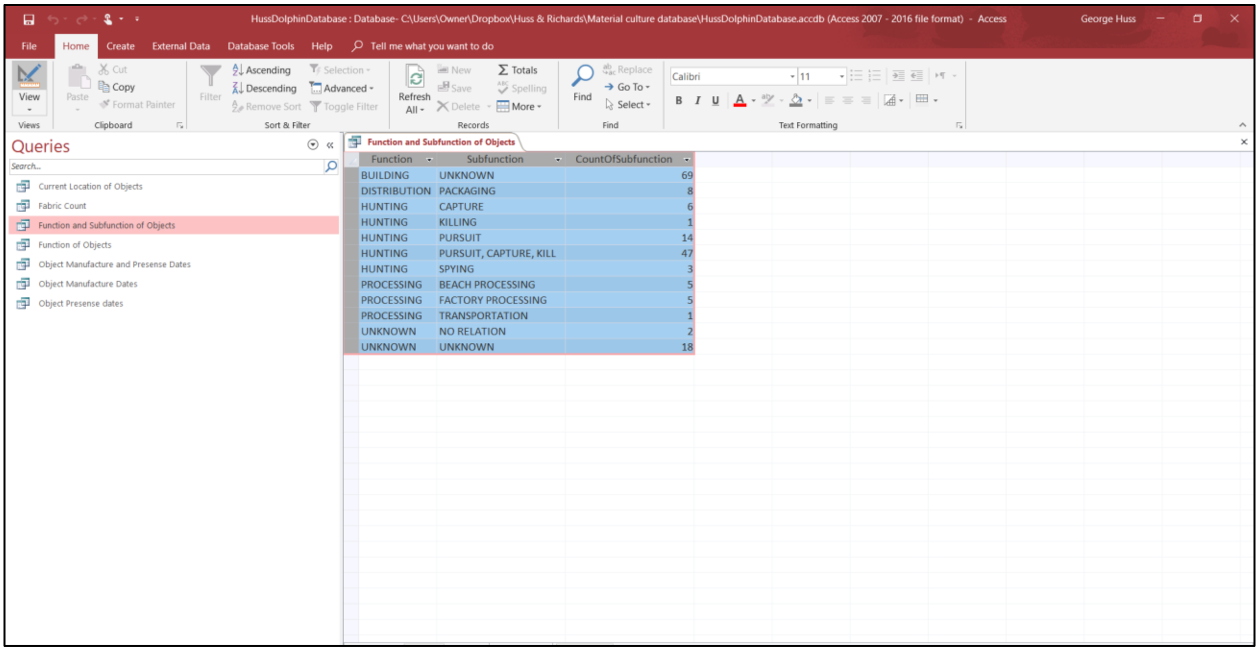

FIGURE 4.17. Microsoft *Access* query detailing the function and subfunctions of objects (Source: Author).

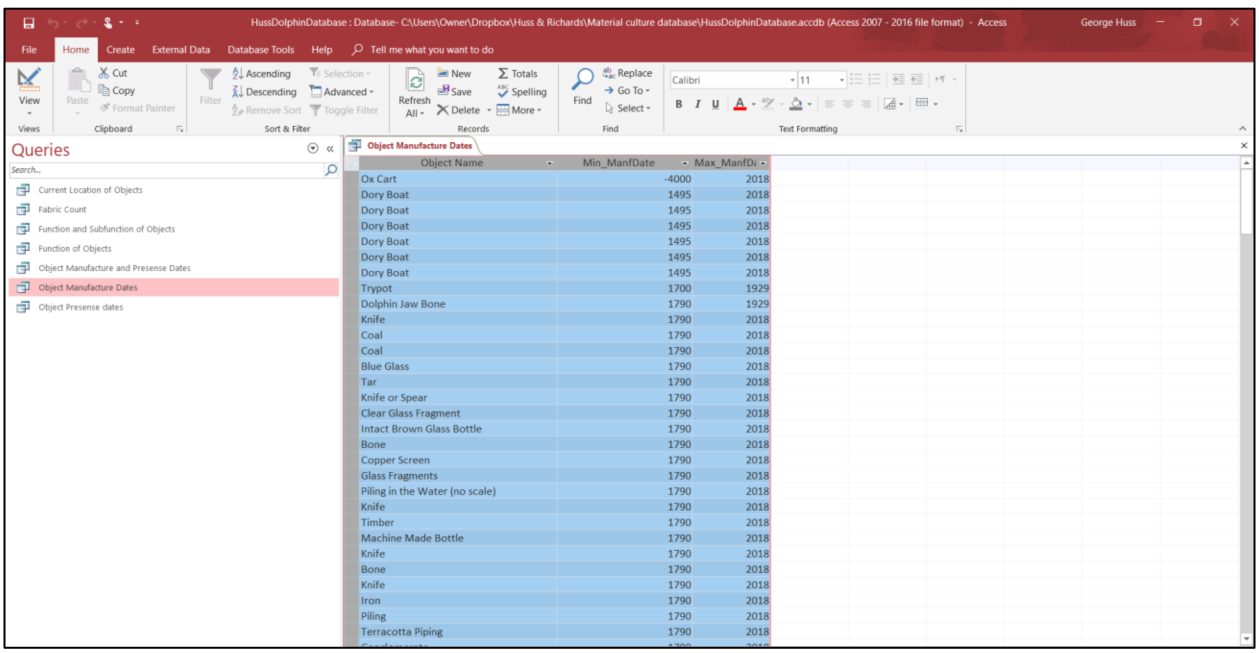

FIGURE 4.18. Microsoft *Access* query detailing object manufacture dates (Source: Author).

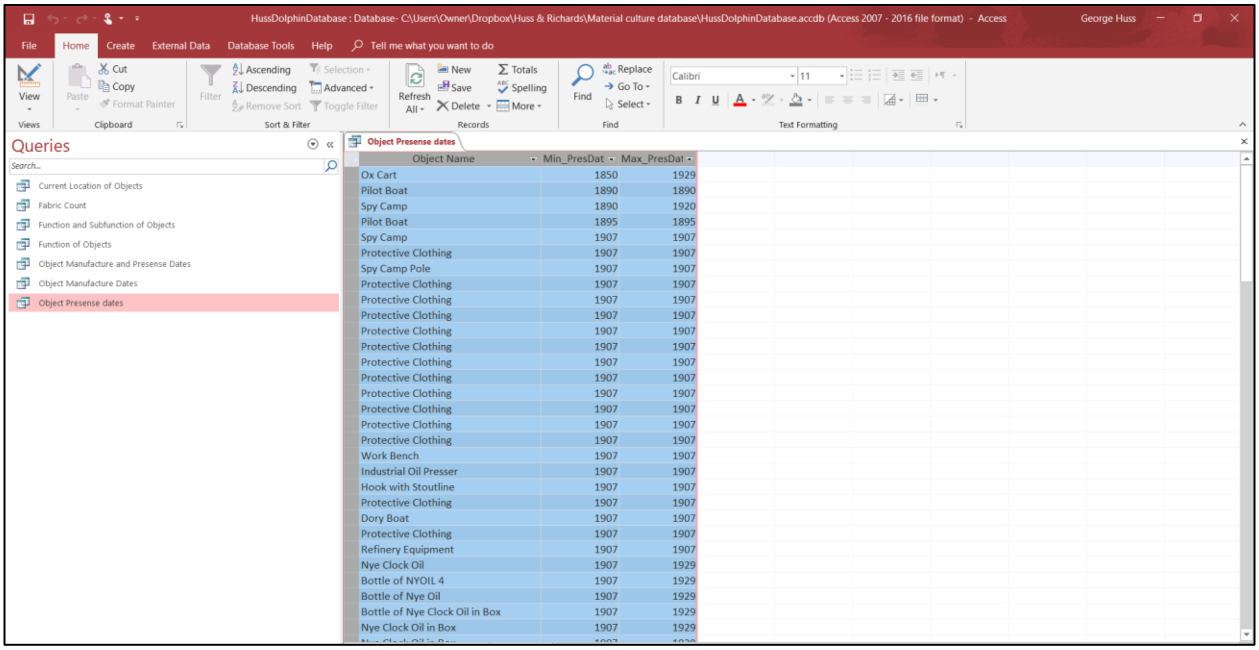

FIGURE 4.19. Microsoft *Access* query detailing the object presence dates (Source: Author).

The second section involved utilizing ArcGIS. Several maps were created depicting activity zones such as hunting grounds and processing areas. Once the maps were created, the *Access* database was then integrated into the ArcGIS project to further highlight important behavioral and spatial aspects of the fishery.

CHAPTER FIVE: IDENTIFICATION OF THE EXTENT OF NORTH CAROLINA'S DOLPHIN FISHERY MATERIAL CULTURE

Introduction

Historical documents shape the current narrative of North Carolina's dolphin fishery. However, while these documents provide a glimpse into the fishery's existence, additional information lies within the archaeological record. To date, there has been no archaeological research conducted on any areas of North Carolina's dolphin fishery. This chapter serves as the first case of archaeological research conducted on North Carolina's dolphin fishery and provides the results gleaned from fieldwork and material culture assemblages.

This chapter's primary objective is to elaborate on the archaeological research conducted on both material culture assemblages from collections and site specific *in-situ* material culture descriptions from fieldwork. This chapter also outlines synchronic (atemporal) and diachronic (temporal) analyses of the material culture assemblage(s). By doing this, it aids in the creation and understanding of the material culture database detailing the fishery extensively (see Appendix B). As such, this chapter is divided into three sections.

The first section provides a detailed description of the collection in its entirety. Within this section, it looks at the location of objects, fabrics of the collection, and the functions of objects. The second section further expands on the functions of objects by providing synchronic functional and subfunctional identifications of the collection. The last section looks at the temporal distribution of objects by manufacture and presence.

Description of the Collection

A description of the collection is necessary as it provided much of the foundation for the application of Schiffer's behavioral chain model in the following chapter (Schiffer 2011:30-34). This section also seeks to provide context into the discovery and curation of these objects that make up. The objects of this database were found within both material culture assemblages from museum collections and *in-situ* at archaeological sites.

Inevitably, there are certain biases associated with collections and objects found at archaeological sites. An example of this would be at the Bight of Hatteras site where archaeological data was personally collected. The bias, in this case, is the location is a greatly disturbed archaeological site (perhaps the location of salvage or comingling of objects from other human activities) that may or may not include materials that are exclusively related to dolphin fishery. However, these materials were still recorded because of their location within an area purported to be a site connected to the dolphin fishery. Conversely, the bias of an institution such as the Graveyard of the Atlantic Museum is found within their curated collections. The objects of these collections are personally selected by the institution to fit the narrative of the collection, and this may lead to high-profile, aesthetically pleasing, or the most complete objects being curated. This first section begins with identifying the current location of objects within the collection.

Current Location of Objects

Material culture potentially pertaining to the North Carolina dolphin fishery was found in institutions in Washington D.C., New York, Massachusetts and within institutions and archaeological sites in North Carolina (Figure 5.1). Figure 5.2 and Table 5.1 detail the current location of objects along with the number of objects found at each site or repository. The site that had the most objects in Figure 5.2 was the Hatteras Porpoise Factory Site on Durant's Island, North Carolina. The site made up 29.6% of the studied assemblage and yielded a total of fifty-three objects (Figure 5.2; Table 5.1).

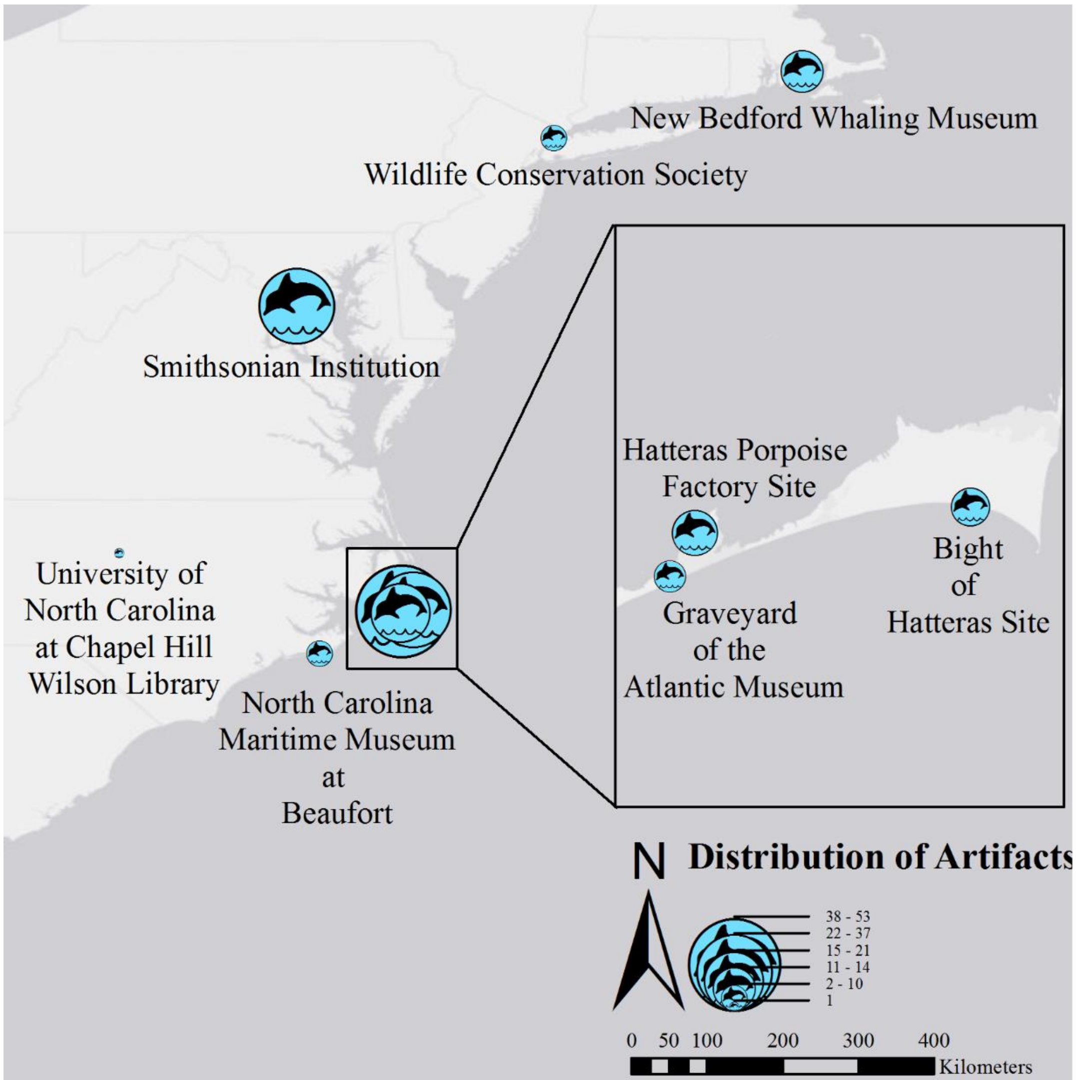

FIGURE 5.1. Distribution map depicting areas with artifacts related to the North Carolina dolphin fishery (Image by Author).

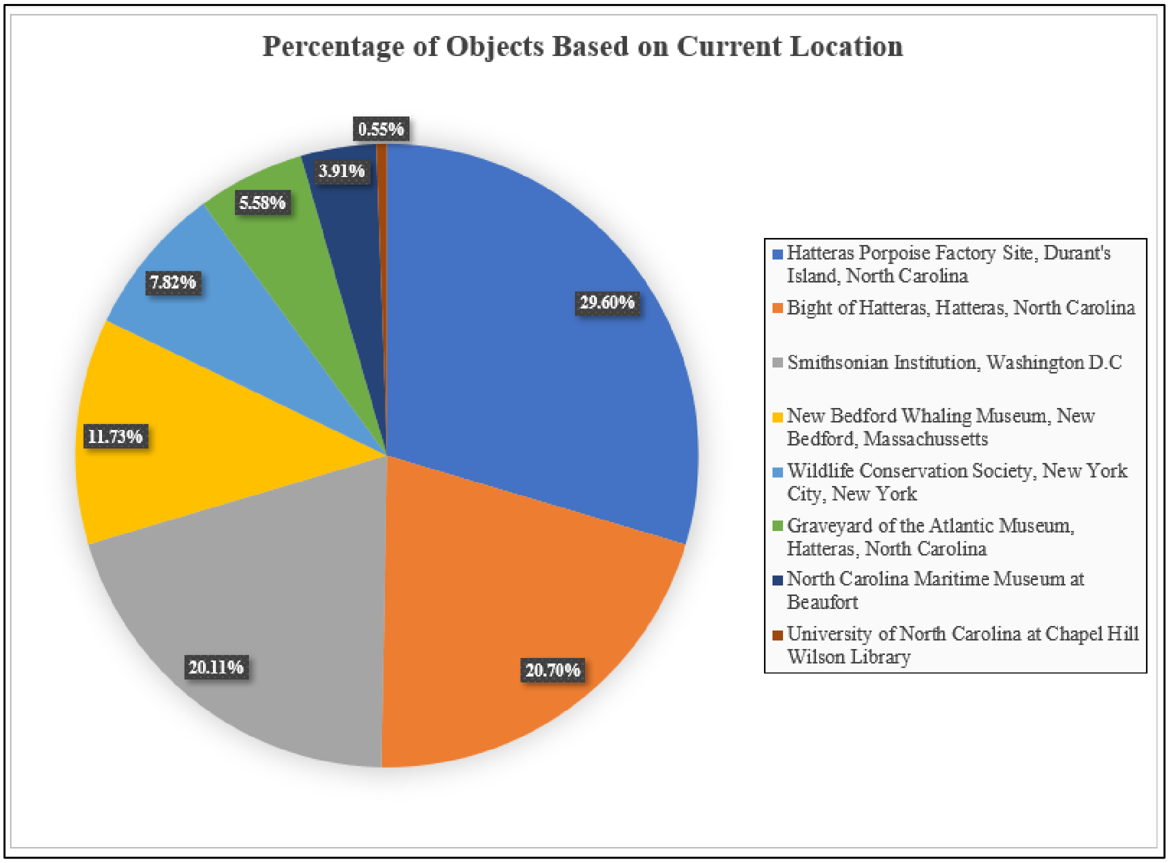

FIGURE 5.2. Pie chart detailing the percentage of artifacts found at archaeological sites and material culture repositories (n=179) (Source: Author).

Table 5.1. Table detailing the location and number of objects at each site or repository (n=179), (Source: Author).

Current Location of Objects	Number of Objects	Percentage of Collection
Hatteras Porpoise Factory Site, Durant's Island, North Carolina	53	29.60%
Bight of Hatteras Site, Hatteras, North Carolina	37	20.70%
Smithsonian Institution, Washington D.C.	36	20.11%
New Bedford Whaling Museum, New Bedford, Massachusetts	21	11.73%
Wildlife Conservation Society, New York City, New York	14	7.82%
Graveyard of the Atlantic Museum, Hatteras, North Carolina	10	5.58%
North Carolina Maritime Museum at Beaufort	7	3.91%
University of North Carolina at Chapel Hill Wilson Library	1	0.55%

The next site to yield a substantial number of objects was the Bight of Hatteras. The site made up 20.7% of the collection and had a total of thirty-seven objects (Figure 5.2; Table 5.1). Like the Hatteras Porpoise Factory site, everything was recorded within the area of survey and much of the objects displayed a less-than-complete status (Figure 5.3). As mentioned previously, it is likely that some of the objects found may or may not be related to dolphin fishing activities. This will be further discussed in the “Functions and Subfunctions” section of this chapter.

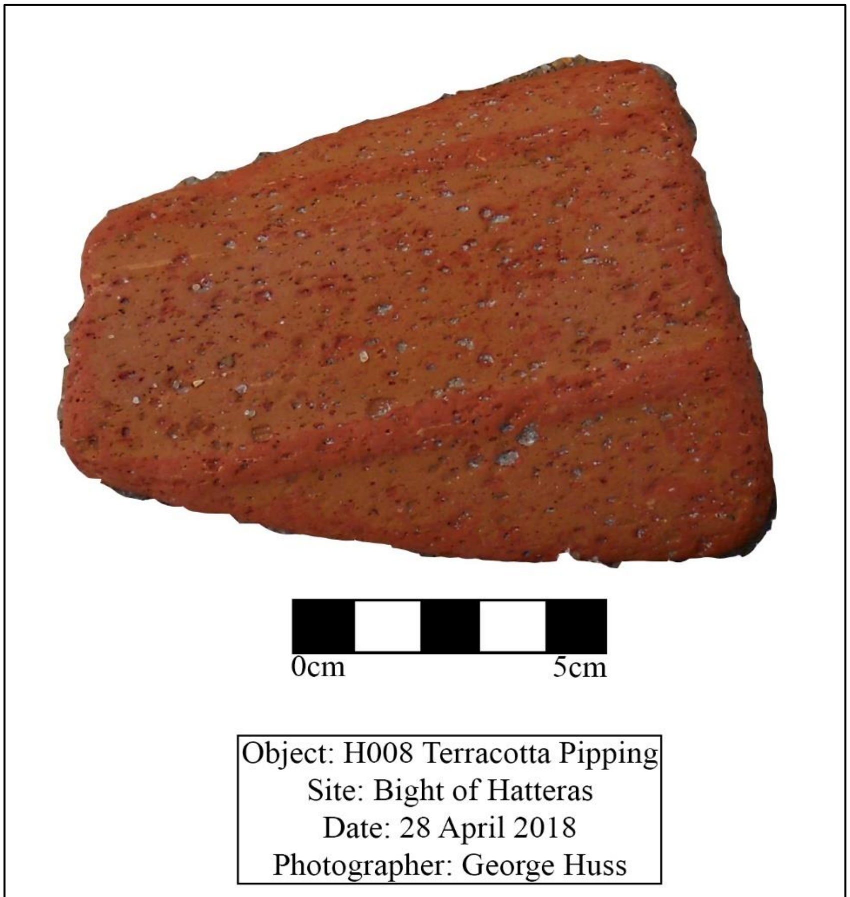

FIGURE 5.3: Terracotta piping fragment found at the Bight of Hatteras site (Image by Author).

Following the objects found at archaeological sites, the objects found in public repositories made up 49.7% of the collection (Figure 5.2; Table 5.1). The repository to contribute the most objects came from the Smithsonian Institution. In May 1927 and February 1928, Dr. Remington Kellogg of the United States National Museum’s Bureau of Biological Survey visited the Hatteras dolphin fishery as part of a joint research study with John Hopkins University. The goal of the study was to evaluate the behavior of bottlenose dolphins in the region in relation to the fishery's yearly catch (Kellogg 1927:11-13; Cecelski 2015:77).

While observing the hunting techniques of the dolphin fishers, Kellogg took extensive field notes detailing the processes surrounding the fishery (Kellogg 1927:11-13). In addition to his notes, Kellogg provided twelve photographs with descriptions detailing the tools and methods of the Hatteras and Beaufort dolphin fisheries (Figure 5.4). The bias, in this case, is the photographs were taken to provide visual evidence to fit Kellogg's research into the behavior of dolphins while a hunt took place.

FIGURE 5.4. Knife used for processing a dolphin for its skin (Smithsonian Institution B-3664-M).

As a result, Kellogg suspected the reason for the declining yearly catches was due to dolphins in the region learning to avoid the fishermen's nets (Kellogg 1927:11; Cecelski 2015:77). Regardless, Kellogg's work was extremely beneficial for understanding the Hatteras and Beaufort dolphin fisheries. His photographs made up 20.11% of the collection and display a total of thirty-six objects (Figure 5.2; Table 5.1). An example of an object found in these photographs was a processing knife (Figure 5.4).

The next institution to house objects related to the fishery came from the New Bedford Whaling Museum. The museum had a total of twenty-one objects and made up 11.73% of the collection (Figure 5.2; Table 5.1). The objects of this collection were also entirely historical photographs of the Nye fishery operations from 1907 to 1929. According to Lead Marketing and Developer of Nye Lubricants, Andrew Vieira, Nye Lubricants donated several photographs related William and Joseph Nye's operations during this period to the New Bedford Whaling Museum (Vieira 2016, pers. comm). President and Chief Executive officer of Nye Lubricants, George B. Mock, III, also noted the photographs were used in Ed Parr's *The Last American Whale-Oil Company: A History of Nye Lubricants, Inc., 1844-1994* (1996) which has provided a great deal of knowledge for this study (Mock 2017, pers. comm).

The bias of this collection is that it is entirely made up of photographs specifically related to the Nye Lubricants operations. Nye Lubricants prides itself as one of the last American companies that engaged in cetacean hunting that continues to operate today. The photographs were taken by company representatives and focus on Nye Lubricants' operations during this period. Regardless, they provide visual evidence of objects in areas associated with hunting and processing. An example of an object often appearing in this collection was the protective clothing used by fishers (Figure 5.5).

FIGURE 5.5: The typical clothing worn by dolphin fishers at the Hatteras fishery from 1907-1929 (New Bedford Whaling Museum).

Despite hunting thousands of dolphins during the early twentieth century, Joseph Nye was also involved with dolphin conservation efforts. In 1912, Nye invited the New York Zoological Society's director, Charles Townsend, to Hatteras to receive several dolphins for the aquarium (*Democrat and Chronicle* 1912:19). These dolphins did not survive the trip prompting Townsend to travel to Hatteras a year later to personally supervise the transportation of other dolphins (Townsend 1914:294).

The next institution that has objects related to the dolphin fishery came from the New York Zoological Society (now World Conservation Society). While in Hatteras, Townsend took several photographs that he included in his article "The Porpoise in Captivity" (1914). The photographs depicted his time down there and provided excellent visual evidence of objects used in the fishery as well as the techniques employed. Today, the original photographs are part of the Wildlife Conservation Society's Charles Townsend collection that continues to be processed (Thompson 2018 pers. comm.). Townsend's photographs make up 7.82% of the collection and depicts fourteen objects in three photographs (Figure 5.2; Table 5.1). The objects depicted in these photographs included items such as seine nets and dory boats (Figure 5.6).

FIGURE 5.6: Seine net and dory boat used in the capture of dolphins at the Hatteras dolphin fishery in 1914 (Source: Wildlife Conservation Society).

Historical photographs make up 44.12% of the collection (Figure 5.2; Table 5.1). However, the only institution to provide tangible objects related to the dolphin fishery came from the Graveyard of the Atlantic Museum. The objects from the Graveyard of the Atlantic Museum made up 5.58% of the collection and had a total of ten objects (Figure 5.2; Table 5.1). The collection is made up of eight bottles of dolphin jaw oil from the Nye fishery at Hatteras (Figure 5.7). The collection also included a trypot (Figure 5.8) and an ox cart that may have been used for transporting dolphins to the factory (Figure 5.9; Michaux 1894:126-127; Couch 2017 pers. comm).

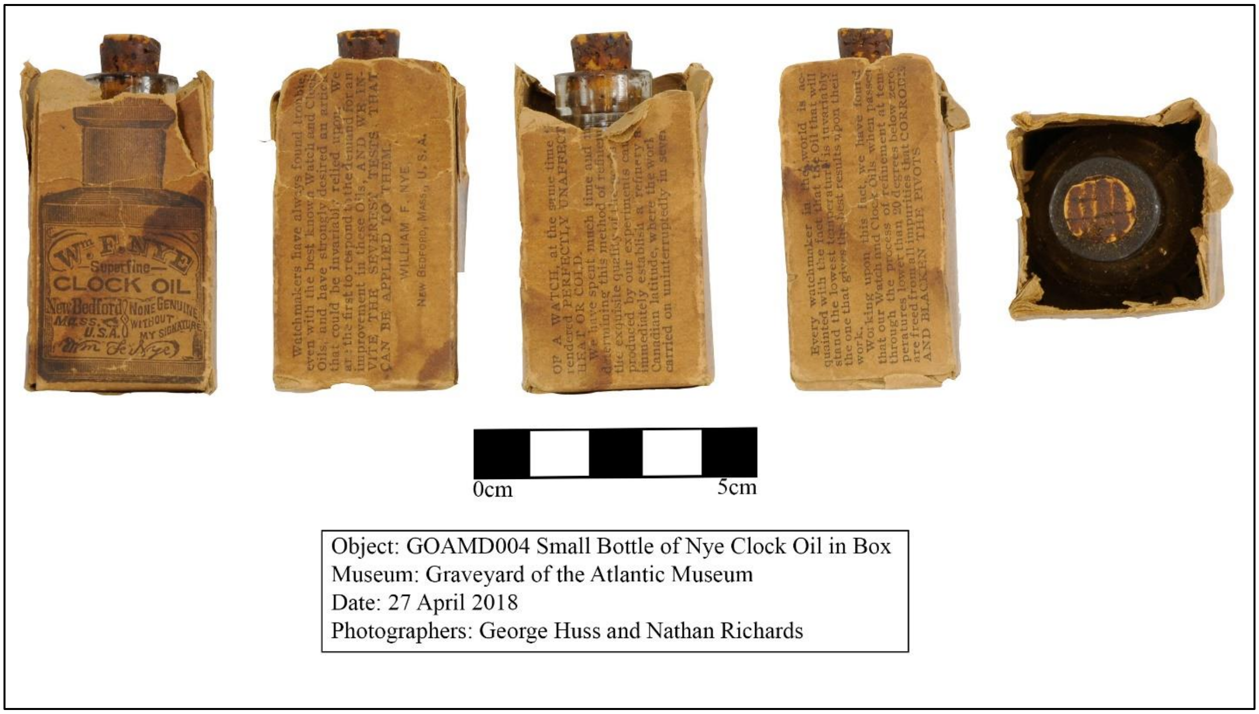

FIGURE 5.7. Small bottle of dolphin oil used for lubricating watches and chronometric devices (George Huss and Nathan Richards).

FIGURE 5.8. Photogrammetric model of a trypot at the Graveyard of the Atlantic Museum (Image by George Huss and Kristina Fricker).

FIGURE 5.9. Photogrammetric model of an ox cart at the Graveyard of the Atlantic Museum (Image by George Huss and Kristina Fricker).

The bottles of dolphin jaw oil were given to the museum from an anonymous donor. Information could not be further provided on the donor due to the museum's privacy policy (Riddle pers. comm 2018). The trypot, however, had a little more information. The trypot was supposedly used at the Nye Hatteras Porpoise Factory from 1907 to 1929 and found by a Hatteras local on the beach of the Pamlico Sound (Figure 5.8; Riddle pers. comm 2017). Finally, there is uncertainty on the ox cart and its relationship to the fishery (Figure 5.9). While ox carts were used to transport dolphin remains, they were also used to transport several objects in

Hatteras such as construction materials (Michaux 1894:126-127; Couch 2017 pers. comm). This ox cart is on loan to the Graveyard of the Atlantic Museum and dates to about 1850 (Anderson 2018 pers. comm).

The next institution to have objects related to the fishery came from the North Carolina Maritime Museum at Beaufort. The North Carolina Maritime Museum at Beaufort provided a small collection of seven historical photographs of pilot boats. These photographs made up 3.91% of the collection and displayed seven pilot boats (Figure 5.2; Table 5.1). Pilot boats were primarily built by legendary boatbuilder, Devine Guthrie, and were used by whalers in the Shackelford Banks and Cape Lookout regions (Figure 5.10). In addition to hunting whales, these fishers engaged in dolphin fishing using these boats (Stick 1958:194; Jateff 2006:43; Tursi 2014; Bradley 2015:104-105; Fontenoy 2017 pers. comm).

FIGURE 5.10. Devine Guthrie posing with a pilot boat that may have been used in hunting whales and dolphins (North Carolina Maritime Museum at Beaufort).

The last collection to have material culture related to the dolphin fishery came from the University of North Carolina at Chapel Hill Wilson Library Collier Cobb Photographic Collection. Collier Cobb was a geology professor at the University of North Carolina at Chapel Hill from 1893 to 1934. He traveled extensively and took several photographs documenting his journeys around the world. Cobb's photographic collection was donated to the University of North Carolina at Chapel Hill Wilson Library in 1976 (Cobb 1976).

Within the Collier Cobb Photographic Collection is a single 4x5 glass plate copy negative (Fletcher 2017 pers. comm). This glass plate negative copy makes up 0.55% of the collection and includes one object (Figure 5.2; Table 5.1). The glass plate copy negative depicts a possible dolphin fisher within dolphins in the foreground. In the background, is a single spy camp (Figure 5.11).

FIGURE 5.11. A single spy camp used to alert fishers of dolphins nearby (P0013/0083 in the Collier Cobb Photographic Collection #P0013, North Carolina Collection Photographic Archives, The Wilson Library, University of North Carolina at Chapel Hill).

Fabrics in the Collection

The importance of describing the types of fabrics in the collection is due to their consideration as *conjoined elements* and *outputs* within the behavioral chain model (to be discussed in Chapter 6). The fabrics represented in the collection varied considerably. Figure 5.12 depicts the types and frequency of certain fabrics within the collection. The dolphin fisher clothing which was made using cotton, wax, gum, and oil tended to make up a largest number of fabrics with a total of forty-six (Figure 5.12; Angell 1981; Couch 2017 pers. comm). Conversely, several pieces, such as asphalt, aluminum, and plastic, made up the smaller portions of the number of fabrics (Figure 5.12).

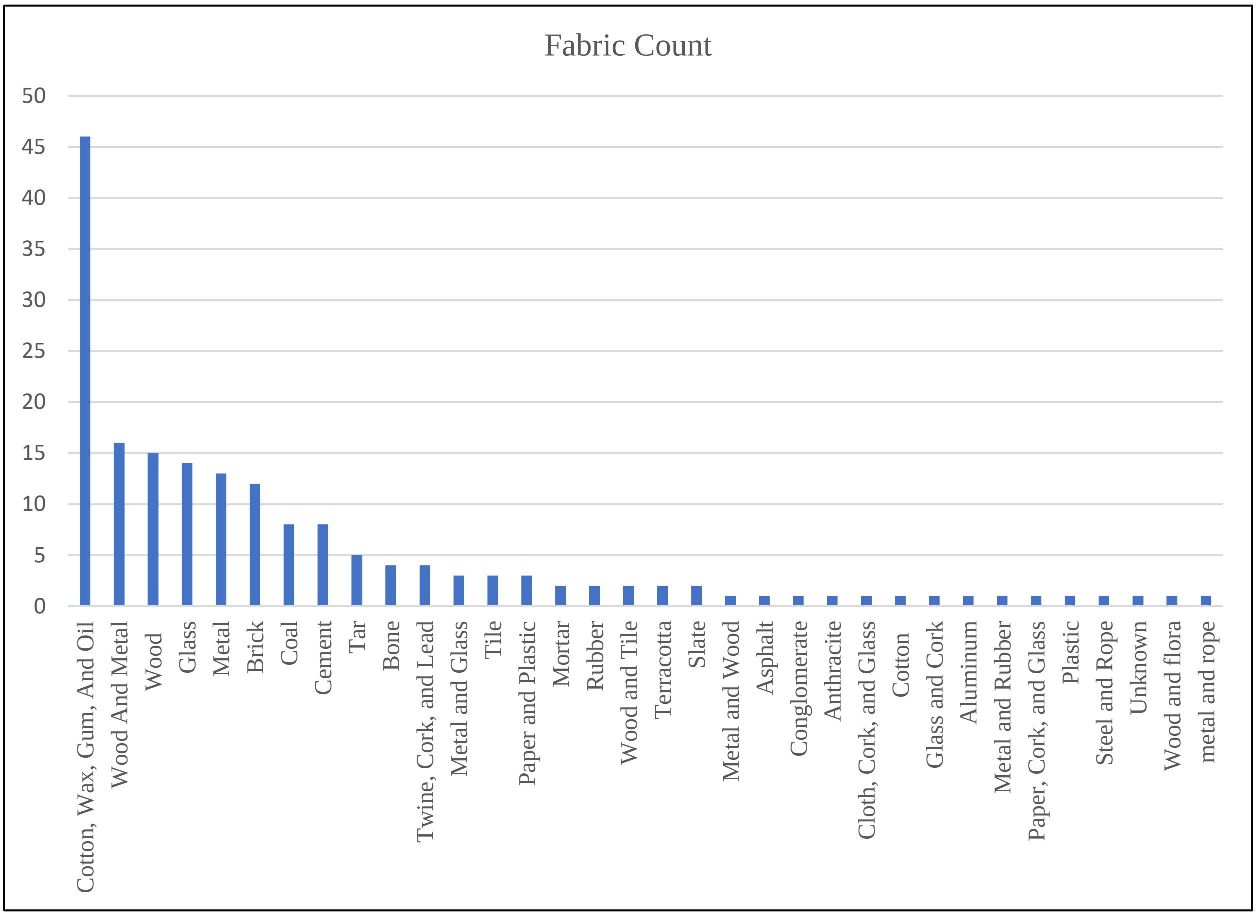

FIGURE 5.12. Line graph depicting the number of fabrics found within the collection (n=179).

Function of Objects

Each artifact within this study fulfilled a specific role or function. According to Schiffer, a function or 'functional field' is defined as "the entire set of a society's techno-, socio-, ideo-, and emotive functions defined independently of the technologies that carry them out" (Schiffer 2011:192). The creation of a list of functions for objects was particularly important for this study because of Schiffer's emphasis on technology regarding its role within the *activities* in the behavioral chain model (Schiffer 2011:30-34; Figure 5.12, and Table 5.2). The functions for objects in this study were divided into five areas.

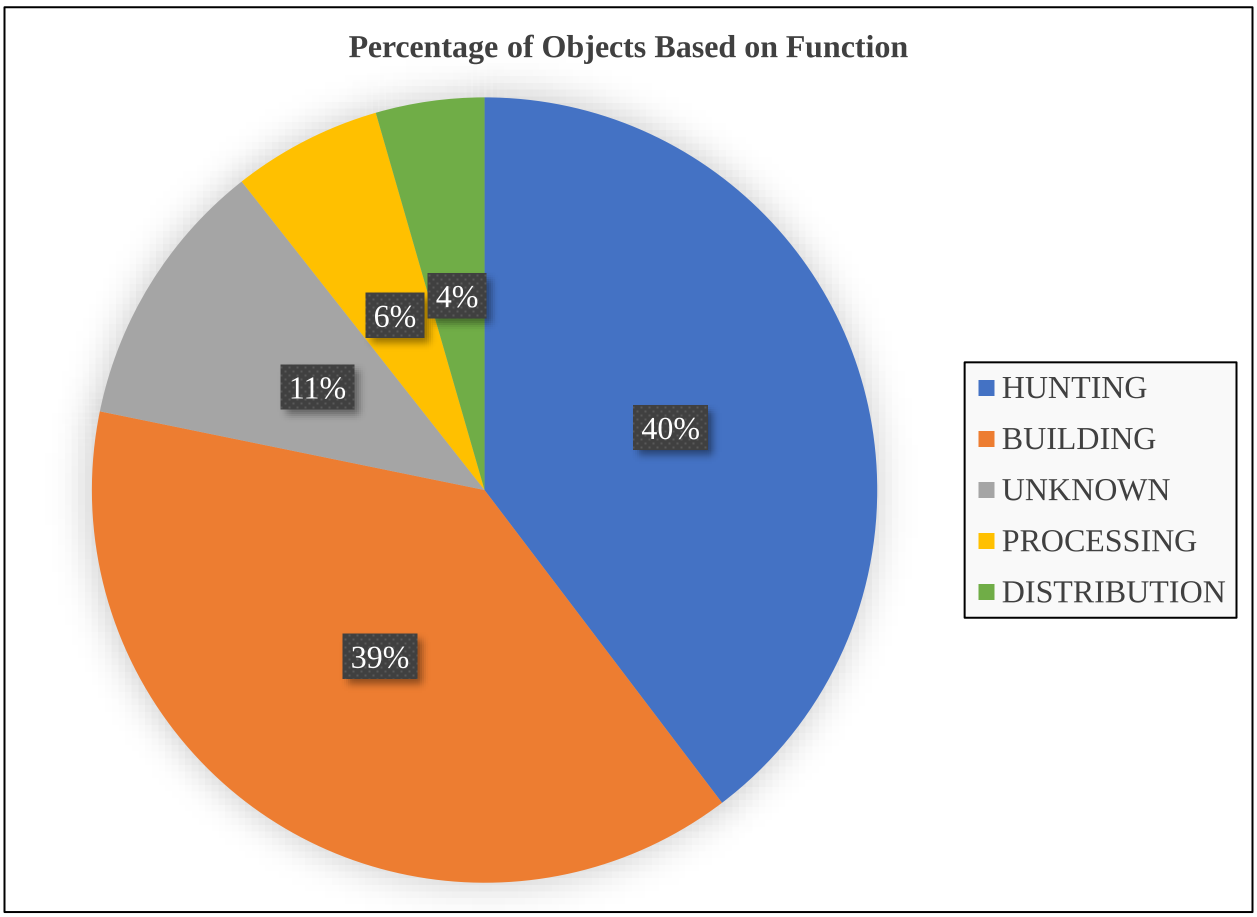

FIGURE 5.13: Pie chart depicting the percentage of objects based on function (n=179), (Source: Author).

Table 5.2. Table detailing the number of objects based on function (n=179), (Source: Author).

Function	Number of Objects	Percentage
Hunting	71	40%
Building	69	39%
Unknown	20	11%
Processing	11	6%
Distribution	8	4%

The first function was designated as “Hunting.” Hunting played the most important role during the fishery’s existence. The hunting function referred to any objects used to catch and kill dolphins. The total number of objects designated as “Hunting” was seventy-one and made up 40% of the objects (Figure 5.13; Table 5.2). These hunting objects were all depicted in historical photographs. They included objects such as seine nets, dory boats, and dolphin fisher clothing (Figure 5.3-5.4). Seine nets and dory boats were the tools of choice for fishers in the Hatteras fishery from as early as 1850 to 1929 (Kellogg 1927:11-13; Angel 1981; Cecelski 2015).

The second function was designated as “Building.” The reason for this was throughout the field surveys at the Bight of Hatteras and the Hatteras Porpoise Factory sites, a large amount of building material was encountered (Figure 5.13; Table 5.2). Objects such as brick and cinder block fragments made up a large percentage of the collection (Figures 5.13-5.14). The total number of objects designated as “Building” was sixty-nine (Figure 5.13; Table 5.2). Most of the objects encountered did not display any diagnostic features suggesting they were used in the dolphin fishery. However, some of the objects may have been used for areas such as the construction of spy camps or the factory’s building foundation.

FIGURE 5.14: Brick fragment found at the Hatteras Porpoise Factory site (Image by Author).

FIGURE 5.15. Cinder block fragment found at the Bight of Hatteras site (Image by Author).

The third function was designated as "Processing." The processing function referred to any objects used in the processing of goods from dolphins. This included both beach processing and factory processing. The total number of objects designated as “Processing” was eleven and made up 6% of the collection (Figure 5.13; Table 5.2).

The items that fit the “Processing” category was primarily found within historical photographs. The objects depicted included knives and other various processing equipment (Figure 5.16). Knives were the simplest and most effective tools in obtaining materials such as blubber, jaws, and hides. The object in Figure 5.16 provides a rare glimpse into the complex equipment used to process and refine dolphin oil in the Nye Company (Kellogg 1927:11-13; Angel 1981; Cecelski 2015).

FIGURE 5.16. Rare picture from a 1907 brochure displaying William Nye’s laboratory at Fish Island, Massachusetts. The equipment displayed was utilized in the secretive and complex refining process for dolphin oil made by the William Nye Company (Source: New Bedford Whaling Museum).

In addition to the processing objects displayed in historical photographs, the Graveyard of the Atlantic Museum cataloged a suspected trypot that was supposedly used at the Hatteras Porpoise Factory from 1907 to 1929 (Figure 5.8; Riddle 2017 pers. comm). According to Cecelski, “blubber, melon, and the fatty tissues in and around the lower jawbone rendered the oils in kettles or furnaces at a facility called the 'try works'" (Cecelski 2015:73). Interestingly, the suspected trypot is significantly smaller compared to trypots engaged in whaling. A trypot that was utilized in the North Carolina whaling industry displayed at the North Carolina Maritime Museum at Beaufort was measured at 100cm width and 56cm depth (Figure 5.17; Bradley 2015:194-195). Comparatively, the suspected trypot at the Graveyard of the Atlantic Museum used in the Hatteras dolphin fishery measured 25.56cm and 35.14 depth (Figure 5.8).

FIGURE 5.17. A trypot that was used in the North Carolina whaling fishery displayed at the North Carolina Maritime Museum at Beaufort (Bradley 2015:194-195).

The two trypots also differed in shape. On the bottom rim of the suspected trypot from the Graveyard of the Atlantic Museum are two bends and a latch (Figure 5.8). On the top of it are three corresponding articulation grooves (Figure 5.8). This could possibly suggest a false bottom used for releasing processed dolphin materials. Comparatively, the whale trypot has two protruding tabs that was used for lifting (Bradley 2015:194). Ultimately, there is no historical proof surrounding the suspected trypot's involvement in the fishery. However, if it was proven to be related to the fishery, this suggests the suspected trypot was much smaller and displayed more complex features and designs for the processing of dolphins.

FIGURE 5.18. Empty glass bottle of NYOIL 4 located at the Graveyard of the Atlantic Museum (George Huss and Nathan Richards).

The fourth function was designated as "Distribution." The distribution function referred to any objects that were meant to be intended for sale or assist in the selling of objects. The total number of objects designated as "Distribution" was eight and made up 4% of the collection (Figure 5.13; Table 5.2). These included objects such as bottles of dolphin oil. Bottles of dolphin oil were the most valuable product on the market for the fishery (Figure 5.17; Parr 1996:45; Cecelski 2015:54-55; Couch 2017 pers. comm).

The last function was designated as "Unknown." The unknown function referred to any objects that were unable to be identified. The total number of objects designated as "Unknown" was twenty and made up 11% of the total collection (Figure 5.13; Table 5.2). The objects that fit the "Unknown" function were unable to be determined if they were connected to the fishery. An example of object with an unknown function is a conglomerate found at the Bight of Hatteras (Figure 5.19).

FIGURE 5.19. Conglomerate located at the Bight of Hatteras (Source: Author).

Functions and Subfunctions

The functions mentioned cover a broad scope of the fishery. However, the functions previously mentioned only provide a glimpse into how the fishery operated. This section further elaborates on the function of objects by designating subfunctions for the objects in each function previously mentioned (Figure 5.20; Table 5.3).

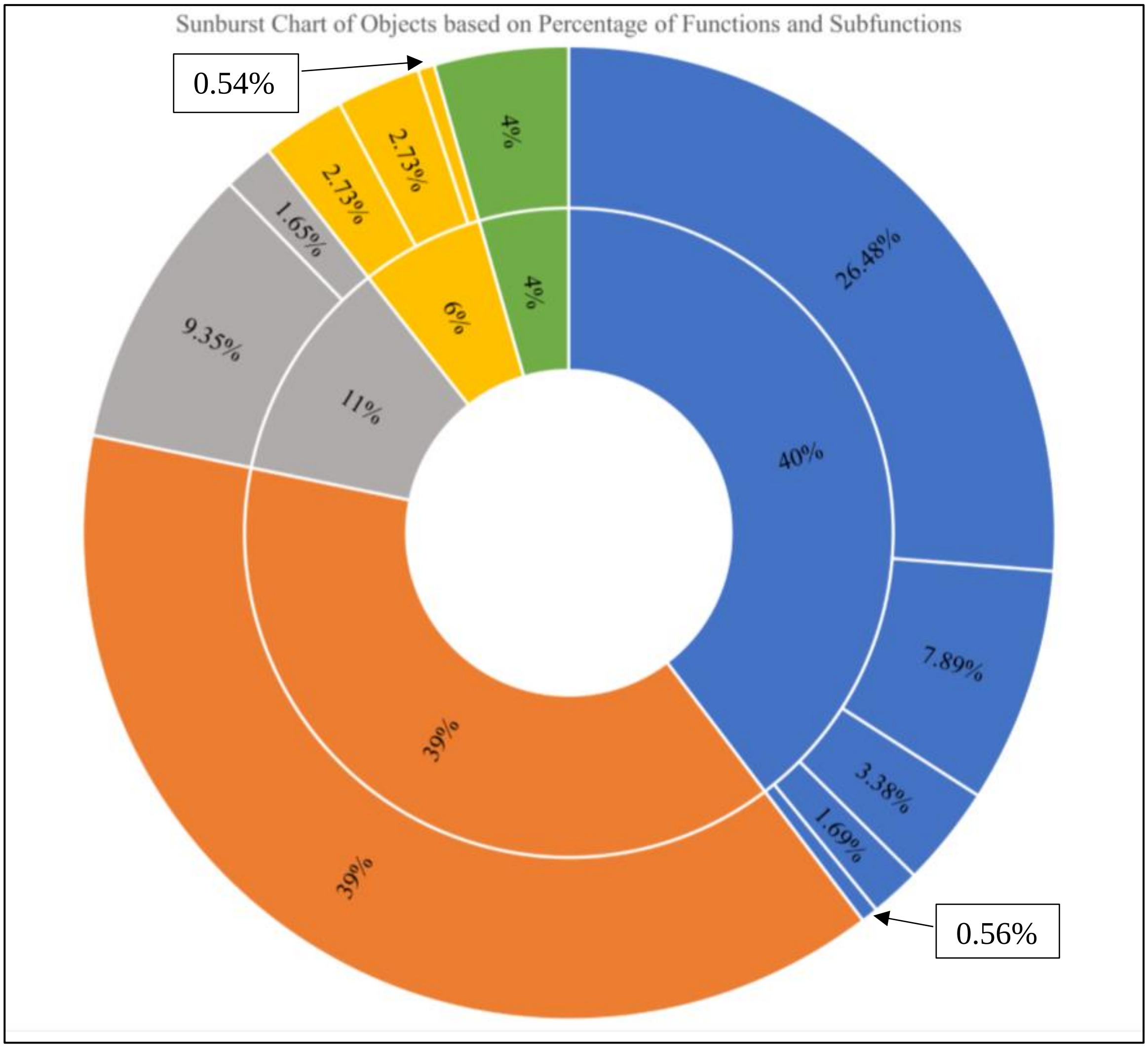

FIGURE 5.20. Sunburst chart depicting percentages of objects' functions and subfunctions (n=179), (Chart by Author).

Table 5.3. Table depicting number of objects with functions and subfunctions (n=179), (Table by Author).

Function	**Subfunction**	**Number of Objects**	**Percentage**
Building	Unknown	69	39%
Distribution	Packaging	8	4%
Hunting	Capture	6	3.38%
Hunting	Killing	1	0.56%
Hunting	Pursuit	14	7.89%
Hunting	Pursuit, Capture, Kill	47	26.48%
Hunting	Spying	3	1.69%
Processing	Beach Processing	5	2.73%
Processing	Factory Processing	5	2.73%
Processing	Transportation	1	0.54%
Unknown	No Relation	3	1.65%
Unknown	Unknown	7	9.35%

Building Subfunctions

The building function represented the second largest number of objects found with a total number of sixty-nine objects and made up 39% of the collection (Figure 5.20; Table 5.3). Only one subfunction was designated for this function and that was “Unknown.” The issue with this category is while the objects that make up this function and subfunction were recorded, it is not definitively certain as to whether any of them were connected to the dolphin fishery. This is important because such materials are likely to be excluded from the analysis given their uncertainty of their relation to the fishery.

Nevertheless, most of the objects in this function and subfunction were successfully dated. While there is uncertainty surrounding the objects of this function and subfunction, it is possible they could have been used in the construction of spy camps or factories. An example of an object designated as a “Building” function and “Unknown” subfunction is a timber found at the Bight of Hatteras site (Figure 5.21).

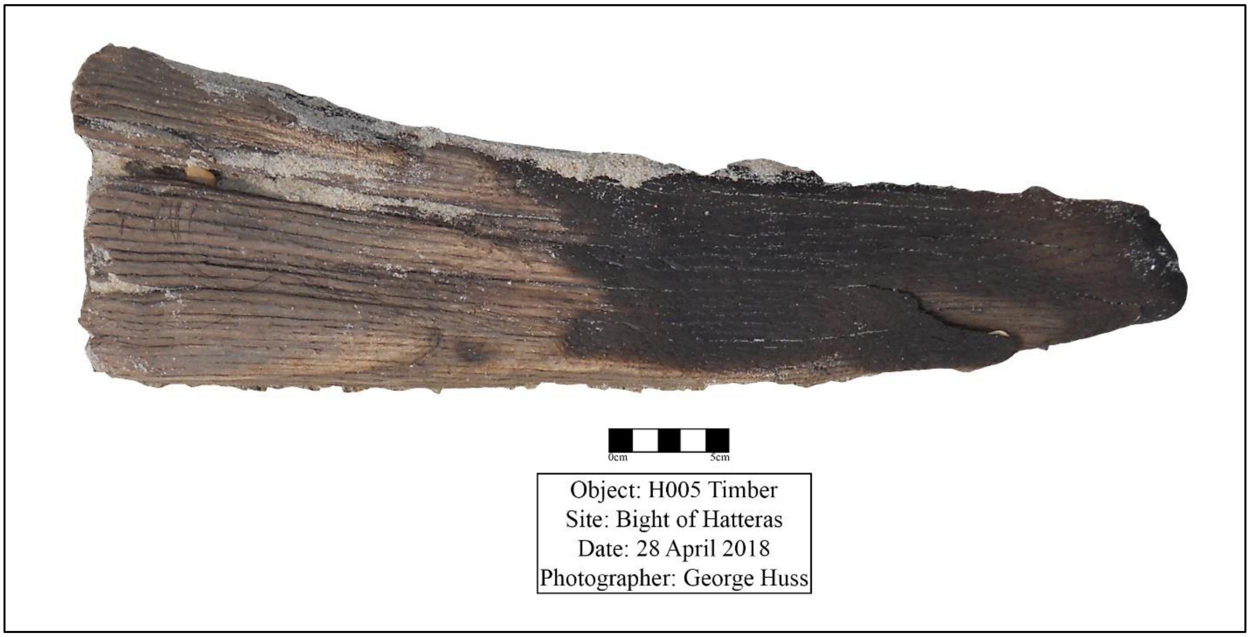

FIGURE 5.21. Timber found at the Bight of Hatteras Site (Photo by Author).

Hunting Subfunctions

As previously mentioned, the “Hunting” function had a total of number of seventy-one objects and made up 40% of the collection (Figure 5.13; Table 5.2; Figure 5.20; Table 5.3). The “Hunting” function was further divided into four subfunctions that detailed the sequence of events of this activity. These subfunctions included “Spying,” “Pursuit,” “Capture,” and “Kill” (Figure 5.20; Table 5.3).

Before the hunting of dolphins began, spies were generally posted along the beaches. The purpose of this was to alert the fishers when dolphins were sighted (*The Commonwealth* 1885:4;

The Independent 1919:5; Kellogg 1927:11-13; Angell 1981; Cecelski 2015:69). “Spying”, therefore, is established as the first subfunction for hunting. The total number of spying objects was three and made up 1.69% of the collection (Figure 5.20; Table 5.3). An example of an object used in spying is the spy camp pole. The spy camp pole was used to raise a flag or waif to alert nearby fishers that dolphins were in sight (Figure 5.22; Kellogg 1927:12).

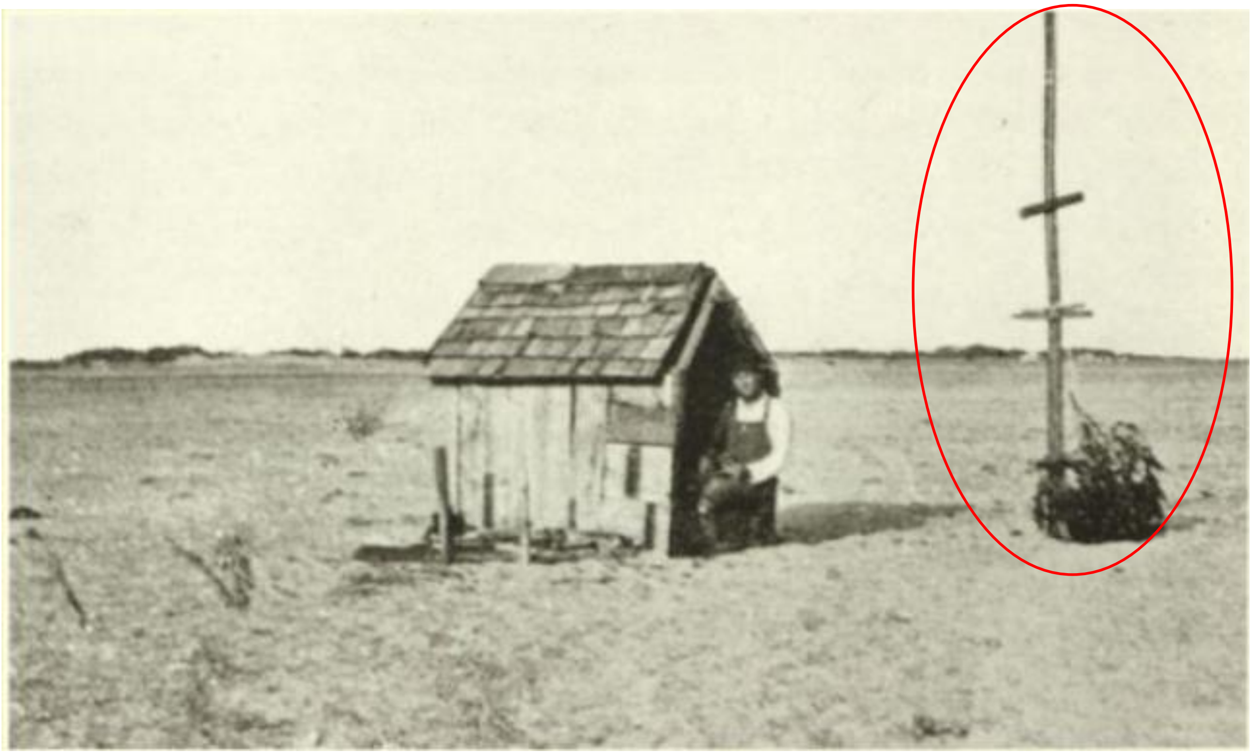

FIGURE 5.22. Dolphin spy posted at a spy camp waiting to raise the signal or waif (Source: New Bedford Whaling Museum)

After the signal was raised, fishers then engaged in pursuing these dolphins. As such, “Pursuit” is the next subfunction established for the hunting function. The total number of pursuit objects was fourteen and made up 7.89% of the collection (Figure 5.20; Table 5.3). An example of an object used in pursuit of dolphins was the dory boat. The dory boat was primarily used in the Hatteras dolphin fishery from as early as 1850 to 1929 (Kellogg 1927:11-13).

Once the fishers engaged in pursuing the dolphins, their goal was to capture as many as possible. The next subfunction created for the hunting function was “Capture.” The total number of capture objects was six and made up 3.38% of the collection (Figure 5.20; Table 5.3). An example of an object used in the capture of dolphins was the seine net. The seine net was a long sweep net used to entrap and catch dolphins (Figure 5.6; Kellogg 1927:11-13).

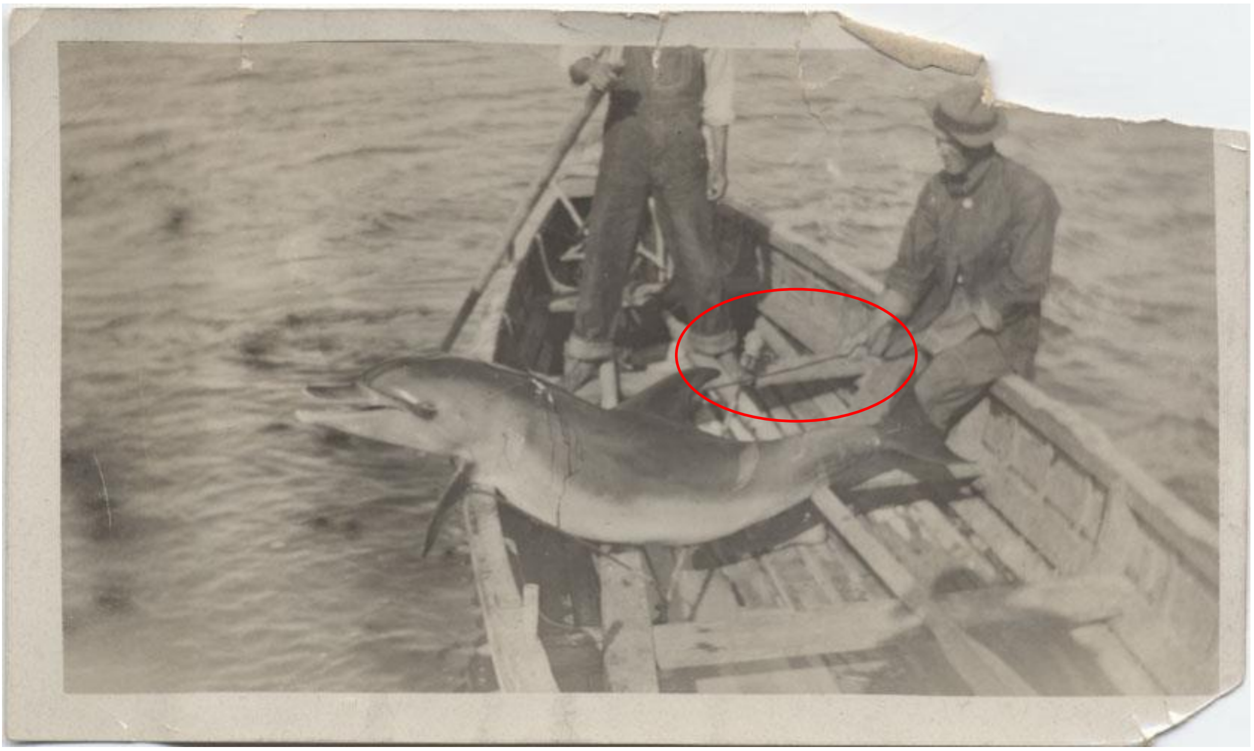

FIGURE 5.23. Knife or spear used to deliver a killing blow on a dolphin at the Beaufort dolphin fishery in 1912 (Source: Smithsonian Institution).

By the time the dolphins were caught, they brought to shore and sometimes immediately killed. The next subfunction established for the hunting function was "Kill." The total number of killing objects was one and made up 0.56% of the collection (Figure 5.20; Table 5.3). An example of an object used in the killing of dolphins was a knife. Knives were typically used to deliver a killing blow to the dolphin's throats (Figure 5.23; Kellogg 1928:11-13).

Interestingly, there were several objects that were used in more than one subfunction. A total number of forty-seven objects were used in the pursuit, capture, and kill subfunctions and made up 26.48% of the collection (Figure 5.20; Table 5.3). An example of an object that was used in all three subfunctions was the clothing of dolphin fishers. The clothing was necessary for protection against the harsh environmental conditions and was worn throughout each operation when hunting dolphins (Figure 5.24).

FIGURE 5.24: Clothing was essential to allow the fishers to carry out the hunting operations (Source: Smithsonian Institution B-3671-M).

Processing Subfunctions

After the dolphins were captured and brought to the shore, processing would begin. Dolphins were processed for several items such as oil, skin, meat, and sometimes teeth (Angel

1981; Cecelski 2000:85; Whisnant 2015:83). The first subfunction for processing was “Beach Processing.” Fishers generally processed dolphins on the beach for necessary objects such as the jaw or blubber to lighten the load for transportation (Kellogg 1927:13; Cecelski 2015:73). The total number of beach processing objects was five and made up 2.73% of the collection (Figure 5.20; Table 5.3). An example of a beach processing object was a knife (Figure 5.25).

FIGURE 5.25. Knives were the simplest but most effective processing tools used for beach processing (Smithsonian Institution B-3666-M).

Once the necessary objects were processed on the beach, they were transported to a factory for further processing. The next subfunction for processing was “Transportation.” Only one object was found to be used in the transportation subfunction and it made up 0.54% of the collection (Figure 5.20; Table 5.3). According to the oral history record, the Graveyard of the

Atlantic Museum has an ox cart in their collection that was the design typically used in the transportation of dolphin objects to the factory (Figure 5.9; Couch 2017 pers. comm).

There is uncertainty regarding the ox cart and its use in the fishery. While the historical record and oral histories argue ox carts were used in the transportation of dolphins to the factory, it is unknown whether this particular ox cart was used for this described function and subfunction (Michaux 1894:126-127; Cecelski 2015:72; Couch 2017 pers. comm; Midgett 2017 pers. comm). Ox carts were ubiquitous on Hatteras. According to the Graveyard of the Atlantic Museum, this ox cart was used in the transportation of construction materials (Figure 5.9; Anderson 2018 pers. comm; Riddle 2018 pers. comm). However, it is certainly possible this ox cart could have been used in other areas of object transportation.

After the objects were successfully transported, they were then further processed at the factory. The next subfunction for processing was "Factory Processing." Literature surrounding the factory processing operations was few. This was possibly due to techniques being a trade secret to the Nye Company with only a limited number of people having knowledge of the factory processes. However, Cecelski provides an excellent brief account of how dolphins were processed once they arrived at the factory. He notes:

> At the dolphin factory on Durant's Island, another, smaller crew of Hatterasmen processed the catch: they shaved off the blubber from the bodies in strips, minced the blubber, the melon, and the fatty tissues in and around the lower jawbone, and rendered their oils, separately, in kettles or furnaces at a facility called, as on whaling ships, the "try works." They allowed the blubber oil, at least, to settle in open tanks, then strained the oil and poured it into barrels, ready for market, while they shipped the melon and jawbone to the Nye factory in New Bedford for

> further refining. Charles H. Stevenson, the U.S. Fish Commission's leading authority on dolphin products, marveled at the sophistication of the Nyes' operation. After observing the heating, chilling, filtering, and long settling process that went into the refinement of melon and jawbone oils, he wrote: "The claim is made that there are not half a dozen men in the world who have had the training and experience necessary to separate these delicate oils into their proper classes, and yet a very large part of the reliability of watch and chronometer lubricants lies . . . in the almost instinctive skill of the refiner (Cecelski 2015:73).

With that in mind, the total number of objects used in factory processing subfunction was five and made up 2.73% of the collection (Figure 5.20; Table 5.3). An example of an object used in factory processing was a suspected trypot from the Graveyard of the Atlantic Museum (Figure 5.8; Cecelski 2015:73; Riddle pers. comm 2018). As previously mentioned, the Graveyard of the Atlantic Museum's suspected trypot significantly differs in shape and size compared to trypots used in whaling (Figure 5.17; Bradley 2015:194-195).

Distribution Subfunctions

Once the objects were processed at the factory, they were then prepared for distribution. The first subfunction established for distribution was "Packaging." This refers to any finalized product intended for distribution and sale. The total number of objects used for packaging was eight and made up 4% of the collection (Figure 5.20; Table 5.3). An example of an object used for distribution was a bottle of dolphin oil. Dolphin jaw oil was the most valuable product to come out of the factory. The jaw oil's consistency was excellent for machinery and industrial lubrication (Cecelski 2015:73-74). Figure 5.26 is a perfect example of the jaw oil marketed for machinery and industrial lubrication. This dolphin oil was specifically marketed for lubricating sewing machines and bicycles (Figure 5.26).

FIGURE 5.26. Bottle of Nye Dolphin oil used for lubricating sewing machines and bicycle (Image by George Huss and Nathan Richards).

After the objects were prepared for packaging, they were either then transported for further processing or to other markets for sale. The next subfunction established was “Transportation.” Unfortunately, there were no objects located that fit the transportation subfunction (Figure 5.20; Table 5.3).

While no objects that fit the transportation subfunction were located, Figure 5.20 provides a rare glimpse of the suspected factory and how these objects were transported for distribution. The historical record mentions the factory was located approximately one-mile

North of the present-day Hatteras Marlin Club on the Pamlico Sound. It is here where ships, such as schooners, often docked at the factory to load shipments for distribution to markets in cities such as Elizabeth City and New Bern. They would then be transported to markets in cities such as New Bedford, Philadelphia, and Norfolk (Angell 1981; Cecelski 2015:73; Whisnant 2015:83; Couch 2017 pers. comm; Midgett 2017 pers. comm).

Unknown

In addition to the objects that had a specific function and subfunction, there were several objects that were either unknown or had no relation to the collection (Figure 5.20; Table 5.3). The first subfunction established was "No Relation." As the label implies, there were a total of three objects that were found to have no relation to the fishery (Figure 5.20). Each of these objects were found while conducting an archaeological survey Hatteras Porpoise Factory sites. An example of an object with no relation to the fishery was a Clorox bottle fragment dated between 1933 and 1936 (Figure 5.27).

As previously mentioned, all archaeological data from the surveys were recorded and subject to analysis upon return. After reviewing historical and archaeological records, these objects were determined to have no relation to the fishery. This demonstrates a few things. These objects will not be included in the analysis of the dolphin fishery because they are not related to the fishery in any way. These objects also suggest there was a comingling of other activities with potential dolphin fishing activities. Because of this, there are other parts of the material culture collection that may not correlate with the study and must be considered for exclusion from this study

FIGURE 5.27. Clorox bottle fragment dated between 1933 and 1936 (The Clorox Company 2018).

The next subfunction established was “Unknown.” There were several objects in the collection that were unable to be dated and/or determined what their intended use was. The total number of objects in the unknown subfunction was seventeen and made up 9.35% of the collection (Figure 5.20; Table 5.3). An example of an object that fit the unknown subfunction was an undetermined animal bone found at the Hatteras Porpoise Factory site (Figure 5.28). The bone was unable to be determined because of it being partially embedded in the soil. Because of the agreement with landowners to not disturb any objects *in-situ*, this made it impossible to determine. As such, the objects designated in the “Unknown” subfunction will also excluded from the analysis of this study.

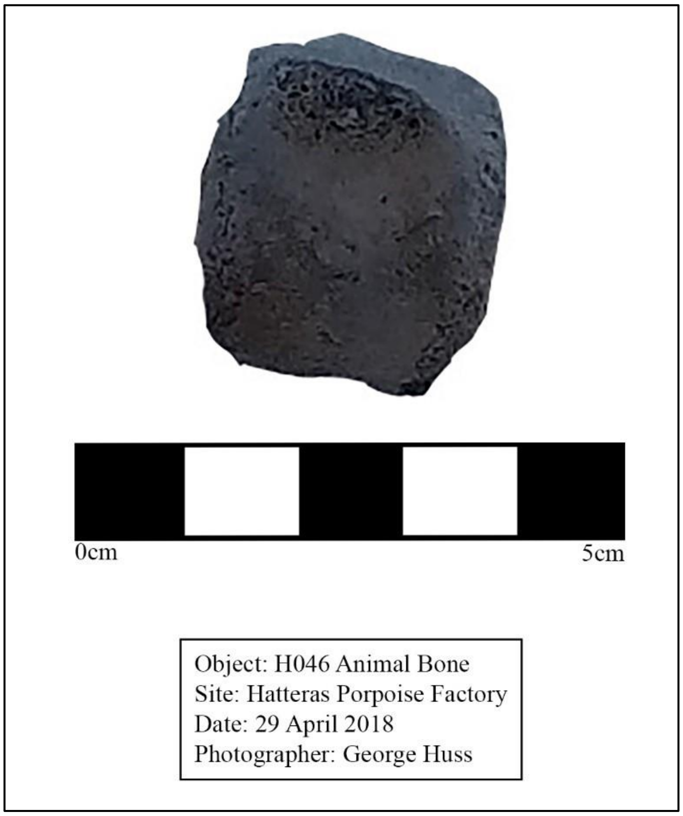

FIGURE 5.28. Animal bone found at the Hatteras Porpoise Factory site (Image by Author).

Temporal Distribution of Objects

This last section presents the diachronic analyses on the quantitative data of the collection. It is divided into two parts that looks at the temporal distribution of objects based on manufacture and presence. *Manufacture*, in this study, refers to the temporal span of objects according to historical and archaeological evidence pertaining to the earliest and latest possible dates of their manufacture. *Presence* refers to the temporal span of objects according to sources confirming their presence within the fishery. As such, the concepts of *terminus ante quem* and *terminus post* *quem* are appropriate for this section. These concepts refer to the minimum and maximum periods these objects were manufactured or present.

The presentation of this data is important as it further contextualizes the artifacts used in this study and their roles within the behavioral chain model. The creation of a line graph based on the temporal distribution of object manufacture is beneficial in providing insight into the technological change of objects in the collection. Schiffer mentions the behavioral chain is useful in illustrating the technological change of objects (Schiffer 2011:33). In addition, the temporal distribution of objects based on presence graph provides insight into objects existing in specific periods for a particular *activity*. These two parts, therefore, provide temporal visualization of the fishery's material culture that will complement the objects applicability in the behavioral chain model in the following chapter.

Manufacture of Objects

Figure 5.29 is a graph outlining the temporal distribution of objects based on manufacture. This graph shows the temporal span of objects according to historical and archaeological evidence pertaining to the earliest and latest possible dates of their manufacture. The graph does not specifically consider the presence of the object within the North Carolina dolphin fisheries.

A total of 41.34% of objects had dates of manufacture that were unknown and untraceable (Figure 5.29). This demonstrated that some of them may not have even been related to the fishery. As such, the baseline dates applied to these objects' *terminus ante quem* and *terminus post quem* manufacture periods were between 1790 and 2018 (Figure 5.29).

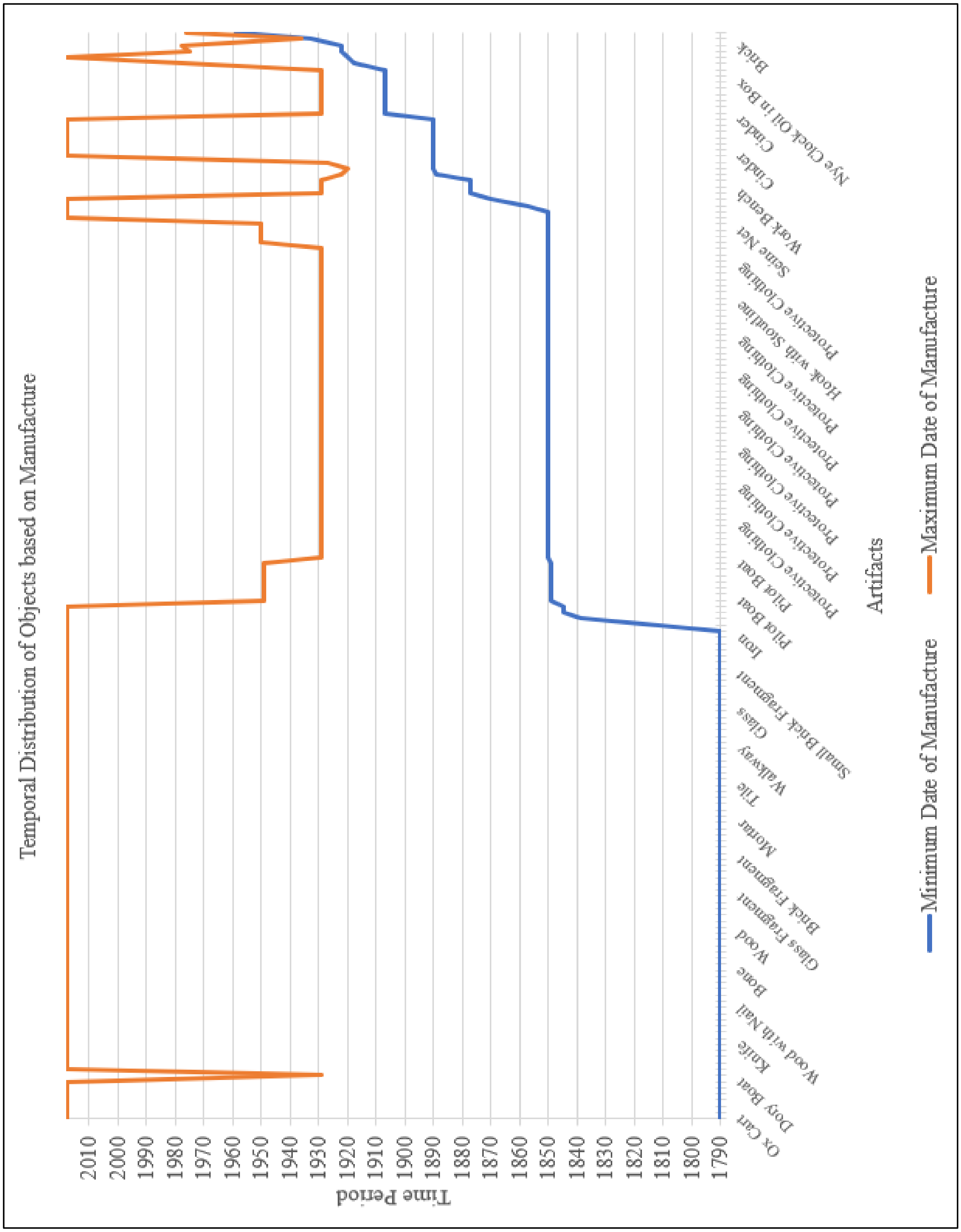

FIGURE 5.29. Line graph depicting the temporal distribution of objects based on manufacture (n=179), (Graph by Author).

The reason for this is these dates represent the extent of the study. The year 1790 represents the earliest example of a systematic dolphin fishery at Shell Castle (McGuinn 2000). As such, objects between dated between 1790 and 2018 represent the fact that these objects could not be dated, and therefore could have existed at any point in the span of the study's temporal period. An example of an object that had an unknown manufacture date was a timber found at the Bight of Hatteras site (Figure 5.21).

Regarding the objects' *terminus post quem* for manufacturing, Figure 5.29 shows that some of the objects had manufacture dates after the end of the dolphin fishery. An example of an object that continued to be manufactured after the end of the fishery were seine nets (Figure 5.6). The seine nets used in the fishery were typically made of twine, cork, and lead weights (Kellogg 1927:11-13). By 1950, the boom of technological development from World War II greatly contributed to fishing equipment. Synthetic fibers, such as nylon, courlene, and terylene, replaced the previously used natural fibers, such as hemp, cotton, and manila (Robinson 1996:212). Ultimately, this suggests objects, such as seine nets, were reused and possibly employed in other fisheries.

Presence of Objects in the Fishery

The presence of objects within the collection also provided some interesting results. Figure 5.30 provides a graph on the temporal distribution of objects based on presence. This graph shows the temporal span of objects according to sources confirming their presence within the North Carolina dolphin fisheries. In this graph, the confirmation of these sources is exclusively from historical documentation.

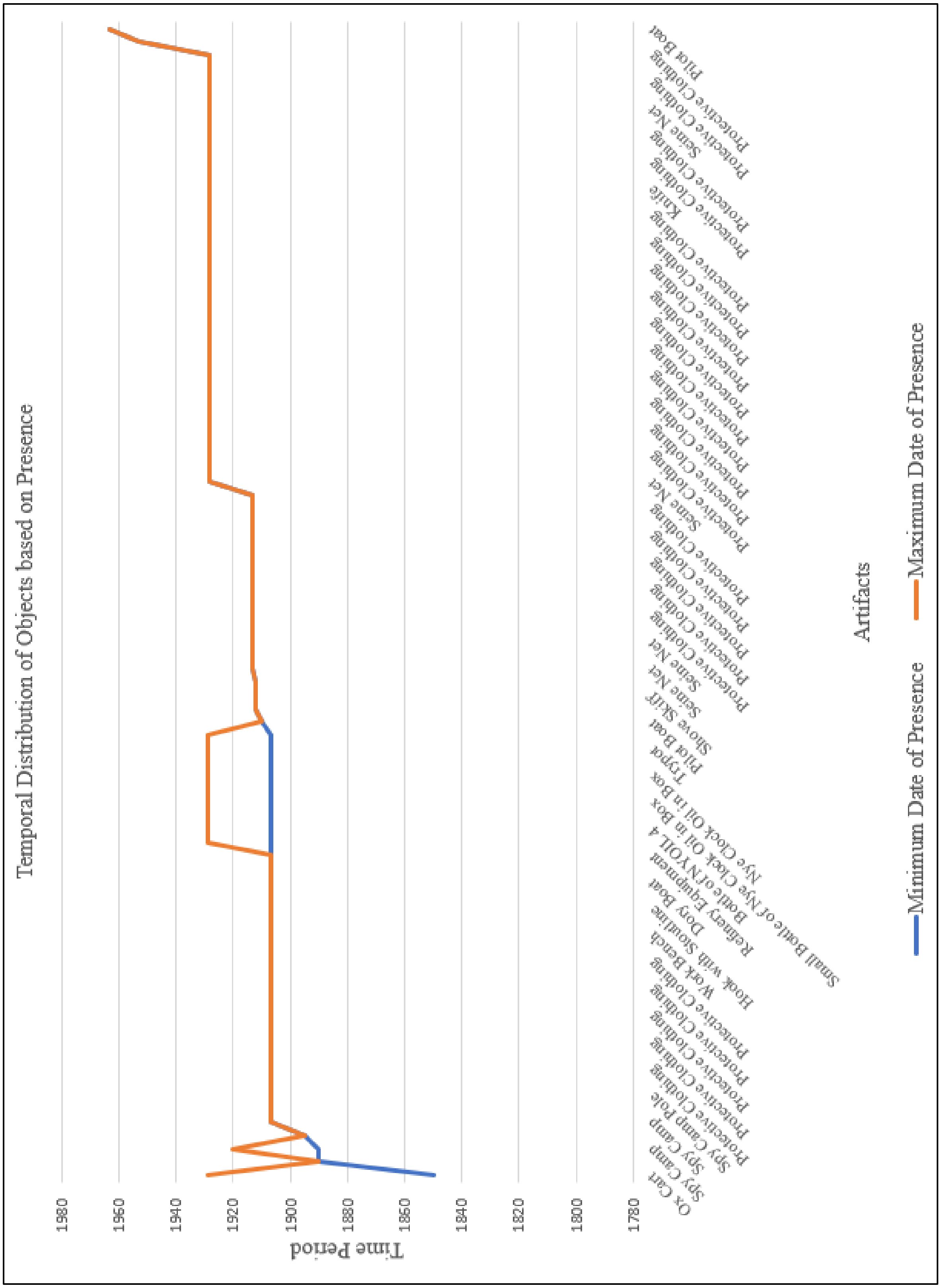

FIGURE 5.30. Graph depicting the temporal distribution of objects based on presence (n=44) (Graph by Author).

All the objects in this study have *terminus ante quem* and *terminis post quem* dates. *The* total percentage of objects with differing *terminus ante quem* and *terminus post quem* dates was 57.55%. Objects, such as the Nye oils and trypot at the Graveyard of the Atlantic Museum, were able to be dated between 1907 to 1929 because of their association with the Nye fishery taking place at Hatteras during that period (Angell 1981; Cecelski 2015; Figure 5.8; Figure 5.18; Figure 5.26).

A total of 42.45% of objects, unfortunately, only provided a single date for their presence. The reason for this is largely because most documented objects were dated via photograph dates. While the photographs alone were able to provide a significant amount of detail into the fishery, Figure 5.30 demonstrates the archaeological record only provides fragmentary information of the fishery after 1850. Anything prior to that is only known through historical documentation.

While the data presented in Figure 5.30 provides a wealth of information into the presence of objects in the collection, there are a few key points not shown. The identification of these key points not depicted in Figure 5.30 are critical as it will ultimately demonstrate that only certain periods of the dolphin fishery's existence can yield archaeological analysis. As previously mentioned, the chart demonstrates the archaeological record only provides fragmentary information of the fishery after 1850. Anything prior to that is only known through the historical record. As such, this next section provides the transition from the results gleaned from this chapter to the analysis discussed in the following chapter.

Conclusion

This chapter provided a review of the data collected from both fieldwork and material culture collections. By identifying and reviewing the data, it provides the opportunity to utilize the material culture of North Carolina's dolphin fishery in Schiffer's behavioral chain model. That said, each section of this chapter was important in establishing a foundation for the application of Schiffer's behavioral chain model (Schiffer 2011:30-34).

The description of the collection was necessary as it contextualized the objects that will either be used in, or excluded from, the behavioral chain model. The establishment of a fabrics of the collection was also important for its use in areas such as *conjoined elements* and *outputs* within the behavioral chain model. The list of functions and subfunctions for objects was also important for this study because of Schiffer's emphasis on technology regarding its roles within the *activities* in the behavioral chain model. Finally, the temporal distribution of objects based on presence and manufacture were beneficial in areas such as forecasting the illustration of technological change and providing insight into objects existing in specific periods for a particular *activity* (Schiffer 2011:30-34).

With all this in mind, the results gleaned from this chapter provided the basis by which the next chapter will be the application of Schiffer's behavioral chain model to the North Carolina dolphin fishery. Moving forward, the following collections and objects will be used in the analysis section: the Smithsonian Institution, the New Bedford Whaling Museum, the Wildlife Conservation Society, the Graveyard of the Atlantic Museum, and a small number of objects from the Hatteras Porpoise Factory site.

CHAPTER SIX: THE APPLICATION OF SCHIFFER'S BEHAVIORAL CHAIN MODEL TO NORTH CAROLINA'S DOLPHIN FISHERY

Introduction

The behavioral chain model allows archaeologists to infer past activities along with the components associated with those activities (Stier 1975; Meyers 2007:88; Schiffer 2011:33). The behavioral chain model of this chapter will primarily utilize the results gleaned from the dolphin fishery that took place at Hatteras. As such, this chapter uses only the historical and archaeological data with some level of certainty of speculation of connection in the creation of a behavioral chain model. In addition, the incorporation of non-Hatteras and non-North Carolina dolphin fishery examples will be integrated for greater context.

Schiffer and several others analyzed their behavioral chain models by identifying and discussing each individual behavioral chain segment (Schiffer 1975; Stier 1975; Meyers 2007; Smith 2010; Schiffer 2011). However, while each of these authors emphasized the spatial aspects within their respective behavioral chain models, they lacked geographic visuals to strengthen their analysis of each individual behavioral chain segment. This chapter incorporates two different approaches regarding how the behavioral chain model and segments will be created and analyzed.

In Stier's analysis of yucca materials at the Antelope House site, he creates a behavioral chain that slightly differs from Schiffer's original behavioral chain on the Hopi culture's maize use (Stier 1975:59-60; Schiffer 1975:108). Stier uses a flow chart style to depict the past activities and the components associated with those activities. Schiffer, however, uses a table format to depict past activities and components associated with those activities. Stier's overall analysis of yucca materials was weak about its function in the activities he mentions. However, her use of a flow chart style behavioral chain model provides a potential use for individual behavioral chain segment analysis.

The second approach utilized in this study are the further division of activities based on the additional smaller actions that make up the activities. Until recently, examples of activities in behavioral chain models were somewhat vague. Schiffer defines the activities as “dynamic relationships among the various interacting elements” (Schiffer 1995:58). However, in his behavioral chain model on the Hopi culture, many of his activities can be elaborated on a much smaller level. For example, Schiffer’s activity on ‘Harvest’ focuses on the harvesting of maize. However, there are several smaller level dynamic relationships among the various interacting elements that can be discussed within harvesting such as the act of extracting the maize, identification of ripe maize, or the act of loading the maize within a vessel for transport (Schiffer 1995:58).

In this study, the activities will be divided further based on the smaller actions that make them up. An example of this can be seen the activity of “Spying.” While “Spying” is considered the overall activity, there are much smaller actions that make it up such as the raising of a flag or waif by the spy to alarm nearby fishers. The purpose of elaborating on the activities in this manner is to allow for smoother organization when effectively analyzing both individual behavioral chain segments and the behavioral chain model itself. With that in mind, this chapter is divided into two sections.

The first section utilizes the Stier flow chart format to depict individual behavioral chain segments of the North Carolina dolphin fishery. Within this section are several maps to help visualize the spatial aspects of these segments along with non-Hatteras and non-North Carolina examples for greater context. The goal of using Stier’s method is to work toward the full behavioral chain model Schiffer depicts. The second section incorporates all the discussed individual behavioral chain segments to create completed behavioral chain as depicted by Schiffer. In addition, a map will accompany this section to effectively display areas of activity pertaining to the dolphin fishery.

Behavioral Chain Segments for Activities of the North Carolina Dolphin Fishery

As mentioned, Stier's flow chart is useful in analyzing the individual behavioral chain segments. This section discusses the nine behavioral chain segments that make up the North Carolina dolphin fishery. By focusing on each individual chain segment, it allows for greater analysis into areas such as personnel, material culture, and temporal and spatial considerations. Each of these behavioral chain segments corresponds with the functions discussed in the previous chapter and are more-or-less temporal. That said, the first behavioral chain segment begins with 'Spying.'

Spying

The first behavioral chain segment that made up the North Carolina dolphin fishery was 'Spying' (Table 6.1). Spies were utilized not just in Hatteras but throughout various periods and regions of North Carolina (*The Commonwealth* 1885:4; *The Independent* 1919:5; Kellogg 1927:12). Depicted in the first behavioral chain segment are three small scale actions related to spying. The first action was the establishment of spies near hunting grounds. Typically, two older dolphin fishermen were the human energy sources carrying out this action (Kellogg 1927:12). The conjoined elements that accompanied this action were the spy camp and spy camp pole (Figures 5.22 & 6.1). The time and frequency of this action was during the hunting season of dolphins which was from November to May and occurred daily (Rollinson 1891; Couch 2017 pers. comm; Midgett 2017 pers. comm). The intersection of this action were additions of the spy camp and spy camp pole (Figures 5.22 & 6.1). Lastly, there were no outputs of this action because waste was not created.

TABLE 6.1. Behavioral chain segment on spying (Source: Author).

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Spying)	Time and Frequency	Location	Intersections: Additions/ Deletions
Typically, two older dolphin fishermen		Spy camp and spy camp pole[1, 2]	Spies established at locations near hunting grounds	November to May and daily	Shore of the Bight of Hatteras[3]	Spy camp and spy camp pole are added [1,2]
Typically, two older dolphin fishermen		Spy camp pole[2]	Flag or waif is raised to alarm nearby fishers.	Once dolphins are sighted.	Shore of the Bight of Hatteras[3]	
Spy/ Dolphin			Spy follows parallel to the pod of dolphins from the shore.	Once dolphins are sighted and crew arrives.	Shore of the Bight of Hatteras[3]	

Key:
1. Figure 6.1 2. Figure 5.22
3. Figure 6.2

Pursuit

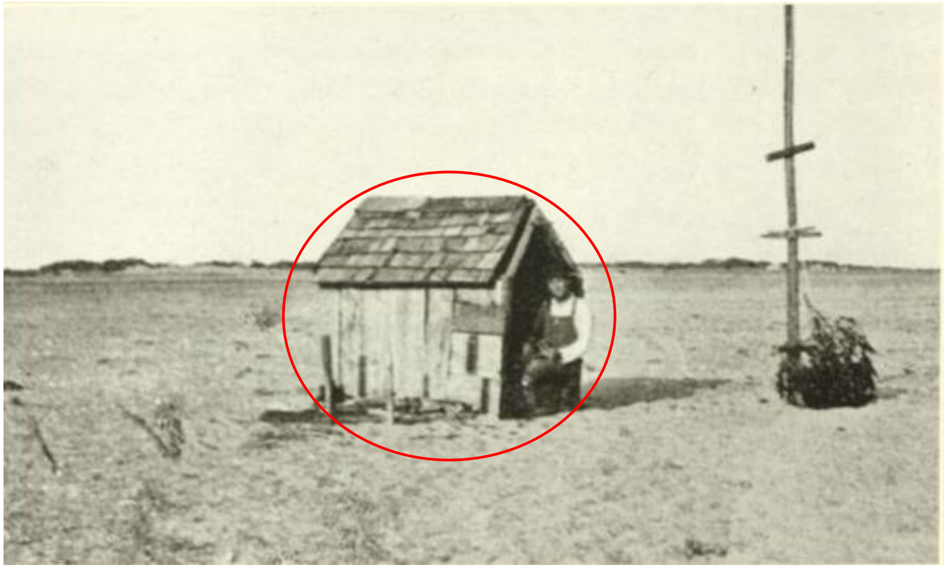

FIGURE 6.1: Spy Camp where older dolphin fishermen would keep watch (Source: New Bedford Whaling Museum)

The location of this activity took place at the shore of the Bight of Hatteras (Figure 6.2). This image displays the spatial aspects of the behavioral chain segment on spying. A map was created to visualize of the distance spies could typically see while usually separated four miles apart from each other (*The Commonwealth* 1885:4). The concept of visual acuity was necessary for the creation of this map.

Visual acuity refers to clarity of vision and is dependent on optical and vertical factors (Cline and Hofstetter 1997). In layperson's terms, visual acuity refers to the viewing distance of how far the average human can see a determined object from a fixed elevation and position. For example, at six feet above sea level, the average human can see five kilometers before the horizon disappears (NOAA Office for Coastal Management 2019; Size Calculator 2019). However, additional variables are taken into consideration depending on the size of the object intended to be perceived

In order to calculate the viewing distance of a dolphin fisherman standing at six feet, the following variables were taken; perceived size and physical size. Perceived size refers to the apparent size of an object given available visual cues whereas physical size refers to an objects actual size. In Figure 6.2, perceived size is expressed in arcminutes, physical size is expressed in centimeters, and viewing distance is expressed in meters (Kroon 2012; Size Calculator 2019).

With the variables determined and calculated in the Size Calculator application, the average spy at six feet can see a 25cm object with 20/10 vision 429.72m away. In addition, the average spy at six feet can see a 25cm object with 20/20 vision 859.44m away (Tolley et al. 1985). This was necessary as it highlighted the scope of the average spies' vision.

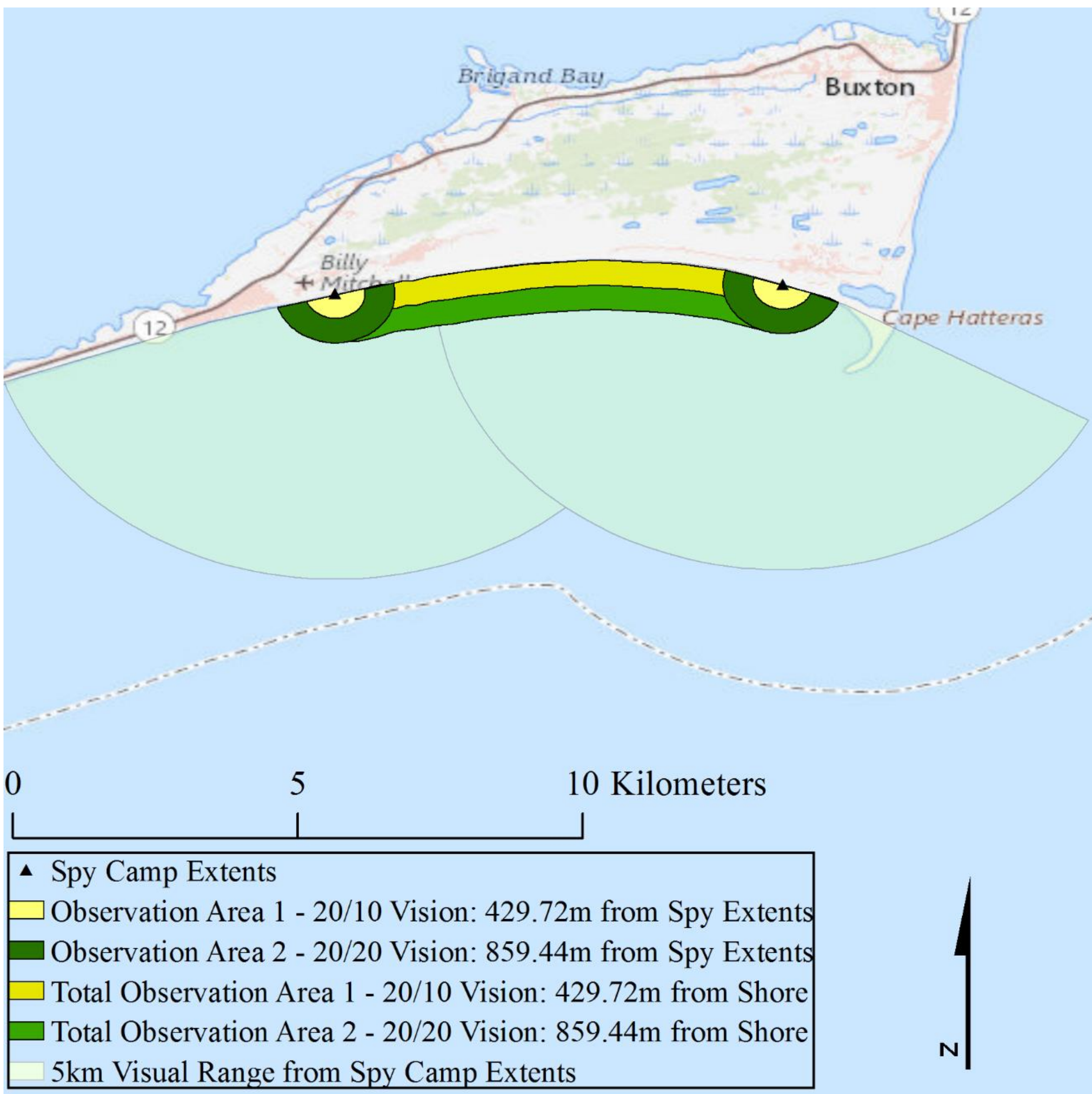

FIGURE 6.2. Map displaying the visual acuity of 25cm dolphin fin of an average dolphin fishermen with both 20/10 and 20/20 vision (Map by Author).

The next action within the behavioral chain segment on spying focuses on the alarming of nearby dolphin fishermen (Table 6.1). Like the first action, either of the two older dolphin fishermen would act as the human energy sources when raising the flag or waif (Kellogg 1927:12). The conjoined element in this action is the spy camp flag pole used to raise the flag or waif. The time and frequency of this action took place between November and May and occurred once dolphins were in sight (Rollinson 1891; Kellogg 1927:12). The location also took place at the Bight of Hatteras (Figure 6.2). Finally, this action had neither outputs nor intersections (Table 6.1).

The last action within the behavioral chain segment on spying is on the spy following the nearby dolphin pod (Table 6.1). After raising the signal, the spy then follows the dolphin parallel to the shore (*The Sun* 1912:57; Kellogg 1927:12). The human energy sources are either one of the spies following the dolphins while the crews prepare for pursuit. The non-energy source in this case would be the dolphins swimming. There are no conjoined elements used in this action because it was simply just a spy following the pod and not using any objects. The time and frequency of this action took place during dolphin hunting season and occurred once dolphins were sighted and the crew arrived. The location also took place on the shore of the Bight of Hatteras (Figure 6.2). Lastly, this action had neither outputs nor intersections (Table 6.1).

Pursuit

Following the behavioral chain segment on spying, the next behavioral chain segment dealt with pursuit. By the time the signal was raised, the fishermen would transport their vessels to the water and begin pursuing a catch (Kellogg 1927:12).

Table 6.2. Behavioral chain segment on pursuit (Source: Author).

Spying

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Pursuit)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Dolphin fishermen/Dolphins		Dory boats and dolphin fishermen clothing[1,2]	Dory boats pushed into the water	November to May. Once	Bight of Hatteras[4]	Dory boats and dolphin fishermen clothing are added.
Dolphin fishermen/Dolphins		Dory boats and dolphin fishermen clothing[1,2]	Fishermen row few hundred yards until they are in proximity of dolphins.	November to May. Once	Bight of Hatteras[4]	
Dolphin fishermen		Dory boats, dolphin fishermen clothing, and seine nets[1,2,3]	Fishermen lace nets to each boat.	November to May. Daylight until dark	Bight of Hatteras[4]	Seine nets are added

Key:

1. Figure 6.3
2. Figure 6.4
3. Figure 6.5
4. Figure 6.6

↓

Capture

The behavioral chain segment of pursuit is made up of three actions (Table 6.2). The first action is when the dolphin fishermen begin pushing the boats to the water. The human energy sources of this action were the dolphin fishermen crew assigned. The conjoined elements were the dory boats and dolphin fishermen clothing. The time and frequency of this action occurred during dolphin fishing season and happened once the signal was made. The intersections of this action were the additions of dory boats and dolphin fishermen clothing. Lastly, there were no outputs in this action (Table 6.2).

FIGURE 6.3. Clothing was essential to allow the fishers to carry out the hunting operations (Source: Wildlife Conservation Society).

FIGURE 6.4. A dory boat used in the pursuance of dolphins (Source: Smithsonian Institution B-3669-M).

FIGURE 6.5. Seine net used in the pursuance and capture of dolphins (Source: Smithsonian Institution B-3671-M).

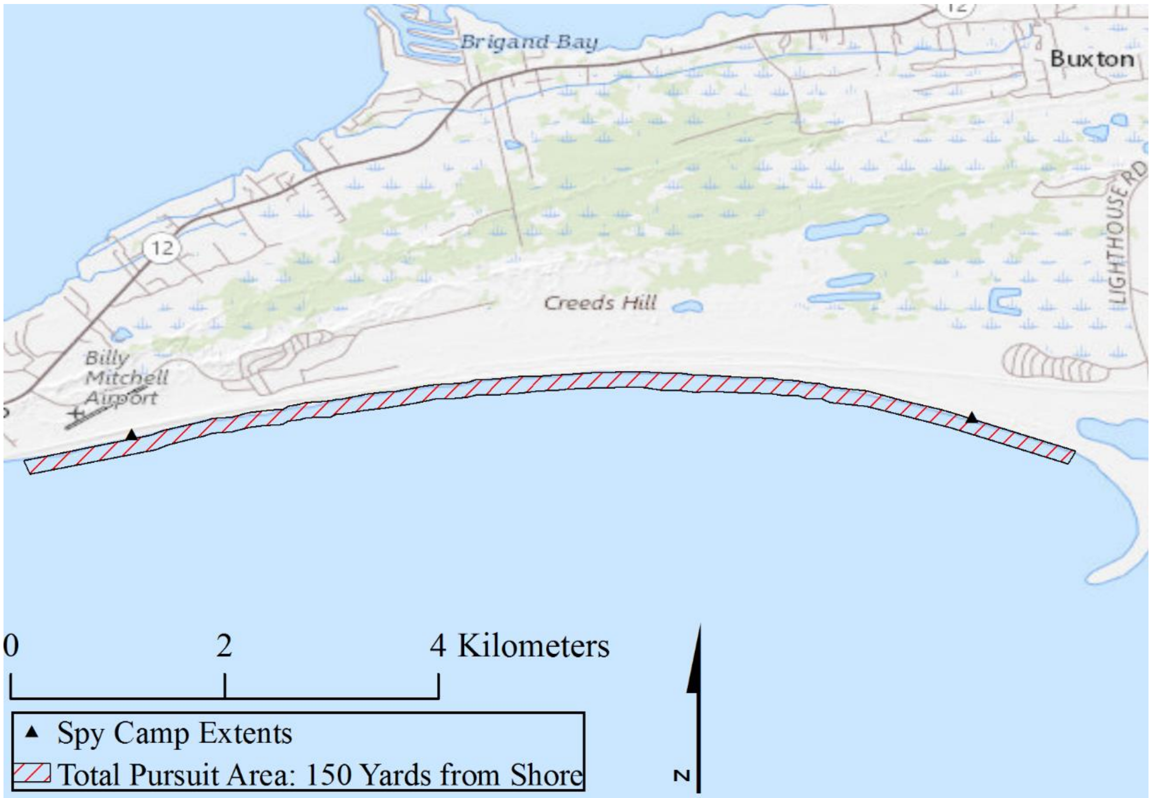

FIGURE 6.6. Map depicting the area of activity for where pursuing took place. Dolphins were typically pursued 150 yards from the share (Map by Author).

The location of this activity took place at the Bight of Hatteras. Figure 6.7 displays a map detailing the zone where pursuance of dolphins took place. Typically, dolphins were pursued 150 yards from shore. Once the boats were deployed, they remained within a few hundred yards of each (Kellogg 1927:12). This leads into the next action of the behavioral chain segment on pursuit (Table 6.2).

The second action within the behavioral chain segment on pursuit is when the dolphin fishermen row a few hundred yards until they are in proximity of the dolphins (Table 6.2). Their goal was to get to a position abreast of them for effective capture (*The Sun* 1912:57; Kellogg 1927:12). The human energy source in this action were the dolphin fishermen. The nonhuman energy source were the dolphins themselves. Like the previous action, the dory boats and dolphin fishermen clothing are the conjoined elements of this activity (Table 6.2; Figures 6.3-6.5). The time and frequency occurred during the dolphin fishing season and happened once the dolphins were sighted. The location also occurred at the Bight of Hatteras (Figure 6.6). Finally, there were neither inputs nor intersections for this action (Table 6.2).

The last action within the behavioral chain segment on pursuit is when the dolphin fishermen were in position and laced their nets (Table 6.2). The fishermen lace their nets to their dory boats and immediately race to their positions (Kellogg 1927:13). The human energy source for this activity are the dolphin fishermen. The conjoined elements of this action are the dory boats, dolphin fishermen clothing, and seine nets (Figures 6.3-6.6). The intersection of this action is the addition of seine nets. The time and frequency took place during dolphin hunting season and occurred from daylight until dark. The location of this action also took place at the Bight of Hatteras. Lastly, there were no outputs for this action (Table 6.2).

Capture

By the time the nets were laced to the boats, the dolphin fishermen would then engage in the capture of dolphins (Kellogg 1927:13). This next behavioral chain segment focuses on capture and is made up of three actions (Table 6.3). The first was when the dolphin fishermen would begin rowing the laced net dory boats back to shore. The human energy sources of this action were the dolphin fishermen. The conjoined elements were the dolphin fishermen clothing, dory boats, and seine nets. The time and frequency of this action took place during dolphin hunting season and occurred once the dolphins were abreast of the fishermen. The intersection of this action was the deletion of the spy camp and spy camp pole. The dolphin fishermen had the dolphins in sight and were preparing for capture. This ended the spy's role in the activity. Lastly there were no outputs for this action (Table 6.3).

Table 6.3. Behavioral chain segment on Capture (Source: Author).

Pursuit

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Capture)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Dolphin fishermen		Dolphin fishermen clothing, dory boats, and seine nets[1,2,3]	Dolphin fishermen rowing back to shore. ↓	November to May. Once	Bight of Hatteras[5]	Spy camp and spy camp pole are deleted.
Dolphin fishermen/ Dolphins		Dolphin fishermen clothing, dory boats, and seine nets[1,2,3]	Dolphins are caught in seine nets and swept closer to shore. ↓	November to May. Once	Bight of Hatteras[5]	
Dolphin fishermen/ Dolphins		Dolphin fishermen clothing, seine nets, and hook with stout line[1,2,4]	Dolphins are dragged beyond high tide mark shore	November to May. Once	Shore of the Bight of Hatteras[5]	Dory boats are deleted. Hook with stout line is added.

Key:
1. Figure 6.7 2. Figure 6.8
3. Figure 6.9 4. Figure 6.10
5. Figure 6.11

↓

Killing

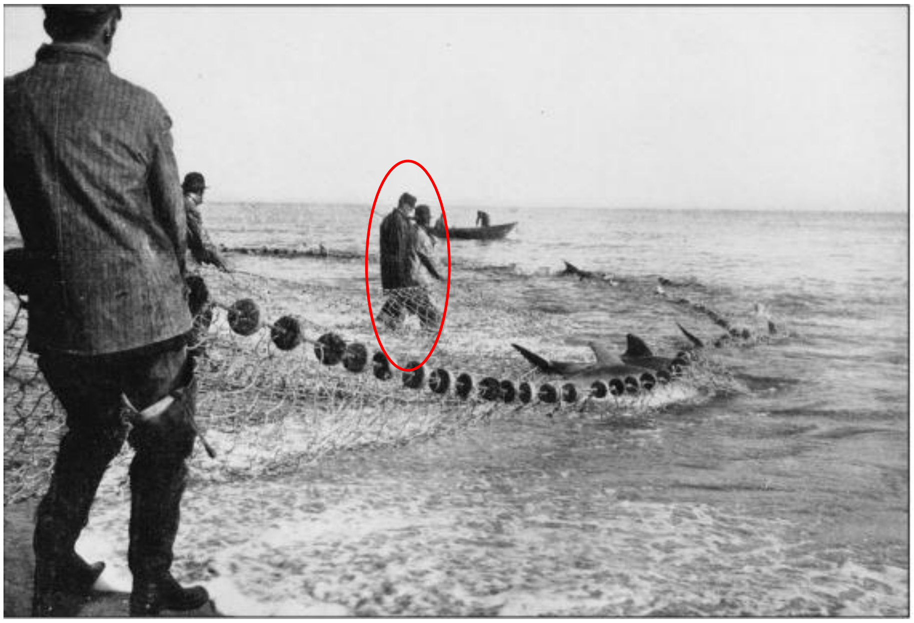

FIGURE 6.7 Clothing was essential to allow the fishers to carry out the hunting operations (Source: Wildlife Conservation Society).

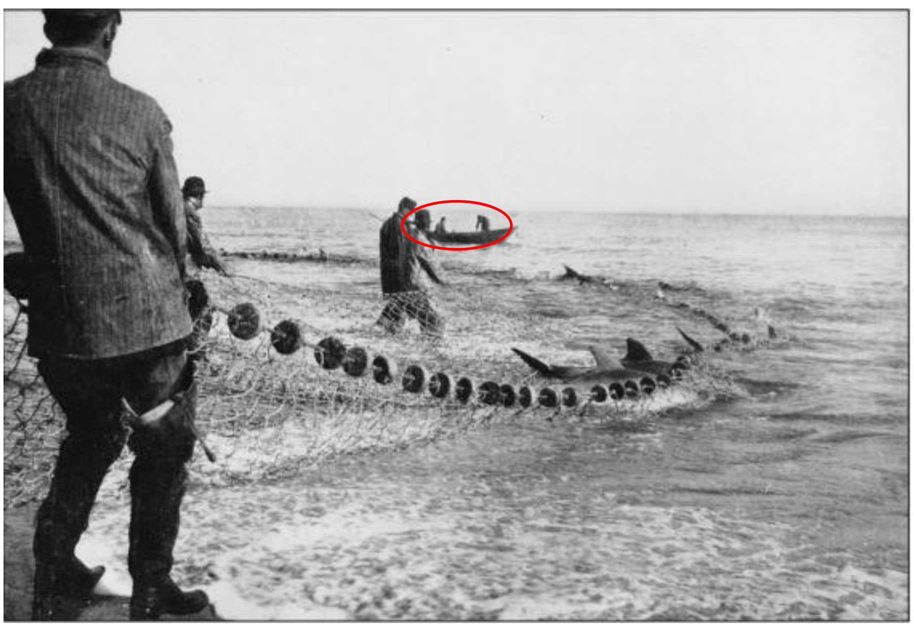

FIGURE 6.8. Dory boat used in the capture of dolphins (Source: Wildlife Conservation Society).

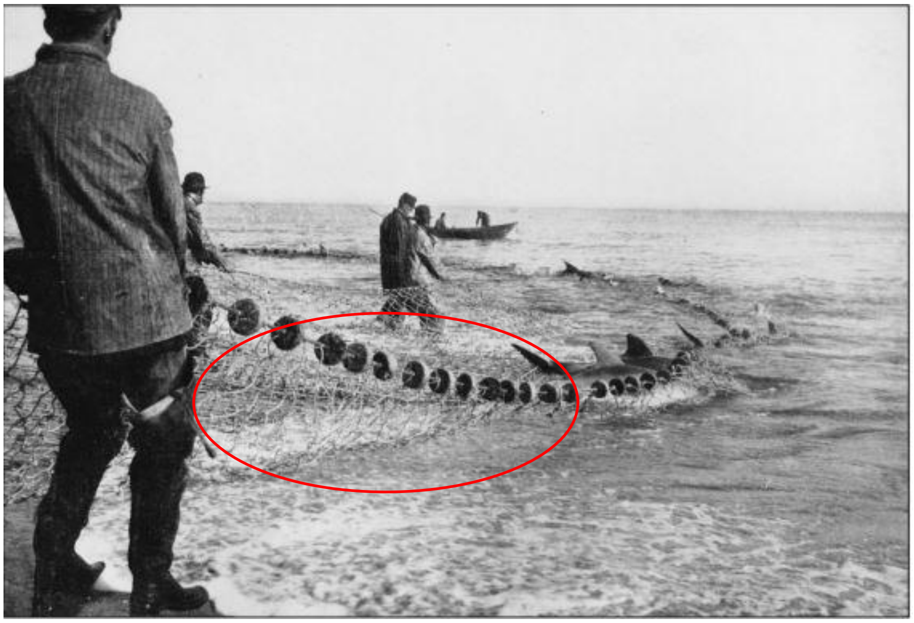

FIGURE 6.9. Seine net used in the capture of dolphins (Source: Wildlife Conservation Society).

FIGURE 6.10. Hook with stout line used in the capture of dolphins (Source: New Bedford Whaling Museum).

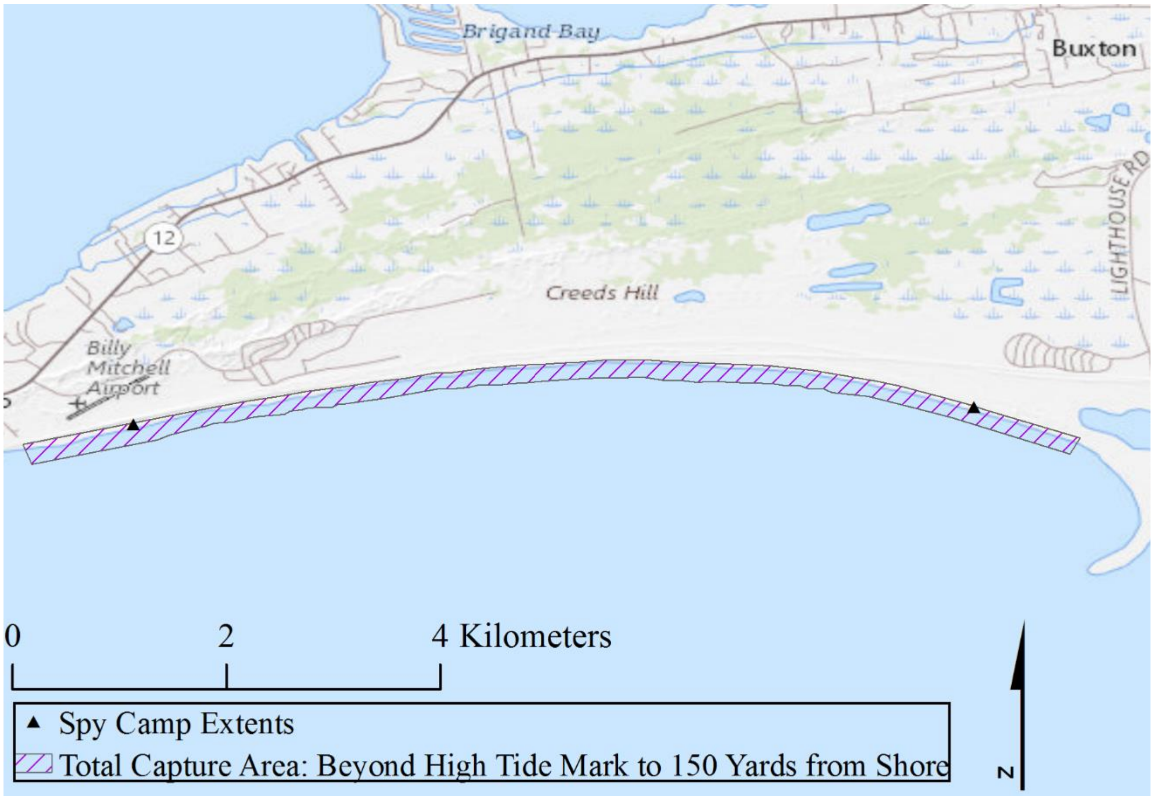

FIGURE 6.11. Map depicting the capture area of dolphins. Dolphins were captured within 150 yards from shore and brought beyond the high tide mark (Map by Author).

The location of this activity also occurred at the Bight of Hatteras. Figure 6.11 displays the area where capture took place. Dolphins were captured approximately 150 yards from shore. They were then placed beyond the high tide mark to prevent them from escaping (Angell 1981).

The second action within the behavioral chain segment on capture was when dolphins were caught in seine nets and were eventually being swept to shore (Table 6.3). The dolphin fishermen were the human energy sources and the dolphins were the nonhuman energy sources. The conjoined elements were the dolphin fishermen clothing, dory boats, and seine nets (Figures 6.7-6.9). The time and frequency of this action took place during dolphin hunting season and occurred once dolphins were caught in the net. The location of this activity occurred at the Bight of Hatteras (Figure 6.11). Finally, this action did not have any outputs or intersections (Table 6.3).

The last action within the behavioral chain segment on capture was when dolphins were in shallow enough water to be dragged to shore (Table 6.3). The human energy source were the dolphin fishermen and the dolphins were the nonhuman energy source. The conjoined elements were the dolphin fishermen clothing, seine nets, and hook with stout line (Figures 6.7-6.10). The time and frequency of this action took place during dolphin hunting season and occurred once the dolphins were no longer able escape. The location of this action took place on the shore of the Bight of Hatteras (Figure 6.11).

The intersections of this action were the deletion of dory boats and the addition of a hook with stout line (Figure 6.10). By the time the dolphins were brought into shallow enough waters, dory boats were no longer needed. The hook with stout line was then used by the dolphin fishers to drag the dolphins further beyond the high tide mark. Another item that was often used instead of hook with stout line was a simple rope looped around the tail of the dolphin (Kellogg 1927:13). Lastly, there were no outputs for this activity (Table 6.3).

Killing

After the dolphins were successfully captured and brought to shore, they were then prepared for killing. There were two methods in which dolphins were killed. Because of this, there are two individual behavioral chain segments focused on killing. The actions within these behavioral chain segments represent two different decisions of what activity would take place next. The first action of the behavioral chain segment of killing discussed was when the dolphins were immediately killed (Table 6.4).

Immediate Kill of Dolphins Behavioral Chain Segment

Once the dolphins were beached and hauled beyond the high tide mark, they were usually stabbed in the throats prior to being processed (Kellogg 1927:13). The dolphin fishermen were the human energy sources and the dolphins were the nonhuman energy sources. The conjoined elements of this activity were the dolphin fishermen clothing and knives. The time and frequency took place during dolphin hunting season and occurred once the dolphins were dragged beyond the high tide mark. The intersections of this action were the addition of knives and deletion of the hook with stout line. Lastly, this is the first action where outputs begin appearing. After a dolphin was stabbed in the throat, blood and flesh would then become waste of this activity (Table 6.4).

Table 6.4. Behavioral chain segment on killing when dolphins are immediately killed (Source: Author).

Capture

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Kill)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Dolphin fishermen/ Dolphins	Blood, excess dolphin flesh	Dolphin fishermen clothing, knives[1,2]	Dolphins are killed[3]	November to May. Once	Beyond high tide mark of the Shore of the Bight of Hatteras[4]	Knives are added. Hook with stout line is deleted.

Key:

1. Figure 6.12
2. Figure 6.13
3. Figure 6.14
4. Figure 6.15

↓

Beach Processing

FIGURE 6.12. Dolphin fishermen clothing used to protect fishermen from harsh weather (Source: Smithsonian Institution B-3663-M).

FIGURE 6.13. Knife used in the processing of dolphins (Source: Smithsonian Institution B-3663-M).

FIGURE 6.14. Dolphins killed on the beach (Source: Smithsonian Institution B-3661-M).

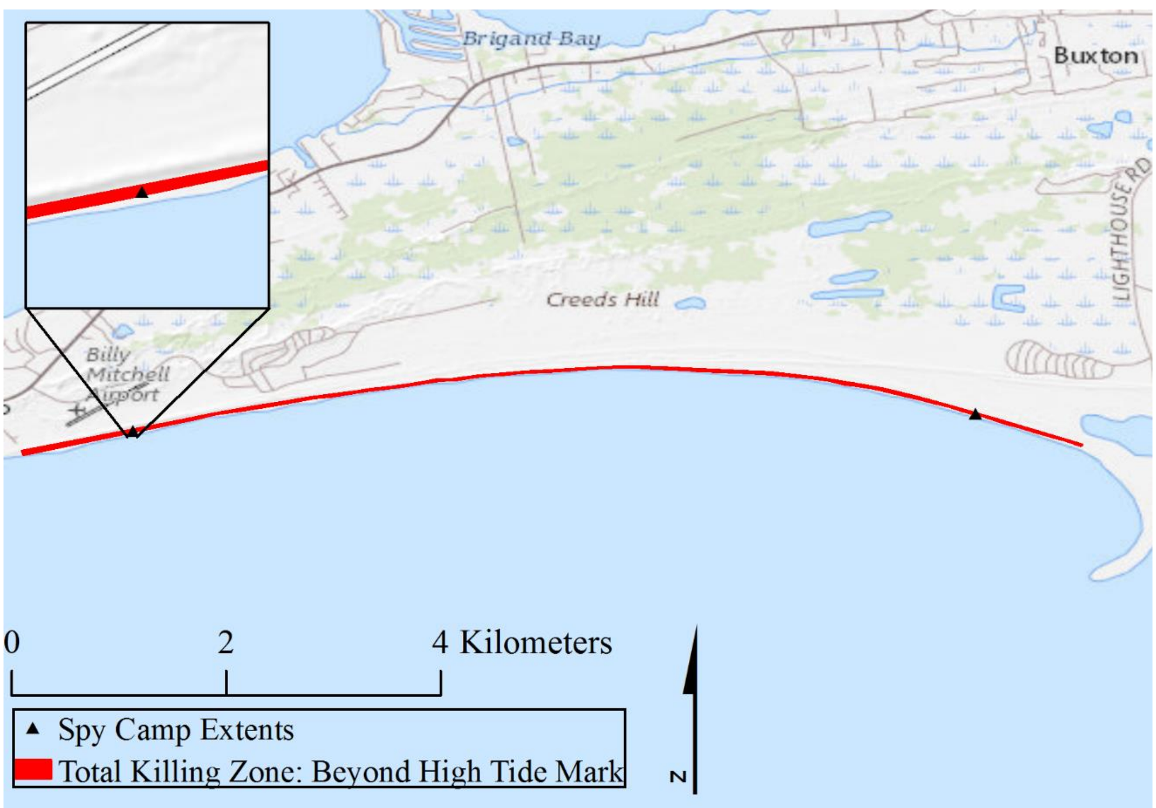

FIGURE 6.15: Map depicting area where dolphins were killed (Map by Author).

The location of this activity took place beyond the high tide mark of the shore of the Bight of Hatteras. Figure 6.15 displays the area where killing of dolphins generally took place. After they were captured, they were dragged beyond the high tide mark to prevent them from escaping. In the context of this activity, beyond the high tide mark is where the killing zone took place (Figure 6.15).

Suffocation of Dolphins Behavioral Chain Segment

The other action that occasionally took place within the behavioral chain segment on killing was when dolphins were left stranded on the beach (Table 6.5). There were often periods where too many dolphins were caught and the factory on the island could not effectively process them. Instead, they were left alive and slowly suffocating on the beach for two or three days to avoid fast decomposition (Kellogg 1927:13). This possibly an attempt to preserve the materials such as the flesh or jaw oil.

The nonhuman energy source of this action were the dolphins since they were intentionally left alive on the shore. There were no conjoined elements used in action. The time and frequency took place during dolphin hunting season occurred once they were dragged beyond the high tide mark and when the factory was too full. Like the other action in this behavioral chain segment, the hook with stout line was deleted in the intersection. The location of this activity took place beyond the high tide mark on the shore of the Bight of Hatteras (Figure 6.15; Table 6.5). Finally, the output of this action would sometimes be an entire dolphin. Because the dolphins were left out in the open for two to three days, they were often at risk for being eaten by nearby terrestrial predators.

Table 6.5 Behavioral chain segment on killing of dolphins by suffocation (Source: Author).

Capture

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Kill)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Dolphins are nonhuman energy sources	An entire dolphin sometimes		Dolphins are left on beach for suffocation[5]	November to May. When factory is too full.	Beyond high tide mark of Shore of the Bight of	

Key:
1. Figure 6.15

↓

Beach Processing

In one mention, a journalist notes "for days at a at a time a hog, the proverbial North Carolina razor back, is not visible about Hatteras, but he knows from instinct when a catch of porpoises is made, and like hungry wolves in a Russian forest, these razor backs emerge in great droves from the dense woods and feast upon the carcasses, that is if they have not been hastily gathered up and carted off to the boiling house" (Table 6.1; *The Charlotte Democrat* 1895:1).

Beach Processing

The catch of dolphins would eventually be processed on the beach after they were killed (Kellogg 1927:11-13). The reason for processing dolphins on the beach was to allow a lighter load for transportation to the factory. This next behavioral chain segment deals beach processing and is made up of four activities (Table 6.6).

Table 6.6. Behavioral chain segment on beach processing (Source: Author).

Killing

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Beach Processing)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Dolphin fishermen/ Dolphins	Excess dolphin remains	Dolphin fishermen clothing, knives[1,2]	Longitudinal back hide separation from tip of snout to notch of flukes[3]	November to May. Once	Beyond high tide mark of Bight of Hatteras[6]	
Dolphins fishermen/ Dolphins	Excess dolphin remains	Dolphin fishermen clothing, knives[1,2]	Hide and fatty layer removed in two places[3]	November to May. Once	Beyond high tide mark of Bight of Hatteras[6]	
Dolphin fishermen/ Dolphins	Excess dolphin remains	Dolphin fishermen clothing, knives[1,2]	Longitudinal upper side hide separation[4]	November to May. Once	Beyond high tide mark of Bight of Hatteras[6]	
Dolphin fishermen/ Dolphins.	Excess dolphin remains and teeth	Dolphin fishermen clothing, knives[1,2]	Lower jaws cut loose from skull[5]	November to May. Once	Beyond high tide mark of Bight of Hatteras[6]	

Key:
1. Figure 6.16 2. Figure 6.17
3. Figure 6.18 4. Figure 6.19
5. Figure 6.20 6. Figure 6.21

↓

Transportation to Factory

The first action within the behavioral chain segment on beach processing focuses extracting the back of the dolphins hide (Table 6.6). The back hide of the dolphin would be longitudinally separation from the tip of the snout to the notch of the flukes (Kellogg 1927:11-13). The dolphin fishermen were the human energy sources and the dolphins were the nonhuman energy sources of this activity. The conjoined elements used were the dolphin fishermen clothing and knives. The time and frequency of this activity took place during dolphin hunting season and occurred after the dolphin was killed. There were no intersections within this action. Lastly, the outputs would most likely have been excess dolphin remains such as flesh or blood (Table 6.6).

FIGURE 6.16. Dolphin fishermen clothing worn by the fishermen after catching dolphins (Source: Smithsonian Institution B-3664).

FIGURE 6.17. Knife used to slice dolphin open (Source: Smithsonian Institution B-3664).

FIGURE 6.18. Dolphin hide split longitudinally from tip of snout to notch of flukes for hide and fatty layer removal (Source: Smithsonian Institution B-3662-M).

FIGURE 6.19. Dolphin hide split on the upper side (Source: Smithsonian B-3664-M).

FIGURE 6.20. Dolphin jaws removed from skull (Source: Smithsonian B-3666-M).

The location of this activity was like the location within the behavioral chain segments on killing in that it was beyond the high tide mark of the Bight of Hatteras (Table 6.1-6.2). Figure 6.21 displays the same area where killing of dolphins generally took place. However, in this case, the killing has finished and is now a location for beach processing. As such, this zone is no longer a zone for killing. Instead, the zone beyond the high tide mark is now designated for where beach processing generally took place (Figure 6.21).

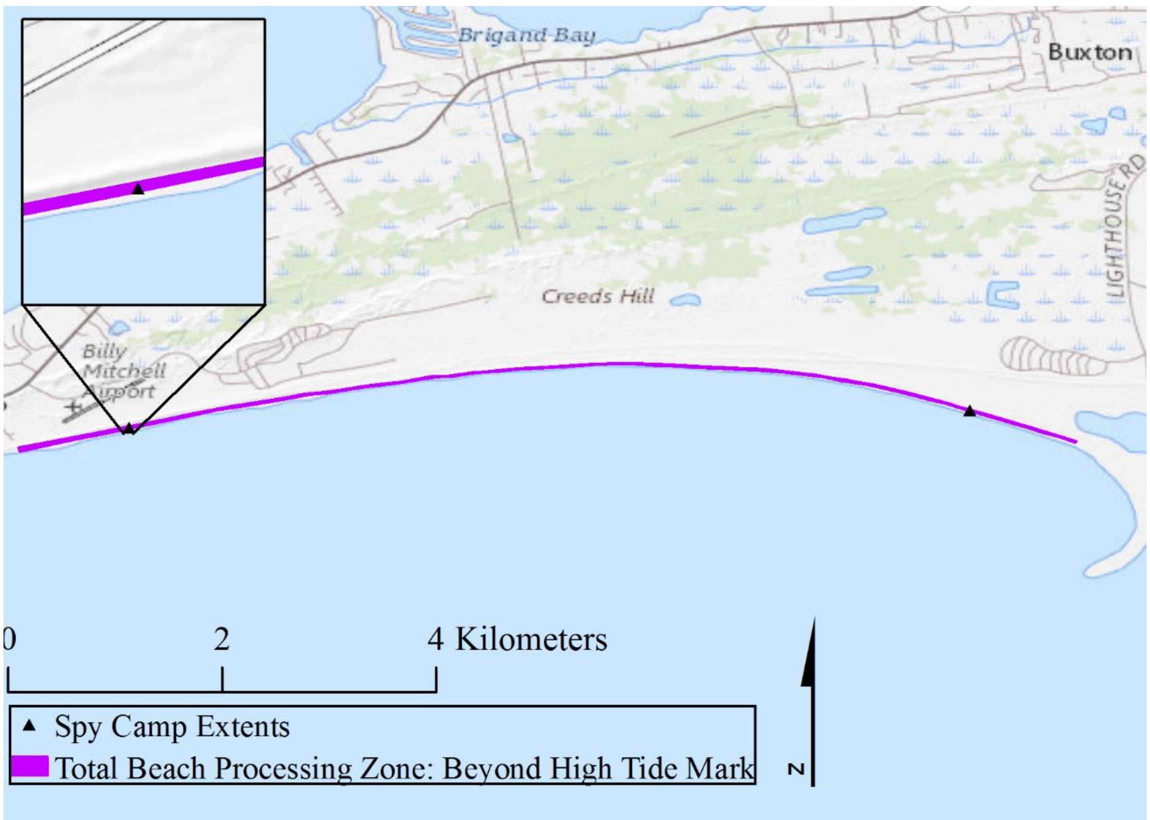

FIGURE 6.21. Map depicting the area of where beach processing took place (Map by Author).

After the back hide was separated, the next action within the behavioral chain segment dealt with the removal of the hide and fatty layers (Tables 6.4-6.6). The human energy sources were the dolphin fishermen and the nonhuman energy sources were the dolphins. The conjoined elements used in this action were dolphin fishermen clothing and knives. The time and frequency took place during dolphin hunting season and occurred once the back hide was separated. The location of this activity took place beyond the high tide mark of the Bight of Hatteras (Figure 6.21). The outputs of this action were generally excess dolphin remains. Finally, there were no intersections within this action (Table 6.6).

Shortly after the hide and fatty layers were removed, the next activity to take place in the behavioral chain segment on beach processing dealt with the separation of the second hide (Table 6.2). After the first hide is separated from the dolphin, it is rolled over and then the upper side hide is longitudinally separated (Kellogg 1927:11-13). The human energy sources are the dolphin fishermen and the nonhuman energy sources are they dolphins. The conjoined elements of this activity are the dolphin fishermen clothing and knives. The time and frequency took place during dolphin hunting season and occurred once the hide and fatty layers were removed. The location of this activity took place beyond the high tide mark of the Bight of Hatteras. The outputs were also excess dolphin remains. Lastly, there were no intersections within this action (Table 6.6).

The last action to take place within the behavioral chain segment on beach processing was when the lower jaws were cut loose from the skull (Table 6.6). As noted, the oil within the jaws were considered the most valuable part of the dolphin because of its fine consistency for lubrication (Cecelski 2015:49). The human energy sources were the dolphin fishermen and the nonhuman energy sources were the dolphins. The conjoined elements of this action were the dolphin fishermen clothing and knives. The time and frequency took place during dolphin hunting season and occurred beyond the high tide mark of the Bight of Hatteras. The outputs of this action were excess dolphin remains and teeth. Dolphin teeth often littered the shores of the Bight of Hatteras (Gray and Lyons 1978; Cecelski 2015:74). Lastly, there were no intersections within this action (Table 6.6).

Transportation to Factory

Once all the materials were extracted from the dolphins, they were then prepared for transportation. The next behavioral chain segment focuses on transportation to the factory and is comprised of two actions (Table 6.7).

Table 6.7. Behavioral chain segment on transportation to factory (Source: Author).

Beach Processing

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions: (Transportation to Factory)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Dolphin fishermen		Dolphin fishermen clothing, ox cart[1,2]	Dolphin objects loaded onto cart.	November to May. Once	Beyond the high tide mark of the Bight of Hatteras	Ox cart is added. Knives are deleted
Dolphin fishermen/ sometimes horses		Dolphin fishermen clothing, ox cart[1,2]	Dolphin objects are transported to factory	November to May. Once	From the shore of the Bight of Hatteras to the Hatteras Porpoise Factory[3]	

Key:
1. Figure 6.22 2. Figure 5.9
3. Figure 6.23

Factory Processing

The first action dealt with the loading of dolphin materials onto an ox cart. The human energy sources for this action were the dolphin fishermen. The conjoined elements used were the dolphin fishermen clothing and ox cart. The time and frequency took place during dolphin hunting season and occurred once the items were processed and gathered. The intersections of this action were the addition of the ox cart and the deletion of knives. Lastly, there were no outputs for this action (Table 6.7).

FIGURE 6.22. Dolphin fishermen clothing worn to protect fishermen from elements (Smithsonian B-3664-M).

The location of this activity also took place beyond the high tide mark of the Bight of Hatteras (Table 6.7). Figure 6.23 displays the location of where the ox cart would be located. It then depicts a nine-kilometer path of where the ox cart would go to reach the factory. Interestingly, the map also shows that watercraft would have been necessary for transporting the dolphins to the factory. Unfortunately, no information was found on watercraft used to transport dolphin products to the factory. (Figure 6.23).

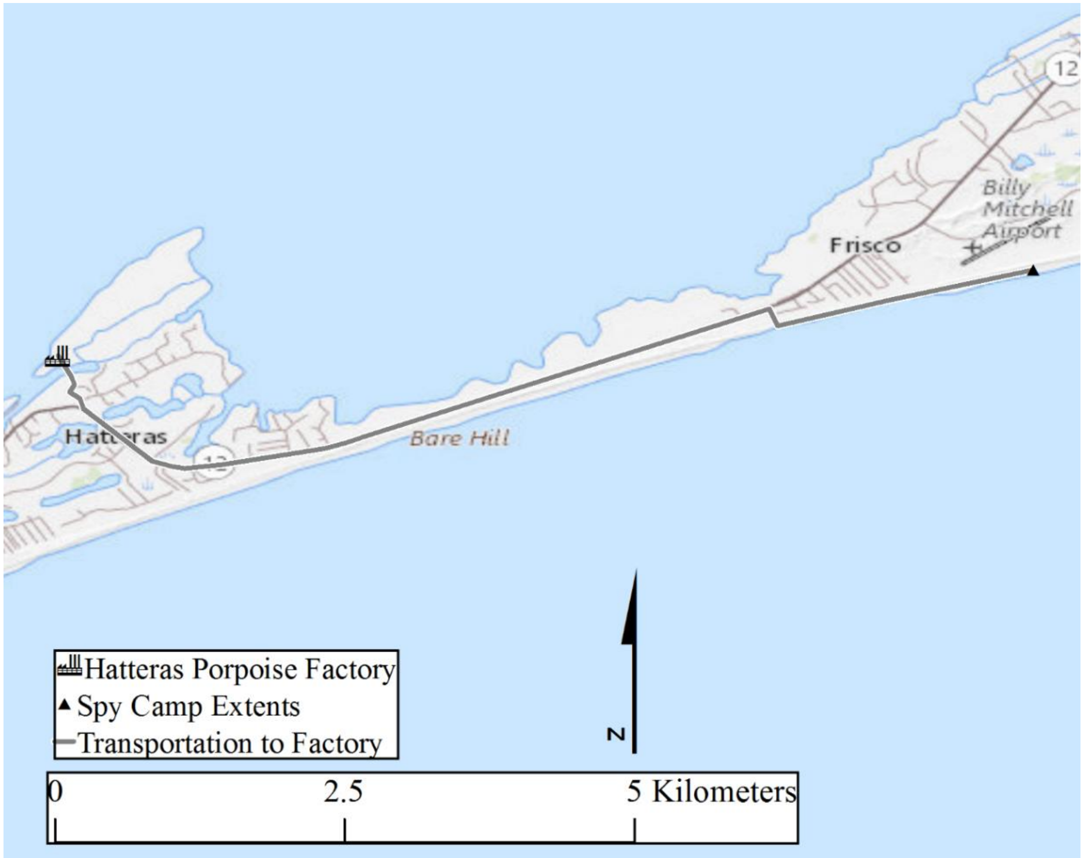

FIGURE 6.23. Possible transportation route taken from the spy camp to the factory (Map by Author).

The second action within the behavioral chain on the transportation to the factory was when the dolphin materials were carted off to the factory (Table 6.7). The human energy sources were the dolphin fishermen. Interestingly, horses may have been used as a non-human energy source according to some sources (Gray and Umphlett 1978; Cecelski 2015:70-71). The conjoined elements were the dolphin fishermen clothing and ox cart. The time and frequency during dolphin hunting season and occurred after the items were loaded onto the cart. The location of this activity took place from the shore of the Bight of Hatteras to the Hatteras Porpoise Factory (Figure 6.23). Lastly, there were no outputs or intersections for this action (Table 6.7).

Factory Processing

Once the dolphin materials were successfully transported to the factory, they were then prepared for the complex factory processing. As discussed in the previous chapter, the exact operations surrounding how the dolphin remains were processed are unknown. However, some of the historical references provide a glimpse into how the dolphin materials were processed (*The Charlotte Democrat* 1895:1). These next behavioral chain segments focus on the goods associated with the factory processes of dolphin remains. This includes the hides, blubber, and bones. What separates this section from the previously discussed behavioral chain segments is each product requires its own behavioral chain segment because they are not done with an established chronological order. That said, the first discussed behavioral chain segment on the factory process deals with the preparation of the hides and is made up of four actions (Table 6.8).

Dolphin Hide Factory Processing Behavioral Chain Segment

The first action taken for the behavioral chain segment on factory processing for hides focus on the soaking of hides (Table 6.8). The hides were soaked in large reservoirs for curing (*The Charlotte Democrat* 1895:1; Cecelski 2015:73). The chemicals used in soaking these hides are unknown. However, compared to typical curing techniques used on other animal hides, these could include chemicals such as sodium sulfide, calcium hydroxide, unsaturated fish oil, and much more (Covington 1997).

The human energy sources of this action were the factory workers and the nonhuman energy source was a heating element (Table 6.8). The conjoined element used in this action was possibly the suspected trypot. Given that the suspected trypot's absolute function has not been determined, it is possible that it may have been used as a reservoir for soaking hides. The time and frequency for this action was determined by the factory workers when the hides were ready for removal from the reservoirs. The intersection was the addition of the suspected trypot. Lastly there were no outputs for this action (Table 6.8).

Table 6.8. Behavioral chain segment on factory processing for hides (Source: Author).

Transportation to Factory

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Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Factory Processing for Hides)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers/ Heating element		Possibly the suspected trypot[1]	Hides are soaked in large reservoirs.	Time deemed by factory workers.	Hatteras Porpoise Factory[3, 4]	Suspected trypot possibly added.
Factory workers/ Machine		Industrial machinery	Hides are removed and placed on splitting machine.	Once	Hatteras Porpoise Factory[3, 4]	Suspected Trypot is deleted
Factory workers		Knives or cutting devices[2]	Blubber is shaved evenly	Twice shaved	Hatteras Porpoise Factory[3, 4]	
Factory workers		Factory floor[2]	Hides spread on floor and salted	~Three days	Hatteras Porpoise Factory[3, 4]	

Key:
1. Figure 5.8 2. Figure 4.7
3. Figure 6.24 4. Figure 6.25

↓

Packaging

After the hides were soaked for a sufficient amount of time, they were then removed from the reservoirs and placed on splitting machine (*The Charlotte Democrat* 1895:1; Cecelski 2015:73). The human energy sources were the factory workers and the nonhuman energy source was a machine used for splitting. The conjoined elements are largely unknown. However, industrial machinery was most likely used for this action. The time and frequency of this action was once. The intersection was the deletion of the suspected trypot if it was potentially used as the reservoir. Lastly, there were no outputs for this action (Table 6.4).

Once the hides were put through the splitting machine, they were then shaved for any remaining blubber (*The Charlotte Democrat* 1895:1; Cecelski 2015:73). The human energy sources were the factory workers. While it is not explicitly said, the conjoined elements were most likely knives or cutting devices to shave off the blubber. The time and frequency of this action was twice. Lastly, there were no outputs or intersections for this action (Table 6.4).

The final action of the behavioral chain segment on the factory processing of dolphin hides dealt with salting the hide (*The Charlotte Democrat* 1895:1; *Tar Heel* 1909:4; Cecelski 2015:73). The salting of animal hides is a typical process used in the preparation of tanning for leather (Covington 1997:117-118). The human energy source were the factory workers. The conjoined element used in this action was the factory floor. The time and frequency of this action was usually three days. Lastly, there were no outputs or intersections for this action (Table 6.4).

In addition to the activity, actions and the components, the location of these actions took place at the Hatteras Porpoise Factory (Figure 4.7; Table 6.4). Regarding the spatial aspects of these actions, two maps were created for effective visualization. Figure 6.24 displays a georeferenced map of the 1923 aerial photograph. The georectification of oblique images is not something that is normally done because of too many sources of distortion. It is recommended orthographic sources are georectified onto other orthographic sources. However, there was only a minimum level of inaccuracy.

With this level of inaccuracy in mind, the aerial photograph was georectified at five points. Measurements were taken of each point to generate an average margin of error at 91.54 meters. This average was then taken to create a buffer of the potential location of where the remnants of the Hatteras Porpoise Factory are (Figure 6.25).

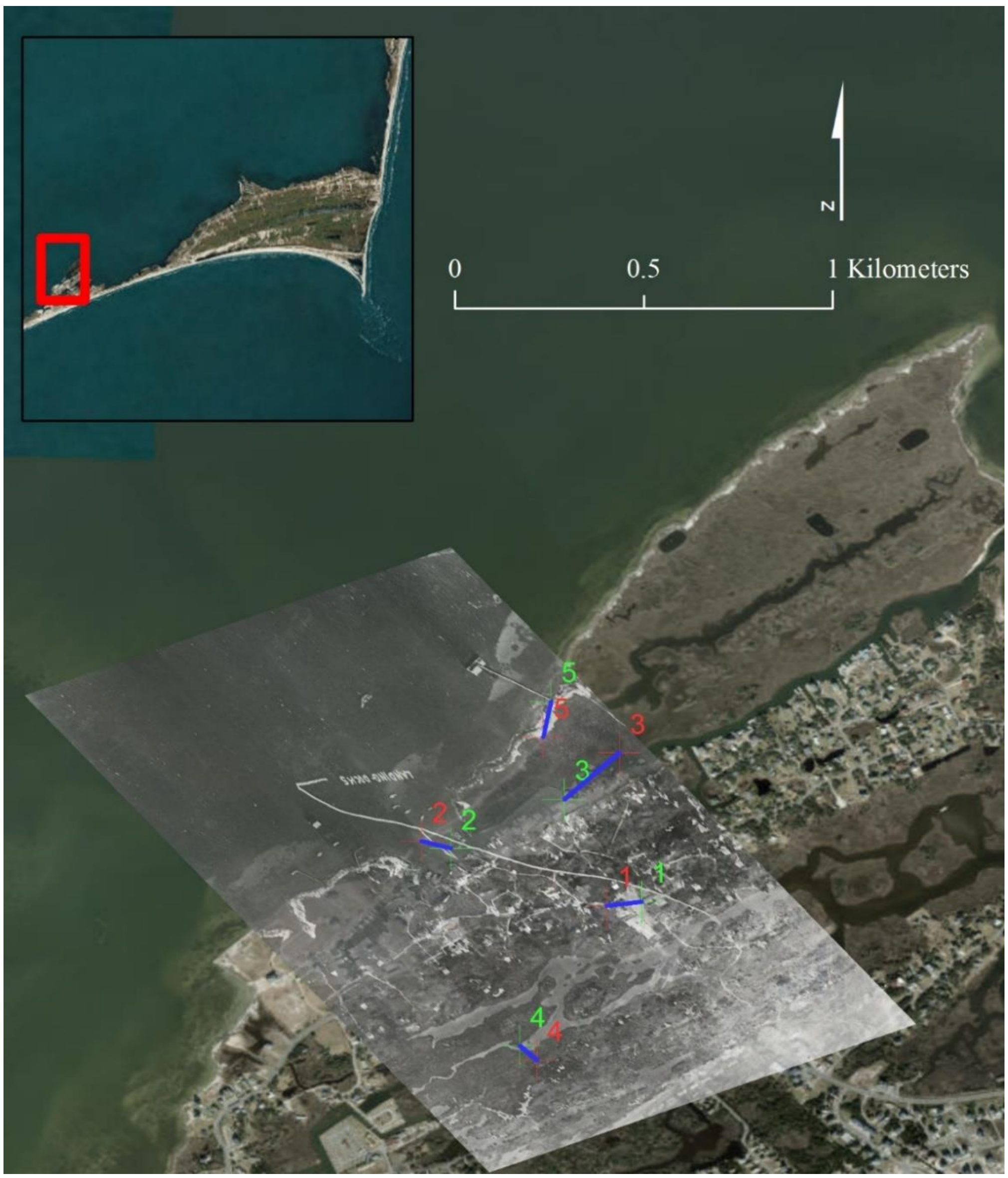

FIGURE 6.24. Georeferenced map with an average 91.54 meter margin of error (Map by Author).

FIGURE 6.25. Georeferenced map showing the potential location of the Hatteras Porpoise Factory (Map by Author).

The buffer depicted in Figure 6.25 shows the potential location of where the Hatteras Porpoise factory once was. Interestingly, a portion of this area was surveyed for this study (Figure 6.26). Several artifacts such as coal and tar were found within the buffer zone of where the factory may have been. The main reason for why the rest of the area was not surveyed was due to not receiving permission from landowners. However, it is likely more artifacts could be found if a permission was granted and a swim survey was conducted.

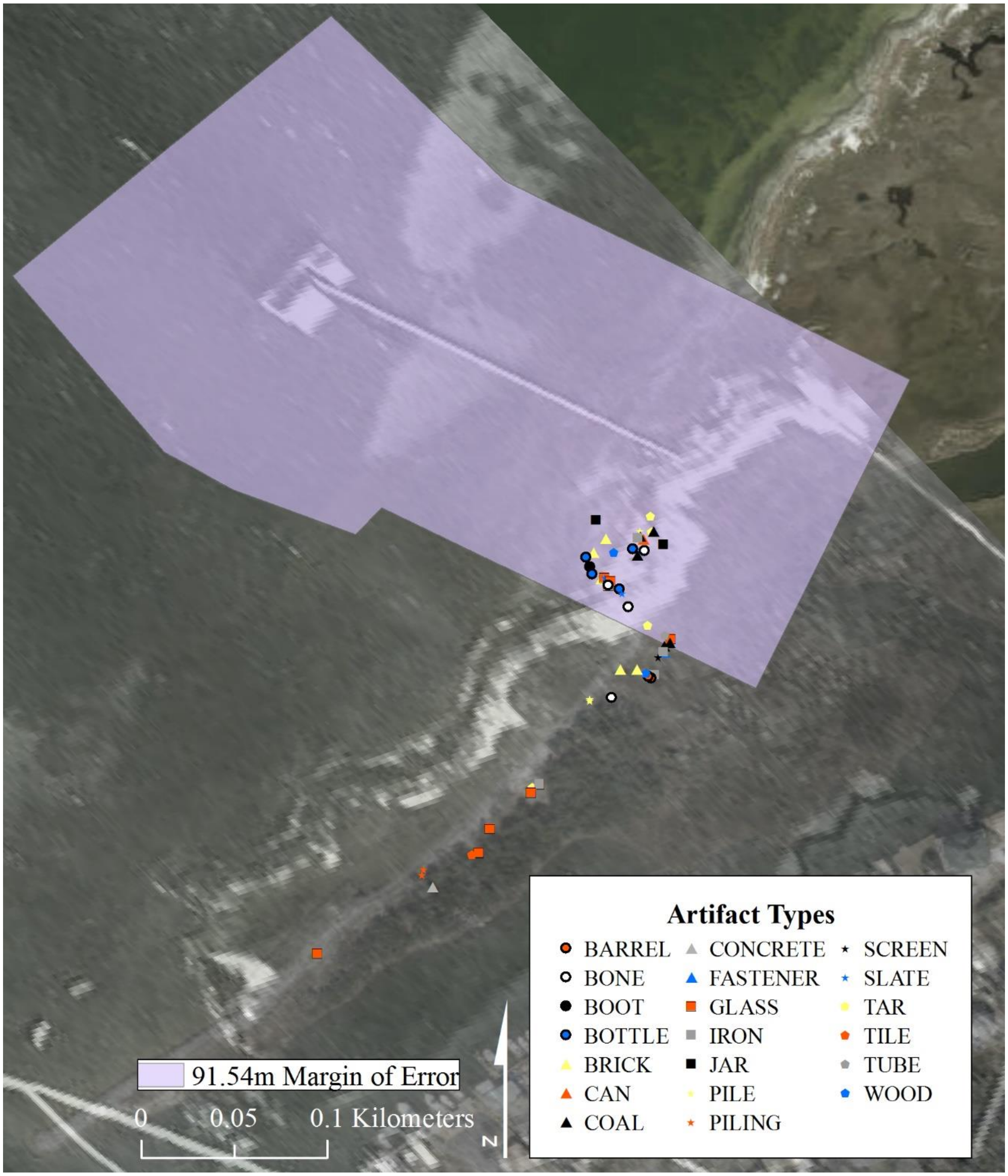

FIGURE 6.26. List of artifact types found within the buffer zone of the Hatteras Porpoise Factory site (Source: Author).

Dolphin Blubber Factory Processing Behavioral Chain Segment

Another product that is processed at the factory is dolphin blubber. Dolphin blubber was processed into a much lower grade of lubricating oil compared to the oil rendered from the jaw. The next behavioral chain segment on factory processing deals with dolphin blubber and is made up of three actions. The first action was when the blubber was chopped and minced. This was to allow for faster boiling (Table 6.9; *The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; Cecelski 2015:73).

Table 6.9. Behavioral chain segment on factory processing of dolphin blubber (Source: Author).

Transportation to Factory

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Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Factory Processing for Blubber)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers		Knives or cutting devices	Blubber is chopped and minced	Once	Hatteras Porpoise Factory[2,3]	
Factory workers/ Heat element		Possibly suspected trypot[1]	Blubber is placed in kettle or furnace and boiled into oil	Once	Hatteras Porpoise Factory[2,3]	Addition of suspected trypot
Factory workers		Possibly suspected trypot[1]	Oil is strained	Once	Hatteras Porpoise Factory[2,3]	

Key:
1. Figure 5.8 2. Figure 6.24
3. Figure 6.25

↓

Packaging

The human energy sources of this action were the factory workers (Table 6.9). The conjoined elements were knives or other cutting devices. The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory (Figures 6.24-6.25). Lastly there were no outputs or intersections in this action (Table 6.9).

After the blubber was chopped and minced, it was then placed into a kettle or furnace for boiling (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; Cecelski 2015:73). The next action within the dolphin blubber factory processing behavioral chain segment was the boiling of dolphin blubber (Table 6.9). The human energy source was the factory workers and the nonhuman energy source was a heating element. The conjoined element of this action was possibly the suspected trypot. The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory (Figures 6.24-6.25). The intersection in this case is the addition of the suspected trypot. Lastly, there were no outputs in this action (Table 6.9).

The last action that took place in the behavioral chain segment of the factory processing of dolphin blubber was when the oil was strained (Table 6.9). The purpose of straining the oil was to refine any impurities within it. The human energy source of this action was the factory workers. The conjoined element of this action was most likely the suspected trypot. The reason for this is because of the likelihood of there being a false bottom for the suspected trypot (Figure 5.8). Having a false bottom would have allowed for a strainer to be placed inside the suspected trypot. The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory (Figures 6.24-6.25). Lastly, there were no intersections or outputs (Table 6.9).

Dolphin Bone Factory Processing Behavioral Chain Segment

As seen through the previous behavioral chains, much of the dolphin was used for processing. The dolphin bones were also a valuable material. Dolphin bones were an excellent source for fertilizer (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; Cecelski 2015:73). The last factory processing behavioral chain segment dealt with the processing of dolphin bones and is made up of two actions (Table 6.10).

Table 6.10. Behavioral chain segment of factory processing of dolphin bones (Source: Author).

Transportation to Factory

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Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Factory Processing for Bones)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers		Industrial machinery	Bones go through steamer	Once	Hatteras Porpoise Factory[1, 2]	
Factory workers		Industrial machinery	Cleaned bones are grounded in a bone miller	Once	Hatteras Porpoise Factory[1, 2]	

Key:
1. Figure 6.24 2. Figure 6.25

↓

Packaging

The first action that took place within the behavioral chain segment of factory processing for dolphin bones was steaming (Table 6.10). Steaming was a necessary process to clean the bones of any leftover flesh (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; Cecelski 2015:73). The human energy source of this action were the factory workers. The conjoined elements were unknown industrial machinery. Unfortunately, the historical record does not go into detail of the equipment used for the steaming of dolphin bones. The time and frequency of this occurred once. The location of this action took place at the Hatteras Porpoise Factory. Lastly, there were no intersections or outputs for this action (Table 6.10).

Following the steaming of bones, the second action that took place was the grounding of bones in a bone miller (Table 6.10). As mentioned, dolphin bone meal was considered an excellent source for fertilizer (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; Cecelski 2015:73). The human energy source of this action were the factory workers. The conjoined elements were also unknown industrial machinery.

Packaging

After all the dolphin materials went through the complex factory process, they were then prepared for packaging. Like the behavioral chain segments on factory processing, packaging will have its own behavioral chain segments based on the processed products (Table 6.8-6.10). As such, the first behavioral chain segment for this section deals with the packaging of dolphin hides and is made up of one action (Table 6.11).

Table 6.11: Behavioral chain of packaging of dolphin hides (Source: Author).

Factory Processing

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Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Packaging for Hides)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers		Large boxes	Placing cured hides in boxes	Once	Hatteras Porpoise Factory[1]	Unknown boxes added

Key:
1. Figure 6.25

↓

Shipping Transportation

Dolphin Hide Packaging Behavioral Chain Segment

Once the hides were finished being cured with salt, they were then carefully packaged in large boxes for shipping (*The Charlotte Democrat* 1895:1; Cecelski 2015:75). The human energy source were the factory workers. The conjoined elements for this action were large boxes. It is likely that the boxes used for packaging were made using a material like cardboard because objects such as refined dolphin jaw oil bottles were placed in cardboard packing (Figure 5.7). The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory (Figure 6.25). The intersection in this case was the addition of large boxes. Lastly, there were no outputs in this action (Table 6.11).

Dolphin Blubber Oil Packaging Behavioral Chain Segment

By time the dolphin blubber was boiled and strained, it would then be prepared for packaging (*The Charlotte Democrat* 1895:1; Cecelski 2015:73). This next behavioral chain segment deals with the packaging of dolphin blubber oil and is made up of one action (Table 6.8). The human energy source was the factory workers. The conjoined elements of this action were barrels. Interestingly, while surveying the Hatteras Porpoise Factory site, barrel hoop fragments were found located (Figure 6.27). It is possible that these particular barrel hoop fragments may have been used at the factory for packaging of dolphin oil. The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory. The intersection in this case was the addition of barrels. Lastly, there were no outputs for this action (Table 6.12).

Table 6.12 Behavioral chain segment of packaging of dolphin blubber oil (Source: Author).

Factory Processing

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Packaging for Dolphin Blubber Oil)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers		Barrel[1]	Oil is poured into barrels	Once	Hatteras Porpoise Factory[2]	Barrels are added

Key:
1. Figure 6.27 2. Figure 6.25

↓

Shipping Transportation

FIGURE 6.27. Barrel hoop fragments found at the Hatteras Porpoise Factory site (Source: Author).

Dolphin Bone Meal Packaging Behavioral Chain Segment

Once the dolphin bones were grounded and made into bone meal, it was then prepared for packaging (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; Cecelski 2015:75). This next behavioral chain segment deals with the packaging of dolphin bone meal and is made up of one action (Table 6.13). The human energy source was the factory workers. The conjoined elements were sacks that were filled with bone meal. The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory. The intersection in this case is the addition of sacks. Lastly, there were no outputs for this action (Table 6.13).

Table 6.13. Behavioral chain segment of packaging of dolphin bone meal (Source: Author).

Factory Processing

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Packaging for Dolphin Bone Meal)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers		Sacks	Bone meal is poured into a sack.	Once	Hatteras Porpoise Factory[1]	Sacks are added
Key: 1. Figure 6.25						

↓

Shipping Transportation

Dolphin Jaw Packaging Behavioral Chain Segment

Interestingly, dolphin jaws were not processed at the factory. Instead they were packaged and sent for processing at Nye's refining factory. This was likely since the jaws were considered the most valuable piece of the dolphin and required more oversight and technique when processing them for the oil (*The Charlotte Observer* 1896:4; *The Sun* 1912:57 Cecelski 2015:73). This last behavioral chain segment of packaging focuses on dolphin jaw bones and is made up of one action (Table 6.14).

Table 6.14. Behavioral chain segment of packaging of dolphin jaw bone (Source: Author).

Factory Processing

↓

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Packaging for Dolphin Jaw Bone)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers		Unknown possibly boxes or	Jaws are placed in packaging	Once	Hatteras Porpoise Factory[1]	Boxes or barrels are added

Key:
1. Figure 6.25

↓

Shipping Transportation

The human energy source were the factory workers (Table 6.14). The conjoined elements of this action are unknown. However, cardboard boxes or barrels were most likely used to package the jaw bones. The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory. The intersection in this case would be the addition of boxes or barrels. Lastly, there were no outputs for this action (Table 6.14).

Shipping Transportation

Once all the processed materials were packaged, they were then ready to be transported for further processing in the North or distributed to surrounding markets (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; *The Sun* 1912:57; Cecelski 2015:75). The location of the Hatteras Porpoise Factory along the Pamlico Sound was extremely beneficial as it allowed for ships, such as schooners, to quickly come in and out with goods (Figure 6.25; Angell 1981; Cecelski 2015; Couch 2017 pers. comm; Midgett 2017 pers. comm). That said, this last behavioral chain segment discusses the shipping transportation activity and is made up of two actions (Table 6.15).

Table 6.15. Behavioral chain segment on shipping transportation (Source: Author).

Packaging

Energy Sources: Human/ Nonhuman	Outputs	Conjoined Elements	Activity Actions (Shipping Transportation)	Time and Frequency	Location	Intersection (Addition/ Deletion)
Factory workers, possibly ship workers		Ships, possibly schooners	Packaged goods are loaded onto ship	Once	Hatteras Porpoise Factory[1]	Ships added
Ship workers		Ships, possibly schooners	Package goods are transported	Once	See Figure 6.27[2]	

Key:
1. Figure 6.25 2. Figure 6.27

The first action was when the packaged goods were loaded onto the ship (Table 6.15). The human energy source of this activity were the factory workers. The ship workers may have joined in to speed up the process. The conjoined element in this action were the ships used to transport goods. Schooners, on occasion, are mentioned as the ships that would generally stop at the factory for picking up and dropping off goods (Angell 1981). The time and frequency of this action occurred once. The location of this action took place at the Hatteras Porpoise Factory. The intersection in this case was the addition of ships as the transportation vessels. Lastly, there were no outputs for this action (Table 6.15).

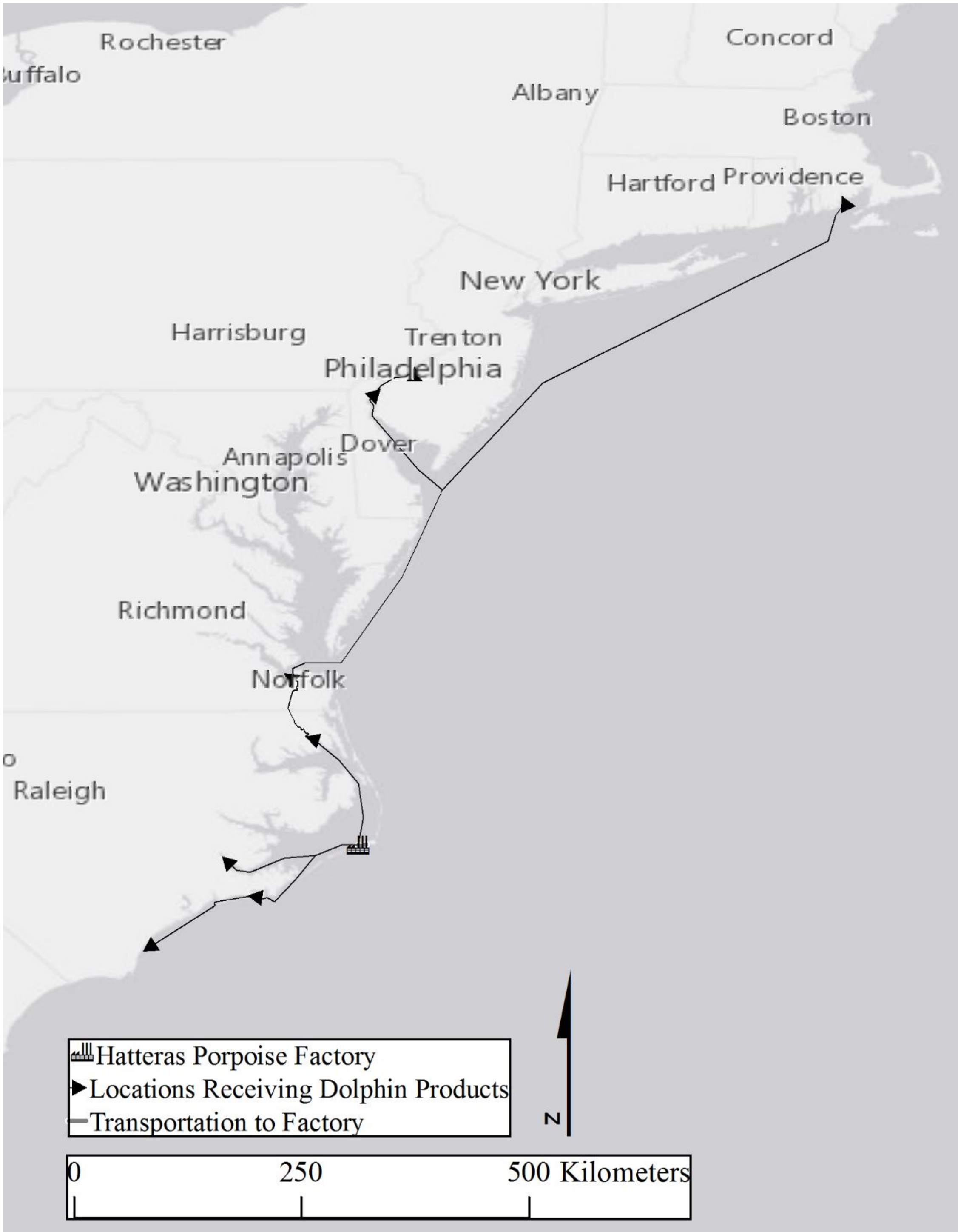

FIGURE 6.28. Map depicting areas where dolphin products would go (Map by Author).

The second action that took place in the behavioral chain segment on shipping transportation was when the packaged goods were transported (Table 6.15). The packaged goods were transported for either further processing, such as refining or tanning, or sold directly to nearby markets (*The Charlotte Democrat* 1895:1; *The Charlotte Observer* 1896:4; *The Sun* 1912:57; Cecelski 2015:75). The human energy source were the ship workers. Like the previous action, the conjoined element were the ships used to transport these goods. The time and frequency of this action occurred once. Lastly, there were no outputs or intersections (Table 6.15).

The location of this action occurred throughout North Carolina. Figure 6.28 displays the where merchant vessels would take packaged dolphin goods. If the packaged goods were objects that required further processing such as tanning or refining, they would go up North to cities such as New Bedford and Philadelphia. If they were packaged goods that were to be sold onto the market, they usually went to surrounding coastal cities, such as Elizabeth City and New Bern, but also could have gone up to Northern markets (Figure 6.28; *The Sun* 1912:57; Angell 1981; Whisnant and Whisnant 2015:83).

Behavioral Chain Model of the North Carolina Dolphin Fishery at Hatteras

As displayed and discussed in each individual behavioral chain segment, the North Carolina dolphin fishery is made up of several dynamic activities and actions. This next section incorporates the aforementioned behavioral chain segments into a comprehensive behavioral chain model.

Before discussing the overall behavioral chain model, a flow model was created to help further contextualize the flow of activities within the North Carolina (Figure 6.29). Schiffer argues “both flow models and behavioral chains aid in identifying changes in a technology’s activities and organization. Any change deemed significant can become the starting point for research to uncover the causes" (Schiffer 2011:34). These changes are evident in many of the actions previously discussed seen in all tables presented in this thesis. That said, Figure 6.28 provides a generalized flow chart of the activities within the North Carolina dolphin fishery.

The creation of a flow chart provided the necessary foundation to better understanding the flow of activities within the behavioral chain model (Figure 6.29). Table 6.16 displays the Schiffer organized behavioral chain model of North Carolina's dolphin fishery. Compared to the organization of the previous behavioral chain model segments that used cited examples, Table 6.16's 'Key' will refer to each previously discussed segment.

After combining each individual behavioral chain segment into the behavioral chain model, several things are evident of the North Carolina dolphin fishery at Hatteras (Tables 6.1-6.15). The human energy sources of the fishery were entirely men (Table 6.16). In some mentions from the historical record, men were always the first to take a job with the fishery for primarily because of their familiarity with fishing and experience on local waters (Angell 1981; Cecelski 2015:68). The nonhuman energy sources were a combination of industrial machinery and animals. Interestingly, within many other behavioral chain model examples, animals were not at all applied, despite Schiffer mentioning animals as potential externs within behavioral chain models (Schiffer 1995; Meyers 2007; Smith 2010; Schiffer 2011:192).

The conjoined elements used within hunting the North Carolina dolphin fishery at Hatteras were simple yet effective (Table 6.16). The objects employed in hunting strongly resembled the objects used among other dolphin fishing cultures such as Japan and Panama (Hiraguchi 1993; Porcasi and Fujita 2000; Cecelski 2015; Cooke et al. 2015).

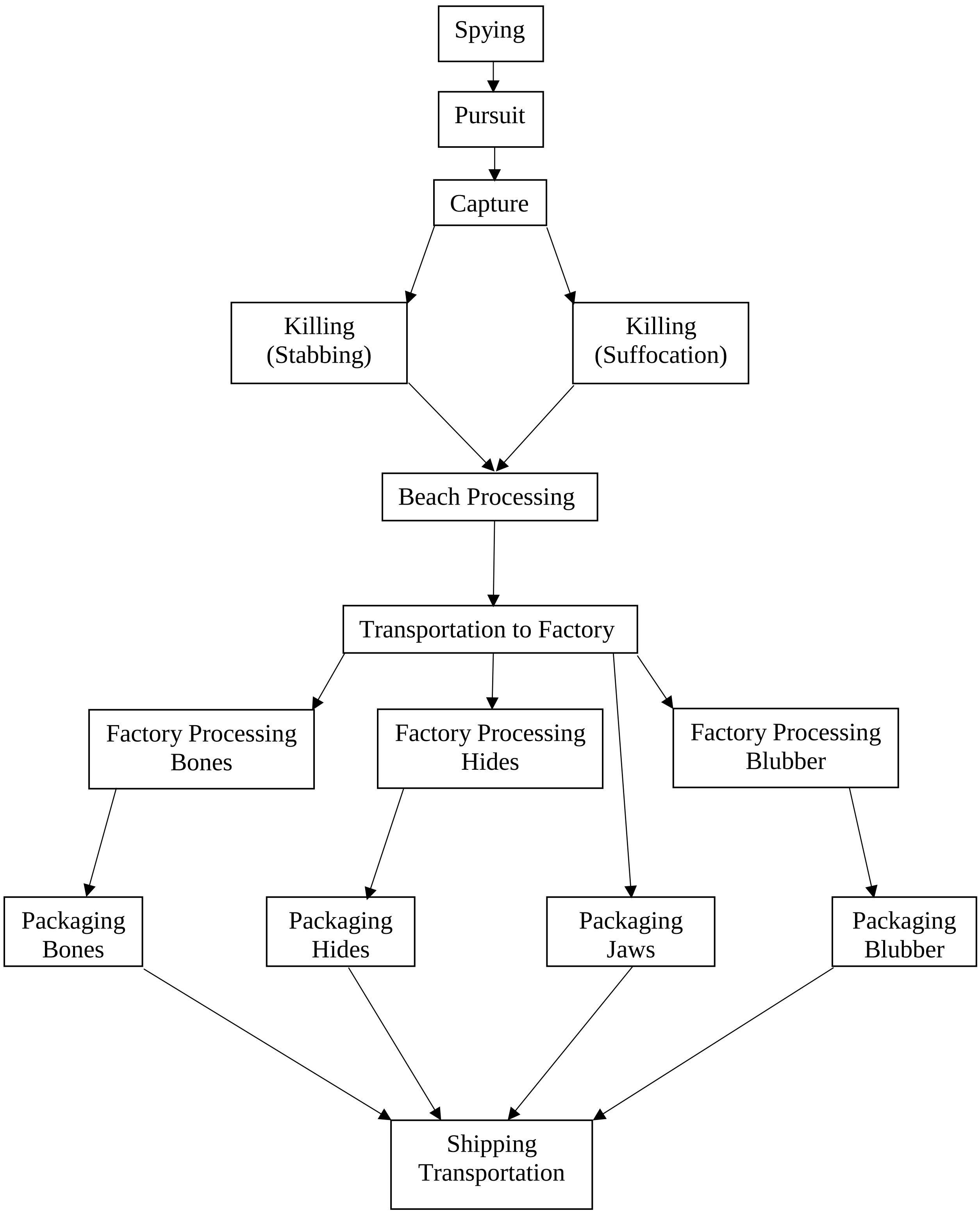

FIGURE 6.29. General flow chart of the activities within the North Carolina dolphin fishery (Source: Author).

Table 6.16. Behavioral chain model on the North Carolina dolphin fishery (Source: Author).

Activity	Energy Source (Human/ Non-Human)	Conjoined Elements	Time and Frequency	Location	Outputs	Intersections (Additions/ Deletions)
Spying	Two older dolphin fishermen/ Dolphins[1]	Spy camp and spy camp pole[1]	November to May and daily[1]	Bight of Hatteras[1]		Spy camp and spy camp pole are added[1]
Pursuit	Dolphin fishermen/ Dolphins[2]	Dory boats, dolphin fishermen clothing, and seine nets[2]	November to May and daily[2]	Bight of Hatteras[2]		Dory boats, dolphin fishermen clothing, and seine nets are added[2]
Capture	Dolphin fishermen/ Dolphins[3]	Dory boats, dolphin fishermen clothing, seine nets, and hook with stout line[3]	November to May and daily[3]	Shore of and Bight of Hatteras[3]		Hook with stout line/ Dory boats, spy camp and, spy camp pole[3]
Kill	Dolphin fishermen/ Dolphins[4,5]	Dolphin fishermen clothing, knives[4,5]	November to May and daily[4,5]	Beyond high tide mark of Shore of the Bight of Hatteras[4,5]		Knives/ Hook with stout line[4,5]
Beach Processing	Dolphin fishermen/ Dolphins[6]	Dolphin fishermen clothing, knives[6]	November to May and daily[6]	Beyond high tide mark of Shore of the Bight of Hatteras[6]	Excess dolphin remains, teeth[6]	
Transportation to Factory	Dolphin fishermen/ Sometimes horses[7]	Dolphin fishermen clothing, ox cart[7]	November to May and daily[7]	From shore of the Bight of Hatteras to the Factory[7]		Ox cart/ Knives[7]
Factory Processing	Factory workers/ Heating element, machinery[8,9,10]	Knives or cutting devices, possibly suspected trypot, industrial machinery[8,9,10]	Varies depending on object[8,9,10]	Hatteras Porpoise Factory[8,9,10]		Suspected trypot/ Suspected trypot[8,9,10]
Packaging	Factory workers[11,12,13,14]	Boxes, barrels, and sacks[11,12,13,14]	Once[11,12,13,14]	Hatteras Porpoise Factory[11,12,13,14]		Boxes, barrels, sacks/[11,12,13,14]
Shipping Transportation	Factory workers, possibly ship workers[15]	Ships[15]	Once[15]	Hatteras Porpoise Factory and other areas[15]		Ships/[15]

Key:
1. Table 6.1 2. Table 6.2 3. Table 6.3 4. Table 6.4 5. Table 6.5 6. Table 6.6 7. Table 6.7
8. Table 6.8 9. Table 6.9 10. Table 6.10 11. Table 6.11 12. Table 6.12 13. Table 6.13
14. Table 6.14 15. Table 6.15

The conjoined elements used in processing, however, were much different. Aside from a suspected trypot, much of the technology used in factory processing is largely unknown. What is known is the conjoined elements used in processing were highly industrial with complex functions such as cutting, chilling, straining, and heating (Table 6.16).

The time and frequency within the North Carolina dolphin fishery at Hatteras took place from November to May and many of its activities occurred either once or daily (Table 6.16). The primary reason the dolphin fishery at Hatteras took place from November to May was supposedly due to large numbers migrating due to favorable feedings (Angell 1981). Another possible reason was due to early nineteenth century ship refrigeration techniques. Many examples from the oral historical record mention the pungent odor that came from dolphins (Burrus and Garrity-Blake 2004; Couch 2017 pers. comm.; Midgett 2017 pers. comm.). Combine the products coming out of the factory with the summer heat would most likely create smell worse than previously mentioned.

The outputs of the behavioral chain model were surprisingly small (Table 6.16). Out of all the activities mentioned, the beach processing activity was the only one to have outputs. The reason for this was largely because almost everything from the dolphin was processed into a product (Gray and Lyons 1978; Cecelski 2015:74-75). The only objects that reached an output were excess dolphin remains and teeth (Table 6.16). However, teeth may have also been collected to create cuff links (Cecelski 2015:75). Lastly, the location of the Hatteras dolphin fishery occurred in several areas as displayed in the previous maps (Figures 6.1-6.28).

Conclusion

This chapter, organized based on Stier and Schiffer's behavioral chain models, provided by which to evaluate the interrelations between behavioral and spatial-material aspects of activity performance with reference to the life history of the North Carolina dolphin fishery at Hatteras. While the overall dolphin fishery of North Carolina could not be discussed in its entirety, the analysis of the Hatteras dolphin fishery provided some fascinating insights into the complexity of fishery. This next chapter addresses the research questions posed at the introduction of this study, reveal insights and conclusions, considers the limitations of the study, and offers directions for further research.

CHAPTER SEVEN: CONCLUSION

Introduction

The investigation of material culture, oral historical record, and archaeological sites related to the North Carolina dolphin fishery supports the historical record suggesting the prominent area for dolphin hunting in North Carolina took place at Hatteras. Extensive historical and archival research demonstrates the fishery was heavily influenced by Northern capitalists. This last chapter synthesizes the previous chapters and addresses the questions posed in the first chapter. It discusses the limitations and potential avenues for future research.

Observations

While the goal of this thesis was to attempt to identify and understand North Carolina's dolphin fishery, this study is still incomplete. Several possibilities such as unknown historical documents, new artifacts turning up unexpectedly, and information from additional descendants could contribute significantly, and possibly change the current knowledge of North Carolina's dolphin fishery. Applying Schiffer's behavioral chain model to North Carolina's dolphin fishery allowed for several insights to be made along with providing the opportunity for future researchers to apply this framework into various areas of maritime archaeology.

The application of Schiffer's behavioral chain model to North Carolina's dolphin fishery was useful in answering this research's primary question "How did technology, economics, and culture affect the North dolphin fishery?" Overall, each of those three areas played critical roles in the operations surrounding the fishery. The technology used in hunting was simple yet effective. As discussed, the primary technology used in hunting included objects such as seine nets, knives, and dory boats. While they were simplistic by design, it was the coordinated efforts of the fishermen that made the technology effective. Comparatively, the technology used in processing was much more complex and likely required specialized training to create products such as oil and hides. There was surprisingly little technological change found within the artifacts of the Hatteras dolphin fishery's life history.

The historical record suggests economics were the main driving force in the North Carolina dolphin fishery at Hatteras. The products made from dolphins, notably the jaw oil, were valuable to Northern and surrounding markets (Angell 1981; Cecelski 2015:74; Whisnant 2015:83-84). However, discussing the role of economics within this study was difficult. This was due to the presence of little to no sufficient statistical information on commodity prices or catch data to accurately examine the possible rise and fall of markets.

Finally, the very culture of the dolphin fishery is an area worth an additional anthropological study. Throughout much of the historical, archival and oral historical record, culture differed somewhat compared to other fisheries such as the whaling fishery. Contrary to the romanticism surrounding whaling, the dolphin fishery was not well liked by many of its fishermen. In one mention by Ernie Foster, a descendant of dolphin fishermen Ernal Foster, "My father knew that it was a job, but he didn't like it because when they'd stick the dolphins they'd squeal" (Cecelski 2015).

While the fishery itself was not well liked by many of its fishermen, the strategic coordination used by the fishermen to catch dolphins provided fascinating insights. In much of the historical record, many argue that dolphins were intelligent creatures and required fishermen to use effective techniques to catch them (*Cape May Wave* 1884:3; Cecelski 2015:76; Couch 2017 pers. comm; Midgett 2017 pers. comm). Schiffer's behavioral chain model was beneficial in visualizing the organization, processes, and culture of the fishery.

In addition to answering this research's primary question, Schiffer's behavioral chain model was useful in answering some of the mentioned secondary questions. As mentioned, technology and technological change were the driving focuses of this research. However, technological change studies did not shed light on North Carolina's dolphin fishery at Hatteras given there was no evident technological change. The behavioral chain model was able to somewhat successfully visualize and demonstrate various objects used in the dolphin fishery at Hatteras and their roles within various activities. If applied to additional areas and periods of the North Carolina dolphin fishery, it is possible that technological change could shed light on the technology utilized within the fishery.

While technology and technological change studies guided this research, a few questions involving the role of geospatial and material cultural analysis were also answered. Firstly, geospatial and material culture analysis provided a great deal of information into the activities that took place within the North Carolina dolphin. While this research was only able to specifically address the fishery at Hatteras, it was able to provide visuals of the locations of dolphin harvesting. It is also evident that within the Hatteras fishery, it was solely a shore-based dolphin fishery. It is possible that it could have occurred in deep-sea regions of North Carolina. However, the relatively shallow environment of the area in the Bight of Hatteras was an ultimate influencing factor in staying with shore-based hunting.

Material culture analysis of North Carolina's dolphin fishery artifacts also suggested patterns of object use that are like that of other US-based and global dolphin fishery cultures. Studies surrounding the technology employed in dolphin fisheries elsewhere are limited. However, there a several cases of the technology employed in other dolphin fisheries that show striking similarities to that of the North Carolina dolphin fishery. Perhaps the best modern example comes from Japan at the Taiji dolphin fishery. A comprehensive study on the dolphin fishery at Taiji has not been undertaken. However, films such as *The Cove* (2009), the technique of using boats and netting for capture is evident.

Last, geospatial analysis of North Carolina's dolphin fishery was beneficial in illuminating environmental patterns that are similar patterns located outside of North Carolina. As demonstrated in various areas where dolphin hunting either takes place or once took place, the environment for dolphin hunting generally occurred in shallow cove-like areas or near beaches. These environments essentially acted as trapping agents or 'externs' for the fishermen. Additional research will be needed to further identify other environments where dolphin hunting once took place.

Limitations

Throughout this research, a few limitations were evident. The goal of this research was to analyze the material culture of North Carolina's dolphin fishery in its entirety. Unfortunately, only a small but significant area was able to be explored in-depth. While there was a significant amount of material culture related to the Hatteras dolphin fishery, many of them were only in photographs.

In addition to the limited material culture of the fishery, the behavioral chain model posed some challenges in this study. While the behavioral chain model itself offered some fascinating insights, it is clear the scope of its applicability can only go so far. This is evident in Schiffer's behavioral chain model on the Hopi tribe. The behavioral chain model Schiffer provided a wealth of knowledge from a small object like maize. Adding more objects would create additional activities and thus complicate the behavioral chain model. An example of this could have occurred with the introduction of dolphin fisheries from other regions of North Carolina where they most likely differed regarding hunting and processing. That said, it is clear the behavioral chain model requires a highly specific cultural element when beginning to analyze its related activities (Schiffer 1995:57-59).

Another limitation of this research was the processes surrounding oral history data collection. Multiple attempts of reaching out to fishermen or descendants of fishermen were made using various forms of media such as social media and newspaper articles. However, it was extremely difficult to find either of these. Unsurprisingly, it was unlikely to find anyone associated with the fishery because of it ending nearly one hundred years ago. Because of this, it limited the scope of the oral historical records influence on the analysis.

Opportunities for Future Research

This research brings up new additional questions. As a result, several avenues can be pursued. Much can still be uncovered with the North Carolina dolphin fishery. While the dolphin fishery at Hatteras proved to be one of the longest fisheries in North Carolina, several areas have yet to be researched. A couple of areas that are likely to yield a significant amount of information. The aerial photograph of the Hatteras Porpoise Factory was only recently discovered after fieldwork for this thesis was completed. An archaeological survey conducted in the specific area of Figure 6.25 may yield significant information into the technology used to process dolphins. The Cape Lookout and Bogue Inlet regions also may have more information on the dolphin fisheries. Several newspaper articles mentioned dolphin fisheries took place in the surrounding areas, particularly in Diamond City as noted by Jateff (2014). In addition, the North Carolina State

Archives are likely to have many unprocessed materials related to the Shell Castle dolphin fishery.

A study of the dolphin fisheries of North Carolina only begins to scratch the surface of marine resource extraction archaeology in this state. North Carolina is an area ripe with marine resources. Several marine resources, such as mullet, shark, and waterfowl, have yet to be fully explored within North Carolina's maritime archaeology. Schiffer's behavioral chain model is an excellent framework when interpreting the role of marine resources in maritime archaeology because of its excellent ability to organize and visualize the activities that took place along with forecasting potential technological change that took place.

Finally, there were several mentions throughout this research of the fish processing factories in North Carolina. The North Carolina Maritime Museum at Beaufort and North Carolina State Archives have a couple of collections on fishing companies, such as Harvey Smith's Menhaden Company and the Caroon Crab Company. The techniques and technology utilized would provide an excellent opportunity into understanding the industrial processes surrounding these marine resources in North Carolina.

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APPENDIX A

Internal Review Board Informed Consent Forms

Study ID:UMCIRB 17-000911 Date Approved: 5/22/2017 Expiration Date: 5/21/2018

East Carolina University

Informed Consent to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: **Of Blood, Salt, and Oil: An Archaeological, Geographical, and Historical Study of North Carolina's Dolphin Fishery**
Principal Investigator: **George Huss (MA Candidate) & Dr. Nathan Richards (Associate Professor)**
Institution/Department or Division: **Program in Maritime Studies, Department of History**
Address: **Eller House, 302 E 9th Street, Greenville**
Telephone #: **252.258.4264**

Study Sponsor/Funding Source: **No funding**

Researchers at East Carolina University's (ECU) Program in Maritime Studies (Department of History) study past cultures from historical and archaeological perspectives. In some cases, in order to do this, researchers need to look to private collector and descendant communities to learn about past peoples. Our goal is enrich our understanding of the past by studying documents and artifacts left to us by previous generation. To do this, we need the help of volunteers who are willing to take part in research.

Why is this research being done?
The purpose of this research is to gain a better understanding of dolphin hunting activities along the coast of North Carolina. We are doing this because historical records are scarce, and point to isolated areas of the coast that engaged in regular dolphin hunting activities. By doing this research, however, we are seeking to see if dolphin hunting activities were carried out adjacent to other coastal communities, and what these activities were. We are wondering if oral histories and artifacts held in private hands may tell a different story.

Why am I being invited to take part in this research?
You are being invited to take part in this research because you have indicated that you know something about dolphin hunting activities occurring along the North Carolina coast. This may be because you own artifacts that you believe to be from this industry, or because you have a direct relationship to the industry through your ancestors. If you volunteer to take part in this research, you will be one of approximately 200 people to do so. If you have artifacts from the industry, we would like to record the important characteristics of the object or objects in your collection in a database, photograph the document, and record stories about the object and your connection to it. We would like to associate these details with your name, and town of residence. The recorded details, including an image of the object, the recorded attributes, and an acknowledgement of its owner and town of residence will at least feature in an appendix to a completed thesis, and may be showcased elsewhere in the text of the document. We are not seeking to take possession of the object, and will not be providing a commercial (monetary) appraisal of any artifacts.

Are there reasons I should not take part in this research?
You may not wish to take a part in this research if you believe that advertising the existence of this object owned by you in your home town subjects you or your property to any risk of theft. If you feel this risk is great, you should not volunteer for this study.

What other choices do I have if I do not take part in this research?
If you would still like to have an artifact included in the study, but would not like your name associated with it, you can request such a redaction. In this case you will be referred to as a numbered respondent in the database, thesis, and any image credit line.

Consent Version # or Date: 11/20/17

Page 1 of 3

DCC
Participant's Initials

Title of Study: Of Blood, Salt, and Oil: An Archaeological, Geographical, and Historical Study of North Carolina's Dolphin Fishery

Where is the research going to take place and how long will it last?
The research procedures will be conducted at private and public places for one-on-one oral history interviews. The total amount of time you will be asked to volunteer will vary according to the nature of the artifact(s) and the information you have to share. If you are comfortable with allowing a researcher to come to your personal residence, this may also be scheduled for additional data collection.

What will I be asked to do?
You are being asked to do the following:

- Present and discuss any objects you believe relate to dolphin hunting in North Carolina. We will subject these artifacts to a series of measurements for our database and will seek to professionally photograph them.
- Present and discuss any photographs you may have relating to a personal connection to NC dolphin hunting. If you are agreeable, we would like to scan these images for use in the thesis. Images will not be used in the creation of any other research or commercial products without subsequent permission.
- Present and discuss any historical records you may have relating to NC dolphin hunting. If you are agreeable, we would like to scan these documents for use in the thesis.
- Present and discuss and personal anecdotes of a family connection to NC dolphin hunting. We will record your stories on a voice recording device, and all stories used in the production of the thesis will be credited to you.

What possible harms or discomforts might I experience if I take part in the research?
It has been determined that the risks associated with this research are no more than what you would experience in everyday life.

What are the possible benefits I may experience from taking part in this research?
We do not know if you will get any benefits by taking part in this study. This research might help us learn more about an understudied or poorly understood industry of importance to the state of North Carolina. There may be no personal benefit from your participation but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?
We will not be able to pay you for the time you volunteer while being in this study.

What will it cost me to take part in this research?
It will not cost you any money to be part of the research. The costs for recording and processing data is being borne by researchers.

Who will know that I took part in this research and learn personal information about me?
To do this research, ECU and the people listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- The University & Medical Center Institutional Review Board (UMCIRB) and its staff, who have responsibility for overseeing your welfare during this research, and other ECU staff who oversee this research.

How will you keep the information you collect about me secure? How long will you keep it?
All data will be collected in digital formats – diagnostic artifact data in a relational database, photographs in a digital photographic collection, and oral historical sources in digital voice formats. These will be kept in the possession of the researchers for three years after the completion of the research. All diagnostic information will be reproduced in an appendix of a thesis manuscript, and images may be used in chapters of the same document. Information from voice recordings may be transcribed and used in the text of the thesis. All voice recordings will be held by ECU researchers. At your request, your name may be replaced with an identifier (e.g. Respondent 1).

Consent Version #1 or Date: 24 April 2017

Participant's Initials

Study ID:UMCIRB 17-000911 Date Approved: 5/22/2017 Expiration Date: 5/21/2018

Title of Study: *Of Blood, Salt, and Oil: An Archaeological, Geographical, and Historical Study of North Carolina's Dolphin Fishery*

What if I decide I do not want to continue in this research?
If you decide you no longer want to be in this research after it has already started, you may stop at any time. You will not be penalized or criticized for stopping. You will not lose any benefits that you should normally receive.

Who should I contact if I have questions?
The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at George Huss at 252-214-2281 or his thesis adviser, Dr. Nathan Richards at 252.475.5453 (Monday-Friday, between 9am and 5pm).

If you have questions about your rights as someone taking part in research, you may call the Office of Research Integrity & Compliance (ORIC) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of the ORIC, at 252-744-1971

I have decided I want to take part in this research. What should I do now?
The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

Daniel C. Couch | Daniel C. Couch | 11/20/17

Participant's Name (PRINT) | **Signature** | **Date**

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above, and answered all of the person's questions about the research.

George U. Huss | [signature] | 11/20/17

Person Obtaining Consent (PRINT) | **Signature** | **Date**

Page 3 of 3

Consent Version #1 or Date: 24 April 2017

Participant's Initials

Study ID:UMCIRB 17-000911 Date Approved: 5/22/2017 Expiration Date: 5/21/2018

East Carolina University

Informed Consent to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: **Of Blood, Salt, and Oil: An Archaeological, Geographical, and Historical Study of North Carolina's Dolphin Fishery**
Principal Investigator: **George Huss (MA Candidate) & Dr. Nathan Richards (Associate Professor)**
Institution/Department or Division: **Program in Maritime Studies, Department of History**
Address: **Eller House, 302 E 9th Street, Greenville**
Telephone #: **252.258.4264**

Study Sponsor/Funding Source: **No funding**

Researchers at East Carolina University's (ECU) Program in Maritime Studies (Department of History) study past cultures from historical and archaeological perspectives. In some cases, in order to do this, researchers need to look to private collector and descendant communities to learn about past peoples. Our goal is enrich our understanding of the past by studying documents and artifacts left to us by previous generation. To do this, we need the help of volunteers who are willing to take part in research.

Why is this research being done?
The purpose of this research is to gain a better understanding of dolphin hunting activities along the coast of North Carolina. We are doing this because historical records are scarce, and point to isolated areas of the coast that engaged in regular dolphin hunting activities. By doing this research, however, we are seeking to see if dolphin hunting activities were carried out adjacent to other coastal communities, and what these activities were. We are wondering if oral histories and artifacts held in private hands may tell a different story.

Why am I being invited to take part in this research?
You are being invited to take part in this research because you have indicated that you know something about dolphin hunting activities occurring along the North Carolina coast. This may be because you own artifacts that you believe to be from this industry, or because you have a direct relationship to the industry through your ancestors. If you volunteer to take part in this research, you will be one of approximately 200 people to do so. If you have artifacts from the industry, we would like to record the important characteristics of the object or objects in your collection in a database, photograph the document, and record stories about the object and your connection to it. We would like to associate these details with your name, and town of residence. The recorded details, including an image of the object, the recorded attributes, and an acknowledgement of its owner and town of residence will at least feature in an appendix to a completed thesis, and may be showcased elsewhere in the text of the document. We are not seeking to take possession of the object, and will not be providing a commercial (monetary) appraisal of any artifacts.

Are there reasons I should not take part in this research?
You may not wish to take a part in this research if you believe that advertising the existence of this object owned by you in your home town subjects you or your property to any risk of theft. If you feel this risk is great, you should not volunteer for this study.

What other choices do I have if I do not take part in this research?
If you would still like to have an artifact included in the study, but would not like your name associated with it, you can request such a redaction. In this case you will be referred to as a numbered respondent in the database, thesis, and any image credit line.

*Consent Version # or Date:*____________

Page 1 of 3

KM

Participant's Initials

Title of Study: Of Blood, Salt, and Oil: An Archaeological, Geographical, and Historical Study of North Carolina's Dolphin Fishery

Where is the research going to take place and how long will it last?
The research procedures will be conducted at private and public places for one-on-one oral history interviews. The total amount of time you will be asked to volunteer will vary according to the nature of the artifact(s) and the information you have to share. If you are comfortable with allowing a researcher to come to your personal residence, this may also be scheduled for additional data collection.

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- Present and discuss any photographs you may have relating to a personal connection to NC dolphin hunting. If you are agreeable, we would like to scan these images for use in the thesis. Images will not be used in the creation of any other research or commercial products without subsequent permission.
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What are the possible benefits I may experience from taking part in this research?
We do not know if you will get any benefits by taking part in this study. This research might help us learn more about an understudied or poorly understood industry of importance to the state of North Carolina. There may be no personal benefit from your participation but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?
We will not be able to pay you for the time you volunteer while being in this study.

What will it cost me to take part in this research?
It will not cost you any money to be part of the research. The costs for recording and processing data is being borne by researchers.

Who will know that I took part in this research and learn personal information about me?
To do this research, ECU and the people listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- The University & Medical Center Institutional Review Board (UMCIRB) and its staff, who have responsibility for overseeing your welfare during this research, and other ECU staff who oversee this research.

How will you keep the information you collect about me secure? How long will you keep it?
All data will be collected in digital formats – diagnostic artifact data in a relational database, photographs in a digital photographic collection, and oral historical sources in digital voice formats. These will be kept in the possession of the researchers for three years after the completion of the research. All diagnostic information will be reproduced in an appendix of a thesis manuscript, and images may be used in chapters of the same document. Information from voice recordings may be transcribed and used in the text of the thesis. All voice recordings will be held by ECU researchers. At your request, your name may be replaced with an identifier (e.g. Respondent 1).

Consent Version #1 or Date: 24 April 2017

CM
Participant's Initials

Title of Study: *Of Blood, Salt, and Oil: An Archaeological, Geographical, and Historical Study of North Carolina's Dolphin Fishery*

What if I decide I do not want to continue in this research?
If you decide you no longer want to be in this research after it has already started, you may stop at any time. You will not be penalized or criticized for stopping. You will not lose any benefits that you should normally receive.

Who should I contact if I have questions?
The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at George Huss at 252-214-2281 or his thesis adviser, Dr. Nathan Richards at 252.475.5453 (Monday-Friday, between 9am and 5pm).

If you have questions about your rights as someone taking part in research, you may call the Office of Research Integrity & Compliance (ORIC) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of the ORIC, at 252-744-1971

I have decided I want to take part in this research. What should I do now?
The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- *I have read (or had read to me) all of the above information.*
- *I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.*
- *I know that I can stop taking part in this study at any time.*
- *By signing this informed consent form, I am not giving up any of my rights.*
- *I have been given a copy of this consent document, and it is mine to keep.*

Ray Midgett Ray Midgett 11/21/17

Participant's Name (PRINT) **Signature** **Date**

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above, and answered all of the person's questions about the research.

George M. Huss 11/21/17

Person Obtaining Consent (PRINT) **Signature** **Date**

Consent Version #1 or Date: 24 April 2017

Participant's Initials

APPENDIX B
National Park Service Scientific Research and Collecting Permit

SCIENTIFIC RESEARCH AND COLLECTING PERMIT Grants permission in accordance with the attached general and special conditions United States Department of the Interior National Park Service Cape Hatteras	Study#: CAHA-00129 Permit#: CAHA-2018-SCI-0005 Start Date: Jan 17, 2018 Expiration Date: Dec 31, 2018 Coop Agreement#: Optional Park Code:

Name of principal investigator:
Name: Mr George Huss **Phone:**2522142281 **Email:**georgehuss@hotmail.com

Name of institution represented:
East Carolina University

Additional investigators or key field assistants:

Study Title:
AN ARCHAEOLOGICAL, GEOGRAPHICAL, AND HISTORICAL STUDY OF NORTH CAROLINA'S DOLPHIN FISHERY: A SEARCH FOR POTENTIAL EVIDENCE AT TRYARD CREEK AND HATTERAS BIGHT

Purpose of study:
The purpose of this study will be to examine the internal and external influences of North Carolina's shore-based dolphin fishery and how it changed over time. Little research has been conducted to date and only echoes of the dolphin fishery's history exist. Preliminary historical records and material culture located on the Outer Banks related to the dolphin harvesting industry of North Carolina suggests a study of the influences that led to its origin, development, and decline is possible. Interestingly enough, within the NPS boundary are two sites related to the dolphin fishery. These are Try Yard Creek and the Bight of Hatteras. By locating and examining these sites, it may be possible to shed light on an overlooked area of North Carolina's maritime history and archaeology.

Subject/Discipline:
Archeology

Locations authorized:
Hatteras Bight and Try Yard Creek within Cape Hatteras National Seashore

Transportation method to research site(s):
Methods of access will be to utilize vehicles until they reach a parking lot. After that, they will travel by foot.

Collection of the following specimens or materials, quantities, and any limitations on collecting:
No object collection authorized. Only mapping, video and photography allowed.

Name of repository for specimens or sample materials if applicable:

NPS General Conditions for Scientific Research and Collecting Permit (available at the RPRS HELP page) apply to this permit. The following specific conditions or restrictions, and any attached conditions, also apply to this permit:

PROJECT SPECIFIC CONDITIONS

1. Researcher must contact NPS if physical evidence is found of past dolphin fishery activity. Objects may be eligible for accessioning into the park's museum collection.

PARK SPECIFIC CONDITIONS

(1) Any commercial or for-profit activity is prohibited without the express permission of the Superintendent of the Outer Banks Group.

(2) This permit does not authorize researcher activity behind closed gates or in resource closures unless authorized or accompanied by park staff.

(3) This permit requires that specific information on rare or sensitive resources acquired during the course of research cannot be released without prior approval from the Outer Banks Group (see General Condition 8 for a definition of sensitive resources). Your work at the Seashore makes you an agent of the National Park Service, and requires you to keep confidential any protected information that you develop or otherwise acquire as part of your work for the Park Service. This prohibition applies to inadvertent disclosure of such information through websites, maps, scientific articles, presentations and speeches.

(4) All collecting/research must be done away from roads, trails, and developments unless otherwise specified in the permit. Any collecting or research that will result in permanent changes or degradation of habitat is prohibited. Any disturbance in excess of one square meter shall be rehabilitated to the satisfaction of the Superintendent prior to completion of this project. Access trails shall be brushed in; natural contours shall be reestablished; soil scarified and mulched with native leaf litter.

(5) If designated parking areas are not convenient, park in a safe place with plenty of sight distance for other traffic that does not cause any damage to the resources.

(6) As mandated by Cape Hatteras National Seashore's Off-Road Vehicle (ORV) Management Plan, everyone driving on the beach at the Seashore is required to have a beach driving permit, including those operating under a NPS research permit. In the event that you need to drive an ORV on the beach for your research, the park will provide this permit to you free of charge. To obtain an ORV permit, stop by one of our permit offices when you arrive, where you will need to present a valid driver's license, vehicle registration, and your current research permit. After watching a 7-minute orientation video, staff will provide you with a temporary permit in the form of a hang-tag to put on your rear-view mirror for the duration of your visit. If you will be making multiple visits to the Seashore throughout the year, you will need to stop by an office each time to pick up a new temporary permit, though you will not be required to go through the orientation again.

(7) Investigators may use temporary markers which shall be indelibly stamped or marked with researcher's name, project name, and year-date. Unmarked plot markings are routinely removed by park personnel roving an area. Markers, when used, shall be located in areas not readily visible to visitors. All plot markings shall be removed at the conclusion of the study.

(8) No chemicals that result in the death of the specimen or which would permanently alter the habitat will be permitted, unless specimens are to be preserved for a collection or future dissection.

(9) No species collected from outside the park is permitted to be introduced or reintroduced into the park.

(10) Permittee shall indemnify, save and hold harmless, and defend the United States against all fines, claims, damages, losses, judgments, and expenses arising out of, or from, any act or omission of the research permittee, its employees or representatives, arising out of or in any way connected to activities authorized pursuant to this Agreement. This obligation shall survive the termination of this permit.

(11) Permittee shall cooperate with the NPS in the investigation and defense of any claims that may be filed with the NPS arising out of the activities of the cooperator, its agents and employees.

(12) In the event that human remains are discovered during research activities, all work on the project must stop and the Cultural Program Manager (252-475-0463) contacted immediately. As required by law, the coroner will be notified first. All provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed.

CONDITIONS SUBJECT TO ALL NATIONAL PARK SERVICE RESEARCH PERMITS

1.Authority - The permittee is granted privileges covered under this permit subject to the supervision of the superintendent or a designee, and shall comply with all applicable laws and regulations of the National Park System area and other federal and state laws. A National Park Service (NPS) representative may accompany the permittee in the field to ensure compliance with regulations.

2.Responsibility - The permittee is responsible for ensuring that all persons working on the project adhere to permit conditions and applicable NPS regulations.

3.False information - The permittee is prohibited from giving false information that is used to issue this permit. To do so will be considered a breach of conditions and be grounds for revocation of this permit and other applicable penalties.

4.Assignment - This permit may not be transferred or assigned. Additional investigators and field assistants are to be coordinated by the person(s) named in the permit and should carry a copy of the permit while they are working in the park. The principal investigator shall notify the park's Research and Collecting Permit Office when there are desired changes in the approved study protocols or methods, changes in the affiliation or status of the principal investigator, or modification of the name of any project member.

5.Revocation - This permit may be terminated for breach of any condition. The permittee may consult with the appropriate NPS Regional Science Advisor to clarify issues resulting in a revoked permit and the potential for reinstatement by the park superintendent or a designee.

6.Collection of specimens (including materials) - No specimens (including materials) may be collected unless authorized on the Scientific Research and Collecting permit.

The general conditions for specimen collections are:

- Collection of archeological materials without a valid Federal Archeology Permit is prohibited.
- Collection of federally listed threatened or endangered species without a valid U.S. Fish and Wildlife Service endangered species permit is prohibited.
- Collection methods shall not attract undue attention or cause unapproved damage, depletion, or disturbance to the environment and other park resources, such as historic sites.
- New specimens must be reported to the NPS annually or more frequently if required by the park issuing the permit. Minimum

information for annual reporting includes specimen classification, number of specimens collected, location collected, specimen status (e.g., herbarium sheet, preserved in alcohol/formalin, tanned and mounted, dried and boxed, etc.), and current location.

- Collected specimens that are not consumed in analysis or discarded after scientific analysis remain federal property. The NPS reserves the right to designate the repositories of all specimens removed from the park and to approve or restrict reassignment of specimens from one repository to another. Because specimens are Federal property, they shall not be destroyed or discarded without prior NPS authorization.

- Each specimen (or groups of specimens labeled as a group) that is retained permanently must bear NPS labels and must be accessioned and cataloged in the NPS National Catalog. Unless exempted by additional park-specific stipulations, the permittee will complete the labels and catalog records and will provide accession information. It is the permittee's responsibility to contact the park for cataloging instructions and specimen labels as well as instructions on repository designation for the specimens.

- Collected specimens may be used for scientific or educational purposes only, and shall be dedicated to public benefit and be accessible to the public in accordance with NPS policies and procedures.

- Any specimens collected under this permit, any components of any specimens (including but not limited to natural organisms, enzymes or other bioactive molecules, genetic materials, or seeds), and research results derived from collected specimens are to be used for scientific or educational purposes only, and may not be used for commercial or other revenue-generating purposes unless the permittee has entered into a Cooperative Research And Development Agreement (CRADA) or other approved benefit-sharing agreement with the NPS. The sale of collected research specimens or other unauthorized transfers to third parties is prohibited. Furthermore, if the permittee sells or otherwise transfers collected specimens, any components thereof, or any products or research results developed from such specimens or their components without a CRADA or other approved benefit-sharing agreement with NPS, permittee will pay the NPS a royalty rate of twenty percent (20%) of gross revenue from such sales or other revenues. In addition to such royalty, the NPS may seek other damages to which the NPS may be entitled including but not limited to injunctive relief against the permittee.

7 Reports - The permittee is required to submit an Investigator's Annual Report and copies of final reports, publications, and other materials resulting from the study. Instructions for how and when to submit an annual report will be provided by NPS staff. Park research coordinators will analyze study proposals to determine whether copies of field notes, databases, maps, photos, and/or other materials may also be requested. The permittee is responsible for the content of reports and data provided to the National Park Service.

8 Confidentiality - The permittee agrees to keep the specific location of sensitive park resources confidential. Sensitive resources include threatened species, endangered species, and rare species, archeological sites, caves, fossil sites, minerals, commercially valuable resources, and sacred ceremonial sites.

9 Methods of travel - Travel within the park is restricted to only those methods that are available to the general public unless otherwise specified in additional stipulations associated with this permit.

10 Other permits - The permittee must obtain all other required permit(s) to conduct the specified project.

11 Insurance - If liability insurance is required by the NPS for this project, then documentation must be provided that it has been obtained and is current in all respects before this permit is considered valid.

12 Mechanized equipment - No use of mechanized equipment in designated, proposed, or potential wilderness areas is allowed unless authorized by the superintendent or a designee in additional specific conditions associated with this permit.

13 NPS participation - The permittee should not anticipate assistance from the NPS unless specific arrangements are made and documented in either an additional stipulation attached to this permit or in other separate written agreements.

14 Permanent markers and field equipment - The permittee is required to remove all markers or equipment from the field after the completion of the study or prior to the expiration date of this permit. The superintendent or a designee may modify this requirement through additional park specific conditions that may be attached to this permit. Additional conditions regarding the positioning and identification of markers and field equipment may be issued by staff at individual parks.

15 Access to park and restricted areas - Approval for any activity is contingent on the park being open and staffed for required operations. No entry into restricted areas is allowed unless authorized in additional park specific stipulations attached to this permit.

16 Notification - The permittee is required to contact the park's Research and Collecting Permit Office (or other offices if indicated in the stipulations associated with this permit) prior to initiating any fieldwork authorized by this permit. Ideally this contact should occur at least one week prior to the initial visit to the park.

17 Expiration date - Permits expire on the date listed. Nothing in this permit shall be construed as granting any exclusive research privileges or automatic right to continue, extend, or renew this or any other line of research under new permit(s).

18 Other stipulations - This permit includes by reference all stipulations listed in the application materials or in additional attachments to this permit provided by the superintendent or a designee. Breach of any of the terms of this permit will be grounds for revocation of this permit and denial of future permits.

Recommended by park staff(name and title):

Stacey Sigler Acting Chief of Resources

Approved by park official:

Mark Danielle

Reviewed by Collections Manager:

Yes ✓ No ___

Date Approved:

03/08/2018

Title:

Deputy Superintendent

I Agree To All Conditions And Restrictions Of this Permit As Specified
(Not valid unless signed and dated by the principal investigator)

(Principal investigator's signature) 07 March 2018 (Date)

THIS PERMIT AND ATTACHED CONDITIONS AND RESTRICTIONS MUST BE CARRIED AT ALL TIMES WHILE CONDUCTING RESEARCH ACTIVITIES IN THE DESIGNATED PARK(S)

APPENDIX C
Artifact Forms and Artifact Photographs

ID	ObjectNo	Recorder	Date Recorded
1	H001	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.229667	-75.5491

Photolog	Weight	Length	Breadth	Depth	Current Owner
239	0	9.094cm	20.038cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1922	1975	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Gurcke 1987:117-119

Object Type: H001 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
2	H002	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.229667	-75.54905

Photolog	Weight	Length	Breadth	Depth	Current Owner
253, 254	0	9.030cm	20.245cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1845	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Gurcke 1987:112

Object Type: H002 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
3	H003	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.22975	-75.548917

Photolog	Weight	Length	Breadth	Depth	Current Owner
255, 256	0	23.927cm	111.421cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

ID	ObjectNo	Recorder	Date Recorded
4	H004	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.229767	-75.54935

Photolog	Weight	Length	Breadth	Depth	Current Owner
260, 261	0	12.877cm	17.623cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information
Portland Cement

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

Object: H004 Cinder Block Fragment
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
5	H005	George Huss	4/28/2018

Object Name	Current Location Object
Timber	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.230783	-75.552467

Photolog	Weight	Length	Breadth	Depth	Current Owner
288, 289	0	13.975cm	45.361cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H005 Timber
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
6	H006	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.231217	-75.554517

Photolog	Weight	Length	Breadth	Depth	Current Owner
310	0	18.584cm	38.503cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information
Portland Cement

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

Object: H006 Cinder block
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
7	H007	George Huss	4/28/2018

Object Name	Current Location Object
Conglomerate	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232067	-75.558083

Photolog	Weight	Length	Breadth	Depth	Current Owner
344, 345	0	14.410cm	20.320cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
conglomerate	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H007 Conglomerate
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
8	H008	George Huss	4/28/2018

Object Name	Current Location Object
Terracotta Piping	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232233	-75.558483

Photolog	Weight	Length	Breadth	Depth	Current Owner
350, 351	0	8.216cm	11.147cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
terracotta	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H008 Terracotta Pipping
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
9	H009	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232217	-75.558533

Photolog	Weight	Length	Breadth	Depth	Current Owner
352, 353	0	9.134cm	20.174cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1918	1978	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Gurcke 1987:117-119

Object: H009 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
10	H010	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232267	-75.5587

Photolog	Weight	Length	Breadth	Depth	Current Owner
354, 355	0	10.350cm	22.412cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1922	1978	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Gurcke 1987:117-119

Object: H010 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
11	H011	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block Fragment	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232233	-75.558517

Photolog	Weight	Length	Breadth	Depth	Current Owner
357, 358	0	18.906cm	29.313cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information
Portland Cement

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

0cm 5cm

Object: H011 Cinder Block Fragment
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
12	H012	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block Fragment	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232233	-75.558633

Photolog	Weight	Length	Breadth	Depth	Current Owner
359, 360	0	15.347cm	20.391cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information
Portland Cement

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

Object: H012 Cinder Block Fragment
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
13	H013	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block Fragment	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232733	-75.560733

Photolog	Weight	Length	Breadth	Depth	Current Owner
376, 377	0	10.913cm	21.885cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information
Portland Cement

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

Object: H013 Cinder Block Fragment
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
14	H014	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232933	-75.56165

Photolog	Weight	Length	Breadth	Depth	Current Owner
379, 380, 381	0	20.114cm	120.548cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H014 Wood
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
15	H015	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233033	-75.5624

Photolog	Weight	Length	Breadth	Depth	Current Owner
385, 386	0	10.271cm	107.664cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H015 Wood
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
16	H016	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block Fragment	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232883	-75.562767

Photolog	Weight	Length	Breadth	Depth	Current Owner
390, 391	0	19.329cm	18.953cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information
Portland Cement

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

Object: H016 Cinder Block Fragment
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
17	H017	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.23295	-75.562867

Photolog	Weight	Length	Breadth	Depth	Current Owner
392, 393	0	10.48cm	14.12cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H017 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
18	H018	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.23315	-75.5631

Photolog	Weight	Length	Breadth	Depth	Current Owner
394, 395	0	13.706cm	79.535cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H018 Wood
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
19	H019	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233267	-75.563367

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
396, 397	0	7.649cm	18.162cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

0cm 5cm

Object: H019 Wood
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
20	H020	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.23315	-75.563433

Photolog	Weight	Length	Breadth	Depth	Current Owner
398, 399, 400	0	9.810cm	93.781cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H020 Wood
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
21	H021	George Huss	4/28/2018

Object Name	Current Location Object
Tile	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233117	-75.5635

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
401, 402	0	5.136cm	10.111cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
tile	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H021 Tile
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
22	H022	George Huss	4/28/2018

Object Name	Current Location Object
Mortar	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233183	-75.56433

Photolog	Weight	Length	Breadth	Depth	Current Owner
405, 406	0	6.966cm	6.245cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
mortar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H022 Mortar
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
23	H023	George Huss	4/28/2018

Object Name	Current Location Object
Tar	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.232217	-75.564867

Photolog	Weight	Length	Breadth	Depth	Current Owner
411, 412	0	6.593cm	12.009cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
tar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H023 Tar
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
24	H024	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233433	-75.5655

Photolog	Weight	Length	Breadth	Depth	Current Owner
416, 417	0	10.019cm	19.702cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1889	1922	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Gurcke 1987:117

0cm 5cm

Object: H024 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
25	H025	George Huss	4/28/2018

Object Name	Current Location Object
Brick	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233183	-75.565767

Photolog	Weight	Length	Breadth	Depth	Current Owner
418, 419	0	8.413cm	20.444cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1845	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Gurcke 1987:112

Object: H025 Brick
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
26	H026	George Huss	4/28/2018

Object Name	Current Location Object
Walkway	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233533	-75.566783

Photolog	Weight	Length	Breadth	Depth	Current Owner
426, 427	0	96.113cm	91.368cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
metal and wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H026 Walkway
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
27	H027	George Huss	4/28/2018

Object Name	Current Location Object
Unknown (possibly tar or coal)	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233683	-75.568417

Photolog	Weight	Length	Breadth	Depth	Current Owner
434, 435	0	6.532cm	8.462cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
unknown	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H027 Unknown (possibly Tar or Coal)
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
28	H028	George Huss	4/28/2018

Object Name	Current Location Object
Terracotta Piping	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.23365	-75.56895

Photolog	Weight	Length	Breadth	Depth	Current Owner
436, 437	0	7.028cm	9.818cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
terracotta	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H028 Terracotta Pipping
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
29	H029	George Huss	4/28/2018

Object Name	Current Location Object
Mortar	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233633	-75.569

Photolog	Weight	Length	Breadth	Depth	Current Owner
438, 439	0	9.822cm	12.671cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
mortar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience

Cape Hatteras National Seashore

Object History

Object: H029 Mortar
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
30	H030	George Huss	4/28/2018

Object Name	Current Location Object
Asphalt	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233933	-75.574017

Photolog	Weight	Length	Breadth	Depth	Current Owner
475, 476	0	11.485cm	9.785cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
asphalt	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1870	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
McNichol 2005

Object: H030 Asphalt
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
31	H031	George Huss	4/28/2018

Object Name	Current Location Object
Tar	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.23395	-75.573967

Photolog	Weight	Length	Breadth	Depth	Current Owner
477, 478	0	5.545cm	10.895cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
tar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H031 Tar
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
32	H032	George Huss	4/28/2018

Object Name	Current Location Object
Wood	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.234133	-75.574

Photolog	Weight	Length	Breadth	Depth	Current Owner
479, 480	0	60.631cm	4.677cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H032 Wood
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
33	H033	George Huss	4/28/2018

Object Name	Current Location Object
Tile	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.223967	-75.575583

Photolog	Weight	Length	Breadth	Depth	Current Owner
483, 484	0	7.247cm	5.634cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
tile	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H033 Tile
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
34	H034	George Huss	4/28/2018

Object Name	Current Location Object
Coal	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233867	-75.576617

Photolog	Weight	Length	Breadth	Depth	Current Owner
490, 491	0	5.417cm	4.941cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H034 Coal
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
35	H035	George Huss	4/28/2018

Object Name	Current Location Object
Cinder Block Fragment	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233983	-75.577

Photolog	Weight	Length	Breadth	Depth	Current Owner
492, 493	0	9.826cm	12.333cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History
Hall 2009:35

Object: H035 Cinder Block Fragment
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
36	H036	George Huss	4/28/2018

Object Name	Current Location Object
Coal	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.23415	-75.580233

Photolog	Weight	Length	Breadth	Depth	Current Owner
506, 507	0	6.585cm	10.841cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H036 Coal
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
37	H037	George Huss	4/28/2018

Object Name	Current Location Object
Coal	Bight of Hatteras

Location Depicted	Latitude	Longitude
Bight of Hatteras	35.233667	-75.591483

Photolog	Weight	Length	Breadth	Depth	Current Owner
508, 509	0	4.093cm	4.388cm	0	Cape Hatteras National Seashore

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Cape Hatteras National Seashore

Object History

Object: H037 Coal
Site: Bight of Hatteras
Date: 28 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
38	H038	George Huss	4/29/2018

Object Name	Current Location Object
Tar	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22395	-75.691517

Photolog	Weight	Length	Breadth	Depth	Current Owner
81, 82, 83	0	6.500cm	9.331cm	0	Property Owner

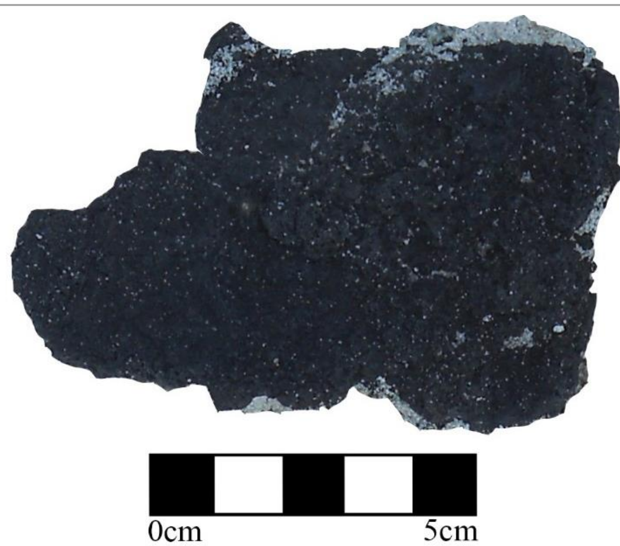
Fabric	Function	Subfunction
tar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History



Object: H038 Tar
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
39	H039	George Huss	4/29/2018

Object Name	Current Location Object
Building Post	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223883	-75.691567

Photolog	Weight	Length	Breadth	Depth	Current Owner
84, 85	0	5.958cm	1.369cm	0	Property Owner

Fabric	Function	Subfunction
metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H039 Building Post
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
40	H040	George Huss	4/29/2018

Object Name	Current Location Object
Anthracite	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223883	-75.691517

Photolog	Weight	Length	Breadth	Depth	Current Owner
86, 87	0	7.900cm	5.711cm	0	Property Owner

Fabric	Function	Subfunction
anthracite	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1812	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
Chandler 1972: 151-152

0cm 5cm

Object: H040 Anthracite
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
41	H041	George Huss	4/29/2018

Object Name	Current Location Object
Coal	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223883	-75.691517

Photolog	Weight	Length	Breadth	Depth	Current Owner
88	0	5.401cm	4.315cm	0	Property Owner

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

0cm 5cm

Object: H041 Coal
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
42	H042	George Huss	4/29/2018

Object Name	Current Location Object
Jar	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223817	-75.691467

Photolog	Weight	Length	Breadth	Depth	Current Owner
150, 151, 152	0	7.710cm	11.201cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1857	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
U.S. Patent No. 22,186

Object: H042 Jar
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
43	H043	George Huss	4/29/2018

Object Name	Current Location Object
Whiskey Sour Can	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22385	-75.69155

Photolog	Weight	Length	Breadth	Depth	Current Owner
153, 154, 155	0	8.835cm	8.861cm	0	Property Owner

Fabric	Function	Subfunction
aluminum	UNKNOWN	NO RELATION

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1959	1976	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
U.S. Patent No. 3,349.949 and US Patent No. 3,967,752

Object: H043 Whiskey Sour Can
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
44	H044	George Huss	4/29/2018

Object Name	Current Location Object
Coal	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22385	-75.691567

Photolog	Weight	Length	Breadth	Depth	Current Owner
156, 157, 158	0	4.842cm	4.437cm	0	Property Owner

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H044 Coal
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
45	H045	George Huss	4/29/2018

Object Name	Current Location Object
Iron	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22385	-75.691583

Photolog	Weight	Length	Breadth	Depth	Current Owner
159, 160	0	6.864cm	3.676cm	0	Property Owner

Fabric	Function	Subfunction
metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H045 Iron
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
46	H046	George Huss	4/29/2018

Object Name	Current Location Object
Animal Bone	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223783	-75.69155

Photolog	Weight	Length	Breadth	Depth	Current Owner
161, 162, 163	0	3.289cm	2.851cm	0	Property Owner

Fabric	Function	Subfunction
bone	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H046 Animal Bone
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
47	H047	George Huss	4/29/2018

Object Name	Current Location Object
Coal	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223767	-75.691583

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
164, 165	0	7.226cm	5.125cm	0	Property Owner

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H047 Coal
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
48	H048	George Huss	4/29/2018

Object Name	Current Location Object
Brown Glass Bottle Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.2238	-75.6916

Photolog	Weight	Length	Breadth	Depth	Current Owner
166, 167	0	9.065cm	8.130cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H048 Brown Glass Bottle Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2019
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
49	H049	George Huss	4/29/2018

Object Name	Current Location Object
Wooden Post	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223783	-75.6917

Photolog	Weight	Length	Breadth	Depth	Current Owner
168, 169	0	13.932cm	6.078cm	0	Property Owner

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H049 Wooden Post
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
50	H050	George Huss	4/29/2018

Object Name	Current Location Object
Partially Submerged Glass Jar	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223933	-75.691783

Photolog	Weight	Length	Breadth	Depth	Current Owner
170, 171	0	11.280cm	5.361cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H050 Submerged Glass
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
51	H051	George Huss	4/29/2018

Object Name	Current Location Object
Small Brick Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22385	-75.691733

Photolog	Weight	Length	Breadth	Depth	Current Owner
172, 173	0	1.991cm	2.011cm	0	Property Owner

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H051 Brick
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
52	H052	George Huss	4/29/2018

Object Name	Current Location Object
Large Brick Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223783	-75.6918

Photolog	Weight	Length	Breadth	Depth	Current Owner
174, 175	0	10.770cm	9.690cm	0	Property Owner

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H052 Brick
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
53	H053	George Huss	4/29/2018

Object Name	Current Location Object
Glass Bottle	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site, Durant's Island,	35.22375	-75.691833

Photolog	Weight	Length	Breadth	Depth	Current Owner
176, 177	0	18.706cm	5.518cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H053 Bottle
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
54	H054	George Huss	4/29/2018

Object Name	Current Location Object
Rubber Boot Piece	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site, Durant's Island,	35.223717	-75.691817

Photolog	Weight	Length	Breadth	Depth	Current Owner
178, 179	0	30.557cm	7.782cm	0	Property Owner

Fabric	Function	Subfunction
rubber	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H054 Boot
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
55	H055	George Huss	4/29/2018

Object Name	Current Location Object
Intact Brown Glass Bottle	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223683	-75.6918

Photolog	Weight	Length	Breadth	Depth	Current Owner
180, 181	0	14.998cm	6.471cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H055 Bottle
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
56	H056	George Huss	4/29/2018

Object Name	Current Location Object
Bone	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223517	-75.691633

Photolog	Weight	Length	Breadth	Depth	Current Owner
182, 183	0	7.401cm	5.238cm	0	Property Owner

Fabric	Function	Subfunction
bone	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H056 Animal Bone
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
57	H057	George Huss	4/29/2018

Object Name	Current Location Object
Machine Made Bottle	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.2236	-75.691667

Photolog	Weight	Length	Breadth	Depth	Current Owner
184, 185	0	15.990cm	6.081cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H057 Machine Made Bottle
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
58	H058	George Huss	4/29/2018

Object Name	Current Location Object
Piece of Slate	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223583	-75.691667

Photolog	Weight	Length	Breadth	Depth	Current Owner
186, 187	0	3.764cm	7.143cm	0	Property Owner

Fabric	Function	Subfunction
slate	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
Raymond 1881:78; Fay 1920:622

Object: H058 Piece of Slate
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
59	H059	George Huss	4/29/2018

Object Name	Current Location Object
Exposed Wooden Piling	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site, Durant's Island,	35.22365	-75.691767

Photolog	Weight	Length	Breadth	Depth	Current Owner
188, 189	0	8.888cm	27.211cm	0	Property Owner

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H059 Exposed Wooden Piling
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
60	H060	George Huss	4/29/2018

Object Name	Current Location Object
Brick Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22365	-75.691767

Photolog	Weight	Length	Breadth	Depth	Current Owner
190	0	4.728cm	5.799cm	0	Property Owner

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1920	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
Gurcke 106-108

Object: H060 Brick Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
61	H061	George Huss	4/29/2018

Object Name	Current Location Object
Glass Fragments	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223667	-75.69175

Photolog	Weight	Length	Breadth	Depth	Current Owner
191, 192	0	10.589cm	9.493cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H061 Glass Fragments
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
62	H062	George Huss	4/29/2018

Object Name	Current Location Object
Slate	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223667	-75.69175

Photolog	Weight	Length	Breadth	Depth	Current Owner
193, 194	0	8.257cm	4.700cm	0	Property Owner

Fabric	Function	Subfunction
slate	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H062 Slate
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
63	H063	George Huss	4/29/2018

Object Name	Current Location Object
Bone	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223617	-75.691733

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
195, 196	0	0	0	0	Property Owner

Fabric	Function	Subfunction
bone	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History


0cm
25cm
Object: H063 Bone
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
64	H064	George Huss	4/29/2018

Object Name	Current Location Object
Clear Glass Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22365	-75.691717

Photolog	Weight	Length	Breadth	Depth	Current Owner
197, 198	0	14.033cm	6.844cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H064 Clear Glass Bottle Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
65	H065	George Huss	4/29/2018

Object Name	Current Location Object
Tar	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory	35.223433	-75.691533

Photolog	Weight	Length	Breadth	Depth	Current Owner
199, 200	0	9.051cm	8.427cm	0	Property Owner

Fabric	Function	Subfunction
tar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H065 Tar
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
66	H066	George Huss	4/29/2018

Object Name	Current Location Object
Blue Glass	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22367	-75.691433

Photolog	Weight	Length	Breadth	Depth	Current Owner
201, 202	0	0	0	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H066 Blue Glass
Site: Bight of Hatteras
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
67	H067	George Huss	4/29/2018

Object Name	Current Location Object
irrigation tubing	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223383	-75.69145

Photolog	Weight	Length	Breadth	Depth	Current Owner
203, 204, 205	0	0	0	0	Property Owner

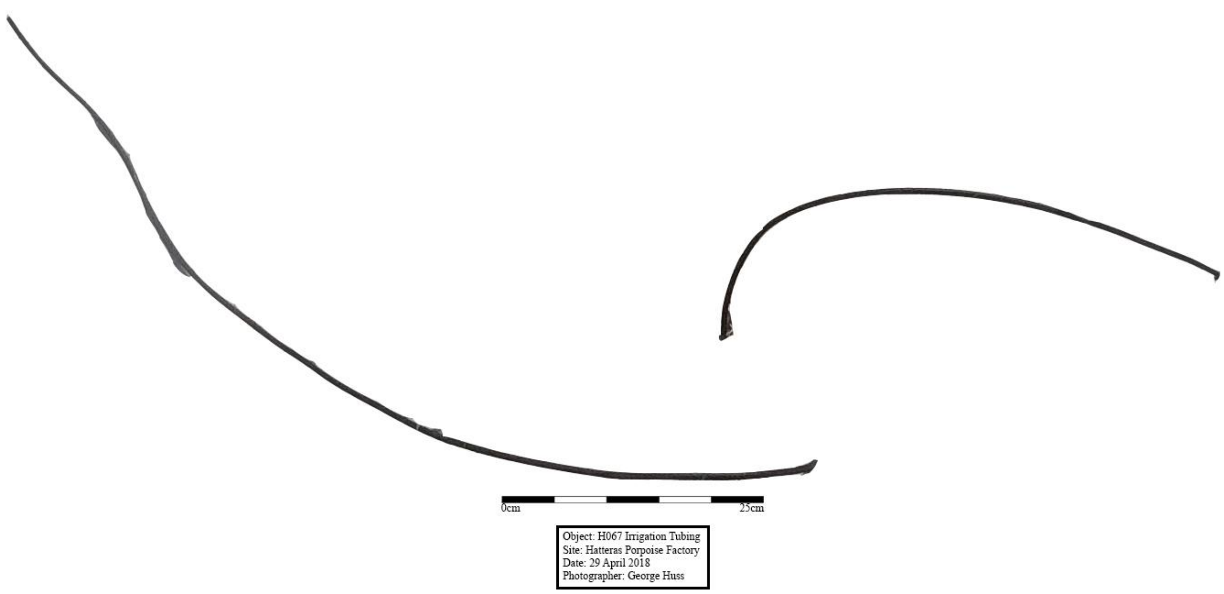
Fabric	Function	Subfunction
rubber	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1839	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
Christopher Goodyear Vulcanization patent



ID	ObjectNo	Recorder	Date Recorded
68	H068	George Huss	4/29/2018

Object Name	Current Location Object
Coal	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22335	-75.691433

Photolog	Weight	Length	Breadth	Depth	Current Owner
206, 207	0	7.405cm	6.514cm	0	Property Owner

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience

Durant's Island, North Carolina

Object History

Object: H068 Coal Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
69	H069	George Huss	4/29/2018

Object Name	Current Location Object
Coal	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223333	-75.69145

Photolog	Weight	Length	Breadth	Depth	Current Owner
208, 209	0	2.332cm	1.486cm	0	Property Owner

Fabric	Function	Subfunction
coal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

ID	ObjectNo	Recorder	Date Recorded
70	H070	George Huss	4/29/2018

Object Name	Current Location Object
Wood with Nail	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.2233	-75.69145

Photolog	Weight	Length	Breadth	Depth	Current Owner
210, 211	0	2.924cm	5.660cm	0	Property Owner

Fabric	Function	Subfunction
wood and metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H070 Wood with Nail
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
71	H071	George Huss	4/29/2018

Object Name	Current Location Object
Iron Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.2233	-75.691467

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
212, 213	0	3.950cm	6.099cm	0	Property Owner

Fabric	Function	Subfunction
wood and metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H071 Iron Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2019
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
72	H072	George Huss	4/29/2018

Object Name	Current Location Object
Copper Screen	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223267	-75.691483

Photolog	Weight	Length	Breadth	Depth	Current Owner
214, 215	0	3.356cm	5.352cm	0	Property Owner

Fabric	Function	Subfunction
metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H072 Screen
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
73	H073	George Huss	4/29/2018

Object Name	Current Location Object
Iron	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223183	-75.6915

Photolog	Weight	Length	Breadth	Depth	Current Owner
216, 217, 218	0	10.910cm	10.210cm	0	Property Owner

Fabric	Function	Subfunction
metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H073 Iron
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
74	H074	George Huss	4/29/2018

Object Name	Current Location Object
Iron Barrel Fragments	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223183	-75.691533

Photolog	Weight	Length	Breadth	Depth	Current Owner
220, 221	0	0	0	0	Property Owner

Fabric	Function	Subfunction
metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H074 Iron Barrel Fragments
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
75	H076	George Huss	4/29/2018

Object Name	Current Location Object
Wood	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site, Durant's Island,	35.2232	-75.69155

Photolog	Weight	Length	Breadth	Depth	Current Owner
222-225	0	6.27cm	7.261cm	0	Property Owner

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

ID	ObjectNo	Recorder	Date Recorded
76	H077	George Huss	4/29/2018

Object Name	Current Location Object
Brick Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223217	-75.691583

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
226, 227	0	3.583cm	4.985cm	0	Property Owner

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H077 Brick Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
77	H078	George Huss	4/29/2018

Object Name	Current Location Object
Brick Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223217	-75.691667

Photolog	Weight	Length	Breadth	Depth	Current Owner
228, 229	0	7.593cm	12.821cm	0	Property Owner

Fabric	Function	Subfunction
brick	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

ID	ObjectNo	Recorder	Date Recorded
78	H079	George Huss	4/29/2018

Object Name	Current Location Object
Dolphin Jaw Bone	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory	35.223067	-75.691717

Photolog	Weight	Length	Breadth	Depth	Current Owner
232, 233	0	18.968cm	5.051cm	0	Property Owner

Fabric	Function	Subfunction
bone	PROCESSING	FACTORY PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	1929	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H079 Animal Bone
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
79	H080	George Huss	4/29/2018

Object Name	Current Location Object
Piling in the Water	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.223067	-75.691817

Photolog	Weight	Length	Breadth	Depth	Current Owner
230, 231	0	2.504cm	2.109cm	0	Property Owner

Fabric	Function	Subfunction
wood	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H080 Piling in Water
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
80	H082	George Huss	4/29/2018

Object Name	Current Location Object
Iron	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22265	-75.692067

Photolog	Weight	Length	Breadth	Depth	Current Owner
236, 237	0	0	0	0	Property Owner

Fabric	Function	Subfunction
metal	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

ID	ObjectNo	Recorder	Date Recorded
81	H083	George Huss	4/29/2018

Object Name	Current Location Object
Tar	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.222633	-75.6921

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
238, 239	0	8.171cm	8.309cm	0	Property Owner

Fabric	Function	Subfunction
tar	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History


0cm
5cm
Object: H083 Tar
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
82	H084	George Huss	4/29/2018

Object Name	Current Location Object
Barrel Hoop	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.222617	-75.6921

Photolog	Weight	Length	Breadth	Depth	Current Owner
240, 241	0	0	0	0	Property Owner

Fabric	Function	Subfunction
metal	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

0cm 5cm

Object: H084 Barrel Hoop
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
83	H085	George Huss	4/29/2018

Object Name	Current Location Object
Clorox Bottle Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22245	-75.6923

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
126-140	0	4.047cm	4.562cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	NO RELATION

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1933	1936	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History
The Clorox Company Bottle Guide 2018 https://www.thecloroxcompany.com/who-we-are/our-heritage/bottle-guide/

Object: H085 Clorox Bottle Fragment
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
84	H086	George Huss	4/29/2018

Object Name	Current Location Object
Glass Fragment	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.222333	-75.69235

Photolog	Weight	Length	Breadth	Depth	Current Owner
64, 65	0	4.013cm	9.446cm	0	Property Owner

Fabric	Function	Subfunction
glass	UNKNOWN	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H086 Glass
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
85	H087	George Huss	4/29/2018

Object Name	Current Location Object
Tile	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22317	-75.692383

Photolog	Weight	Length	Breadth	Depth	Current Owner
58, 59	0	6.862cm	7.166cm	0	Property Owner

Fabric	Function	Subfunction
tile	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H087 Tile
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
87	H089	George Huss	4/29/2018

Object Name	Current Location Object
Piling	Hatteras Porpoise Factory Site, Durant's Island, North Carolina

Location Depicted	Latitude	Longitude
Hatteras Porpoise Factory Site	35.22217	-75.692633

Photolog	Weight	Length	Breadth	Depth	Current Owner
62, 63	0	34.445cm	46.65cm	0	Property Owner

Fabric	Function	Subfunction
cement	BUILDING	UNKNOWN

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	0	0

Additional Information

Provenience
Durant's Island, North Carolina

Object History

Object: H089 Piling
Site: Hatteras Porpoise Factory
Date: 29 April 2018
Photographer: George Huss

ID	ObjectNo	Recorder	Date Recorded
88	GOAMD001	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Bottle of Nye Lathe Oil	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
513-526		13.899cm	5.701cm	0	Graveyard of the Atlantic Museum

Fabric	Function	Subfunction
metal and glass	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996

Object: GOAMD001 Bottle of Nye Jewelers Lathe Oil
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
89	GOAMD002	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Bottle of NYOIL 4	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
527-542		17.106cm	5.570cm	0	Graveyard of the Atlantic Museum

Fabric	Function	Subfunction
glass and cork	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996

Object: GOAMD002 Bottle of NYOIL 4
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
90	GOAMD003	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Bottle of Nye Oil	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
543-554		15.106cm	5.618cm	0	Graveyard of the Atlantic Museum

Fabric	Function	Subfunction
cloth, cork, and glass	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996

Object: GOAMD003 Bottle of Nye Oil
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
91	GOAMD004	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Bottle of Nye Clock Oil in Box	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
571-582		6.366cm	3.360cm	0	Graveyard of the Atlantic Museum

Fabric	Function	Subfunction
paper, cork, and glass	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996

Object: GOAMD004 Small Bottle of Nye Clock Oil in Box
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
92	GOAMD005	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Nye Clock Oil in Box	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
555-570		6.366cm	3.360cm	0	Graveyard of the Atlantic Museum

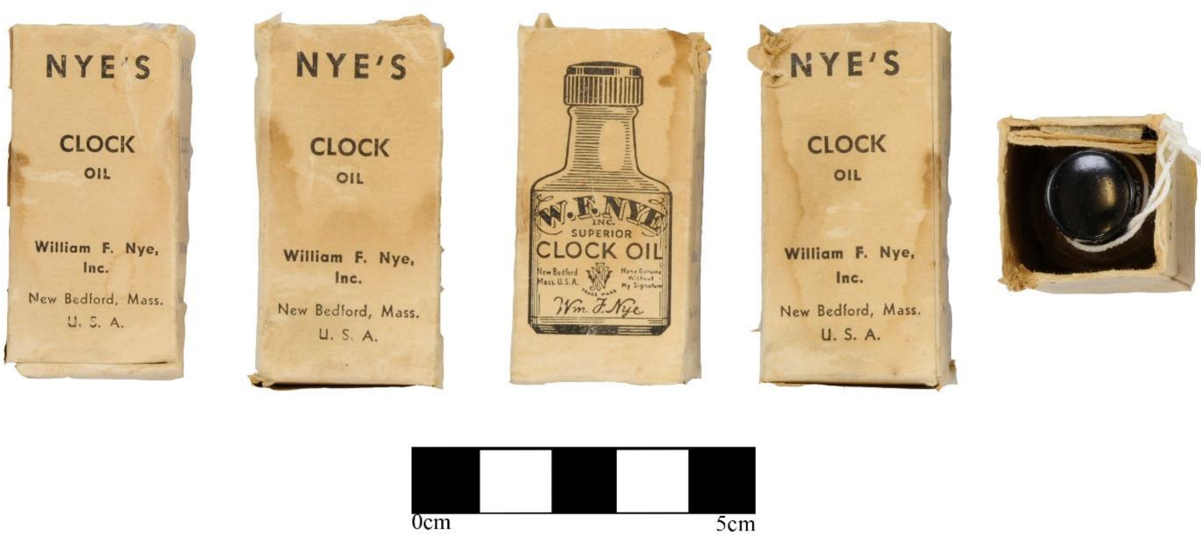
Fabric	Function	Subfunction
paper and plastic	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996



Object: GOAMD005 Nye Clock Oil in Box
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
93	GOAMD006	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Nye Clock Oil in Box	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
555-570		6.366cm	3.360cm	0	Graveyard of the Atlantic Museum

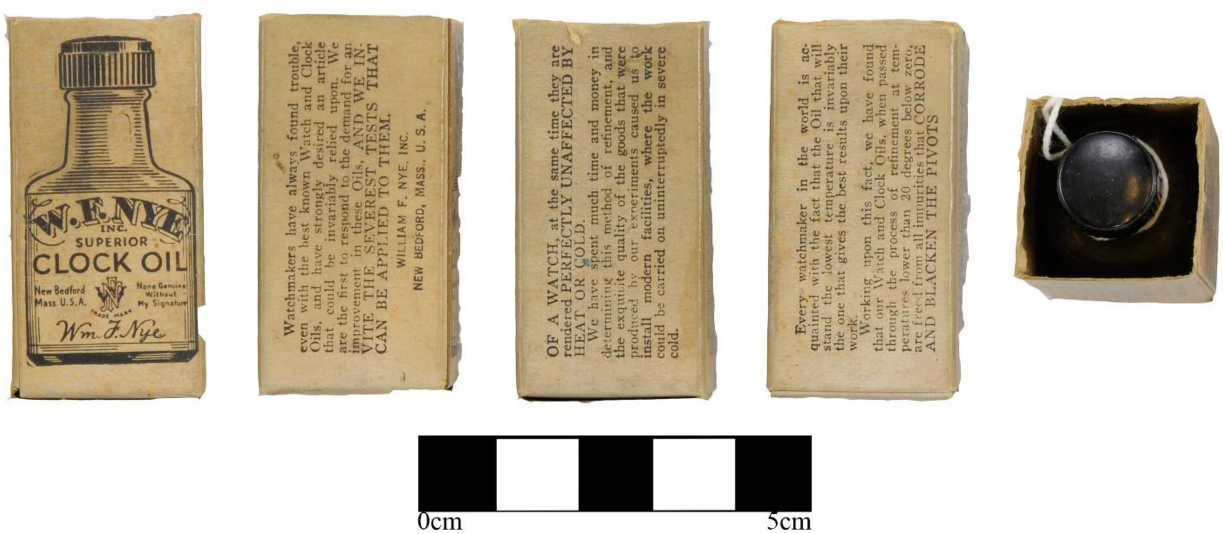
Fabric	Function	Subfunction
paper and plastic	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996



Object: GOAMD006 Nye Clock Oil in Box
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
94	GOAMD007	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Nye Clock Oil in Box	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
555-570		6.366cm	3.360cm	0	Graveyard of the Atlantic Museum

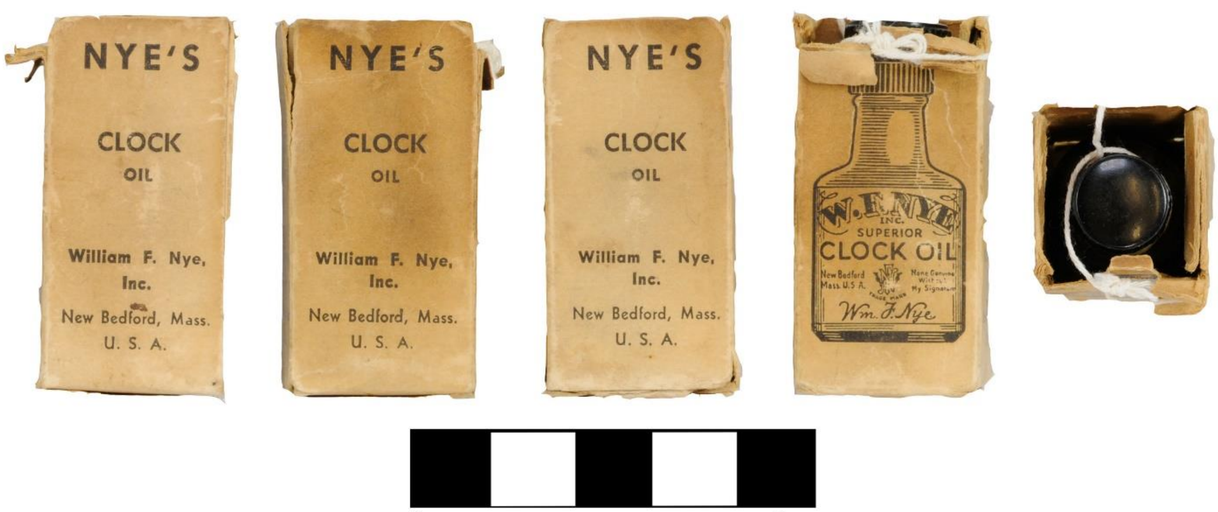
Fabric	Function	Subfunction
paper and plastic	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996



0cm 5cm

Object: GOAMD007 Nye Clock Oil in Box
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
95	GOAMD008	George Huss and Nathan Richards	4/27/2018

Object Name	Current Location Object
Nye Clock Oil	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum	35.206618	-75.704118

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
555-570		4.339cm	2.220cm	0	Graveyard of the Atlantic Museum

Fabric	Function	Subfunction
plastic	DISTRIBUTION	PACKAGING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1907	1929	1907	1929

Additional Information

Provenience
Hatteras, North Carolina

Object History
Parr 1996

Object: GOAMD008 Nye Clock Oil
Museum: Graveyard of the Atlantic Museum
Date: 27 April 2018
Photographers: George Huss and Nathan Richards

ID	ObjectNo	Recorder	Date Recorded
96	GOAMD009	George Huss	4/27/2018

Object Name	Current Location Object
Ox Cart	Graveyard of the Atlantic Museum, Hatteras, North Carolina

Location Depicted	Latitude	Longitude
Graveyard of the Atlantic Museum, Hatteras, N	35.206618	-75.704118

Photolog	Weight	Length	Breadth	Depth	Current Owner
583-907	0	744.28cm	471.11cm	0	Graveyard of the Atlantic Museum

Fabric	Function	Subfunction
wood	PROCESSING	TRANSPORTATION

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
-4000	2018	1850	1929

Additional Information
photogrammetric model made by George Huss and Kristina Fricker

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Impact Assessment Inc 2005b:320; Cecelski 2015:69; Couch 2017 pers. comm

<table>
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<tr><td>97</td><td>GOAMD010</td><td>George Huss</td><td colspan="3">4/27/2018</td></tr>
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<tr><td colspan="2">Trypot</td><td colspan="4">Graveyard of the Atlantic Museum, Hatteras, North Carolina</td></tr>
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<tr><td colspan="3">Graveyard of the Atlantic Museum</td><td>35.206618</td><td colspan="2">-75.704118</td></tr>
<tr><td>Photolog</td><td>Weight</td><td>Length</td><td>Breadth</td><td>Depth</td><td>Current Owner</td></tr>
<tr><td>908-1059</td><td>0</td><td>0</td><td>25.56cm</td><td>35.14cm</td><td>Graveyard of the Atlantic Museum</td></tr>
<tr><td colspan="2">Fabric</td><td colspan="2">Function</td><td colspan="2">Subfunction</td></tr>
<tr><td colspan="2">metal</td><td colspan="2">PROCESSING</td><td colspan="2">FACTORY PROCESSING</td></tr>
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<tr><td>1700</td><td>1929</td><td colspan="2">1907</td><td colspan="2">1929</td></tr>
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<tr><td colspan="6">photogrammetric model made by George Huss and Kristina Fricker</td></tr>
<tr><td colspan="6">Provenience</td></tr>
<tr><td colspan="6">Hatteras, North Carolina</td></tr>
<tr><td colspan="6">Object History</td></tr>
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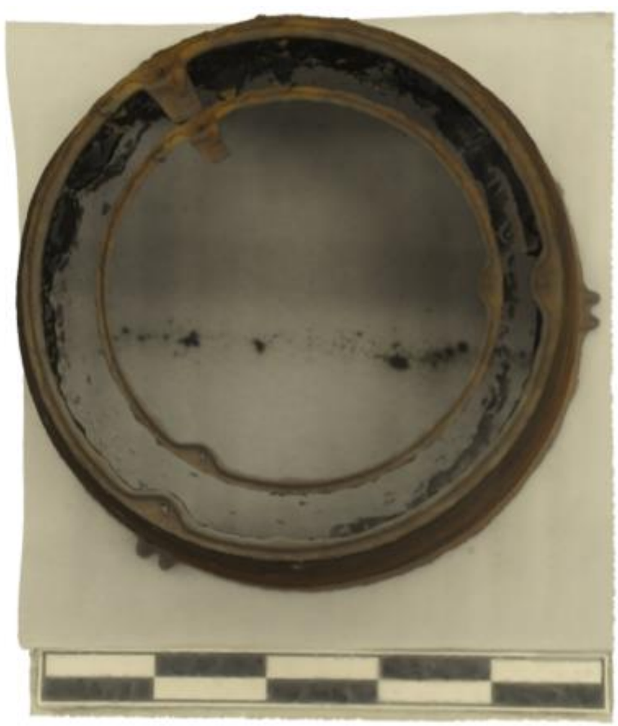


ID	ObjectNo	Recorder	Date Recorded
98	BPB001	Unknown	

Object Name	Current Location Object
Pilot Boat	North Carolina Maritime Museum at Beaufort

Location Depicted	Latitude	Longitude
North Carolina Maritime Museum at Beaufort	34.717988	-76.666251

Photolog	Weight	Length	Breadth	Depth	Current Owner
1060	0	~30.38cm	0	0	North Carolina Maritime Museum :

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1849	1949	1890	1890

Additional Information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:184-189; Whisnant and Whisnant 2015:95; Cotrufo 2014 pers. comm; Bradley 2015

ID	ObjectNo	Recorder	Date Recorded
99	BPB002	Unknown	

Object Name	Current Location Object
Pilot Boat	North Carolina Maritime Museum at Beaufort

Location Depicted	Latitude	Longitude
North Carolina Maritime Museum at Beaufort	34.717988	-76.666251

Photolog	Weight	Length	Breadth	Depth	Current Owner
1061	0	~30.38cm	0	0	North Carolina Maritime Museum a

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1849	1949	0	0

Additional Information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:184-189; Whisnant and Whisnant 2015:95; Cotrufo 2014 pers. comm; Bradley 2015

ID	ObjectNo	Recorder	Date Recorded
100	BPB003	Unknown	

Object Name	Current Location Object
Pilot Boat	North Carolina Maritime Museum at Beaufort

Location Depicted	Latitude	Longitude
North Carolina Maritime Museum at Beaufort	34.717988	-76.666251

Photolog	Weight	Length	Breadth	Depth	Current Owner
1062	0	~30.38cm	0	0	North Carolina Maritime Museum :

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1849	1949	1895	1895

Additional Information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:184-189; Whisnant and Whisnant 2015:95; Cotrufo 2014 pers. comm ; Bradley 2015

ID	ObjectNo	Recorder	Date Recorded
101	BPB004	Unknown	

Object Name	Current Location Object
Pilot Boat	North Carolina Maritime Museum at Beaufort

Location Depicted	Latitude	Longitude
North Carolina Maritime Museum at Beaufort	34.717988	-76.666251

Photolog	Weight	Length	Breadth	Depth	Current Owner
1063	0	~30.38cm	0	0	North Carolina Maritime Museum :

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1849	1949	1910	1910

Additional Information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:184-189; Whisnant and Whisnant 2015:95; Cotrufo 2014 pers. comm; Bradley 2015

ID	ObjectNo	Recorder	Date Recorded
102	BPB005	Unknown	

Object Name	Current Location Object
Pilot Boat	North Carolina Maritime Museum at Beaufort

Location Depicted	Latitude	Longitude
North Carolina Maritime Museum at Beaufort	34.717988	-76.666251

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
1064	0	~30.38cm	0	0	North Carolina Maritime Museum a

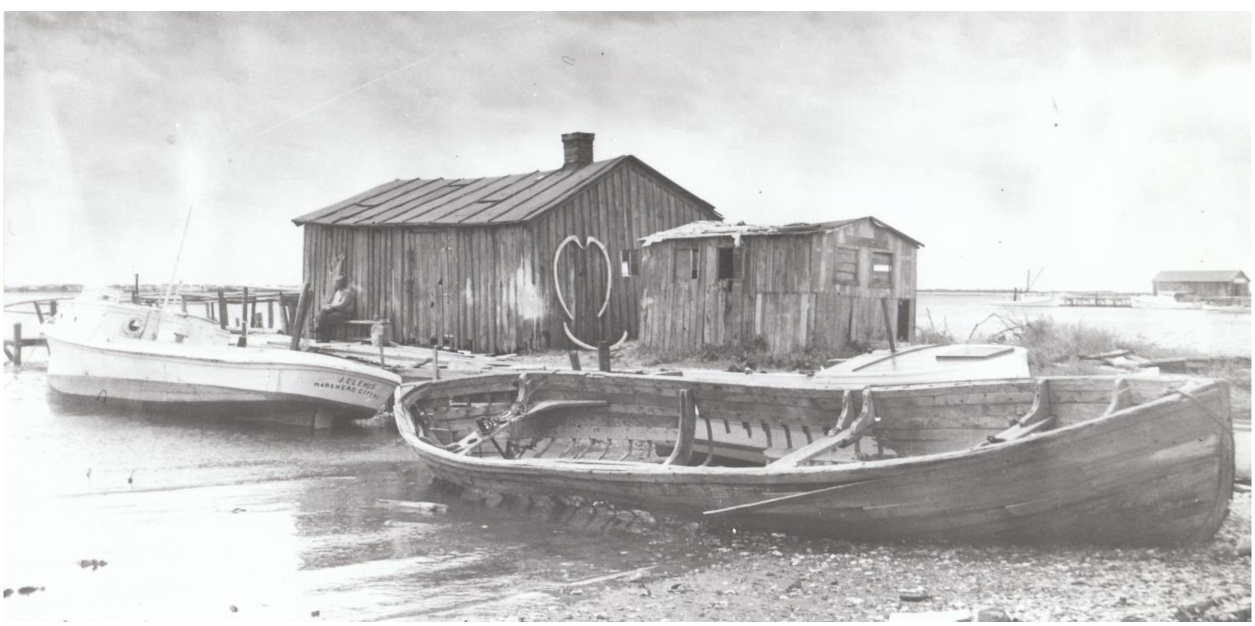
Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1849	1949	0	0

Additional Information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:184-189; Whisnant and Whisnant 2015:95; Cotrufo 2014 pers. comm; Bradley 2015



ID	ObjectNo	Recorder	Date Recorded
104	BPB007	Unknown	

Object Name	Current Location Object
Pilot Boat	North Carolina Maritime Museum at Beaufort

Location Depicted	Latitude	Longitude
North Carolina Maritime Museum at Beaufort	34.717988	-76.666251

Photolog	Weight	Length	Breadth	Depth	Current Owner
1066	0	~30.38cm	0	0	North Carolina Maritime Museum a

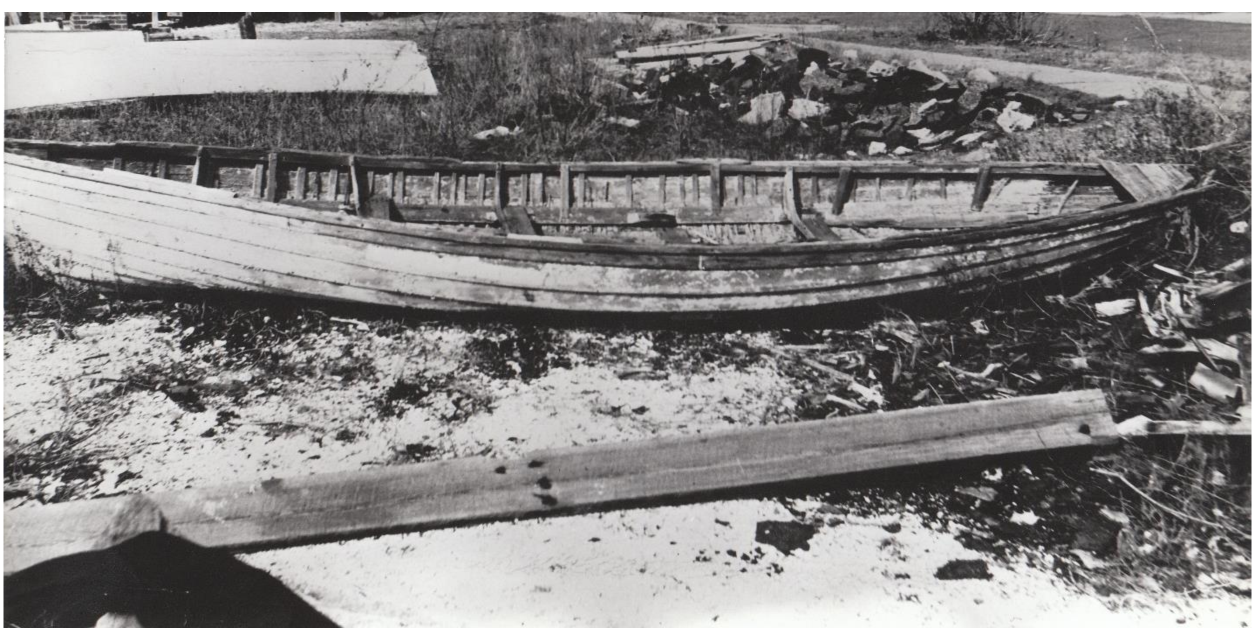
Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1849	1949	1963	1963

Additional Information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:184-189; Whisnant and Whisnant 2015:95; Cotrufo 2014 pers. comm; Bradley 2015



ID	ObjectNo	Recorder	Date Recorded
105	NBWM-001a	Nye Lubricants	

Object Name	Current Location Object
Dory Boat	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1495	2018	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
106	NBWM-001b	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
107	NBWM-002a	Nye Lubricants	

Object Name	Current Location Object
Hook with Stoutline	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1096	0	0	0	0	New Bedford Whaling Museum

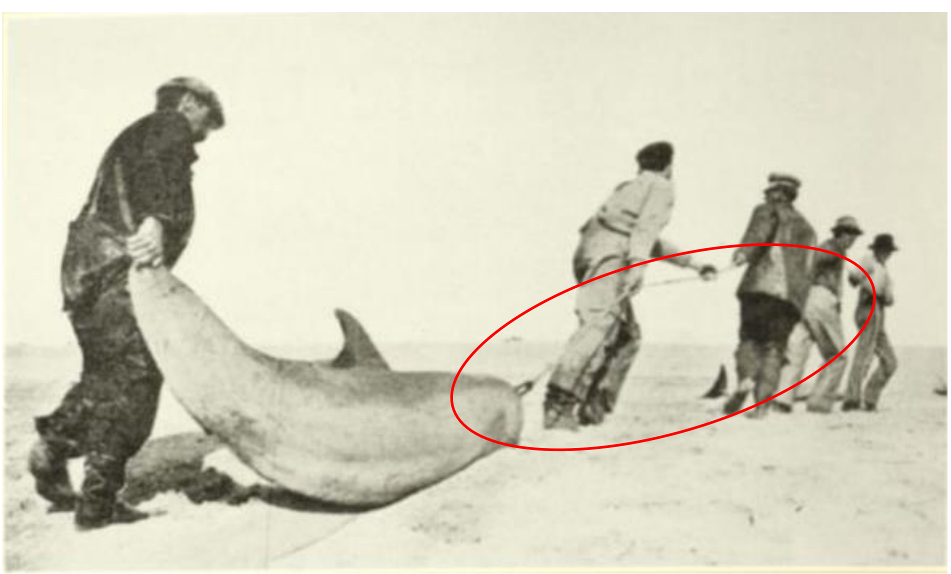
Fabric	Function	Subfunction
metal and rope	HUNTING	CAPTURE

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
108	NBWM-002b	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1096	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
109	NBWM-003a	Nye Lubricants	

Object Name	Current Location Object
Industrial Oil Presser	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Fish Island, Massachussetts	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1097	0	0	0	0	New Bedford Whaling Museum

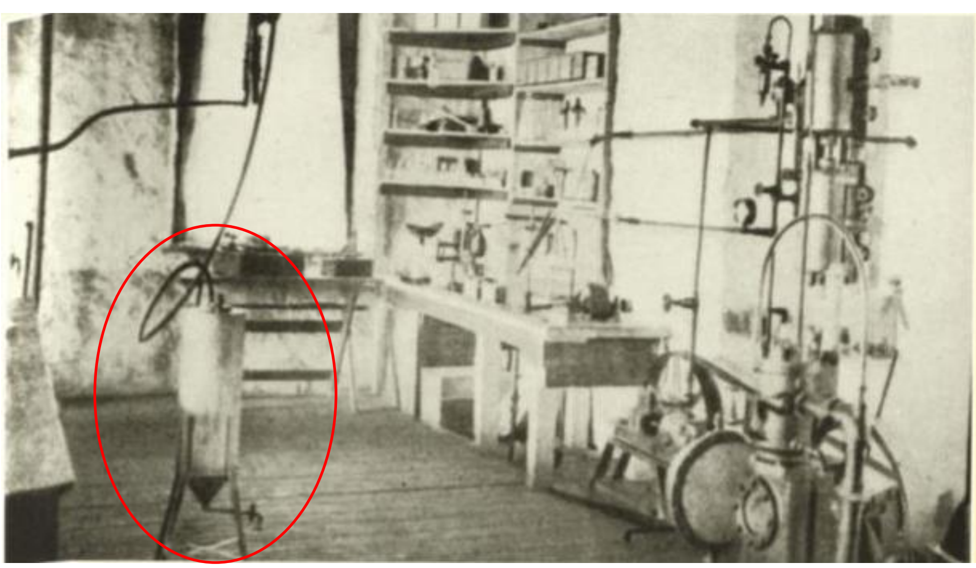
Fabric	Function	Subfunction
metal and rubber	PROCESSING	FACTORY PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1877	1929	1907	1907

Additional Information

Provenience
Fish Island, Massachussetts

Object History
Parr 1996



ID	ObjectNo	Recorder	Date Recorded
110	NBWM-003b	Nye Lubricants	

Object Name	Current Location Object
Refinery Equipment	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Fish Island, Massachussetts	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1097	0	0	0	0	New Bedford Whaling Museum

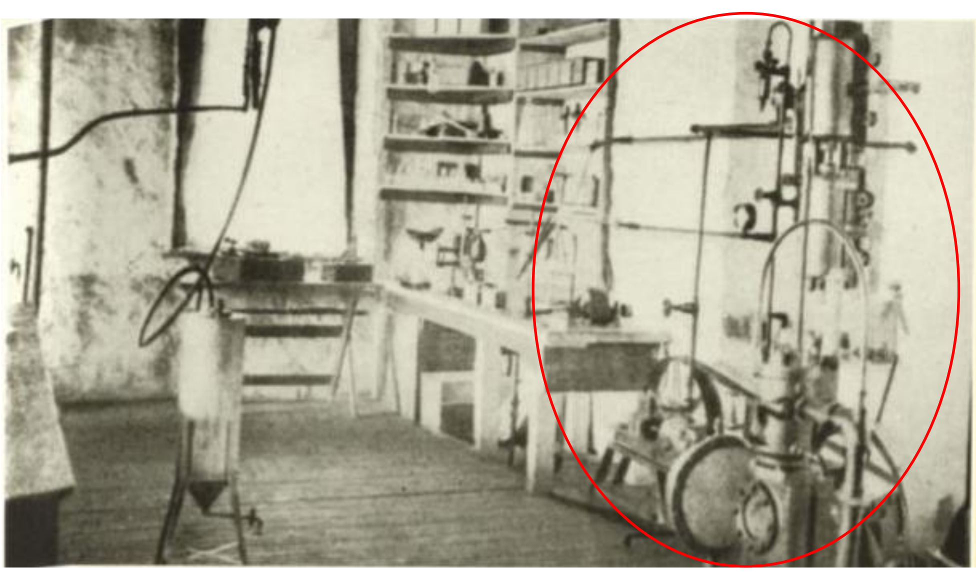
Fabric	Function	Subfunction
metal	PROCESSING	FACTORY PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1877	1929	1907	1907

Additional Information

Provenience
Fish Island, Massachussetts

Object History
Parr 1996



ID	ObjectNo	Recorder	Date Recorded
111	NBWM-003c	Nye Lubricants	

Object Name	Current Location Object
Work Bench	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Fish Island, Massachussetts	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1097	0	0	0	0	New Bedford Whaling Museum

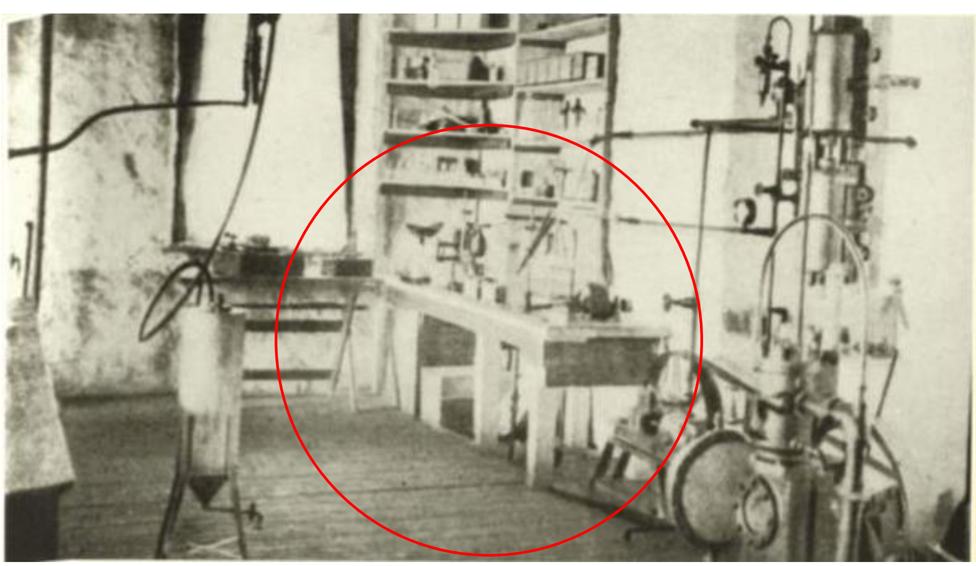
Fabric	Function	Subfunction
wood	PROCESSING	FACTORY PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1877	1929	1907	1907

Additional Information

Provenience
Fish Island, Massachussetts

Object History
Parr 1996



ID	ObjectNo	Recorder	Date Recorded
112	NBWM-004a	Nye Lubricants	

Object Name	Current Location Object
Spy Camp	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1098	0	0	0	0	New Bedford Whaling Museum

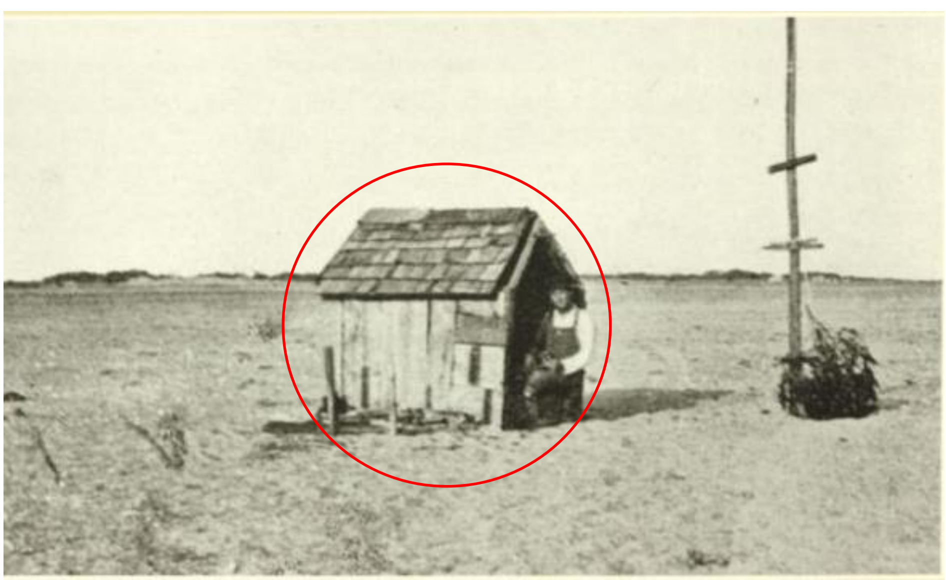
Fabric	Function	Subfunction
wood and tile	HUNTING	SPYING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69



ID	ObjectNo	Recorder	Date Recorded
113	NBWM-004b	Nye Lubricants	

Object Name	Current Location Object
Spy Camp Pole	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1098	0	0	0	0	New Bedford Whaling Museum

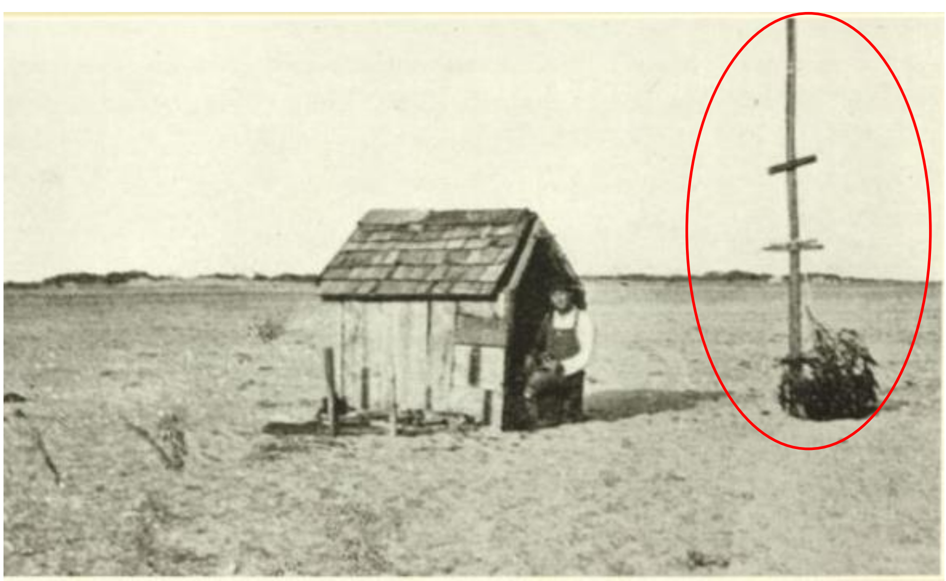
Fabric	Function	Subfunction
wood and flora	HUNTING	SPYING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
114	NYZS-001a	New York Zoological Society	

Object Name	Current Location Object
Dory Boat	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1067	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1495	2018	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
115	NYZS-002a	New York Zoological Society	

Object Name	Current Location Object
Seine Net	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
twine, cork, and lead	HUNTING	CAPTURE

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1950	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
116	NYZS-002b	New York Zoological Society	

Object Name	Current Location Object
Hook with Stoutline	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
steel and rope	HUNTING	CAPTURE

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
117	NYZS-003a	New York Zoological Society	

Object Name	Current Location Object
Seine Net	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1069	0	0	0	0	Wildlife Conservation Society

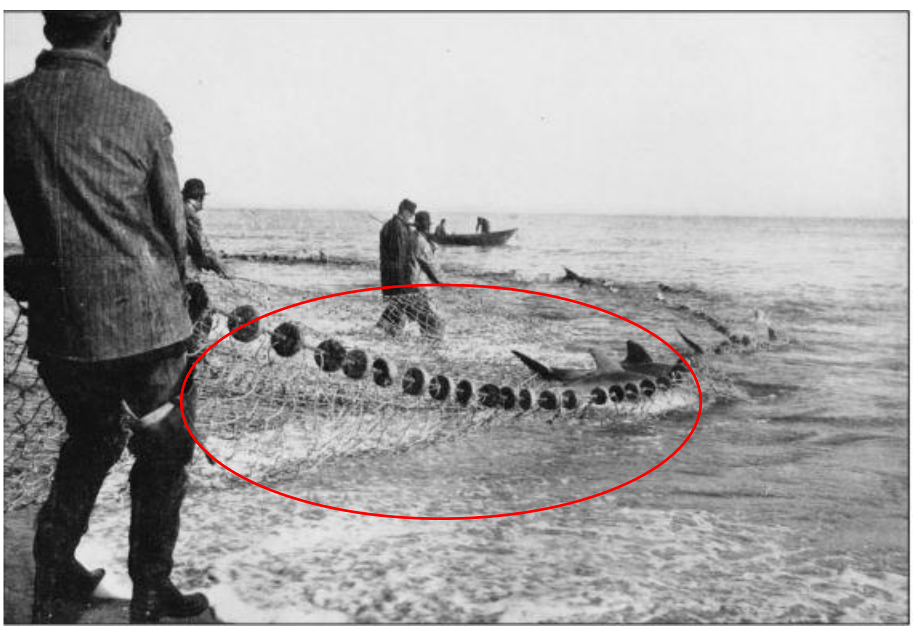
Fabric	Function	Subfunction
twine, cork, and lead	HUNTING	CAPTURE

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1950	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
118	NYZS-003b	New York Zoological Society	

Object Name	Current Location Object
Dory Boat	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1069	0	0	0	0	Wildlife Conservation Society

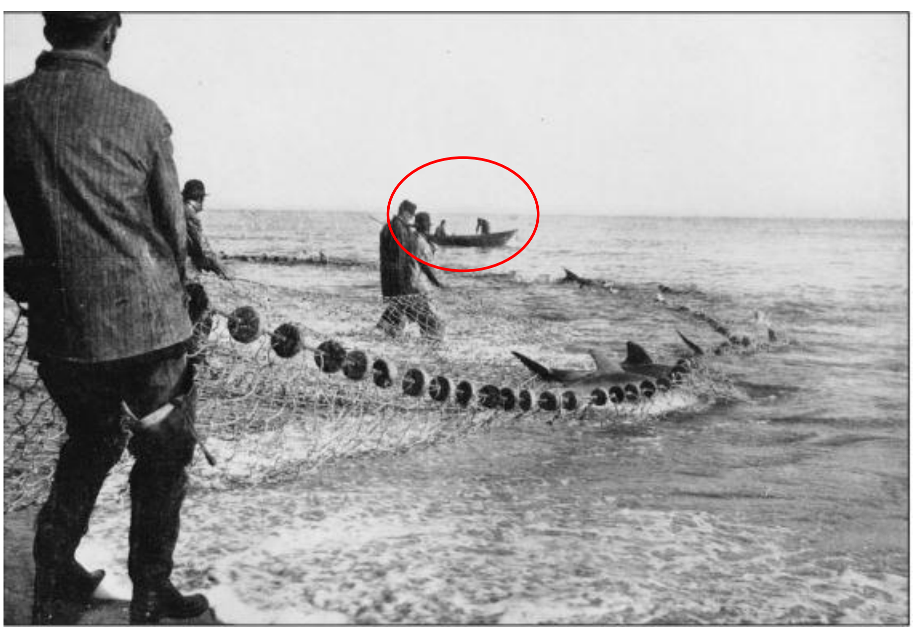
Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1495	2018	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
119	UNC P001	Unknown	

Object Name	Current Location Object
Spy Camp	University of North Carolina at Chapel Hill Wilson Library

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	35.90944	-79.049728

Photolog	Weight	Length	Breadth	Depth	Current Owner
1070	0	0	0	0	UNC Chapel Hill Wilson Library

Fabric	Function	Subfunction
wood and tile	HUNTING	SPYING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1890	1920

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996:212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
120	SI01a	Bureau of Biological Survey	10/22/1912

Object Name	Current Location Object
Knife or Spear	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Beaufort, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1071	0	0	0	0	Smithsonian Institution

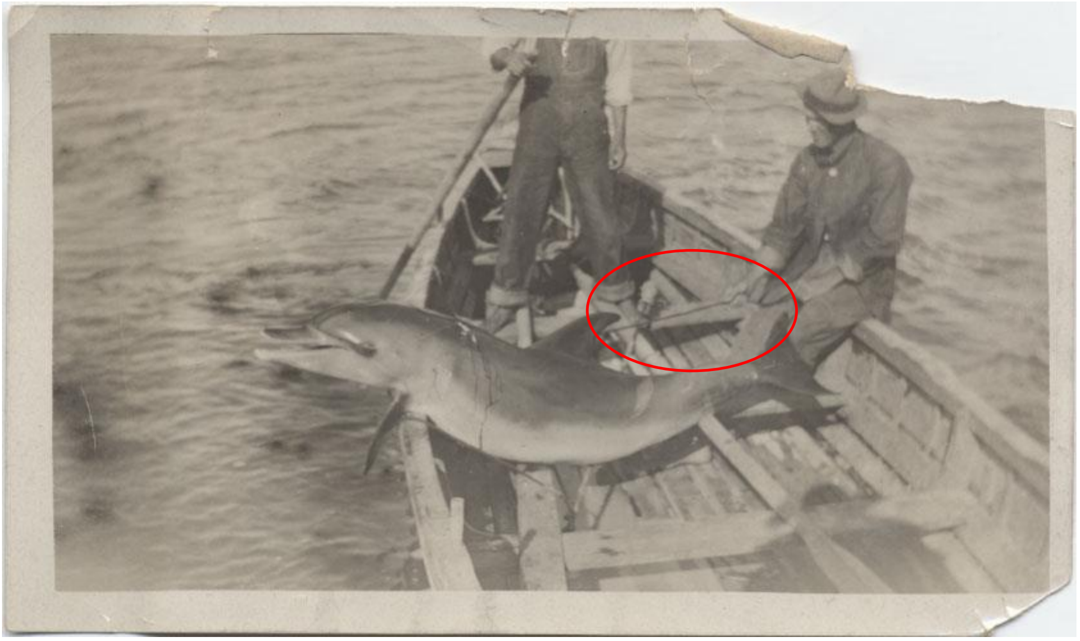
Fabric	Function	Subfunction
metal	HUNTING	KILLING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	1912	1912

Additional Information
SI01a supplemental information

Provenience
Beaufort, North Carolina

Object History
SI01a supplemental information



ID	ObjectNo	Recorder	Date Recorded
121	SI01b	Bureau of Biological Survey	10/22/1912

Object Name	Current Location Object
Shove Skiff	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Beaufort, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1071	0	0	0	0	Smithsonian Institution

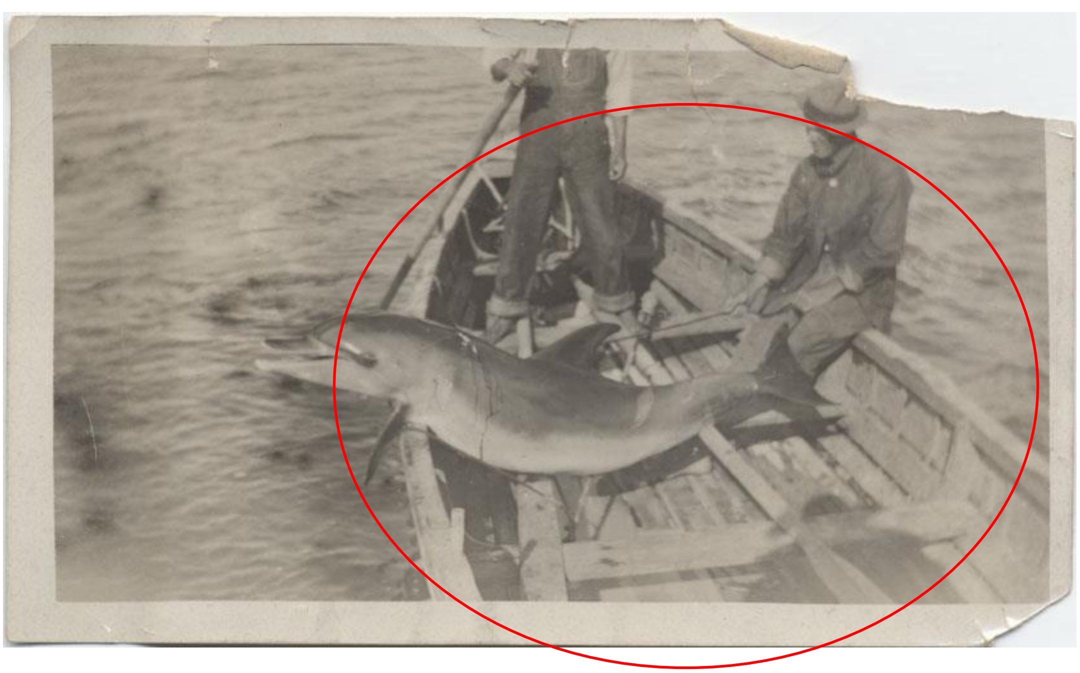
Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1890	1920	1912	1912

Additional Information
SI01a supplemental information

Provenience
Beaufort, North Carolina

Object History
Barfield 1995:170



ID	ObjectNo	Recorder	Date Recorded
122	SI01c	Bureau of Biological Survey	10/22/1912

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Beaufort, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1071	0	0	0	0	Smithsonian Institution

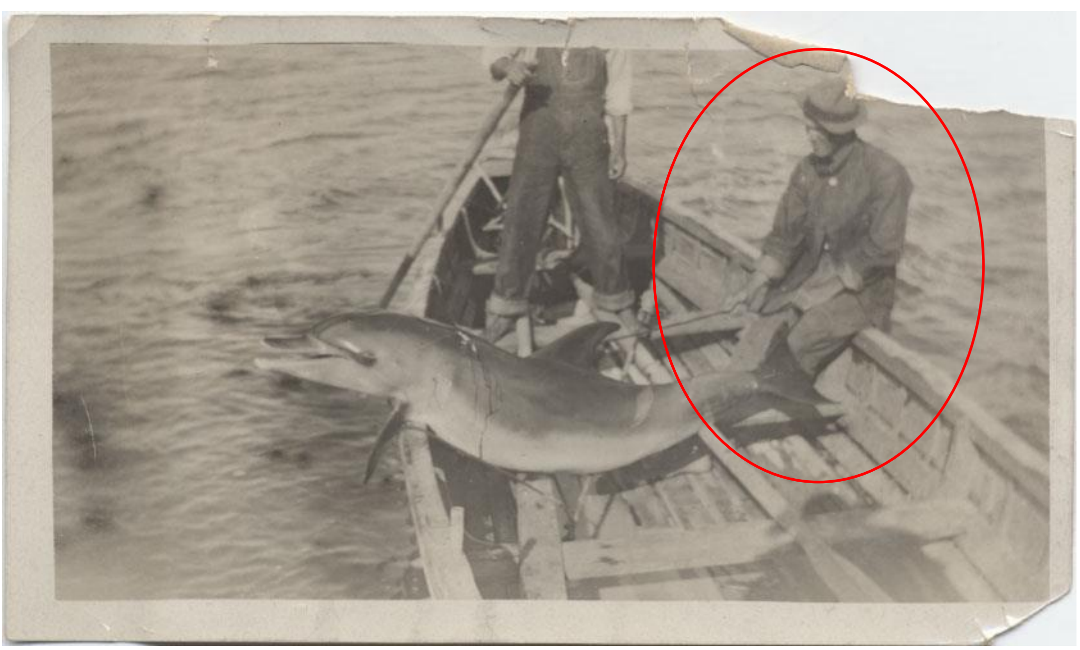
Fabric	Function	Subfunction
cotton	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1927	1912	1912

Additional Information
SI01a supplemental information

Provenience
Beaufort, North Carolina

Object History
Kyri 2011



ID	ObjectNo	Recorder	Date Recorded
123	SI03a	Bureau of Biological Survey	

Object Name	Current Location Object
Knife	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1075	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
metal	PROCESSING	BEACH PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	1928	1928

Additional Information
SI03a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
124	SI03b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1075	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information
SI03a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
125	SI04a	Bureau of Biological Survey	

Object Name	Current Location Object
Knife	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1077	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
metal	PROCESSING	BEACH PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	1928	1928

Additional Information
SI04a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
126	SI04b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1077	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information
SI04a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
127	SI05a	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1079	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information
SI05a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Smithsonian citation: Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
128	SI05b	Bureau of Biological Survey	

Object Name	Current Location Object
Knife	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1079	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
metal	PROCESSING	BEACH PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	1928	1928

Additional Information
SI05a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
129	SI06a	Bureau of Biological Survey	

Object Name	Current Location Object
Knife	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1081	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
metal	PROCESSING	BEACH PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	1928	1928

Additional Information
SI06a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
130	SI06b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1081	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information
SI06a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
131	SI07a	Bureau of Biological Survey	

Object Name	Current Location Object
Knife	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
metal	PROCESSING	BEACH PROCESSING

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1790	2018	1928	1928

Additional Information
SI07a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
132	SI09a	Bureau of Biological Survey	

Object Name	Current Location Object
Dory Boat	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1087	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1495	2018	1928	1928

Additional Information
SI09a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
133	SI10a	Bureau of Biological Survey	

Object Name	Current Location Object
Dory Boat	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1089	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1495	2018	1928	1928

Additional Information
SI10a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
134	SI11a	Bureau of Biological Survey	

Object Name	Current Location Object
Seine Net	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1091	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
twine, cork, and lead	HUNTING	CAPTURE

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1950	1928	1928

Additional Information
SI11a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
135	SI12a	Bureau of Biological Survey	

Object Name	Current Location Object
Seine Net	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1093	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
twine, cork, and lead	HUNTING	CAPTURE

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1950	1928	1928

Additional Information
SI12a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
140	NBWM-001c	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
141	NBWM-001d	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212

ID	ObjectNo	Recorder	Date Recorded
142	NBWM-001e	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212

ID	ObjectNo	Recorder	Date Recorded
143	NBWM-001f	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212

ID	ObjectNo	Recorder	Date Recorded
144	NBWM-001g	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212

ID	ObjectNo	Recorder	Date Recorded
145	NBWM-001h	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212;

ID	ObjectNo	Recorder	Date Recorded
146	NBWM-001i	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212;

ID	ObjectNo	Recorder	Date Recorded
147	NBWM-001j	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1095	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212;

ID	ObjectNo	Recorder	Date Recorded
148	NBWM-002c	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1096	0	0	0	0	New Bedford Whaling Museum

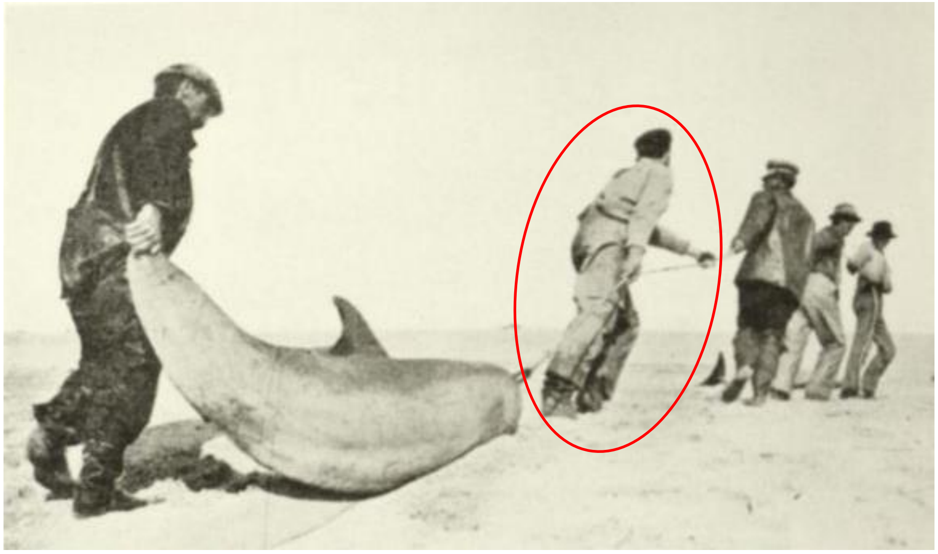
Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
149	NBWM-002d	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1096	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69

ID	ObjectNo	Recorder	Date Recorded
150	NBWM-002e	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1096	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
151	NBWM-002f	Nye Lubricants	

Object Name	Current Location Object
Protective Clothing	New Bedford Whaling Museum

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	41.635215	-70.923118

Photolog	Weight	Length	Breadth	Depth	Current Owner
1096	0	0	0	0	New Bedford Whaling Museum

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1907	1907

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
152	NYZS-002c	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
153	NYZS-002d	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
154	NYZS-002e	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
cotton, wax, gum, and c	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69

ID	ObjectNo	Recorder	Date Recorded
155	NYZS-002f	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
156	NYZS-002g	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1068	0	0	0	0	Wildlife Conservation Society

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
157	NYZS-003c	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1069	0	0	0	0	Wildlife Conservation Society

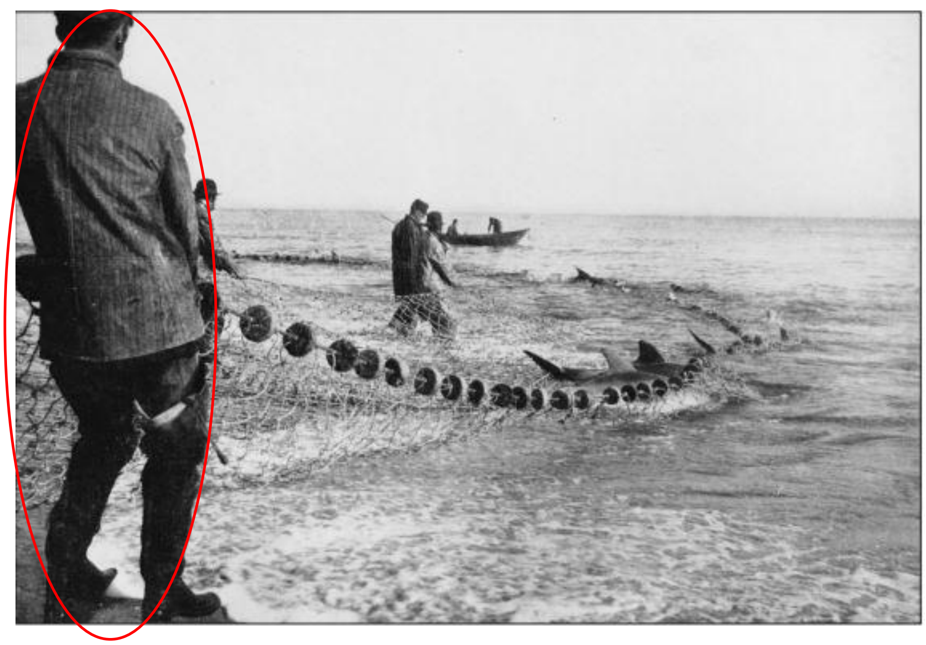
Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
158	NYZS-003d	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1069	0	0	0	0	Wildlife Conservation Society

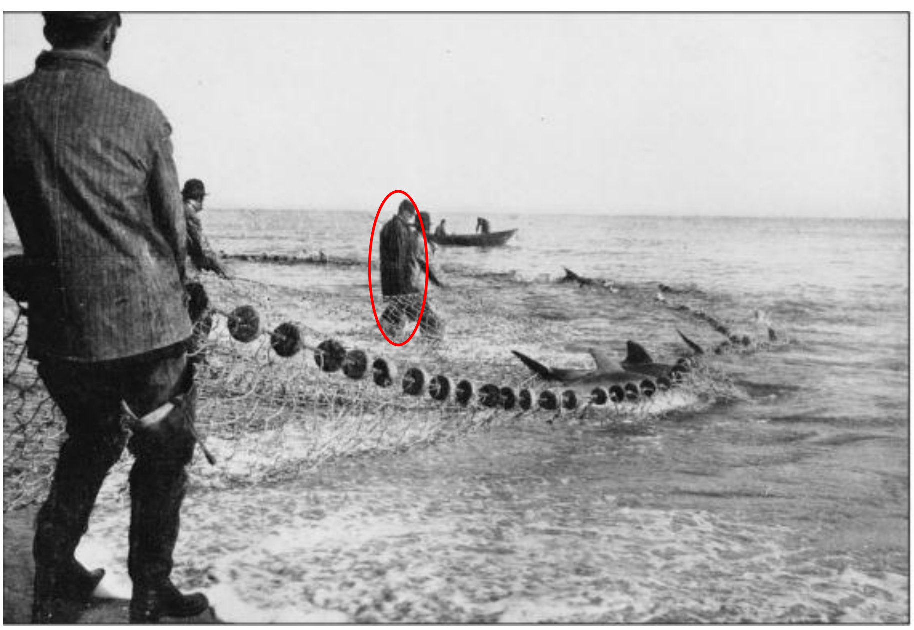
Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
159	NYZS-003e	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1069	0	0	0	0	Wildlife Conservation Society

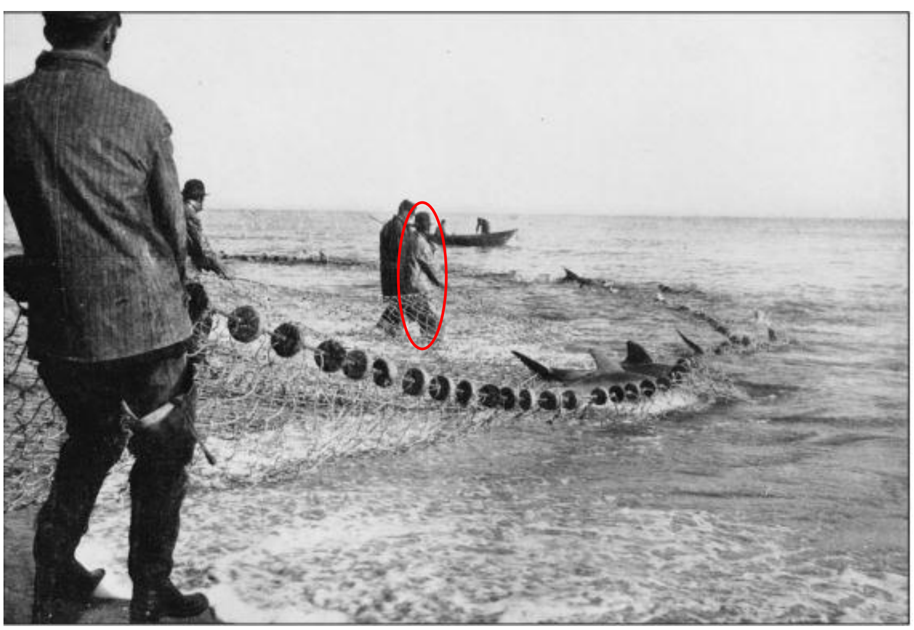
Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
160	NYZS-003f	New York Zoological Society	

Object Name	Current Location Object
Protective Clothing	Wildlife Conservation Society, New York City, New York

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	40.848613	-73.882634

Photolog	Weight	Length	Breadth	Depth	Current Owner
1069	0	0	0	0	Wildlife Conservation Society

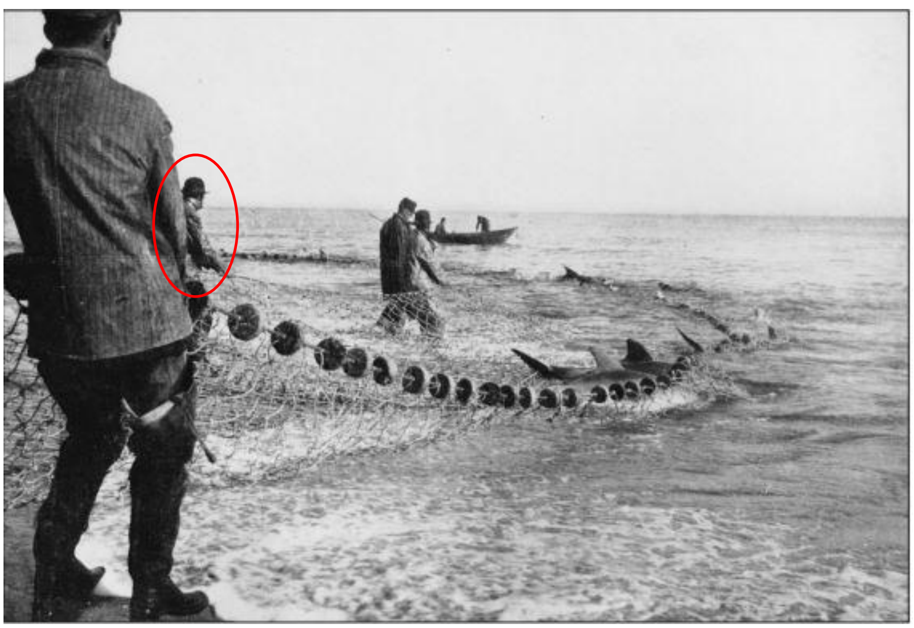
Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1913	1913

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;



ID	ObjectNo	Recorder	Date Recorded
161	SI03c	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1075	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information
SI03a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
162	SI05c	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1079	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information
SI05a supplemental information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
163	SI07b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
164	SI07c	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
165	SI07d	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	**Breadth**	**Depth**	**Current Owner**
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
166	SI07e	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
167	SI07f	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
168	SI07g	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1083	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
169	SI08a	Bureau of Biological Survey	

Object Name	Current Location Object
Dory Boat	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1085	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
wood and metal	HUNTING	PURSUIT

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1495	2018	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
171	SI10b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1089	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
172	SI10c	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1089	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
173	SI10d	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1089	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
174	SI10e	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1089	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
175	SI10f	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1089	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
176	SI11b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1091	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
177	SI12b	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1093	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
178	SI12c	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1093	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
179	SI12d	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1093	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
180	SI12e	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1093	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;

ID	ObjectNo	Recorder	Date Recorded
181	SI12f	Bureau of Biological Survey	

Object Name	Current Location Object
Protective Clothing	Smithsonian Institution, Washington D.C

Location Depicted	Latitude	Longitude
Hatteras, North Carolina	38.843786	-76.941462

Photolog	Weight	Length	Breadth	Depth	Current Owner
1093	0	0	0	0	Smithsonian Institution

Fabric	Function	Subfunction
cotton, wax, gum, oil	HUNTING	PURSUIT, CAPTURE, KILL

Min_ManfDate	Max_ManfDate	Min_PresDate	Max_PresDate
1850	1929	1928	1928

Additional Information

Provenience
Hatteras, North Carolina

Object History
The New Berne Times 1869:3; Smithsonian Institution Archives, Record Unit 7170, Kellog, Remington, 1893-, Remington Kellogg Papers (Box 10-Folder 2); Angel 1981; Robinson 1996: 212; Impact Assessment Inc 2005b:320; Cecelski 2015:69;