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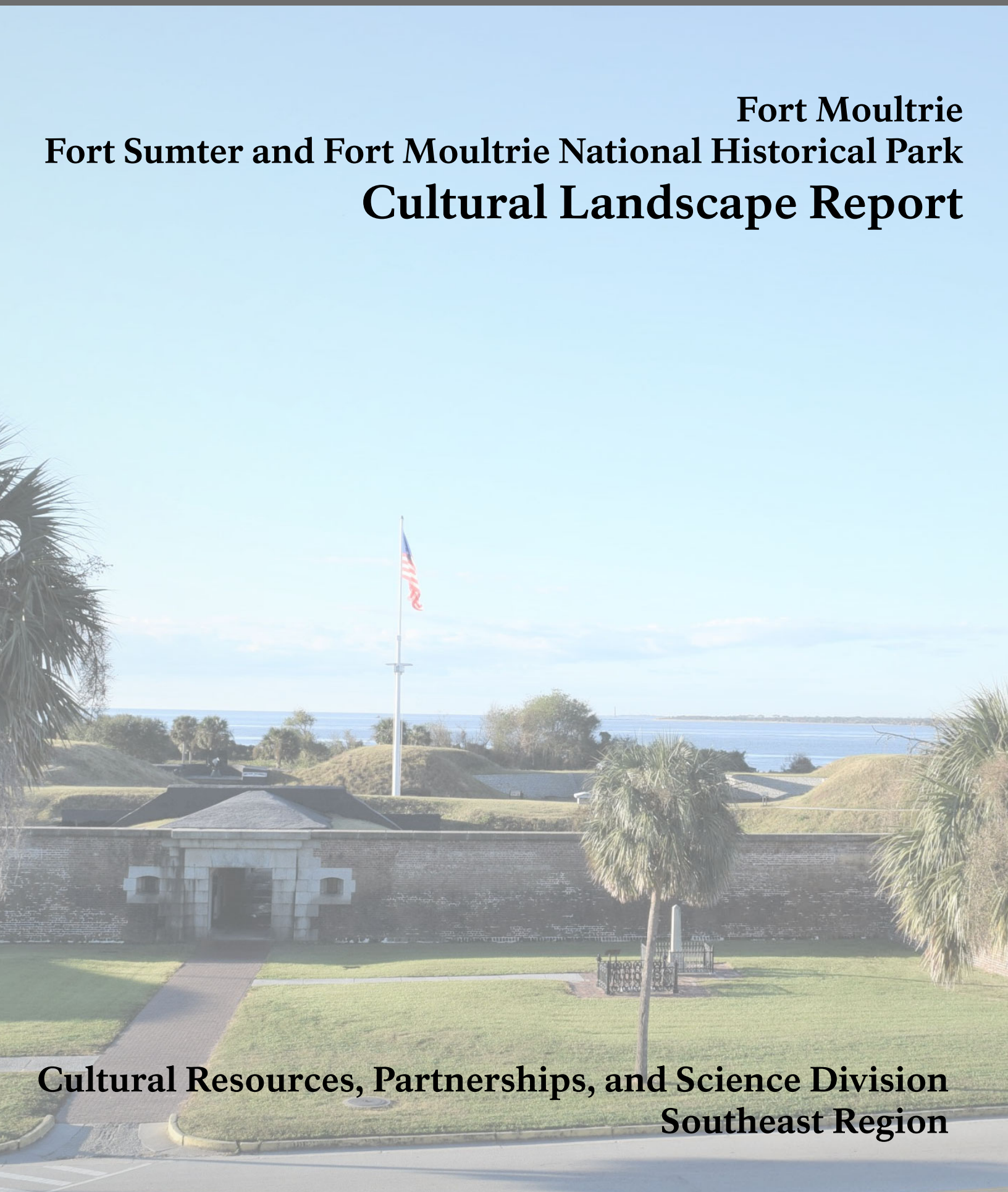
Fort Sumter and Fort Moultrie National Historical Park
South Carolina

Fort Moultrie
Fort Sumter and Fort Moultrie National Historical Park
Cultural Landscape Report



Cultural Resources, Partnerships, and Science Division
Southeast Region

Fort Moultrie
Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report

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Prepared by:
WLA Studio

Under the direction of
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Southeast Regional Office
Cultural Resources, Partnerships, & Science Division

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Fort Sumter and Fort Moultrie National Historical Park

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Fort Moultrie

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National Historical Park

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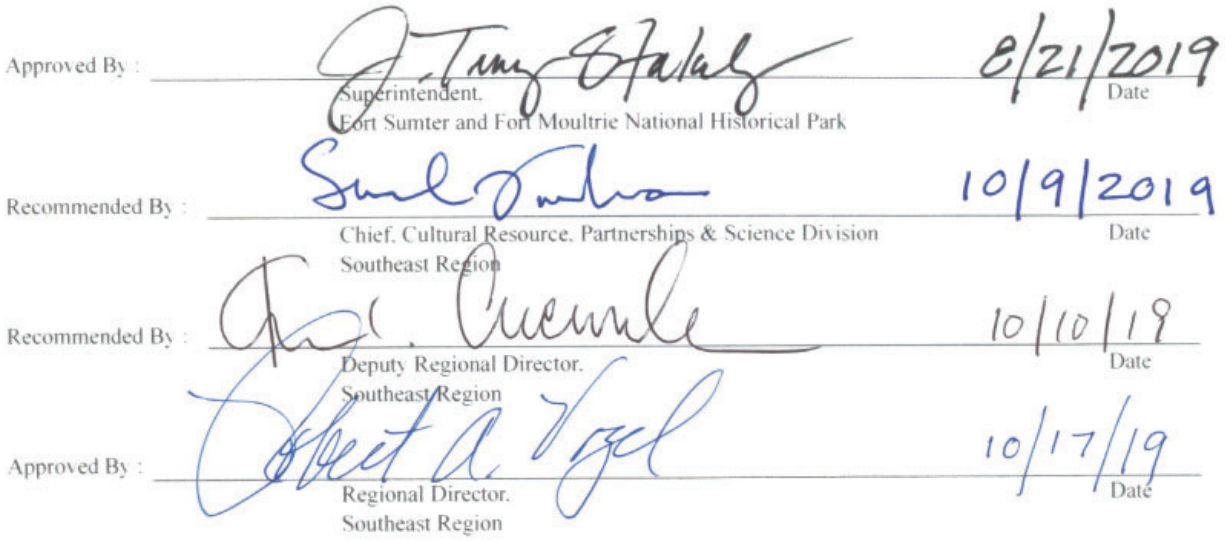

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Foreword

We are pleased to make available this cultural landscape report, part of our ongoing effort to provide comprehensive documentation for the landscapes and historic structures of National Park Service units in the Southeast Region. A number of individuals and institutions contributed to the successful completion of this work. We would particularly like to thank the staff at of Fort Sumter and Fort Moultrie National Historical Park for their assistance throughout the process. We hope this study will be a useful tool for park management in continuing efforts to preserve the cultural landscape and to others interested in the significance of the park's many cultural resources.

Barbara Judy, Branch Chief
Cultural Resources Planning and Stewardship
Southeast Regional Office
August 2019

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Introduction

Management Summary

This Cultural Landscape Report (CLR) is for Fort Moultrie, a 29.51-acre component landscape of Fort Sumter and Fort Moultrie National Historical Park (FOSU) located on Sullivan's Island, Charleston County, South Carolina.[1] The site is located east of Charleston, South Carolina, overlooking the entrance into Charleston Harbor. Fort Moultrie is a historically significant site that reflects the evolution of coastal defense strategies between 1776 and 1947. Three forts occupied this site during the eighteenth and nineteenth centuries: Fort Moultrie No. 1 (1776-1783), which was the scene of a pivotal American Revolution battle, Fort Moultrie No. 2 (1794-1804), and Fort Moultrie No. 3 (constructed in 1809). Additions to the fort continued through the Civil War and both World Wars under the US War Department and US Army Corps of Engineers. During this period, Fort Moultrie became part of the Fort Moultrie Military Reservation, which grew to include large portions of Sullivan's Island. The US Army constructed numerous military and support buildings and landscape features during this period, which remain on site today. The federal government deactivated the fort in 1947 and transferred to the State of South Carolina. In 1960, South Carolina transferred Fort Moultrie to the NPS under authority of the Historic Sites Act of 1935.

The park's purpose is to serve as a national historic site to commemorate the events at or near Fort Sumter. "With passage of the National Historic Preservation Act on October 15, 1966, all historic areas of the National Park System, including FOSU, were administratively listed in the National Register of Historic Places (36 CFR 60.1)."[2]

The 1978 and revised 2016 National Register nomination lists Fort Moultrie as a contributing resource. The property is nationally significant under Criterion A (Association with events that have made a significant contribution to the broad patterns of our history), Criterion C (Embodies distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic values), and Criterion D (Have yielded, or may be likely to yield, information important in prehistory or history). Other contributing resources at the site include numerous buildings and structures contained within the historic scarp walls of Fort Moultrie and later-constructed military buildings adjacent to Fort Moultrie, including the Torpedo Storehouse, Battery Jasper and Construction 230.

The site history included in this report gives an overview of Fort Moultrie and the surrounding area. Research for the site history included consultation of both primary and secondary sources of information, including documents gathered from FOSU archives and NPS Southeast Regional Office. The existing conditions section provides a description of cultural landscape features at Fort Moultrie, including natural and cultural resources. The inventory includes information gathered during site visits by project team members in November 2017. The analysis of integrity section uses criteria developed by the National Register of Historic Places and the *Secretary of Interior Standards for the Treatment of Cultural Landscapes* to evaluate the historic integrity of existing landscape resources. The section on treatment recommendations provides guidance for future management decisions related to the site's historic landscape resources.

Fort Moultrie became part of the Fort Sumter National Monument in 1960 under authority of the Historic Sites Act of 1935. Since that time, site management has focused on the provision of visitor services and the preservation of the site's cultural resources. In 2019, as a part of the John D. Dingell, Jr. Conservation, Management and Recreation Act, Fort Sumter National Monument was reclassified as the Fort Sumter and Fort Moultrie National Historical Park. Note that this report uses the name "Fort Sumter National Monument" where appropriate, such as the citation of older reports, direct quotes, and in a

1. Fort Moultrie acreage taken from the CLR Statement of Work. The 2016 National Register Nomination lists Fort Moultrie as having 29.51 acres with a scenic easement of an additional 49.77 acres.
2. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 7 page 6.

discussion of historical development. The acronym "FOSU" remains the same.

In terms of documenting the historic cultural landscape of the site, in 1997, the NPS produced a Cultural Landscape Inventory for the site. Twenty years later, this cultural landscape report aims to fill in the gaps in our understanding of the Fort Moultrie landscape and to produce treatment recommendations to guide its future use.

Scope of Work and Methodology

According to the project statement the CLR will (1) describe the historical development of the areas; (2) document the existing site conditions; (3) provide analysis of the landscape's potential National Register significance; (4) identify and assess integrity of character defining features; (5) determine appropriate treatment strategies; and (6) develop treatment recommendations that facilitate preservation of these resources, address park management concerns, and inform ongoing and proposed facility development.

The 1998 General Management Plan for the park contains recommendations for updating facilities for visitor use and interpretation. The plan recommends continued maintenance and preservation at the site. The 2016 National Register nomination for the park outlines the historical significance of Fort Moultrie and identifies the contributing features at the site. This CLR will build on existing documentation to help inform the decision making process as the NPS seeks to address outside pressures at the park such as encroaching development and climate change as well as to address circulation concerns, and provide for the health, safety, and welfare of park employees and visitors.

This CLR uses primary and secondary sources to establish the historic significance of the landscape, identify a period of significance, and complete the historic analysis. Primary and secondary sources inform the history of Fort Moultrie in the site history section, underlying the historic significance of the site. These sources include the 2016 National Register of Historic Places Registration Form and a master's thesis examining the history of the Fort Moultrie Military Reservation. Material from previous studies of the site also informs and shapes the narrative of the site history section.

Information pertaining to the development history, determination of the periods of development, and historical analysis of the resources draws heavily from these studies. As such, the site history is a summary of 171 years and is not an in-depth examination of the site history.

The site history section of this report organizes the site into periods of development. These periods reflect changes in ownership and management of the site and physically express the site's landscape layers.

These periods are:

Period 1: American Indians and Colonialization, (Pre-Colonization to 1670)

Period 2: Founding of Charleston and the South Carolina Colony, (1670-1776)

Period 3: Fort Moultrie No. 1 and the American Revolution, (1776 – 1783)

Period 4: Fort Moultrie No. 2 and the First Coastal Defense System, (1783-1804)

Period 5: Fort Moultrie No. 3 and The Second and Third Coastal Defense Systems, (1804 – 1860)

Period 6: The Civil War, (1860-1865)

Period 7: Post-Civil War Period, (1865-1885)

Period 8: Endicott Period and WWI, (1885-1918)

Period 9: The Great Depression and World War II, (1918-1947)

Period 10: Deactivation and NPS Management, (1947-2019)

Using information gathered during site visits, this CLR identifies landscape characteristics and associated features that contribute to the historic significance of the site. This CLR compares the historic condition of a particular resource with its current condition to evaluate its historic integrity.

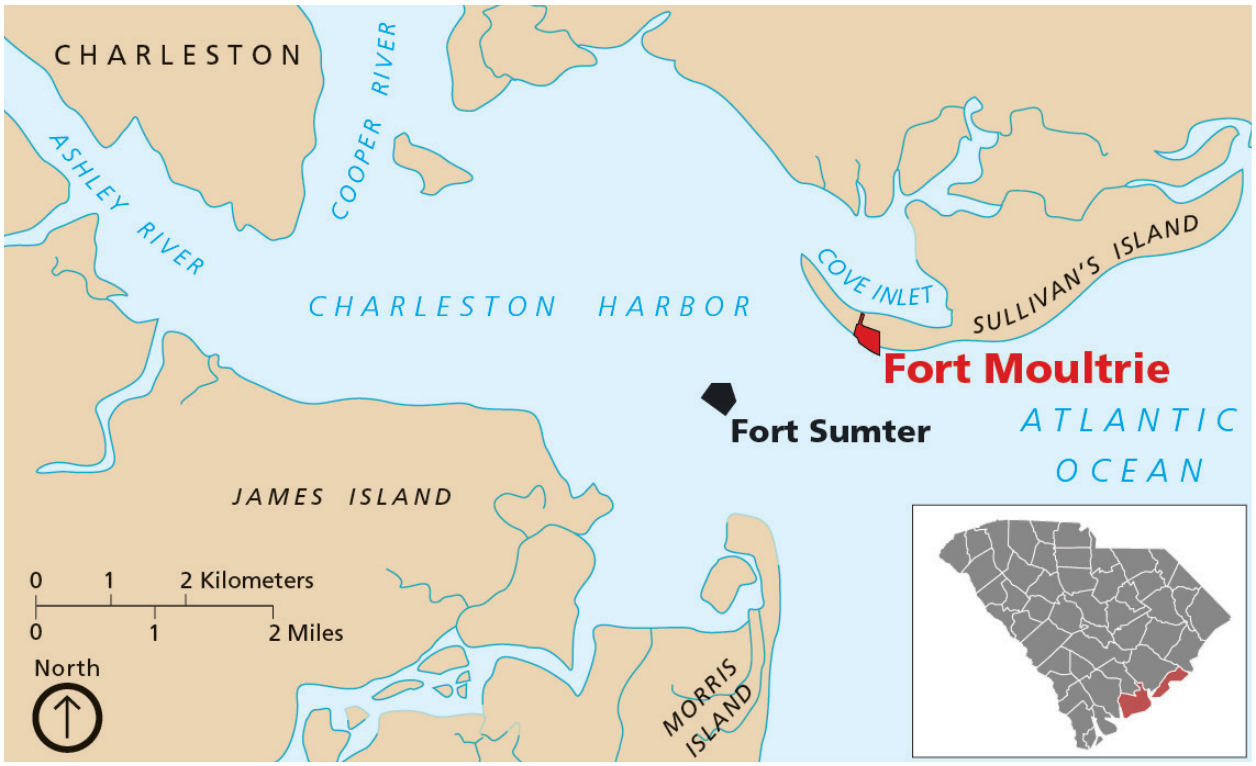

Figure 1.1. Location of Fort Moultrie in Charleston Harbor. (Source: Adapted from National Park Service, Harpers Ferry Center Map)

Historical Summary

Beginning in 1670, the area adjacent to Sullivan's Island became the primary transportation link between Charleston and other coastal colonies as well as trade partners beyond the colonies. In 1776, enslaved Africans along with continental and patriot forces constructed a square-shaped sand and palmetto log fort under the direction of Colonel William Moultrie. The defenders at the fort repulsed the British Navy and prevented an attack from advancing into Charleston Harbor, thereby protecting the city of Charleston from capture. The defense of Charleston was a decisive victory for patriot forces in the American Revolutionary War. This fort was renamed Fort Moultrie one month after the battle. Subsequent storms and material scavenging destroyed the fort.

Between 1794 and 1798, the US military constructed a five-sided earth and timber fort at the same location. This fort was part of the first system of coastal defenses on the Atlantic. Hurricanes in 1803 and 1804 destroyed this fort.

In 1809, the US Army constructed a Charleston area headquarters at Fort Moultrie. This construction included a brick and masonry fort. The fort was designed as a part of the second system of coastal defenses on the Atlantic. In 1829, the military upgraded Fort Moultrie in response to the War of 1812. Seminole leader Osceola was imprisoned at the fort, and he died there in 1838. He is buried on the fort grounds.

Following South Carolina's secession, the Union garrison moved to Fort Sumter (the night of December 26, 1860). Confederate forces occupied Fort Moultrie and fired on Fort Sumter from this location on April 12, 1861, marking the beginning of the Civil War. Fort Moultrie sustained multiple Union Army and Navy bombardments during the Civil War.

Following the Civil War, new construction included retrofitting the armament and adding new gun batteries. The US Army established Fort Moultrie Military Reservation in 1896 and occupied much of the land between Stations 12 and 18 on Sullivan's Island. The site expanded to include support buildings and structures and soon occupied much of the western half of the island. The US Army constructed officers' housing and other support facilities from 1902 until the 1930s. The Army continued adding facilities to the fort through the first and second World Wars. Between 1943 and 1944, the Army built Construction 230, a concrete and earthen battery, which was never put into service.

Figure 1.2. Fort Moultrie Character Areas. (Source: WLA Studio)

After establishment of the fort as part of the National Park System in 1960, the NPS made changes to the site including the construction of a visitor center in 1976. The NPS reconstructed Fort Moultrie's southwest seafront, west salient, and northwest bastion in 1974-1975. That same year, the NPS restored the 1809 Powder Magazine at the fort. The NPS re-interred Major General William Moultrie at the site in June 1978. The NPS marked his grave with a flagpole, a tombstone, and iron fencing in the 2000s. The NPS restored Battery Jasper in 1978.

Description of Study Boundaries

The study boundary for this project includes the 29.51-acres located on the southwestern tip of Sullivan's Island as well as the lands held in scenic easement (Figure 1). Sullivan's Island is located at the north entrance to Charleston Harbor. State Highway 703 (Ben Sawyer Boulevard) connects Sullivan's Island with the mainland, and the town of Mount Pleasant, which is located across the Intracostal Waterway from the island. Middle Street runs through the Fort Moultrie site and connects it to Ben Sawyer Boulevard.

The Fort Moultrie site is an L-shaped area. The northern border of the site is the shoreline of The Cove inlet, which connects to the Intracoastal Waterway. The southern border of the site is the shoreline of Sullivan's Island and Charleston Harbor. The western border south of Middle Street is the alignment of Station 12. North of Middle Street, the western border of the site is composed of the eastern property lines of the parcels located on the east side of Station 12 North. The eastern boundary of the site is the site's property boundary just to the east of Construction 230. Poe Avenue acts as the northern border in the area south of Middle Street. North of Middle Street, the eastern boundary is composed of the western property lines of the parcels located on the west side of Station 13 North.

The overall study area is larger than the actual property boundary owned by the National Park Service, as described in the following discussion of the site's character areas.

Character Areas

This study identifies four character areas for Fort Moultrie: Fort Moultrie Character Area, North Reservation Character Area, East Reservation Character Area, and Beach and Forest Character Area (Figure 2). These character areas are defined by their physical qualities, historic land use, and by distinct types and configuration of cultural resources. The boundaries reflect historic property lines of the Fort Moultrie Military Reservation and the current Fort Moultrie property lines. The character area boundaries also reflect modern rights-of-ways and long-standing vegetation.

Fort Moultrie Character Area
Fort Moultrie Character Area is bounded on the north by Middle Street, on the south by the pedestrian circulation system, on the east by Palmetto Street and pedestrian circulation, and on the west by the Fort Moultrie property boundary. Fort Moultrie No. 3 occupies this character area.

North Reservation Character Area
North Reservation Character Area is bounded on the south by Middle Street. It extends north to The Cove. The east and west boundaries reflect the current boundaries of the site. The analysis of this character area includes the properties adjoining the east side of the site, as they were historically part of the Fort Moultrie Military Reservation. They are not included in the existing conditions inventory.

East Reservation Character Area
East Reservation Character Area is bounded on the west by the pedestrian circulation system adjacent to Fort Moultrie No. 3. It is bounded on the south by the maritime forest that creates a physical and visual edge for this area. The north boundary is created by the parcel boundary, roughly Poe Avenue. The east boundary is formed by the parcel boundary at Station 16 Street. The analysis section includes the area around Battery Logan because it was historically part of the Fort Moultrie Military Reservation. This area is not included in the existing conditions inventory.

Beach and Forest Character Area
The Beach and Forest Character Area includes the maritime forest and beach. This natural area has a distinct appearance from the other character areas. Much of the area is currently within the boundaries of a scenic conservation easement. It extends north to the edge of the woods. The east, south, and west boundaries are based on

approximate ownership boundaries based on NPS GIS parcel data.

Summary of Findings

The National Park Service acquired Fort Moultrie from the State of South Carolina in 1960 in an effort to preserve and interpret the site for the public. Nearly 60 years later, this goal still guides the management of the historic site. While some challenges to site management date back to acquisition (harsh coastal environment, complex site) others have developed more recently (sea level rise, changes in public visitation). These challenges necessitate the production of various planning documents, such as this CLR, to help guide the NPS in decision making concerning the ongoing stewardship of Fort Moultrie.

This CLR assessed Fort Moultrie's historic landscape in terms of its past and present use. This assessment informed treatment recommendations that aim to guide future management decisions related to the stewardship of Fort Moultrie's historic landscape resources, selecting a treatment philosophy that preserves and rehabilitates the landscape character as it developed since 1776. This report recommends rehabilitation as the most appropriate choice for the site's overall treatment. A rehabilitation treatment approach preserves historic features, improves features that are in decline, and permits compatible changes at Fort Moultrie. As such, a rehabilitation treatment option allows the park to continue safeguarding the historic character of the site, while allowing changes that increase public use and appreciation of the landscape.

Site History

Introduction

The developmental history of Charleston Harbor is directly associated with evolution of defensive strategy, technology, and trade on the Atlantic coast of the United States. Beginning in the mid-seventeenth century, this area became a hub of transportation and trade between Charleston and other coastal colonies as well as the world. Military development on Sullivan's Island began in earnest 1776 with the construction of a fort on Sullivan's Island, located at the eastern entry to Charleston Harbor. This site—named Fort Moultrie—proved to be a strategic military position through World War II. After deactivation, the fort and its ancillary buildings and structures became part of Fort Sumter National Monument, and the NPS began managing the site. In 2019, as a part of the John D. Dingell, Jr. Conservation, Management and Recreation Act, Fort Sumter National Monument was reclassified as the Fort Sumter and Fort Moultrie National Historical Park.

Ten developmental periods organize this section:

Period 1: American Indians and Colonization, Pre-colonization to 1670

Period 2: Founding of Charleston and the South Carolina Colony, 1670-1776

Period 3: Fort Moultrie 1 and the American Revolution, 1776 – 1783

Period 4: Fort Moultrie 2 and the First Coastal Defense System, 1783-1804

Period 5: Fort Moultrie 3 and The Second and Third Coastal Defense Systems, 1804 – 1860

Period 6: The Civil War, 1860-1865

Period 7: Post-Civil War, 1865-1885

Period 8: Endicott Period and WWI, 1885-1918

Period 9: The Great Depression and World War II, 1918-1947

Period 10: Deactivation and NPS Management, 1947-2019

The site history is a summary of 240 years of developmental history and as such is not a comprehensive examination of the fort's history and the historical contexts of the park.[3]

American Indians and Colonialization (Pre-colonization to 1670)

Only a partial understanding of early human activity along the southeastern Atlantic coastline is possible due to limited surviving evidence. The environment of the coast is dynamic, with hurricanes, tides, and fires producing an ever-changing landscape. Sea level fluctuations in particular have affected the preservation of archeological sites. Over millennia, the fluctuations have inundated formerly dry ground and rendered many areas difficult, if not impossible, to survey.[4] However, completed surveys provide some insight into prehistoric human activity in the region. Existing evidence suggests that humans have occupied the southeastern coastal plain for at least 12,000 years.[5] The climate of North America at that time was significantly colder than it is today, as the Late Pleistocene Epoch was characterized by the extensive glaciation of northern latitudes. While the glaciers did not extend as far south as the southeastern Atlantic coast, the colder climate resulted in environmental conditions unlike those of the present day. In the area that became known as Charleston Harbor, a temperate oak-dominant

3. For a comprehensive list of resources that cover the fort's history, contact Fort Sumter and Fort Moultrie NHP.
4. South Carolina Department of Archives and History, *The Fig Island Ring Complex (38CH42): Coastal Adaptation and the Question of Ring Function in the Late Archaic*, (Columbia, SC: South Carolina Department of Archives and History, 2002), 8.
5. Elizabeth J. Reitz, "Evidence for Coastal Adaptations in Georgia and South Carolina," *Archaeology of Eastern North America*, Vol. 16 (Fall 1988), 145.

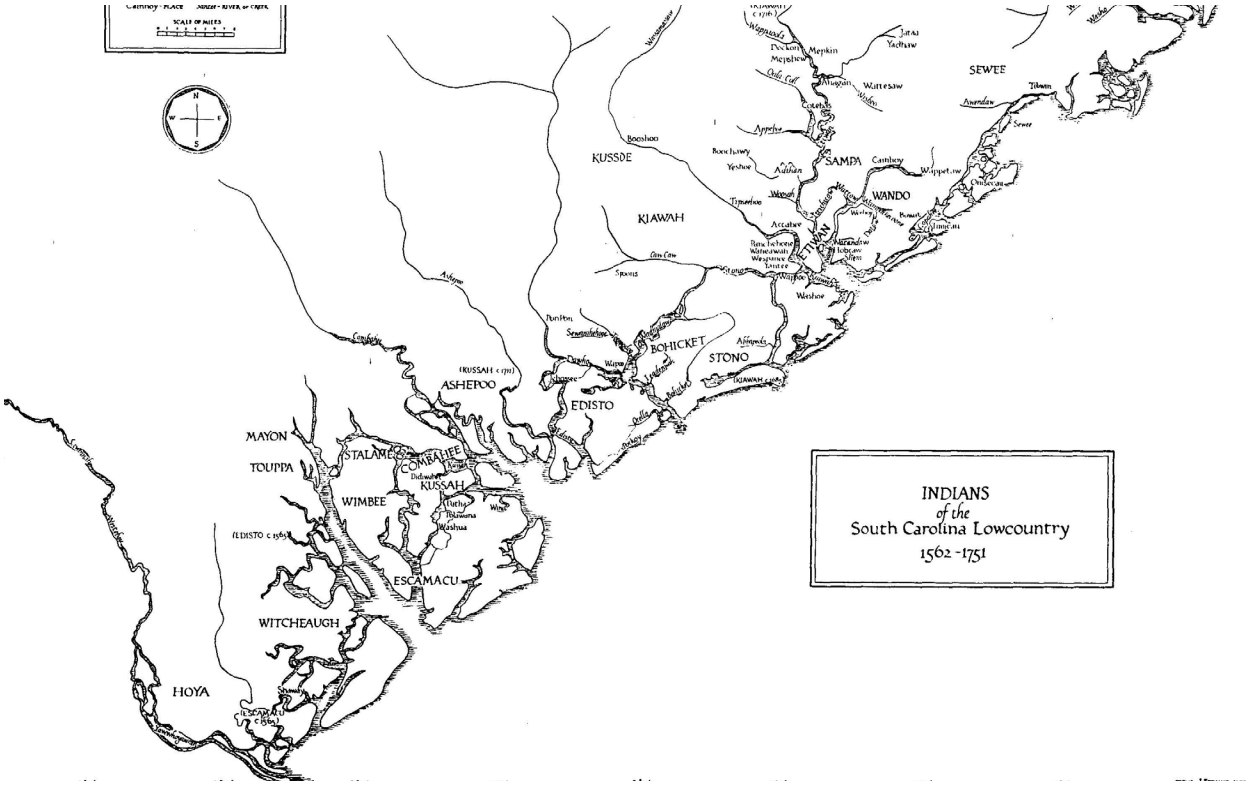

Figure 2.1. Indians of the South Carolina Lowcountry, 1562-1751 (Source: Waddell 1980).

forest and grassland zone area existed. This mixed ecological system resulted in the presence of diverse flora and fauna, much of which no longer exists.

The global climate warmed over the following millennia, resulting in a significant change in environmental conditions. Gone was the more cold-adapted oak forest and grassland, as well as much of the fauna that early American Indians had hunted for many generations. In its place an environment characterized by pine forests, marshes, and estuaries developed. This environment was highly biodiverse, especially within estuaries.[6] American Indians hunted deer and turtle in the maritime forest, fish and shellfish from the estuaries, and various fruits, nuts, and plants from throughout the landscape. It was in this period of ecological abundance around 4,000 years ago that populous and sedentary American Indians constructed extensive shell rings and shell middens, many of which are still present in the modern landscape.

By around 1150 CE, agriculture was being practiced by coastal American Indians, though it appears that in terms of subsistence, agriculture was secondary to hunting and gathering. Soon however, coastal American Indians became increasingly reliant on agriculture as populations grew and society became more stratified. Over time, numerous American Indian tribes speaking various languages developed in the region. Approximately 19 American Indian societies occupied the southern coast of South Carolina between 1562 and 1751, with the Kiawah, Etiwan, and Stono occupying the general area of Charleston Harbor (Figure 2.1).[7] These three American Indian tribes are collectively referred to as the Cusabo. The American Indians of the southern Atlantic coast did not live in isolation. Connected via a network of local and regional pathways, contact between both neighboring and distant tribes was common. Some of these interactions were based on trade and cooperation, while others pertained to conflict and war. The same types of interactions marked American Indian-European relations as settler colonial expansion into the region intensified, which

6. South Carolina Department of Archives and History, *The Fig Island Ring Complex (38CH42): Coastal Adaptation and the Question of Ring Function in the Late Archaic*, (Columbia, SC: South Carolina Department of Archives and History, 2002), 8.

7. Gene Waddell, *Indians of the South Carolina Lowcountry, 1562-1751*, (Columbia, SC: Southern Studies Program, University of South Carolina, 1980), 3.

introduced a new, destabilizing dynamic to the established social relations.

Over the course of the sixteenth century, Europeans made several attempts to establish colonial settlements in various locations along the southeastern seaboard. In 1526, the Spanish established San Miguel de Gualdape, the first European settlement in what is now the United States near present-day Georgetown, South Carolina. The settlement lasted less than a year, setting a precedent for successive attempts at settlement. Contact between American Indians and Europeans occurred throughout the century, with some relationships being cooperative and others combative. All resulted in American Indians being subjected to European diseases to which they had no immunity. The diseases swept through American Indian settlements, decimating local populations and shattering social cohesion. Still, American Indians resisted the invasion, and "Native Carolinians had managed, nevertheless, to repel the Europeans seeking land, labor, and mastery."[8] This proved to be a temporary reprieve, as by the time the British claimed the Charleston Harbor area for the crown in 1670, American Indian societies in the area had already undergone 100 years of upheaval caused by the first wave of European colonization.

Landscape Summary: Pre-colonization -1670

In 1670, on the eve of the founding of Charleston, little is known about the condition of what would become the site of Fort Moultrie. Period maps show the general location of Sullivan's Island in the context of Charles Town and the harbor more broadly. No specific site details are known.

8. Jack Bass and W. Scott Poole, *The Palmetto State: The Making of Modern South Carolina,* (Columbia, South Carolina: University of South Carolina Press, 1999), 3.

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Founding of Charleston and the South Carolina Colony (1670-1776)

British settlement of South Carolina began in 1670 with the founding of Charles Town in the new colony of Carolina.[9] A small group of English nobility envisioned the colony as a buffer between the English colony of Virginia to the north and Spanish-controlled Florida to the south. The British had already colonized Barbados and Bermuda and sought to acquire additional lands on the North American continent. The eight nobles who founded the colony—the Lords Proprietors—also saw the colony as an investment opportunity, by which they would finance the initial startup cost of operations, in hopes of a financial return upon successful establishment and growth of the colony. The nobles knew how to accomplish this scheme: the use of enslaved laborers. In 1663, King Charles granted the Lords Proprietor control of the colony as reward for their loyalty.

When the ships left for the new colony from Barbados, the settlers were unsure where to locate their settlement. Two locations were presented: the site of former French and Spanish settlement, Port Royal, and to its north, the land known as Kiawah, so named for the American Indian tribe that lived there. Upon approach, the settlers opted for Kiawah. They were directed to land at Albemarle Point on the northwest edge of the harbor by the Kiawah chief, who, in exchange for guns, allowed the English to establish their settlement there.[10]

The European settlers viewed the location favorably. An account noted that the land could provide for their daily sustenance due to the area's ample natural resources as well productivity of the soils, which had sustained coastal American Indians for many generations before European arrival:

> …[the land] proves good beyond expectation and abounds in all things as good Oake, Ash, Deare Turkies, partridges rabbits turtle and fish and land produceth anything that is putt in it for we have tried itt with Corne cotton and tobacco and other provisions, which prives very well the lateness of the season considered, the country is stored with severall pleasant fruits as peaches strawberrys and other sorts…[11]

In addition to the abundant natural resources of the surrounding landscape, the harbor provided navigable water for ships to safely dock, and the rivers that fed into the harbor provided trade and travel routes. These features allowed Charles Town to develop into an important market town based on the export of deer hides, enslaved Indians, rice, and timber.[12] Safety also factored into the decision to locate a settlement at Albemarle Point, as it was further north from hostile Spanish Florida than Port Royal. The developing area grew steadily at Albemarle Point as families became established and enslaved Africans were brought to the settlement. Within 10 years, due to concerns about the ability to protect the settlement, the town was relocated across the Ashley River to Oyster Point. Settlers erected new defensive works and soon established plantations, farms, and homes in surrounding locations such as James Island and in the satellite town of Mount Pleasant.

While the harbor environment was central to Charles Town becoming a principal colonial port city, it posed challenges to ship navigation. As naval historian Barry Bonds explains,

> The dynamics of the bar were typical of many Atlantic coast inlets with barrier islands on either side. In these areas, silt is carried down the tidal rivers into the ocean on the ebb flow, depositing some as soft mud at the edges of well-defined channels but carrying most of it to the sea. Some areas of swirls between channels become shoals as the waters slow enough to allow settling of the material.[13]

The shoaling that occurred made navigating the braided channels of the harbor particularly

9. When founded, the settlement was written as Charles Town. The name was changed to Charleston in 1783. The Carolina Colony was separated into North and South Carolina in 1712.
10. Bass and Poole, *The Palmetto State*, 8.
11. Stanley South, "Exploratory Archeology at the Site of 1670 - 1680 Charles Towne on Albemarle Point in South Carolina," (Research Manuscript Series, Book 137, 1969), 2. http://scholarcommons.sc.edu/archanth_books/137.
12. Denise I. Bossy, "Godin & Co.: Charleston Merchants and the Indian Trade, 1674—1715," The South Carolina Historical Magazine, Vol. 114, No. 2 (April 2013): 97.
13. John B. Bonds, "Opening the Bar: First Dredging at Charleston 1853-1859," *South Carolina Historical Magazine* 98, No. 3 (July l997): 236.

problematic for all but the most experienced ship captains, which threated the potential growth and prestige of the port town. The main challenge was the "shifting barrier of sand and shell lying between one and three miles offshore."[14] The shoaling issue troubled merchants and government officials for many decades.

While the number of new settlers grew, the number of American Indians fell precipitously throughout the colony. "In 1600, there were perhaps 15,000 Indians in South Carolina," but by 1715, only half that number remained.[15] European settlement impacted coastal American Indians particularly hard. The Cusabo confederation, which numbered over 3,000 in 1600, lost over 80 percent of its population by 1715, leaving only 535 persons in the area. In addition to disease and violent conflict, American Indians also contended with the Indian slave trade. As historian Denise Bossy explains,

> During the late seventeenth and early eighteenth centuries, Charleston's budding merchant community built up a network of exchange that connected South Carolinians with the Atlantic world economy. This was the conduit for importing goods needed in the Indian trade, raising credit with which to fund Indian traders, and exporting the tens of thousands of Indian slaves and hundreds of thousands of deerskins that Indian traders brought to Charleston between 1674 and 1715.[16]

The severity of their situation forced surviving American Indians to form new alliances and resist European colonization or attempt assimilation into European society. Some opted to contest European presence and waged war against settlers. The Yamasee War of 1715-1717, in which a confederacy of Indians launched attacks on backcountry settlers and drove them to take shelter in Charles Town, nearly crippled the colony. The British won the war, but the effect it had was a colonial government hold on expansion in the territory.

While expansion of the colony slowed, the number of enslaved Africans in South Carolina expanded rapidly. Starting with 200 in 1671, by 1708, Africans outnumbered white Europeans in the colony. The number of enslaved Africans in the early colony then grew exponentially, with approximately 40,000 Africans being brought to Charles Town between 1720 and 1740.[17] Many Africans died on the way to Charles Town, and slave merchants threw the bodies of the deceased into the harbor. The brutal practice became so common that residents of the city "complained… that slave ships in the harbor had pitched so many carcasses of dead captives overboard that it was a danger to public health."[18] Most of the enslaved Africans at this time came from the Senegambia region on the west coast of the African continent. The region was known for its rice cultivation, and its people possessed an intimate knowledge of farming practices related to the crop. Finding the southern Atlantic coast conducive to growing rice, wealthy planters amassed property and established sprawling rice plantations. The planters exploited the cultural knowledge of enslaved workers, forcing them to labor in the newly established rice fields. As plantations throughout the colonies grew, so did the number of enslaved Africans. During the period of time in which the slave trade was legal, Charles Town was the epicenter for the industry. "Of 308,189 enslaved individuals whose port of entry to what became the United States is known, 149,429 landed in Charleston—a hair's breadth from half."[19] Soon, Africans outnumbered whites in the colony, which put settlers on edge.[20] Thus, in order to slow the growth of the African majority, colonial leaders discouraged the continued import of Africans into the colony. This policy was short-lived, and the international slave trade continued until its eventual ban in 1808. The institution of United States slavery continued for another five decades.

The "Township Scheme" was also part of the colonial government's plan to increase the white presence in the colony. Proposed by the governor in 1730, the plan centered on the creation of eight townships in the South Carolina frontier. Made possible by the Cherokees ceding a majority

14. Ibid., 230.
15. Charles F. Kovacik and John J. Winberry, *South Carolina: The Making of a Landscape,* (Columbia: South Carolina University Press, 1989), 60.
16. Bossy, "Charleston Merchants and the Indian Trade," 97.
17. Bass and W. Scott Poole, *The Palmetto State*, 8.
18. Gregory E. O'Malley, "Slavery's Converging Ground: Charleston's Slave Trade as the Black Heart of the Lowcountry," *The William and Mary Quarterly*, Vol. 74, No. 2 (April 2017): 272.
19. Ibid.
20. Bass and Poole, *The Palmetto State*, 10.

of their lands in South Carolina, the colonial government granted lots as large as 20,000 acres to those willing to settle in the backcountry on dispossessed American Indian lands. By midcentury, eight townships in the Piedmont region had been established. Several more townships were established by 1770, "yet only four - Williamsburg, Orangeburg, Saxe-Gotha, and the Welsh tract - proved successful."[21] Regardless, the plan worked—with the backcountry settled by a mixture of European immigrants, most notably by Scots-Irish, a white majority was achieved. On the eve of the American Revolution, an estimated 80,000 European settlers and 44,000 Africans lived in the South Carolina colony.[22]

Sullivan's Island

Sullivan's Island is one of two barrier islands that flank the entrance to Charleston Harbor. Sullivan's Island is located to the northeast of the harbor entrance, and Morris Island is located to the southwest. Sullivan's Island is situated along a primary channel through the shoals of the harbor. This location was well-suited for the placement of defensive works. For that purpose, in 1674, Captain Florence O'Sullivan—the island's namesake—was "in charge of a signal cannon on the island, which "aided in the defense of Charleston in 1706 against a French and Spanish attack."[23]

When Charles Town was settled in 1670, accounts indicate that Sullivan's Island was densely wooded. A large grove of wax myrtle (*Morella cerifera*) grew north of where Fort Moultrie was eventually located.[24] This character remained in place until 1700, "when the assembly passed an act directing that the trees be cleared" to improve the appearance of the area.[25] Settlers spared a few trees for use as navigational aids for ships in the harbor.

The first known use of Sullivan's Island pertained to public health. Diseases such as yellow fever and small pox ran rampant in the colony especially in Charles Town. In order to mitigate the severity of outbreaks, in 1707, colonists constructed a brick quarantine station known as a "pest house" on the west side of the island. Here slave traders held enslaved Africans who survived the Middle Passage but were sick prior to their sale at market. Records indicate that some Europeans immigrants were held in quarantine on the island as well. Concerning the conditions of the pest house, historian Gregory O'Malley states,

> Presumably these were crude barracks, but a roof over one's head and solid ground beneath one's feet were no small blessings after weeks of turbulent seas, spent mostly confined below decks, pressed up against naked, often seasick, strangers. Furthermore, during quarantine, the market logic of the slave trade worked on behalf of captives' conditions for a change, at least in one key respect. Merchants held sales immediately after quarantine, so they viewed the period as crucial for restoring their human cargo's vitality… Nonetheless, an improvement over the conditions of the slave ship is about the lowest bar imaginable. Captives may have been better fed and clothed, but they remained imprisoned, minimally protected from the elements, and vulnerable to abuse.[26]

By 1744, the growing colony still faced seasonal outbreaks of infectious disease. As a result, the colonial government passed a quarantine law, which required incoming passenger ships to delay disembarking for ten days, quarantining passengers on the boats until officials allowed them to come ashore. Then in 1759, "the South Carolina legislature enhanced its quarantine policy, stipulating that a doctor visit all slave ships on their ninth day after arrival to assess whether the presence of contagious disease required additional delays in landing."[27] Those showing symptoms of sickness after that point were held in the quarantine station on the island, allowing the doctors to then purchase "ailing captives who remained unsold at the end of slave sales in hopes of restoring their health and reselling them."[28] Builders constructed a new station in 1753 after a hurricane destroyed the original station. In total, four stations were constructed on Sullivan's Island,

21. Mark D. Groover and Richard D. Brooks, "The Catherine Brown Cowpen and Thomas Howell Site: Material Characteristics of Cattle Raisers in the South Carolina Backcountry," *Southeastern Archaeology* 22, No. 1 (Summer 2003), 93.
22. Kovacik and Winberry, *South Carolina,* 88.
23. Edwin C. Bearss, "The First Two Fort Moultries," (Charleston, South Carolina: National Park Service, Fort Sumter National Monument, 1968), 2.
24. Susan Hitchcock, S. Styles, and C. Goetcheus, *Fort Moultrie Cultural Landscape Inventory, Fort Sumter National Monument*, (National Park Service, 1997), 4.
25. Ibid., 3.
26. O'Malley, "Slavery's Converging Ground," 290.
27. Ibid., 283.
28. Ibid.

the last of which was built in 1785.[29] By 1799, there was a need for a new station, which was located on James Island on the west side of the harbor. This quarantine station appears to have held even more incoming Africans than the station on Sullivan's Island.

Concurrent with its use as the site of Charles Town's quarantine station, records suggest that a watch house was located on the island. The watch house aided navigation into the harbor and as served as a sentry location for defense. With Charles Town growing rapidly, "In 1714, [the Colonial Government] passed a further act to appoint Commissioners to layout streets and regulate police."[30] The configuration of the layout is unknown, but it appears that "the island remained sparsely populated in the years prior to the Revolutionary War."[31]

Landscape Summary: 1670-1776

Between 1670 and 1776, significant changes occurred to the area around the project area. Charleston was founded in 1670 at Ablemarle Point. The town quickly grew into an important Southern port city. Sullivan's Island contained several quarantine stations as well as a watch tower, though none of these buildings are known to have been located within the current Fort Moultrie boundary. Similarly, towards the end of the period, residential settlement of the island increased, though it is unlikely settlers constructed any residential buildings within the current Fort Moultrie boundary. Vegetation at the site included a mixture of palmetto trees, wax myrtle, and other coastal natives. Little is known about other landscape features at the site at this time.

29. Jake Lucas, "Doubt cast on S.I. as slave landing point," Moultrie News, Aug 24, 2016. https://www.moultrienews.com/archives/doubt-cast-on-s-i-as-slave-landing-point/article_072c1759-2c79-52dc-98c5-96bfaadede12.html.
30. Sullivan's Island Historical and Architectural Inventory - 1987, Survey Report Preservation Consultants, Inc., 1987 http://www.sullivansisland-sc.com/files/historic%20preservation/historical%20summary.pdf.
31. Ibid.

Fort Moultrie 1 and the American Revolution (1776 – 1783)

As the eighteenth century waned, tensions increased between colonists, the colonial government, and the British Empire. Wealthy elite colonists, mostly from New England and Virginia, perceived the monarchy as unjustly controlling commerce with tariffs and taxation. In South Carolina, wealthy planters did not feel as slighted as their northern neighbors. Backcountry settlers in South Carolina were upset with the colonial government in Charles Town. "To rustic backcountry farmers, King George seemed less of a tyrant than the wealthy rice planters and Charleston merchants who dominated the assembly."[32] Soon however, based on unsubstantiated rumors of a British-supported slave revolt, taxation without representation, and general feeling of foreign oppression, the coastal elites of South Carolina came to support the push for independence from Britain. In July 1776, with the backing of South Carolina, the Continental Congress issued the Declaration of Independence. As historians Bass and Poole point out, the colonists' opposition to the crown was notably paradoxical. They write,

> In their devotion to a premodern concept of liberty, they saw little irony in their equal devotion to chattel slavery. They rebelled against loss of their rights as Englishmen. For them liberty came to mean that native whites should rule the land. They threw off proprietary rule when it undercut their independence.

The entire colony of South Carolina became part of the ensuing war. From the coast to the mountains, dozens of conflicts of varying severity occurred.[33] Some of the conflicts had little bearing on the final outcome of the conflict, while others were immensely significant. One of the battles that belongs in the latter category is the Battle of Sullivan's Island.

Prior to the Battle of Sullivan's Island, South Carolina served as the stage for several important developments that would shape how the war transpired in the colony. Many backcountry settlers remained loyal to the British, while many of those in favor of independence lived along the coast. As hostilities in the northern colonies intensified, colonial officials mustered local militias, with both the patriots and the loyalists recruiting large numbers of men.[34] These militias engaged in strategic conflicts in the Carolina backcountry throughout 1775, specifically designed to undercut recruitment efforts of the opposing militias. As historian Marvin Cann explains, "The American Revolution was not only a conflict between the colonies and the British government, but also a civil war in which Americans of different political persuasions took up arms against each other."[35] The civil war endemic to the South Carolina backcountry continued for the duration of the American Revolutionary War.

While some of the earliest conflicts occurred in the backcountry, Charles Town was a primary focus of both forces. In September 1775, South Carolina troops captured Fort Johnson, an early fortification guarding the east side of the harbor. As a result, the colonial government of Charles Town collapsed and evacuated, leaving the valued city and its harbor in patriot control. Even though they abandoned Charles Town, the British knew that to ensure victory, they would have to suppress growing patriot confidence, especially in the southern colonies. Drawing strength from the loyalists prevalent in the backcountry, they planned to sweep southward through the Carolinas, starting first in North Carolina. After the patriot forces successfully routed the loyalist militia at the Battle of Moore's Creek Bridge in early 1776, however, the British were forced to reevaluate their Southern Campaign. The new plan focused on the capture of Charles Town.

Fort Moultrie 1

Patriot commanders foresaw such a shift in strategy and knew that additional fortifications were needed to protect Charles Town from British attack. Sullivan's Island's location along the main channel into the harbor resulted in it once again being identified as having essential military importance. The island did not contain

32. Bass and Poole, *The Palmetto State*, 13.
33. Terry W. Lipscomb, "Battles Skirmishes, and Actions of the American Revolution in South Carolina" (South Carolina Department of Archives & History, 1991), 1.
34. Marvin L. Cann, "Prelude to War: The First Battle of Ninety Six: November 19-21, 1775," *The South Carolina Historical Magazine*, Vol. 76, No. 4 (Oct., 1975): 213.
35. Ibid., 197.

fortifications that were substantial enough to prevent the British fleet from entering the harbor and firing upon the city. A new fort had to be built and done so quickly.

In general, both coastal and inland defenses prior to and during the Revolution were simple structures made of earth and wood with "their plans, as a rule, products of gross trial and error that rarely exhibited any of the geometric intricacy so typical of contemporary European forts."[36] They served mainly as temporary deterrents to enemies' plans, rather than as fully capable military installations. As a result, communities made little investment in their maintenance. One reason for this is that local militias controlled most fortifications, with neither the colonial governments or the new American government in charge of their construction or upkeep.[37] As the war intensified, communities built many hastily-constructed defensive works throughout the colonies. The fort on Sullivan's Island was one such fortification.

On January 10, 1776, Colonel William Moultrie ordered a regiment of soldiers stationed at Sullivan's Island to prepare for the construction of a large battery. By the time Moultrie arrived to oversee operations in March, construction was underway. It appears that the logging of the island at the beginning of the century left it treeless, so workers brought palmetto trees to Sullivan's Island from the mainland to build the fort. Workers, who were mostly enslaved Africans, spent several months stacking and arranging the palmetto logs to the specification of Col. Moultrie. Two features of note facilitated the work: "a floating bridge across the Cove to the marshes east of Mount Pleasant… and a canal connecting the Cove to the entrance gate of Fort Moultrie."[38]

> The floating bridge was necessary for communication with and reinforcement of the fort if enemy ships controlled the approaches to Fort Moultrie. The canal permitted light-draft ships to access the fort during the fort's construction and was used later to re-supply the fort with items such as such as cannons, cannon shot, tools, and black powder, that were too heavy to carry on foot or horseback across the floating bridge.[39]

When Major General Charles Lee, commander of the Continental Army's Southern Department, arrived to inspect the defensive work, he was unimpressed, calling it a potential "slaughter pen."[40] Col. Moultrie, however, apparently felt the fort was more than adequate because he did not make plans for retreat. Historian Edward M. Riley describes the fort as follows:

> The fort was planned to be a square with a bastion at each angle, sufficiently large to contain when finished one thousand men. It was built of palmetto logs laid one upon the other, in two parallel rows at sixteen feet distance, bound together at intervals with timber dovetailed and bolted with logs. The spaces between the two lines of logs were filled with sand, and the merlons (the solid intervals between embrasures) were walled or revetted with palmetto logs notched into one another at the angles, well bolted together, and strengthened with pieces of timber. The walls were sixteen feet thick, filled in with sand, and two feet high above the platform.[41]

In April 1776, the British fleet arrived at Cape Fear, North Carolina. Despite their presence, General Lee did not think the British were going to try a second attempt to take North Carolina. Instead, Lee expected the British would attack either Virginia or South Carolina. He was correct. On June 3, the British fleet arrived at the mouth of Charleston Harbor and set anchor. Defensive preparations in Charles Town began soon thereafter: "Buildings on the wharf were pulled down, entrenchments were thrown up around the town, and barricades were constructed in the major streets. A 9:00 P.M. curfew was enforced, and sentries were stationed throughout the city to control local traffic."[42] The inhabitants of Charles Town then waited.

36. Emanuel Raymond Lewis, *Seacoast Fortifications of the United States*, (Prisido, 1978), 15.
37. Ibid., 17.
38. Hitchcock, et al, *Fort Moultrie Cultural Landscape Inventory,* 4.
39. Ibid.
40. Edward M. Riley, "Historic Fort Moultrie in Charleston Harbor," The South Carolina Historical and Genealogical Magazine, Vol. 51, No. 2 (Apr., 1950), 64.
41. Ibid., 63-64.
42. Donald R. Lennon, "The Graveyard of American Commanders': The Continental Army's Southern Department, 1776-1778," *The North Carolina Historical Review*, Vol. 67, No. 2 (April 1990): 140.

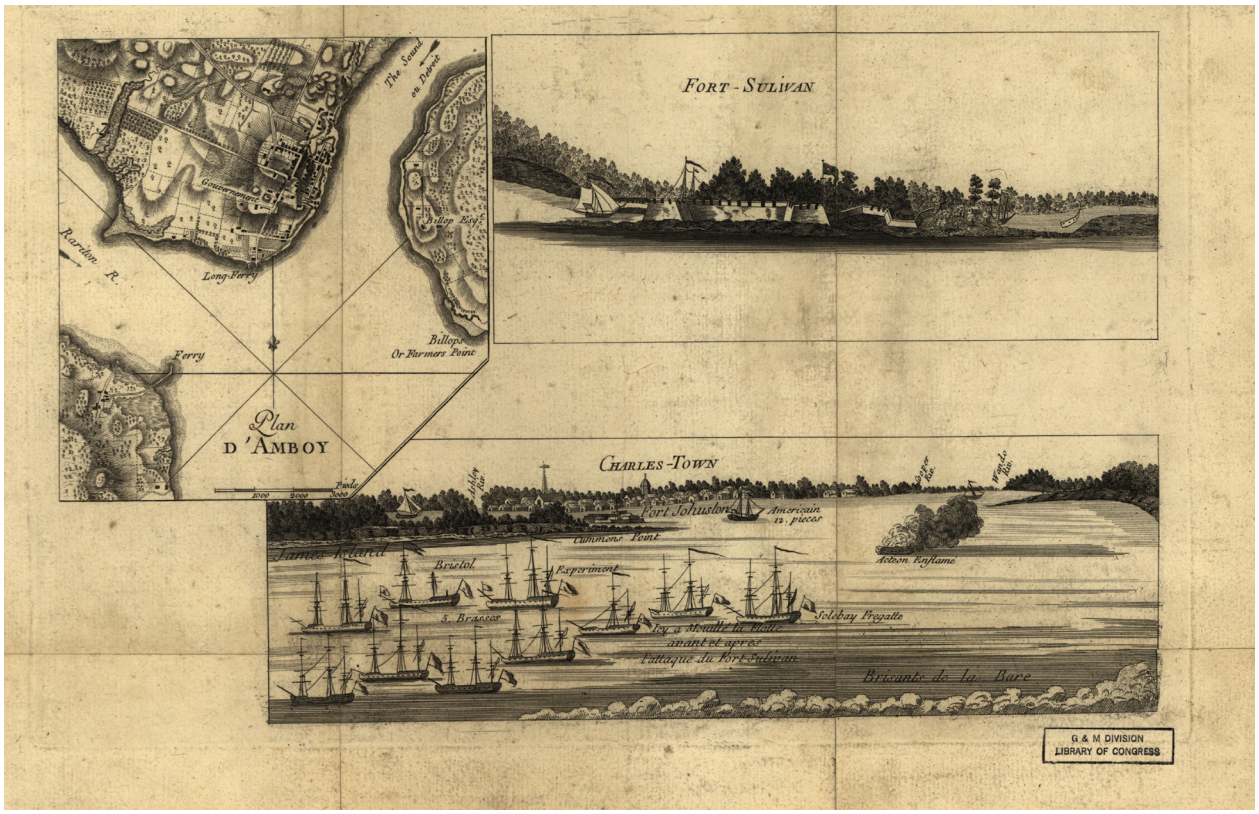


Figure 2.2. Illustrations of Fort Sullivan—what became Fort Moultrie—at the time of the battle. Note the vegetative character of Sullivan's Island behind the fort. The vegetation could relate to the wax myrtle grove noted on period maps. (Source *Plan d'Amboy. Vues de la rade de Charles-Town et de Fort Sulivan, mai.* [N.P, 1780] Map, https://www.loc.gov/item/gm71000984/.).

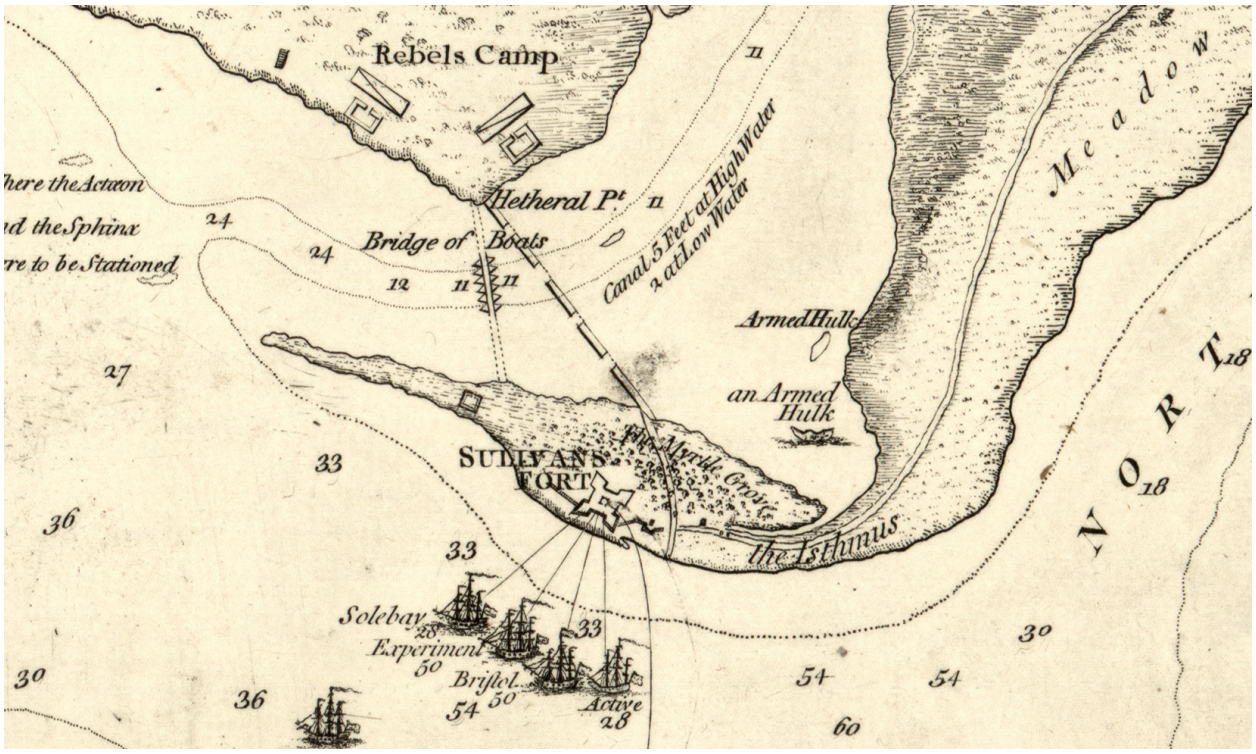


Figure 2.3. *A plan of the attack of Fort Sulivan* (Source: William Faden and Thomas James. *A plan of the attack of Fort Sulivan, near Charles Town in South Carolina: by a squadron of His Majesty's ships, on the 28th of June, with the disposition of the King's land forces, and the encampments and entrenchments of the rebels from the drawings made on the spot.* [London: S.N, 1776] Map, https://www.loc.gov/item/gm71000629/.).

The fort on Sullivan's Island had yet to be completed, as "only the walls facing the channel and the city (the front and southwest sides) and the two channel bastions were finished."[43] Though unfinished, the fort was well armed, containing 31 cannon. Sullivan's Island contained other defensive works to compensate for the incompleteness of the fort. These included an "'Advance Guard,' armed with one 18-pounder and a 6-pounder, defended by Col. William Thomson's command—780-strong. From the 'Advance Guard,' a range of barren dunes fronted by a hard beach extended as far as Moultrie's fort. About one-fourth mile east of the fort, at the island's narrowest point, a breastwork, designated the 'Quarter Guard,' had been thrown up."[44]

On the morning of June 28, 1776, the patriot forces that were barricaded in the partially-built fort watched the British fleet enter the harbor. The naval force consisted of nine man of war ships carrying about 300 cannons, plus transports, supply, and service vessels. The plan was to bombard the fort on Sullivan's Island and render it ineffective. The British forces also planned to make a land assault and overtake the fort. The British would then sail for Charles Town, whose defenses were far less substantial than those on the island. The defense of Charles Town rested on the island fort.

From the start, British ships aimed for the fort with volley after volley of cannon fire (Figure 2.2 and Figure 2.3). As they maneuvered into the channel, three of the ships "ran aground on a shoal, and for hours they lay exposed to American artillery fire."[45] The battle only got worse for the British. First, strong winds and tides hindered the planned land assault and prevented crossing the inlet between Long Island (now Isle of Palms) and Sullivan's Island. Second, the British attempt to bomb the fort into submission proved ineffective, as "the cannon fire harmlessly embedded itself in the soft palmetto logs of the fort and the defenders suffered little damage."[46] The battle continued into the late

Figure 2.4. "Defence of Fort Moultrie, S.C." (Source: Art and Picture Collection, The New York Public Library. New York Public Library Digital Collections. Accessed February 23, 2018. http://digitalcollections.nypl.org/items/510d47e0-f561-a3d9-e040-e00a18064a99.).

evening, but as the tide rose, the British retreated beyond the mouth of the harbor. Charles Town was saved.

The battle was a decisive victory for the patriots (Figure 2.4). "While Moultrie's losses were only twelve killed and twenty-five wounded (of whom five soon died), the British lost 115 killed and 64 or 65 wounded."[47] In addition, those British ships that were not destroyed were "severely damaged and were forced to proceed to New York."[48] Col. Moultrie and those under his command were the subject of much praise from citizens and patriot command alike. From this point forward, the humble fort—as well as its future iterations—were named in honor of Moultrie. The strategic significance of the battle was three-fold. First, the victory helped to reinforce patriot resolve, boosting the morale of patriots at home and abroad. Secondly, it was the first naval victory of the war and showed British vulnerability. Third, the battle forced the British to reconsider their Southern Campaign and "spared South Carolina from British invasion for another three years."[49]

After the Battle of Sullivan's Island, patriot command did not think the British would try to retake Charles Town, and through "1777 and 1778 Congress shifted its entire focus on the war to the northern theater, and southern troops and support thus became critical to the northern war

43. Riley, "Historic Fort Moultrie in Charleston Harbor," 64.
44. Edwin C. Bearss, "The First Two Fort Moultries," (Charleston, South Carolina: National Park Service, Fort Sumter National Monument, 1968), 7.
45. Lennon, "The Continental Army's Southern Department, 1776-1778," 141.
46. Ibid.
47. Riley, "Historic Fort Moultrie in Charleston Harbor," 66.
48. Ibid.
49. Ibid.

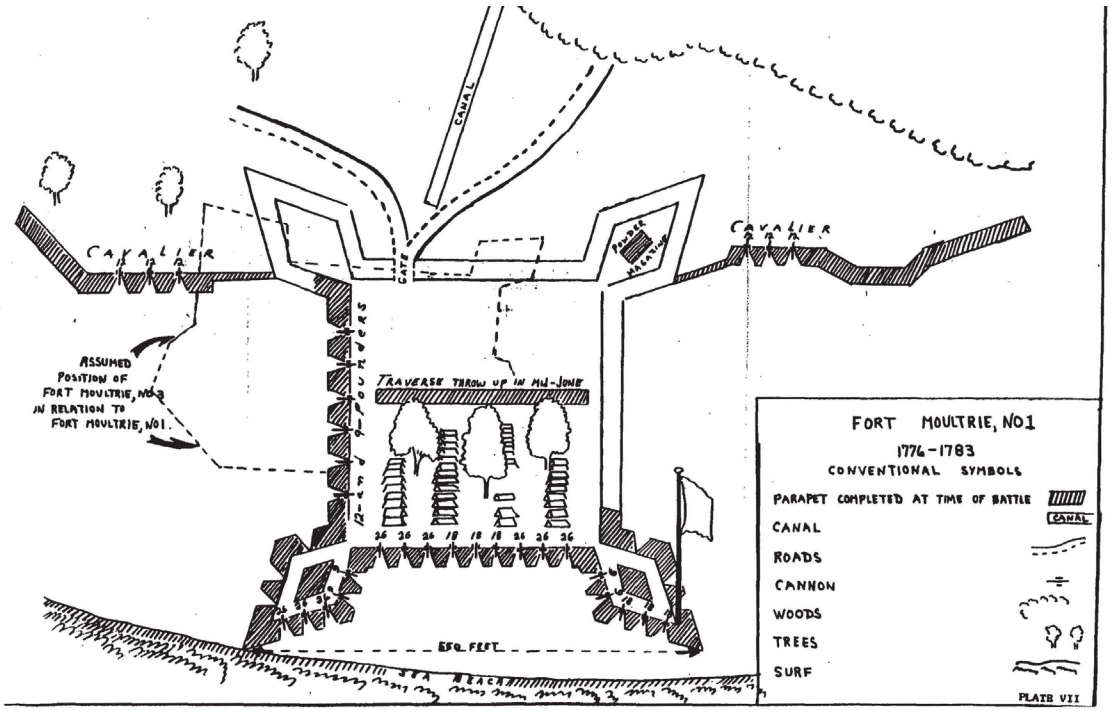


Figure 2.5. "Plan of Fort Moultrie, No. 1, Showing its assumed Position in Relation to Fort Moultrie, No. 3." By Edwin Co Bearss, (Source: Edwin C. Bearss, *The First Two Fort Moultries, A Structural History, Fort Sumter National Monument*, (Division of History, Office of Archeology and Historic Preservation, National Park Service, June 30, 1968).

effort."[50] The move left the southern colonies vulnerable, especially Georgia.[51] It surely did not help that "Congress had not provided a military chest of funds for its southern commanders, which would allow them to procure the supplies, armament, and equipment necessary to operate an army."[52] Being aware of the cracks in the southern defenses, in 1778, Major General Henry Clinton, commander of the British forces, began planning for the Second Southern Campaign. Clinton's goal was similar to the first campaign: rouse support from loyalists in the Carolina backcountry and capture Charles Town, which would serve as the southern base of British operations. First, the British tested the patriot strength in the south, and in late in 1778, the British captured Savannah. Clinton then planned his attack on Charles Town, intent on correcting their mistake from nearly four years prior. Instead of focusing on bombarding Fort Moultrie first, the British plan was to use strong southerly winds to quickly sail past the fort and enter the harbor on the south and west side where defenses were minimal. In late March 1780, the British made their move, and though the cannons of Fort Moultrie were able to inflict some damage on the British fleet, the ships sailed by the fort. The British commenced to siege the city for over a month. By May 7, the British had come ashore and had surrounded Fort Moultrie, forcing the surrender of the patriot garrison. On May 12, Charles Town surrendered to the British.[53] Afterward, patriot forces "never seriously threatened Charleston with recapture during the British occupation," and the city—along with the fort—was held by the British until the end of 1782.[54]

The Treaty of Paris formally brought the war to an end on September 3, 1783 and established The United States of America as a fully independent country. That year, the State of South Carolina voted to change the name of Charles Town to Charleston, reflecting a symbolic break from the crown. With the United States no longer at war, there was not a pressing need to garrison Fort Moultrie, and it was abandoned. Beyond the descriptions provided at the time of its construction in 1776, the exact layout of Fort Moultrie during British occupation is unclear, as no detailed plans have survived or have been

50. Lennon, "The Continental Army's Southern Department, 1776-1778," 153.
51. Ibid., 141.
52. Ibid., 158.
53. Riley, "Historic Fort Moultrie in Charleston Harbor," 67.
54. Alexander R. Stoesen, "The British Occupation of Charleston, 1780-1782," The South Carolina Historical Magazine, Vol. 63, No. 2 (Apr, 1962), pp. 71-82.

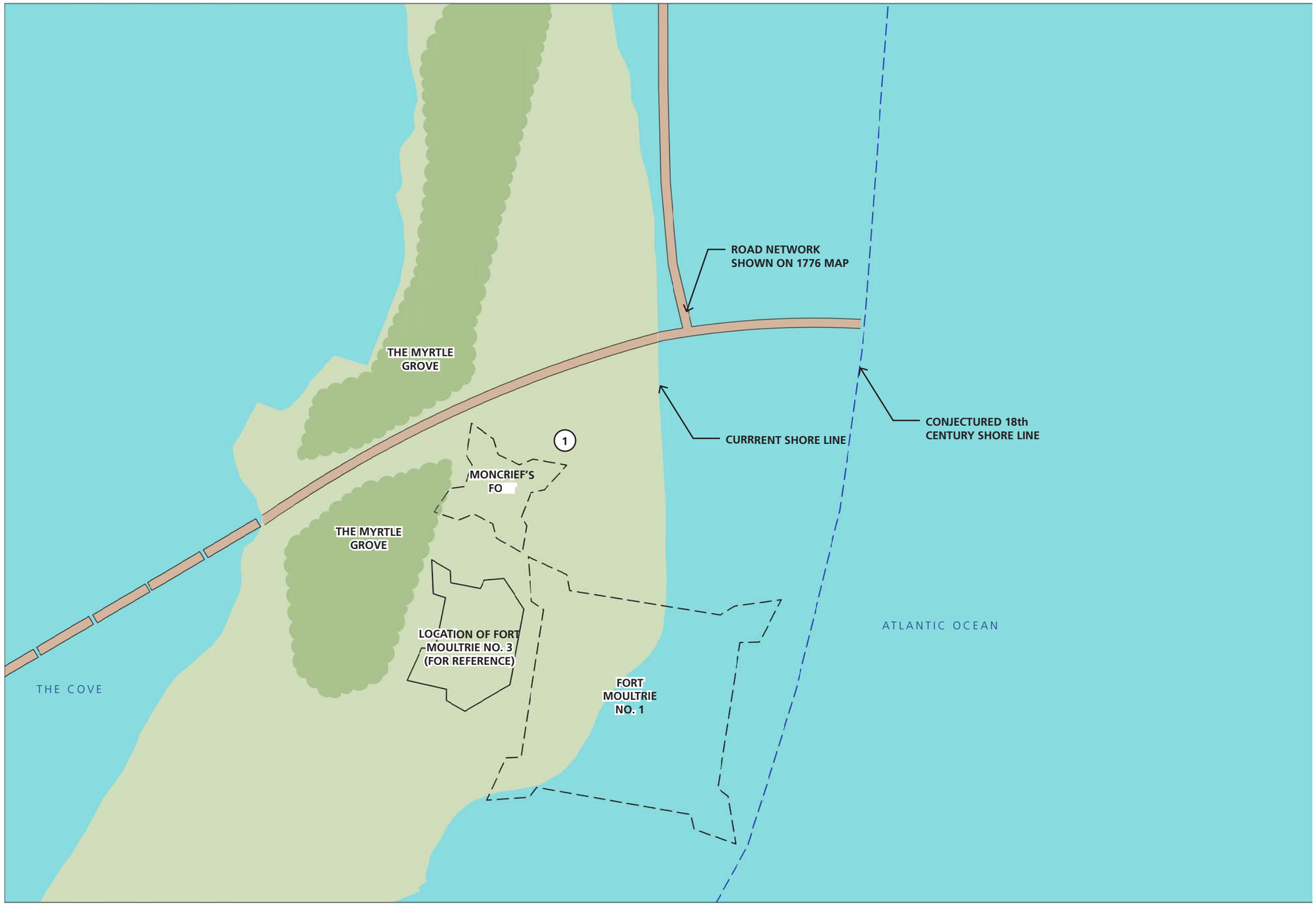
identified (Figure 2.5). However, based on historic accounts, it appears the fort was completed by 1780.[55] During the British occupation of the fort, they renamed Fort Moultrie "Fort Arbuthnot," and workers began to lay out a new fort east of Fort Moultrie. These workers never completed this fort.[56] Maintaining the fort after the war's end may have been unnecessary anyway, as less than a year after the end of the war, a hurricane swept over Charleston Harbor. The hurricane damaged much of the city and all the defensive works of the harbor. With Fort Moultrie mostly destroyed, Sullivan's Island residents began to deconstruct what was left of the fort for building materials to use for the repair of their homes.[57] The fort then turned into ruins, for "as soon as the palmetto logs were removed, the sand parapets quickly became unrecognized sand hills," and the first Fort Moultrie thus succumbed to the "assaults of man and nature."[58]

Landscape Summary: 1776-1783

In 1776, workers constructed Fort Moultrie 1 along the historic shoreline (Figure 2.2 -Figure 2.3, Illustration 2.1). The fort—large enough to contain around 1,000 people—was principally constructed of palmetto logs (Figure 2.5). Additional structural defensive works extended outward from the southwest and southeast salients of the fort. During battle, the fort was not yet complete, but was nevertheless successful in defending the harbor from British warships. Accounts indicate that the fort was completed by 1780. That year, the British captured the fort and renamed it Fort Arbuthnot. By 1781, Fort Arbuthnot was in a ruinous condition, prompting the British to begin construction on a new fort east of the old fort. This work was not completed by the surrender of Fort Arbuthnot in 1782. Soon thereafter, a hurricane destroyed the fort and Sullivan's Island residents scavenged the fort's ruins for any remaining building materials.

In terms of circulation features present at this time, at least two roads provided access to the island. The nearest roadway cut diagonally through the wax myrtle grove north of the fort (Figure 2.3). It connected to the mainland via a floating bridge. Serving as both a constructed water feature and a circulation feature, narrative accounts detail the presence of a canal that extended north-south from the cove to the fort that was used to transport building supplies. Vegetation on site during this period likely featured many of the same coastal natives as previous periods, however what vegetation existed at the fort site was likely destroyed during fort construction and subsequent battle and occupation. Views out towards the harbor proved immensely important, as they provided clear lines of sight towards the British fleet (Figure 2.2). The overall topography of the site was flat, reflecting the coastal environment in which the fort was constructed.

55. Bearss, "The First Two Fort Moultries," 18.
56. South, "Exploratory Archeology at Fort Moultrie, 38CH50."
57. Bearss, "The First Two Fort Moultries," 19.
58. Ibid., 19-21.



Notes

1. Map shows conjectured locations of Fort Moultrie No. 1, Moncrief's Fort, and uses Fort Moultrie No. 3 for reference.
2. Moncrief's Fort is an uncompleted British construction that began during British occupation of the site.
3. Archeologists have yet to locate Fort Moultrie No. 1.

Credits

1. "A Plan of the Attack of Fort Sulivan [sic.] near Charles Town in South Carolina," Wm. Faden, 1776 [Map.].
2. "NPS Conjecture of Fort Moultrie No. 1, ETIC FOSU_392_6022_[103910].

Illustration 2.1
Period 3 (1776-1783)
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019

Fort Moultrie 2 and the First Coastal Defense System (1783-1804)

First Coastal Defense System

The British recognized US independence in 1783, and the two countries established diplomatic relations in 1785. The British still controlled Canada, and the issue of trade had yet to be resolved. Tensions between the two countries rose again due to Britain's apprehending of American trade ships. The antagonisms resulted in the Secretary of War, Henry Knox, reviewing the effectiveness of coastal defenses. The report—dubbed the Knox Report—painted a dismal picture of America's seacoast defenses. Within a decade of the end of the war, the majority of seacoast defenses "simply went to pieces, for the individual states showed little interest in maintaining them."[59] It was clear to the federal government that a system of fortifications for the protection of the new nation was necessary. As a result of the report, Congress allocated limited funding for the construction of new coastal defensive works. The resulting fortifications, built between 1794 and 1800, are collectively referred to as the First Coastal Defense System.

While the Secretary of War envisioned a unified system of defenses, in reality, each new fort was built to the specifications of individual engineers. The result was a wide variety of fortification types, much like those that were used during the war. However, there was some consistency in the new fortifications. First Coastal Defense System fortifications were generally "open works with earth parapets over which, depending on the size and importance of the harbor, from eight or ten to several dozen guns could fire."[60] Coastal defense historian Raymond Lewis describes the fortifications as "weak and primitive" compared to European standards and as being made of "unsupported earth, sodded or planted with knotgrass or some other binding growth. In addition to their major seaward battery, some of the forts included an enclosed earthen redoubt or a blockhouse with a light cannon or two to guard their landward sides."[61] The rustic character of the defensive works was apparent, and within several years, many of the First System forts had deteriorated into poor condition.

59. Emanuel Raymond Lewis, *Seacoast Fortifications of the United States*, (Annapolis: Naval Institute Press, 1970), 17.
60. Lewis, *Seacoast Fortifications*, 21.
61. Lewis, *Seacoast Fortifications*, 21.

Fort Moultrie 2

The 1794 Knox Report identified 16 ports and harbors in need of defensive fortifications. Charleston Harbor was a primary location for updated defensive works and ranked behind only New York City in terms of allotted expenditures and armament. Knox placed Paul Hyacinthe Perrault, a French military engineer, in charge of designing Charleston's defenses with the assistance of now Governor William Moultrie. The report identified four locations to serve as Charleston's protection: Sullivan's Island, Fort Johnson, a battery on Charleston's wharf, and one on a sand bank opposite Shute's Folly.[62] In early August 1794, the work of rebuilding Fort Moultrie began. The new fort was "sited near and on the ruins of the revolutionary war work."[63] However, within two years, work stalled as the funds needed to continue construction were not allocated. It appears that regional deforestation forced the fort's builders to import materials at a high cost. In 1797, due to a potential war with France, Congress received a formal request for more construction funding, which Congress approved.[64] In November 1798, Fort Moultrie No. 2, was completed (Illustration 2.2). Historian Edwin Bearss describes the fort as follows:

> The fort was an enclosed five-sided work, surrounded by a ditch and glacis. The glacis had a width of 50 feet, while the ditch's depth was eight feet. It was 17 feet from the bottom of the ditch to the top of the parapet; the interior height of the parapet above the terreplein was six-foot. Positioned in the ditch, which was dry, were a hot-shot furnace, a well, and five blinds or curtains. The furnace and well were in opposite angles. On the terreplein were located "The Place of Arms" and the "Cazerne." "The Place of Arms" was enclosed by seven-foot ramparts, while the interior height of the Cazerne was 13 feet and its exterior 10 feet. At the east end of the Cazerne was a well, and at its west end was the

62. Bearss, "The First Two Fort Moultries," 36.
63. Bearss, "The First Two Fort Moultries," 42.
64. Joseph K. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, (Atlanta: Cultural Resources, Partnerships, and Science Division, Southeast Region, National Park Service, 2015), 5.

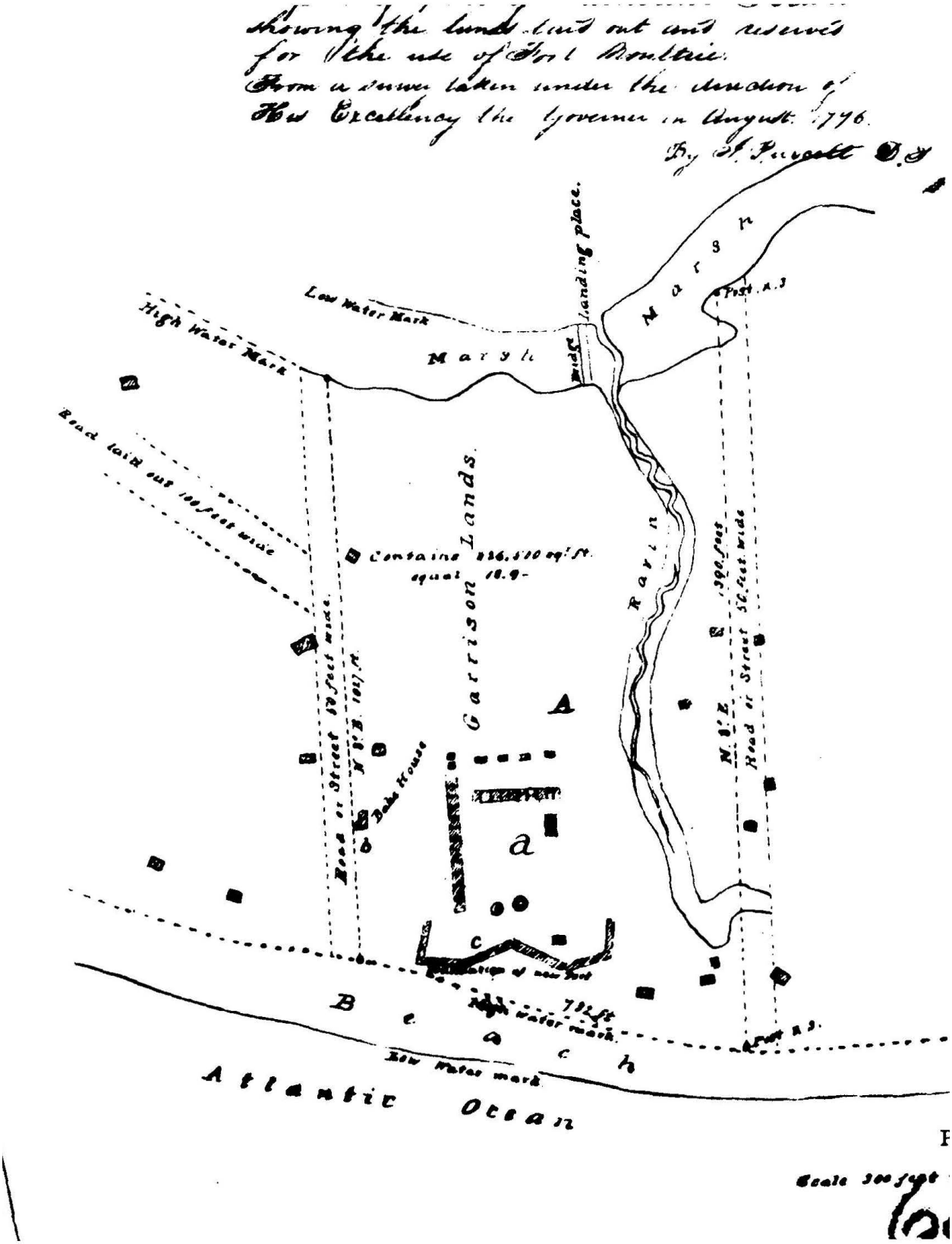


Figure 2.6. Fort Moultrie Reservation, 1796. "A plat of part of Sullivan's Island showing the lands laid out and reserved for the use of Fort Moultrie. From a survey taken under the direction of His Excellency the Governor in August 1796, by J. Purcell, D.S." (Source: Edwin Bearss, *The First Two Fort Moultries, A Structural History, Fort Sumter National Monument*. Division of History, Office of Archeology and Historic Preservation, National Park Service, June 30, 1968).

> magazine. Four structures were sited between the fort and the back beach. One of these housed the bake oven and the others served as officers' quarters and barracks.[65]

By 1799, a new garrison of troops was again stationed at Fort Moultrie. Armed with 16 guns, the fort was finally back in fighting condition, though by this time, the "threat of war with France was diminishing, and peace was restored in 1800."[66]

Fort Moultrie No. 2 was the central piece of a growing military presence located on Sullivan's Island (Figure 2.6). In 1796, the military post was 18.9 acres "bounded on one side by the channel and on the other by the back beach."[67] The back beach area contained barracks, bakehouse, hospital, and officer's quarters. Additional landscape features include a road "located behind the northwestern corner of the fort," which led to the island's dock. The canal that was utilized during the construction of the fort remained located north of the fort.

In 1803, unusually-high tides "damaged the Fort Moultrie glacis fronting the harbor, ruined the counter-scarp in that area, and injured one of the brick walls of the magazine."[68] This tidal damage paled in comparison to that caused by a severe hurricane less than a year later. Much of the coast was affected. On Sullivan's Island, the damage was great. One African American boy died in the storm, and it destroyed many of the recently built summer homes.[69] The storm "reduced Fort Moultrie, No. 2, as well as Forts Johnson and Pinckney to ruins."[70]

Early Development of Sullivan's Island

The development of Sullivan's Island for residential purposes began shortly after the war. Those wishing to build on the island could not own a lot in fee simple. Prospective builders had to acquire a "license to build." In 1791, an act of legislature established the use of Sullivan's Island as a summer resort—apparently to escape disease-ridden Charleston.[71] Coinciding with the establishment of Sullivan's Island as an escape from the city, a petition circulated calling for the removal of the quarantine station, the last of which was built around 1785, potentially "on the former site of the first Fort Moultrie."[72] The protests were successful, and "three years later, a coffee house opened in the former pest house."[73] According to historian Nic Butler, no definitive evidence exists linking any of the quarantine stations to the present-day Fort Moultrie property, however, the station "was planned to be built on the foundations of the officers barracks of the first Fort Moultrie."[74] If true, and the pest house was not located on the present-day Grace Episcopal Church property as some have proposed, any remnants of the final pest house are likely under harbor waters.

In the last several years of the eighteenth century, "town commissioners were appointed, property was assessed, streets were laid out, the pest house was removed, and Sunday gambling was prohibited."[75] These events mark the beginning of the development of Sullivan's Island, which then proceeded at a steady rate.

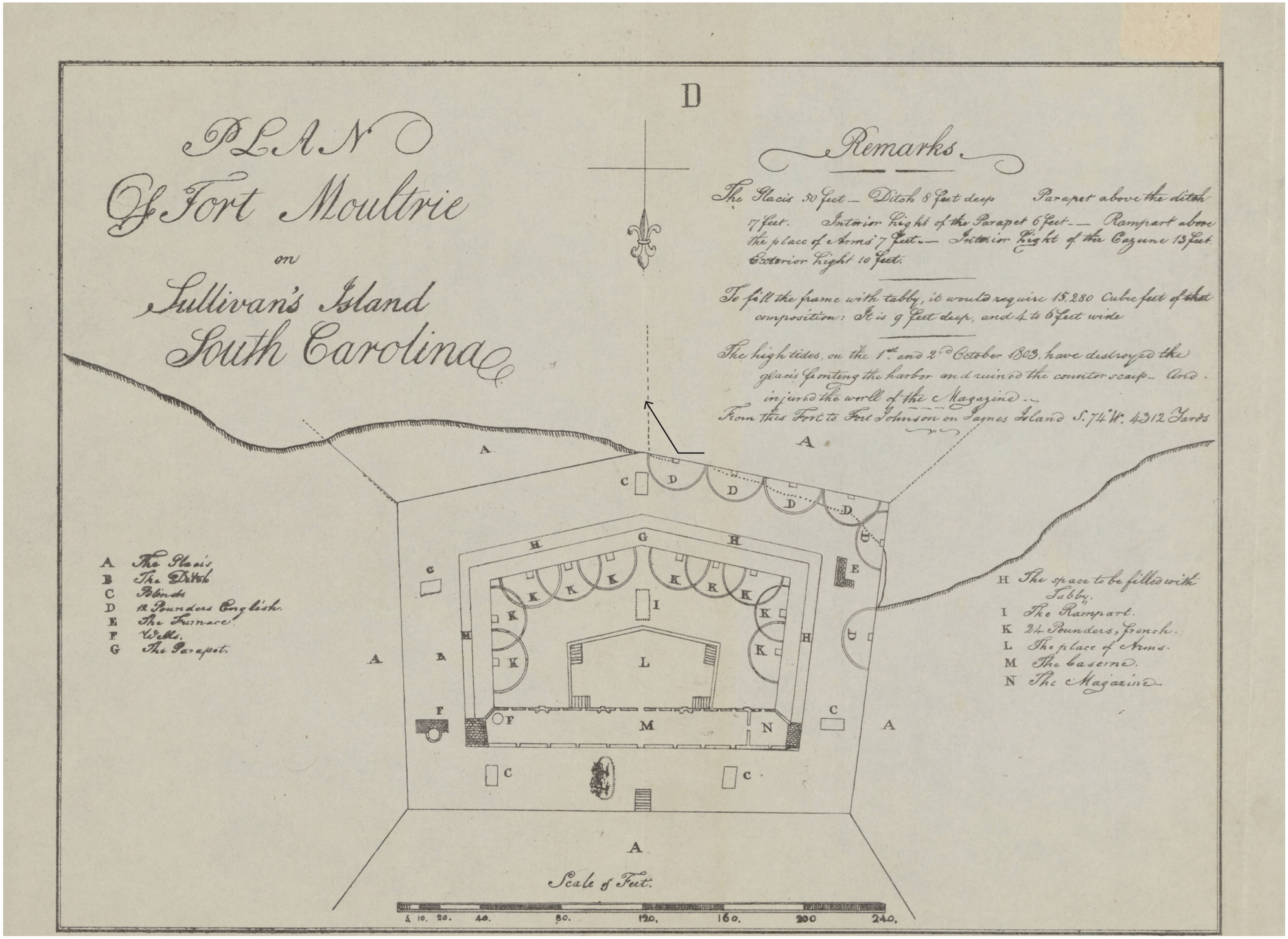
Landscape Summary: 1783-1804

Between 1783 and 1804 various changes to the landscape were made in and around the project area (Illustration 2.2). In 1794, construction started on Fort Moultrie 2 (Figure 2.6). In 1798, after a series of delays, workers completed the fort, which was located along the edge of the high tide water level. As completed, it was five-sided in form. Workers constructed a hot shot furnace in the ditch and built two other structures—the place of arms and the cazerne—on the fort's terreplein. There is no account of the design of these additional structures. This period marks the beginning of the growing residential and military presence on Sullivan's Island. By 1796, the military reservation on the island totaled 18.9 acres and contained a number of buildings including barracks, bakehouse, hospital, and

65. Bearss, "The First Two Fort Moultries,"42.
66. Ibid.
67. S. Hitchcock, S. Styles, and C. Goetcheus, *Fort Moultrie Cultural Landscape Inventory, Fort Sumter National Monument*, (National Park Service, 1997), 4.
68. Bearss, "The First Two Fort Moultries," 72.
69. The source does not specify if the boy was enslaved; Ibid., 74.
70. Ibid., 75.
71. Riley, "Historic Fort Moultrie in Charleston Harbor," 67.
72. Jake Lucas, "Doubt cast on S.I. as slave landing point," Moultrie News, Aug 24, 2016. https://www.moultrienews.com/archives/doubt-cast-on-s-i-as-slave-landing-point/article_072c1759-2c79-52dc-98c5-96bfaadede12.html.
73. Ibid.
74. Nic Butler, person communication.
75. Preservation Consultants, Inc., *Sullivan's Island Historical and Architectural Inventory*, (Preservation Consultants, Inc., 1987), 1

officer's quarters north and east of the fort. Other buildings and structures present in the surrounding area at this time included residences and a bridge spanning a narrow section at the cove.

Two distinct topographical features—a ditch and a glacis—surrounded the fort. Circulation features were also present at this time, with the fort reservation bounded on the east and west by two north-south oriented roadways. An additional roadway, noted as being 100 feet wide, extended into the project area from the northwest (Figure 2.6). The canal remained in the area now appearing to the east of the fort. Extremely high tides in 1803 caused extensive damage to the fort. A hurricane in 1804 then destroyed the fort yet again.



Notes

1. As research has not revealed the location of Fort Moultrie No. 2 in the contemporary landscape, we have elected to not conjecture where it may be located in the contemporary landscape in a Period Plan.
2. This is the only known complete rendering of Fort Moultrie No. 2.

Credits

1. "Plan of Fort Moultrie on Sullivan's Island South Carolina," United States War Department, from: City of Charleston, So. Ca. Year Book, 1883. Located in the South Caroliniana Library. Call Number: Map 1808 (R) No. 1 Size 3.

Illustration 2.2
Period 4 (1783-1804

Fort Moultrie

Fort Sumter and Fort Moultrie National Historical Park
Cultural Landscape Report
August 2019

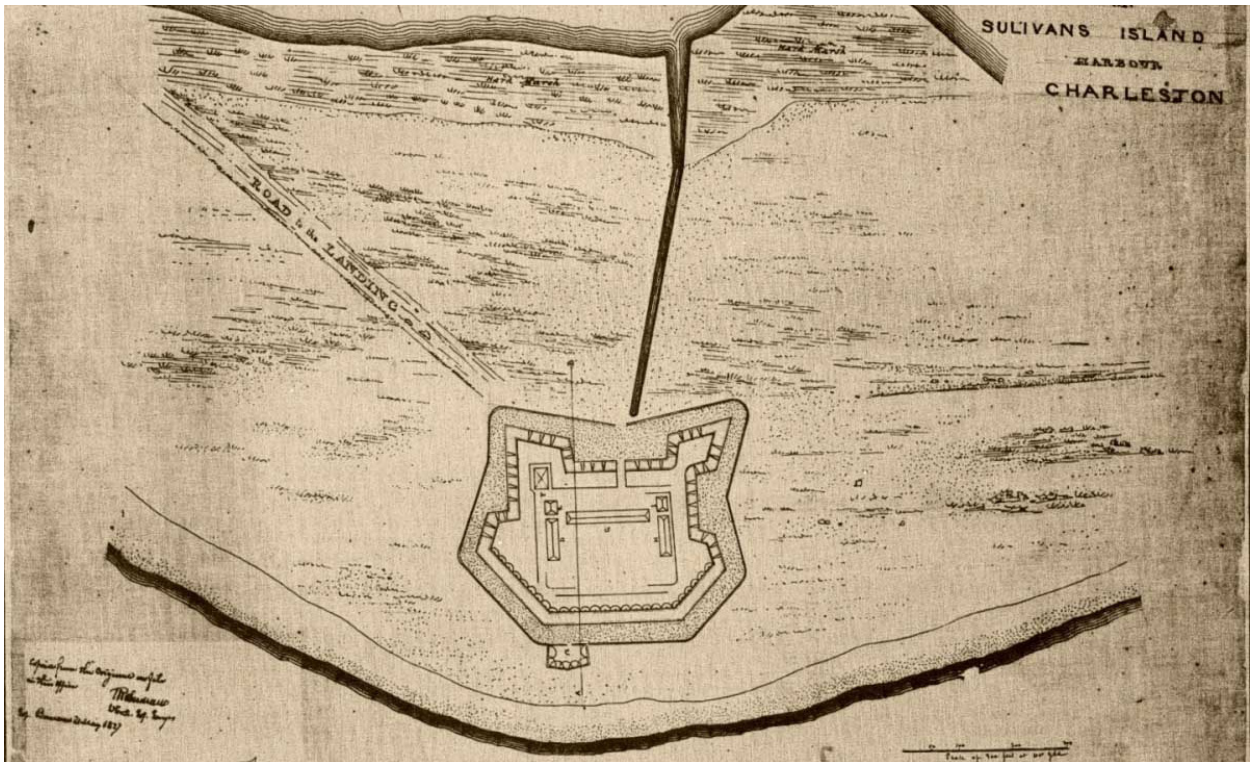


Figure 2.7. 1809 plan of Fort Moultrie. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html., U. S. National Archives, Record Group 77 Office of the Chief of Engineers, Cartographic Branch, College Park, Maryland, Drawer 65, Sheets 3 and 4).

Fort Moultrie 3 and The Second and Third Coastal Defense Systems (1804 – 1860)

Growth of the State

By the early 1800s, the population of South Carolina was approximately 250,000 people.[76] While cities such as Charleston grew after the American Revolution, the surge in population resulted from new immigrants establishing agriculture-based communities far from the coastal plain. The settlers of the backcountry made use of the network of wagon roads that crisscrossed the region. Soon, railroads provided a new mode of transportation of both people and products. The South Carolina economy revolved around the use of enslaved labor in nearly every aspect, allowing for the continued growth of Charleston as an important trading center for the entire country. As the state grew, so did dissent against the federal government. The grievances—import tariffs imposed by the government, the socially-contested use of enslaved labor, and limits on states' rights—simmered throughout the early- and mid-nineteenth century.

76. Kovacik and John J. Winberry, *South Carolina,* 88.

Second Coastal Defense System

At the turn of the century, because of high maintenance needs and costs, most American seacoast defenses were in poor condition.[77] By 1807, fears of a renewed conflict with Britain prompted military officials to call for a new coastal defense initiative, resulting in the Second Coastal Defense System.[78] Work on the new fortifications "got underway rapidly and was well advanced by the outbreak of war in 1812."[79] Though funded at an unprecedented level, the forts were not dissimilar from those of the First System. Second System fortifications fell into three categories: open batteries, masonry-faced earth forts, and all-masonry forts. While the open battery and earthen forts were more like those built under the First System, the all-masonry forts "constitute a major turning point in American military architecture."[80] Not only were they entirely designed by American military engineers (as opposed to Europeans), the masonry forts were in keeping with advances in armament technology of the era, most significantly

77. Lewis, *Seacoast Fortifications*, 25.
78. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, 5.
79. Lewis, *Seacoast Fortifications*, 25.
80. Ibid.

the introduction of casemated gun emplacements. The significance of the emplacements was that it allowed "the mounting of seacoast cannon within a fort, rather than atop its exterior walls."[81] In turn, this permitted engineers to construct multi-tiered forts, with each story containing numerous guns. These forts would be built as part of the Third Coastal Defense System.

While such a multi-decked fort would be built to protect Charleston, it was not located on Sullivan's Island. Instead, military engineers designed a new fort, to be named Fort Sumter, in accordance with this latest military technology. Engineers revised plans for the new Fort Moultrie to be a single-story masonry fort rather than a multistory work.

Fort Moultrie 3

The 1804 hurricane rendered Fort Moultrie 2 inoperable. South Carolina officials knew that they needed to get Fort Moultrie, along with its other coastal defenses, in working order. Therefore, in 1805, "South Carolina granted to the United States full title to the land reserved for Forts Moultrie, Johnson and Pinckney," clearing the way for new construction.[82] The first step toward this goal was taken in 1807, when Chief of the US Army Corps of Engineers, Jonathan Williams, inspected the fort. He found Fort Moultrie in irreparable condition, and concluded:

> There is nothing in the whole of this work that can be considered in any other view, than as heaps of rubbish, of no other value than the brick which might come in use again, except the barracks, in the rear and without the fort, which might be put in good repair, by restoring the interior wood part. There is . . . a long building within the fort called a bomb-proof, [cazerne] but the roof which is timber covered with a mass of brick work, and stakes is in a decayed state, & it is besides in the way of the future work . . . for the new front must be brought so far behind the rubbish, as to occupy the ground . . . this building stands on.[83]

Williams' report proposed Fort Moultrie be rebuilt as "an entirely new, double- or tripled-tiered stronghold a short distance behind its ruins."[84] Seven months after delivering the report, the Second Coastal Defense System program began.

With the groundwork for a new defense system laid, Colonel Williams "reconsidered his original notion of having a multi-tiered fort built on this new site, instead opting for a single-level brick structure with three sides facing out onto Charleston's ship-channels and armed with guns mounted *en barbette*."[85] With approvals in place, Major Alexander Macomb, US Army Corps of Engineers, was tasked with designing new iteration of Fort Moultrie. By June of 1808, he had completed the design. Macomb organized a workforce of enslaved laborers leased from local plantations to start construction. The workers proceeded at a quick pace, and by December 1809, they had completed the fort (Figure 2.7).

Fort Moultrie No. 3 "measured slightly more than 400 feet at its widest point, with ramparts fifteen feet high and packed with sandy soil between triple courses of heavy brick, topped around its outer edges by granite coping-stones. The upper slopes of Moultrie's ramparts were furthermore sodded with grass, so as to retain this filler-soil in place."[86] The fort was outfitted with numerous guns, which were "intended primarily to shell enemy warships attempting to approach out of the open ocean and advance up the Main Ship Channel so as to veer into Charleston Harbor, or to steal past closer inshore through shallow Maffitt's Channel."[87] Inside the fort, five buildings were symmetrically laid out in the northern portion of the central Parade ground, and a small cluster of barracks and storehouse existed in the northwest corner. A ramp provided access to the fort at the southwest angle. While the new Fort Moultrie "was intended to be encircled by a ditch approximately 30 feet wide and six feet deep…it would soon prove impossible to keep such a trench free from the constantly-

81. Ibid., 31.
82. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, 5.
83. Williams' Report on Sites of Old Works, Charleston, S.C., April 23, 1807, National Archives, Brill Collection, RG 77. As quoted in Bearss, 75.
84. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline," website. http://moultrie.battlefieldsinmotion.com/General-Timeline.html.
85. Ibid.
86. Battlefields in Motion, Fort Moultrie May 1860 - Peacetime Federal Garrison. website. http://moultrie.battlefieldsinmotion.com/.
87. Ibid.

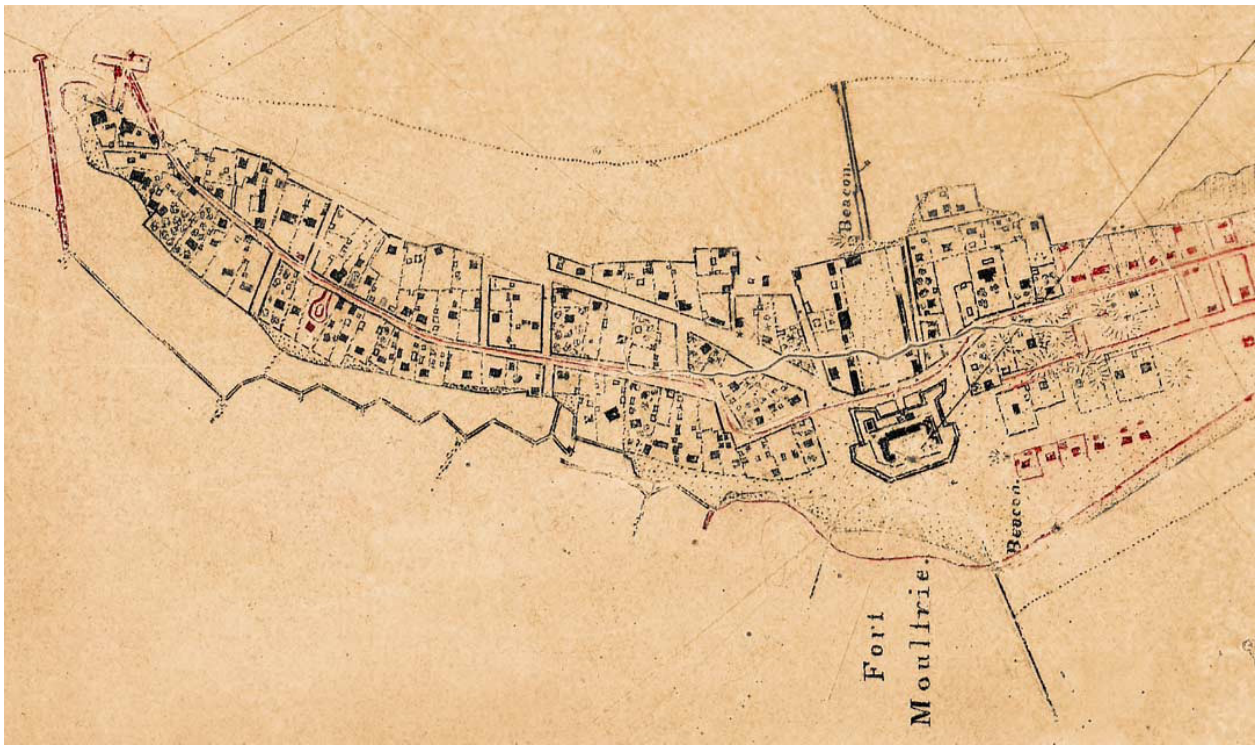


Figure 2.8. Alexander D. Bache's 1849 plan, showing 1853 amendments in red. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html., National Oceanic and Atmospheric Administration's "Historic Coast & Geodetic Survey (C&GS) Collection", with Image Identification Number cgs05066 or T00262-00-1849).

encroaching sand-dunes."[88] Macomb was pleased with the results, writing in a letter, "this fort will be little inferior to any other work in the United States in point of magnitude and importance. It will mount on the sea-side twenty pieces of heavy metal and contain a garrison of 300 men."[89] A year later, Fort Moultrie No. 3 received its first garrison.

War of 1812

The garrisoning of Fort Moultrie came at a time of intensifying tensions between the United States and Britain. The Americans had grown frustrated with Britain's meddling in merchant ship travel as well as their support of American Indians along the frontier. As a result, the US declared war on Britain, starting the War of 1812. Trade in Charleston then slowed, and the military placed American coastal defenses on high alert. During the war, the British provoked port towns along the entire eastern Atlantic seaboard. Yet, the British avoided Charleston Harbor, and the recently rebuilt fortifications of the port did not participate in the war. Despite not directly participating in the War of 1812, Fort Moultrie remained an active fort during the war. Over the course of the conflict, a large garrison of troops occupied Fort Moultrie, resulting in the expansion of the fort's interior barracks buildings to house the men. The sole incident related to the war in the harbor was the accidental explosion of a ship docked in Charleston, which killed several American sailors. On December 24, 1814, the War of 1812 officially ended with signing of the Treaty of Ghent. After the conflict, the military discharged a majority of service members stationed in Charleston and its harbor. However, Fort Moultrie continued to house three companies of infantrymen and commanding officers during the ensuing peacetime.

Moultrieville

It appears the 1804 hurricane that caused widespread damage to the island did not deter Sullivan's Island from becoming a popular summer destination. In 1807, a traveler, John Lambert, wrote an account of the island:

> Almost every part of the island, which is nearly three miles long, is now occupied, and contains upwards of two hundred dwelling houses

88. Battlefields in Motion, "Fort Moultrie 1809-1930 – A Chronological List of Maps and Plans." Website. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html.
89. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."

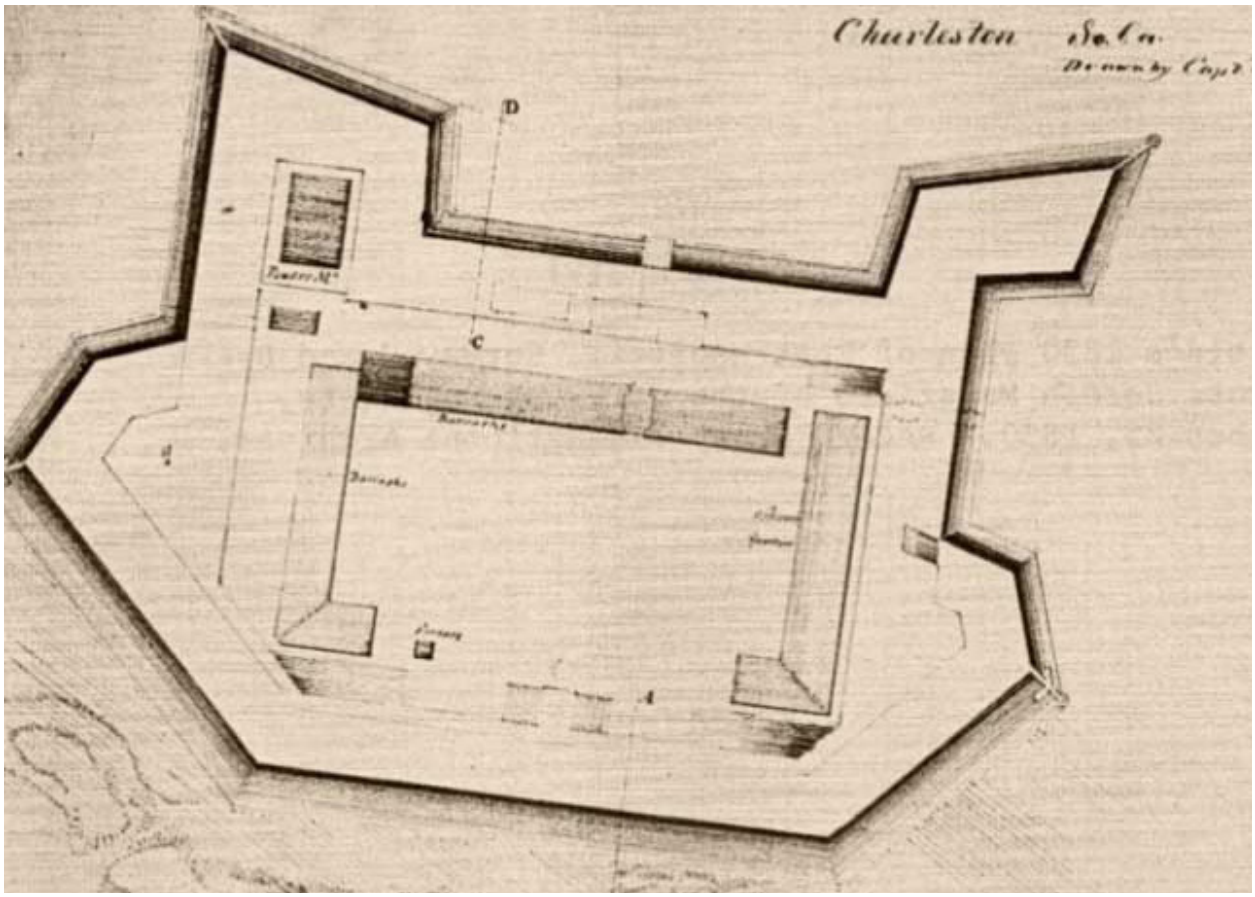


Figure 2.9. 1821 plan of Fort Moultrie by Capt. William T. Poussin. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html., US National Archives, Record Group 77 (Office of the Chief of Engineers), Cartographic Branch, College Park, Maryland, Drawer 65, Sheet 5).

> besides kitchens and out offices. This place is little resorted to during the winter and spring; but in the summer and autumn numbers of people reside there, for pleasure or health; and packet boats are plying, at all hours, between it and Charleston. Along the hard beach of this island, its inhabitants enjoy the amusement of riding or walking; while the ocean incessantly breaks its waves at their feet, and vessels pass within two or three hundred yards or the shore.[90]

In 1817, the town of Moultrieville was established on the western end of the island, and the area continued to serve as a summer resort for Charlestonians. Ferries connected the island to the mainland at both Charleston and Mount Pleasant. Life on the island appears to have been tenuous however, as reports indicate that people struggled to live in the town due to irregular ferry times, natural disasters, lack of access to market goods, and the presence of only one well.[91] The eastern end of the island developed more slowly than Moultrieville. "The Myrtles," as the area came to be known due to large areas of wax myrtle groves and marshes, only contained a few houses for much of the century. While "activity or inactivity at the fort and occasional storms or other disasters" affected the residents of Sullivan's Island, it nevertheless continued to grow as throughout the nineteenth century (Figure 2.8).[92]

Third Coastal Defense System

The War of 1812 showed that American coastal defenses were largely ineffective. Therefore, in 1816, President James Madison established a new program—the Third Coastal Defense System—to remedy the situation. Madison appointed a board of engineers to evaluate the state of coastal defenses and to make recommendations

90. John Lambert, *Travels Through Canada, and the United States or North America in the Years 1806, 1807 & 1808,* (London, 1816), 158-159, as quoted in Bearss, 1968.

91. Sullivan's Island Historical and Architectural Inventory - 1987, Survey Report Preservation Consultants, Inc., 1987 http://www.sullivansisland-sc.com/files/historic%20preservation/historical%20summary.pdf.

92. Ibid.

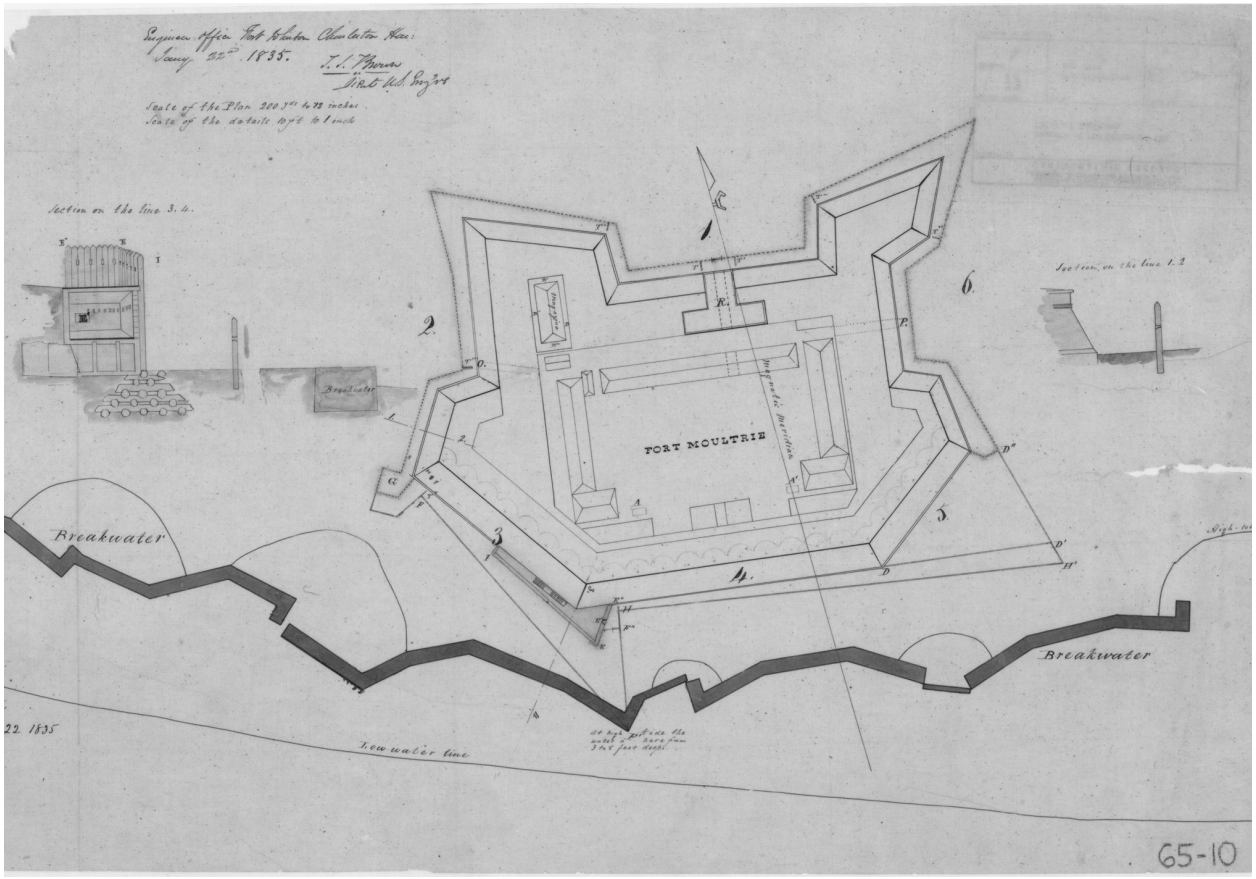


Figure 2.10. Lt. Thompson S. Brown's 1835 plan of Fort Moultrie showing breakwater along the waterline. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html., US National Archives, Record Group 77 (Office of the Chief of Engineers), Cartographic Branch, College Park, Maryland, Drawer 65, Sheet 10).

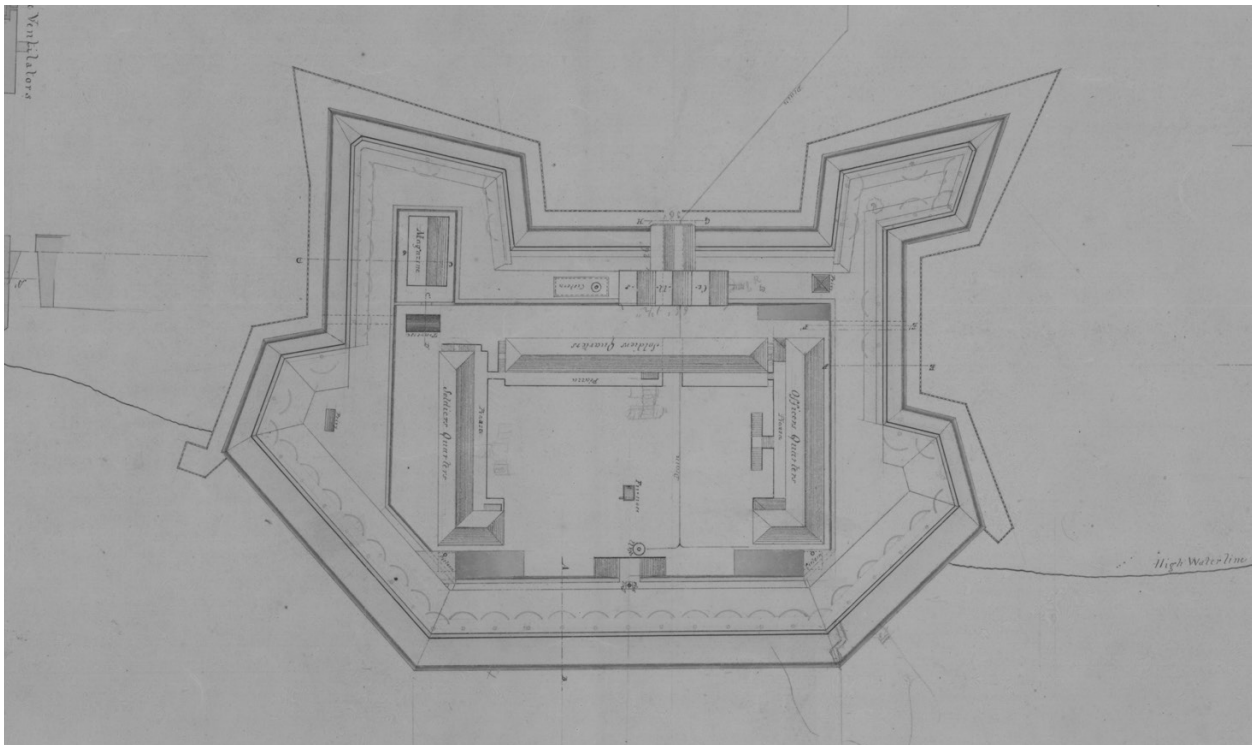


Figure 2.11. Capt. Alexander H. Bowman's 1842 plan of Fort Moultrie. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html., US National Archives, Record Group 77, Office of the Chief of Engineers, Cartographic Branch, College Park, Maryland, Drawer 65, Sheet 14).

for necessary improvements. French military engineer Simon Bernard headed the board, which was the "first peacetime agency solely occupied with national defense."[93] It was also the first time "a professionally competent authority had been established to direct virtually all aspects of seacoast fortification design and construction."[94] Over the span of 51 years, the program was responsible for the construction of over 40 new defensive works, and the rehabilitation of many other older forts.[95]

After six years of study, the Bernard Board, as it came to be called, delivered its first report. The report indicated "the locations to be utilized for such facilities as major bases, repair yards, and anchorages. It then turned specifically to the fortifications required to guard both these facilities and the many commercial seaports, river mouths, and other important coastal localities."[96] The design of the new fortifications reflected the technological advancements of armament: large masonry structures, built in multiple tiers, with mounted guns on every level. As Emmanuel Lewis states, "this large group of massive, vertical-walled forts represented the general embodiment and the fullest development of features which had previously appeared in only a few isolated instances, i.e., structural durability, a high concentration of armament, and enormous overall firepower."[97]

A revised Bernard Board report, issued in 1826, identified the need to augment the existing defenses of Charleston Harbor with the "erection of a new fort which would effectively close the harbor entry channel to hostile ships."[98] It was for this this reason the engineers decided to not rebuild Fort Moultrie into a multiple-tiered fort, and instead they identified a small shoal protruding into the middle of the harbor as suitable to receive such a fort. Construction on the "pentagonal, three-tiered, masonry fort with truncated angles"—Fort Sumter—began in 1829 and continued until the start of the Civil War.[99] With the construction of Fort Sumter ongoing out in the harbor, Fort Moultrie entered a relatively peaceful period.

"Peacetime" at Fort Moultrie

In 1821, as part of an "inspection-tour of America's coastal defenses," Captain William Poussin surveyed Fort Moultrie and produced a plan of the fort.[100] The plan shows expanded buildings, the addition of a Traverse in front of the magazine, and a hot shot furnace at the southwest angle ramp (Figure 2.9). At this time, fort personnel relocated "several buildings out of its crowded interior to the empty compound behind the fort," where previous support buildings had been located.[101] The buildings were then used mostly for storage. The following year, a major hurricane hit the coast, causing much damage and several deaths on Sullivan's Island. While the fort suffered some damage, none of the fort's buildings were destroyed. However, during cleanup of the fort the following month, a fire destroyed the officers' quarters. Workers rebuilt the building the following year. Other improvements made at this time included installing a "system of wooden trunks… within the grounds of low-lying Fort Moultrie, to help drain water out of its enclosed compound into the Cove behind, especially during and after any torrential rainfalls."[102] In 1828, the wet coastal environmental conditions of the fort resulted in the need to repair its dwelling units, which included enlarging the soldier barracks, adding porches, and repainting the exteriors of various fort buildings as well as the parapets a reflective shade of yellow to deflect the sun's intensity.[103]

In addition to the effects of the heat and humidity of the environment, the dynamic nature of the harbor resulted in extensive erosion issues on the fort's south side. The issue became severe enough that damage to the fort by the waves had rendered Fort Moultrie unsatisfactory, and "once more plans

93. James W. Moore, "The Fortifications Board 1816-1828 and the Definition of National Security" The Citadel: Monograph Series: Number XVI (Charleston, SC: The Citadel, 18=981), 1.
94. Lewis, *Seacoast Fortifications,* 37.
95. John R. Weaver II, "Introduction to the Architecture & Weapons of the Third System of American Coastal Fortification 1816-1867," in *American Seacoast Defenses, A Reference Guide*, Mark A Berhow editor, (McLean, VA: CDSG Press, 2004), 23.
96. Ibid., 38.
97. Lewis, *Seacoast Fortifications,* 42.
98. Heath L. Pemberton, Jr. "Fort Sumter: Chronological Construction History with Architectural Detail" (Charleston, SC: Fort Sumter National Monument, 1959), 1.
99. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, 5.
100. Battlefields in Motion, "Fort Moultrie 1809-1930 – A Chronological List of Maps and Plans."
101. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."
102. Ibid.
103. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."

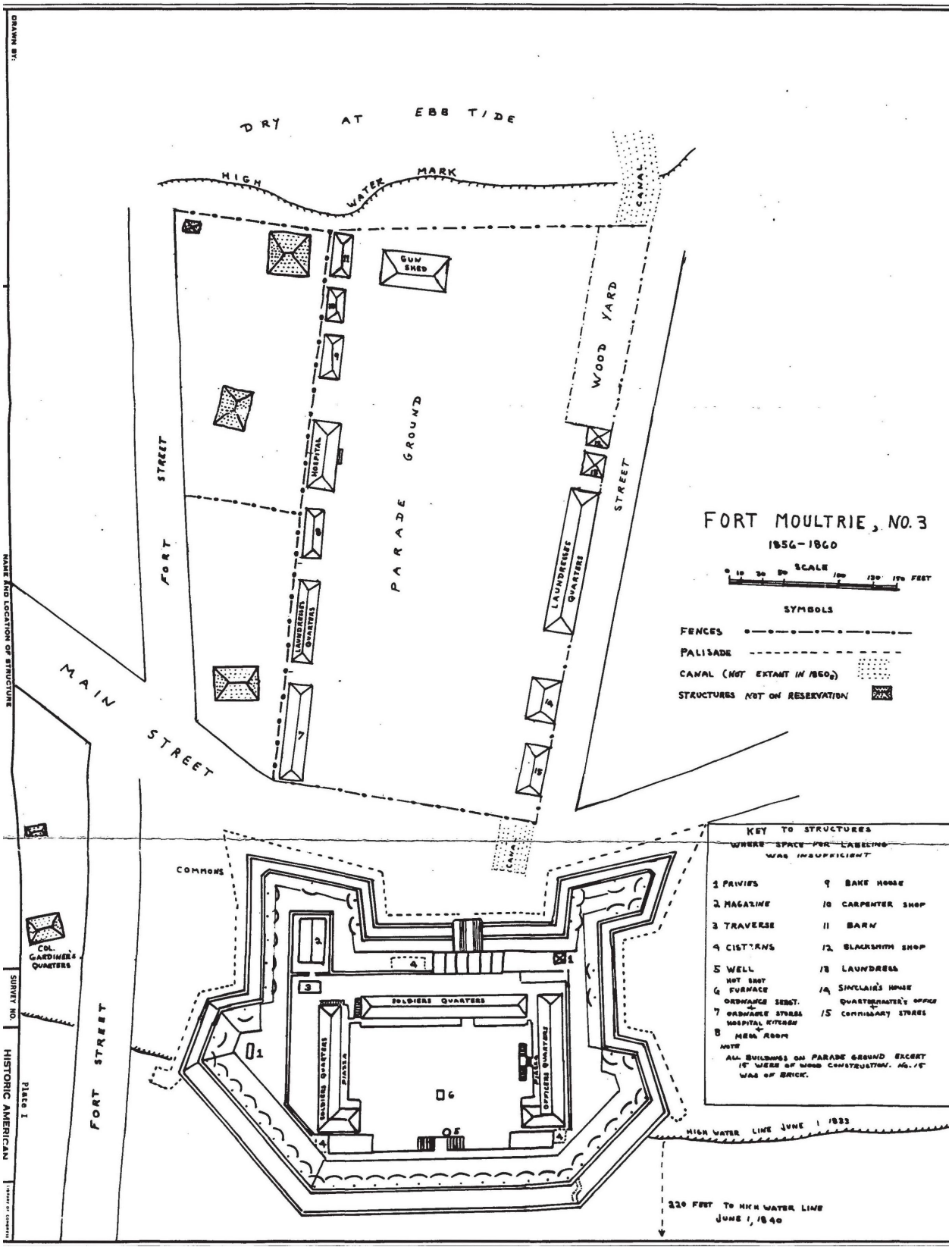


Figure 2.12. Historical Base Map, Fort Moultrie, No. 3, 1856-1860. (Source: Edwin C. Bearss, Fort Moultrie, No. 3, Fort Sumter National Monument Historic Structures Report, Historical Data Section, Division of History, Office of Archeology and Historic Preservation, National Park Service, December 30, 1968).

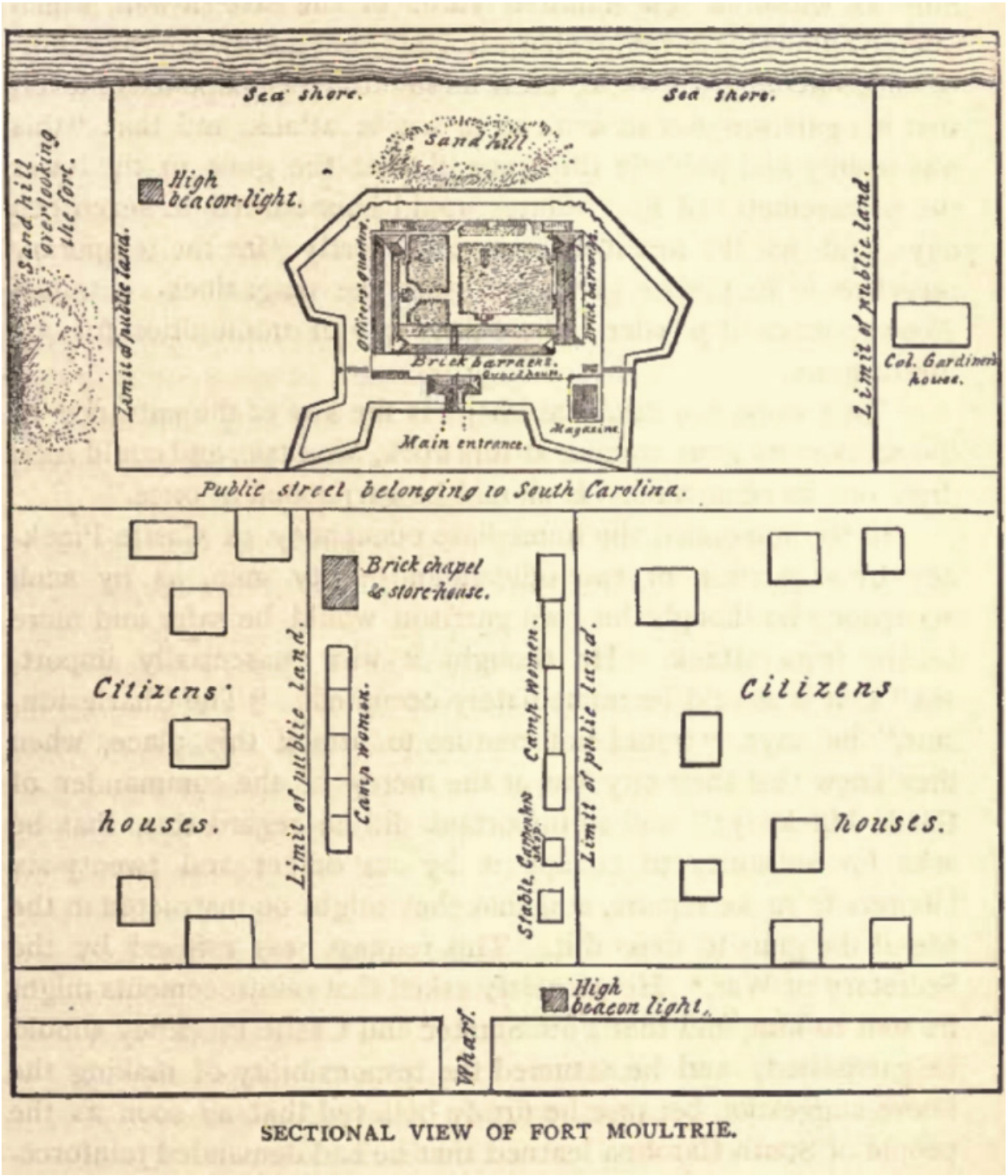


Figure 2.13. 1860 depiction of Fort Moultrie by Wylie Crawford. Note the extent of the reservation to the north of the fort showing its various support buildings. Also note the hedge-lined walkways on the Parade ground inside the fort. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html. Samuel Wylie Crawford, *The Genesis of the Civil War: The Story of Sumter, 1860-1861*. New York: Charles L. Webster & Company, 1887).

Figure 2.14. Interior of Fort Moultrie looking southwest, 1860. Photograph taken by James M. Osborn and Frederick E. Durbec. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html.).

were formulated to make it serviceable again."[104] By 1841, workers rebuilt two of the fort's walls, replaced wooden ramps with brick, constructed a cistern near the sally port, and renovated the barracks for the garrison (Figure 2.10 and Figure 2.11). In 1843, workers reshingled all fort buildings with slate and installed new stairways. These latter repairs appear to be an attempt to make living at the fort more comfortable, but many of the officers stationed there actually rented houses in Charleston. Regardless, peacetime resulted in a substantial expansion of the Fort Moultrie complex. An account of the fort from 1846 describes Fort Moultrie:

> [It is an] irregular fort, without ditch or counterscarp, with a brick scarp wall about twelve feet high, which could be scaled anywhere, and this was surmounted by an earth parapet capable of mounting about forty 24- and 32-pounder smooth-bore iron guns. Inside the fort were three two-story brick barracks, sufficient to quarter the officers and men of two companies of artillery.[105]

The fort area continued to grow at this time, with various buildings being added to the space north of the fort (Figure 2.12 and Figure 2.13). In order to support the growing reservation, by the mid-1840s, two cisterns stood in the North Reservation Character Area: "one between Company D's barracks and the band major's quarters, and the other between Company E's

104. Riley, "Historic Fort Moultrie in Charleston Harbor," 69.

105. W.T. Sherman, *Memoirs of Gen. W. T. Sherman*, in Edward M. Riley, "Historic Fort Moultrie in Charleston Harbor," The South Carolina Historical and Genealogical Magazine, Vol. 51, No. 2 (Apr.,1950), 67.

Figure 2.15. Portrait of Osceola, 1838. (Source: Catlin, George, Artist. *Osceola of Florida / drawn on stone by Geo. Catlin, from his original portrait.*, 1838. New York: Photograph. https://www.loc.gov/item/96508305/.).

barracks and messhall."[106] In 1855 a brick cistern was constructed in the area to provide water to the complex of workers there.

In 1855, after a hurricane wrecked much of Sullivan's Island the year before, workers made various repairs to the fort, including: adding a brick wall along the parapet slope, reconfiguring the Parade ground, improving drainage, constructing a new cistern, adding paving to the officers' quarters area, reroofing barracks, and constructing a new hotshot furnace.[107] By 1858, workers had removed the old gun placements along the parapet in order to install new Columbiad platforms (Figure 2.14).

Aside from construction activities, Fort Moultrie was caught up in several notable events of the time, most notably the Nullification Crisis of 1832-1833. The Nullification Crisis refers to a short period of political discord that threatened to end in the secession of South Carolina from the Union. A contingent of South Carolinians viewed recently imposed import tariffs unconstitutional, prompting the South Carolina legislature to declare them "null and void."[108] The issue was so contentious that in October of 1832, federal troops stationed at Charleston Harbor received orders to stand ready to fend off possible attack from the state militia. As the crisis intensified, Captain William A. Eliason of the US Army Corps of Engineers constructed a large palisade to protect Fort Moultrie's landward side. By the end of November, the harbor defenses were reinforced with additional soldiers and arms. Brigadier General Winfield Scott required all officers to state their loyalty to the United States and reassigned those suspected of conflicting allegiances.[109] Similarly, South Carolina required all its officials to proclaim allegiance to the state. Militias on both sides of the conflict began to organize and arm themselves. But, after a series of discussions, meetings, and legislative debates, South Carolina withdrew its nullification ordinance and brought an end to the bloodless conflict.

The other notable event that occurred during peacetime at Fort Moultrie related to the imprisonment of hundreds of Seminole Indians at the fort. On January 1, 1838, the military transferred the well-known Seminole Indian leader Osceola and over 200 other tribespeople to Fort Moultrie after capture in Florida during the Second Seminole War (Figure 2.15). Residents of Charleston were excited by the news, while those of Sullivan's Island were more on guard about the situation. While the conditions at the fort appear to have generally amenable, within a month, Osceola fell sick and died. The attending physician removed his head, and his body was buried on the reservation grounds just outside the fort's sally port. Accounts of the burial suggest that Osceola was given a military salute and that the ceremony was respectful to his position. In 1841, a soldier installed a marble monument at the grave that read simply, "Oceola" [sic].[110] A paling fence enclosed the grave site by 1849.[111]

Throughout peacetime, others would die at the fort because of various maladies, such as yellow fever. In the late summer of 1858, yellow fever infected 49 soldiers, killing 28 of them. They

106. Bearss, *Fort Moultrie No. 3*, 116.
107. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."
108. Ibid.
109. Ibid.
110. Additional inscriptions were added later.
111. Edwin C. Bearss, "Osceola at Fort Moultrie: Sullivan's Island, South Carolina, Fort Sumter National Monument," (National Park Service, Division of History, Office of Archeology and Historic Preservation, June 15, 1968), 51.

were buried in a cemetery located in a wax myrtle grove north of the fort.[112] It is unknown if locals were buried there as well, but throughout peacetime, Fort Moultrie was a fixture of the local community. By midcentury, Moultrieville had grown considerably, remaining a summer escape for elite Charlestonians. Fort soldiers and officers were treated well by locals, and the local attractions provided a welcome respite to the men, many of whom had recently been engaged in the Seminole Wars in the Florida Everglades. At this time, "American forts were commonly treated as public parks by local citizenry, and this was certainly true of Fort Moultrie . . . Its gates were routinely left open throughout the daily hours, civilians being allowed to freely pass inside after a mere nod to the sentry, to promenade along its sea-side ramparts and be cooled by the breezes."[113]

Shoaling and Erosion Engineering

As the nineteenth century progressed, the national importance of Charleston became increasingly apparent, especially in terms of commerce and military operations.[114] Therefore, a solution had to be found for the shoaling issue in the harbor that caused navigational problems. An 1826 report conducted by the US Navy identified the shallow bar arcing at the mouth of the harbor as the main challenge to its fleet. The harbor dynamics that made navigation difficult also resulted in landscape changes, especially at Sullivan's Island. As the nineteenth century progressed, "Sullivan's Island eroded steadily, particularly on the western end (harborside), and the beach in front of Fort Moultrie disappeared, forming another shoal which extended southward to the easternmost projection of the entrance bar."[115] So much erosion had occurred that a new shoal had formed off what used to be the beach at Sullivan's Island. The 1826 US Navy report also identified this issue as a hindrance to the harbor supporting a naval fleet; the navy needed Fort Moultrie operational.

To fix the erosion issue, Congress appropriated funding to install breakwaters on the island. While the breakwaters "slowed down the process of erosion. . . they did not altogether stop it, nor did they serve to reclaim any lost beach."[116] Another solution was needed, and the US Army Corps of Engineers developed a plan utilizing several control jetties. Historian John B. Bonds explains the solution:

> In 1839, with new funds, the first control jetty was designed, constructed, and installed to divert the water flow away from the beach. The plan was to build several jetties over the formed shoal into the deep channel. It was easier said than done with the tools and machines available. Eventually "grillages" of palmetto logs were to have been constructed, into which were lodged large granite boulders, dropped into them from barges after they were in place. After sinking the connected grillages, other stones were lowered into them to form the jetty. Only one of these was built in this period. It was called Bowman's Jetty after the engineer in charge of the project and was completed in 1839. It ran some 400 feet from the shore, out into the channel to a depth of fifty feet below the surface at mean low water (MLW) and extended almost to the surface. The salutary effects of the jetty were appreciated almost immediately. The ebbing water was forced to find its way out and around Bowman's Jetty, and erosion of Sullivan's Island stopped at once. Further, an eddy created on the backside of the jetty caused silt and sand to be deposited along the beach itself and by the fall of 1839 beachfront of more than 100 feet in depth had been added in front of Fort Moultrie, saving it from further damage.[117]

With the erosion issue at Fort Moultrie solved, attention turned to the shoaling within the harbor.

In 1850, Lieutenant John Newland Maffitt, US Navy, resurveyed the harbor, comparing his findings to past studies. He found that the harbor was undergoing increased shoaling, and the entrances into the harbor through the sand bar were closing. The news was not good for Charleston's merchants, as it meant that "Charleston was being shoaled out of competition as a major port."[118] His report proposed a possible solution: the deepening of the channel along

112. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."
113. Battlefields in Motion, "Fort Moultrie May 1860 - Peacetime Federal Garrison."
114. John B. Bonds, "Opening the Bar: First Dredging at Charleston 1853-1859," *South Carolina Historical Magazine* 98, No. 3 (July l997): 231.
115. Ibid., 233.
116. Ibid.
117. Ibid., 233-234.
118. Ibid., 235.

Sullivan's Island. The dredging activity was an experiment, for if it worked and the shoals could be kept from backfilling, the technique could be applied to the entire harbor. Using a specially-designed ship, the dredging of the channel began and proved to be successful. For a time Maffitt's Channel—as it came to be called—remained clear. Within a few years however, coastal dynamics and tropical storms caused a buildup of sand, requiring more dredging. Harbor managers and stakeholders such as the US Army Corp of Engineers, the US Navy, and the Charleston Chamber of Commerce, then realized that maintaining channel depths in the harbor would be a never-ending project.

Landscape Summary: 1804-1860

Between 1804 and 1860, Fort Moultrie's cultural landscape densified through the addition of a number of new buildings and structures (Illustration 2.3 and 2.4).

The first major project was the construction of Fort Moultrie 3, which was completed in 1809 (Figure 2.7). The new irregular-shaped brick fort spanned roughly 400' at its widest point and stood two stories tall. The fort featured topographical variation both inside and outside its walls. An elevated terreplein ringed the upper level of the fort. A ground-level Parade ground contained five symmetrically laid out buildings in the northern portion of the central Parade ground and a small cluster of barracks and storehouse stood in its northwest corner. Outside the fort, a ditch surrounded the fort walls. During construction workers salvaged materials from the old barracks, officers' quarters, bakehouse, and any remnants of Fort Moultrie 2. By 1821, workers had modified the buildings in the interior of the fort. The military expanded the barracks and quarters buildings, added a Traverse in front of the magazine, and constructed a hot shot furnace near the southwest angle ramp. In 1823, the military constructed a new officers' quarters building to replace one damaged by a fire. In 1829, the military painted the fort and fort buildings yellow. Over the next several decades workers added buildings and structures to the interior of the fort including the T-shaped guardhouse, four service magazines, a cistern by the sally port, a storage shed, a sentry box, a caponnier, and a summer house (Figure 2.11). A circulation network within the fort connected all the fort's buildings, a hedge-lined walkway cutting through a turf-covered Parade ground and a set of stairs on the southside of the fort (Figure 2.13 and 2.14). A well stood at the base of the set of stairs. A ramp provided access to the terreplein at the southwest angle.

With the removal of Fort Moultrie 2's support buildings, room was made for the development of the military reservation north of the fort (Figure 2.12 and Figure 2.13). By 1844, a total of 12 support buildings that functioned as a blacksmith shop, barracks, hospital, and other uses, along with brick cisterns for water, lined the eastern and western edge of the property. The arrangement of the buildings produced an open parade ground bisected by a central walkway in alignment with Fort Moultrie's sally port. A large wharf and rear range beacon were located on the northern edge of the area. By 1860, it appears the military may have removed some of the buildings, but added several buildings of quarters for laundresses, a gun shed, a commissary store, office, a chapel, and carpenter shop (Figure 2.12 and Figure 2.13).

A number of residences surrounded the military reservation throughout this period, part of the growth of summer cottages built on the island (Figure 2.8). At least 10 appear to have stood to the east of the fort. A road network that had developed on the island serviced these houses, with a central roadway extending east-west immediately north of the fort. Along the beachfront, a series of jetties, bulkheads, seawalls, and riprap were installed including Bowman's Jetty in 1839, which was responsible for stopping the erosion issues on the west side of the island and helped to add dozens of feet of new beach area in front of Fort Moultrie (Figure 2.8).

In 1838, Osceola was buried in an open area near the sally port entrance, establishing both an archeological site and small-scale features in the area. In 1841, his grave was marked by a marble monument engraved with his name, though it was misspelled. By 1849, a paling fence enclosed the gravesite on three sides, with a portion of the fort's exterior wall serving as the fourth side.

Vegetation at the site consisted on turf grass within the fort. Shrubs—likely two different unidentified species—bordered portions of the turf near the officers' barracks (Figure 2.14). An unknown species of tree lined the front (interior) facades of

the western barracks building. It can be assumed that coastal native species existed throughout the site, where undeveloped.

Key

1 Fort Moultrie No. 3
2 The Reservation
3 Approximate Location of Canal (Removed)
4 Wharf

0′ 300′ 600′ North

Notes

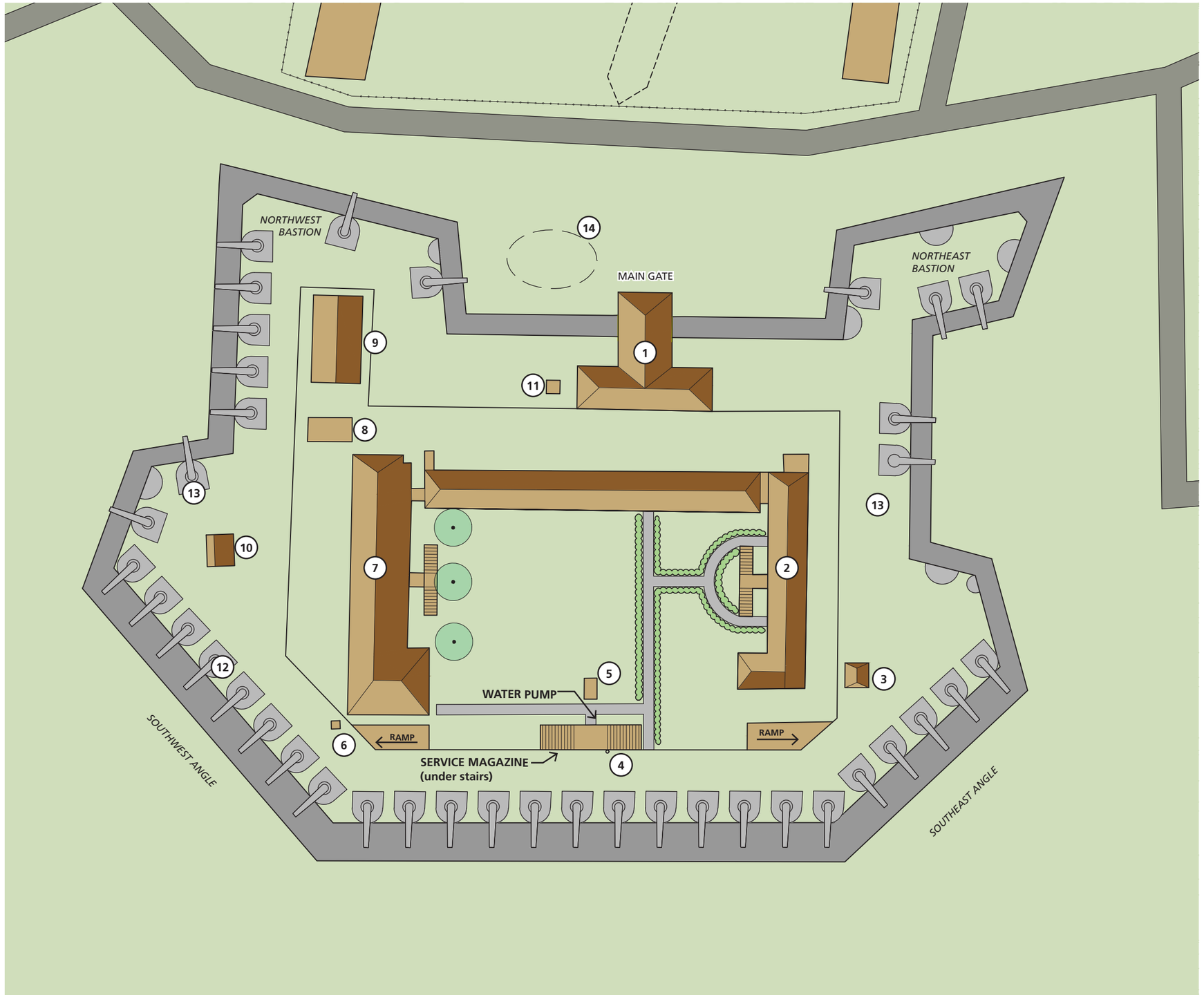
1. This illustration shows a composite of the site as it existed between 1809 and 1860. For clarity, not all landscape features are shown.

Credits

1. "Plan of Fort Moultrie, Charleston Harbor," 1842, [Map.], Bowman.
2. "Charleston Harbor," 1849, [Map.], A.D. Bach.
3. "Peacetime Fort Moultrie," 2012, [Map.], Battlefields in Motion, Ltd.

Illustration 2.3
Period 5 (1809-1860)
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019



Building Key

1	Guard House
2	Officers' Quarters
3	Summer House
4	Flagpole
5	Hot Shot Furnace
6	Sentry Box
7	West or No. 1 Barracks
8	Traverse
9	Powder Magazine
10	Storage Shed
11	Water Pump
12	Typical Gun Position
13	Terreplein
14	Location of Osceola's gravesite

Notes

1. This illustration shows a composite of the site as it existed between 1809 and 1860. For clarity, not all landscape features are shown.
2. Osceola's gravesite is shown as a dashed circle, as the exact configuration of paling fencing is unknown.

Credits

1. "Plan of Fort Moultrie, Charleston Harbor," 1842, [Map.], Bowman.
2. "Charleston Harbor," 1849, [Map.], A.D. Bach.
3. "Peacetime Fort Moultrie," 2012, [Map.], Battlefields in Motion, Ltd.

Illustration 2.4
Period 5 (1809-1860)
Fort Moultrie, Enlargement

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019

The Civil War (1860-1865)

The Nullification Crisis served as a prelude to the Civil War, in which South Carolina, Charleston, and the harbor defenses again had a central role. The issue this time was not tariffs, but rather focused on the expansion of slavery in the United States. Beginning shortly after the American Revolution, many of the northern states, particularly in New England, gradually disallowed the ownership of enslaved people. Even as some states still allowed slavery, public sentiment toward abolishing slavery in the northern states gained popular support over time. The stories of Harriet Tubman and the Underground Railroad captivated the nation, as did Harriet Beecher Stowe's *Uncle Tom's Cabin*. In 1859, John Brown's failed raid on the Federal arsenal at Harpers Ferry, and his subsequent execution, made him a martyr of the abolitionist cause. The question of whether the United States would allow the enslavement of African Americans to expand into the new states and territories was a central issue of the 1860 presidential race.

Southern states and their Democratic leadership were vehemently opposed to abolition, putting forth pro-slavery arguments centered on the idea of white supremacy and claims that the institution of slavery was the cornerstone of southern society. The most vocal of the pro-slavery faction were called the "fire-eaters" and were quick to call for armed rebellion over the issue. Their rhetoric added fuel to a tense and hostile campaign season. In November 1860, Abraham Lincoln, a Republican who expressed abolitionist views, won the election. His victory resulted in calls of secession amongst southerners, especially so in South Carolina.

Amid the rapidly rising tensions, in September 1860, Captain John G. Foster, US Army Corps of Engineers, traveled to Charleston to evaluate the defenses of the harbor and ready them in the event that the South Carolina militia attempted to seize them. Upon arrival, Foster hired workers to perform repairs to Fort Moultrie. A description of the fort at this time by Captain Abner Doubleday detailed the poor state of the fort's defensive capabilities (Figure 2.16 and Figure 2.17). Doubleday recounted that,

> Moultrie had no strength; it was merely a sea battery. No one ever imagined it would be attacked by our own people; and if assailed by foreigners, it was supposed that an army of citizen-soldiery would be there to defend it. It was very low, the walls having about the height of an ordinary room. It was little more, in fact, than the old fort of Revolutionary time of which the father of Major Robert Anderson had been a defender. The sand had drifted from the sea against the wall, so that cows should actually scale the ramparts.[119]

119. "From Moultrie to Sumter" (published in Volume 1 of Johnson and Buel's 1887 *Battles and Leaders of the Civil War*), Fort Moultrie 1812-1862, Written Descriptions & Observations, website, http://moultrie.battlefieldsinmotion.com/written-descriptions.html.

Figure 2.16. Digital rendering of north face of Fort Moultrie as it was in 1860. (Source: Battlefields in Motion Ltd., http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html.).

Figure 2.17. Digital rendering of west face of Fort Moultrie as it was in 1860. (Source: Battlefields in Motion Ltd., http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html.).

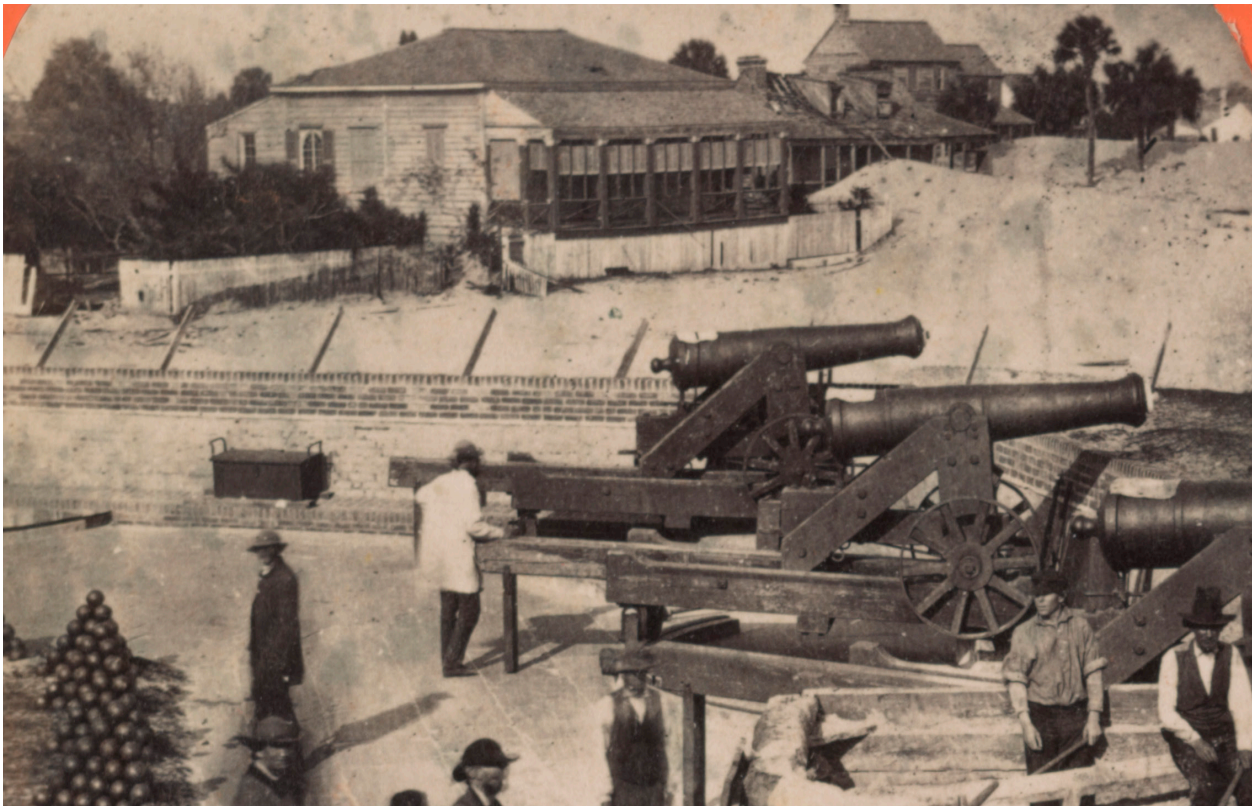


Figure 2.18. Photograph shows an interior view of Fort Moultrie a few days after the April 1861 bombardment. Damage from Sumter's return fire is shown on the large house in the distance. (Source: Osborn & Durbec, photographer. *Fort Moultrie, no. 9*. Charleston Fort Moultrie South Carolina United States, 1861. [Charleston, S.C.?: Osborn & Durbec's Southern Stereoscopic & Photographic Depot?] Photograph. https://www.loc.gov/item/2015645332/.).

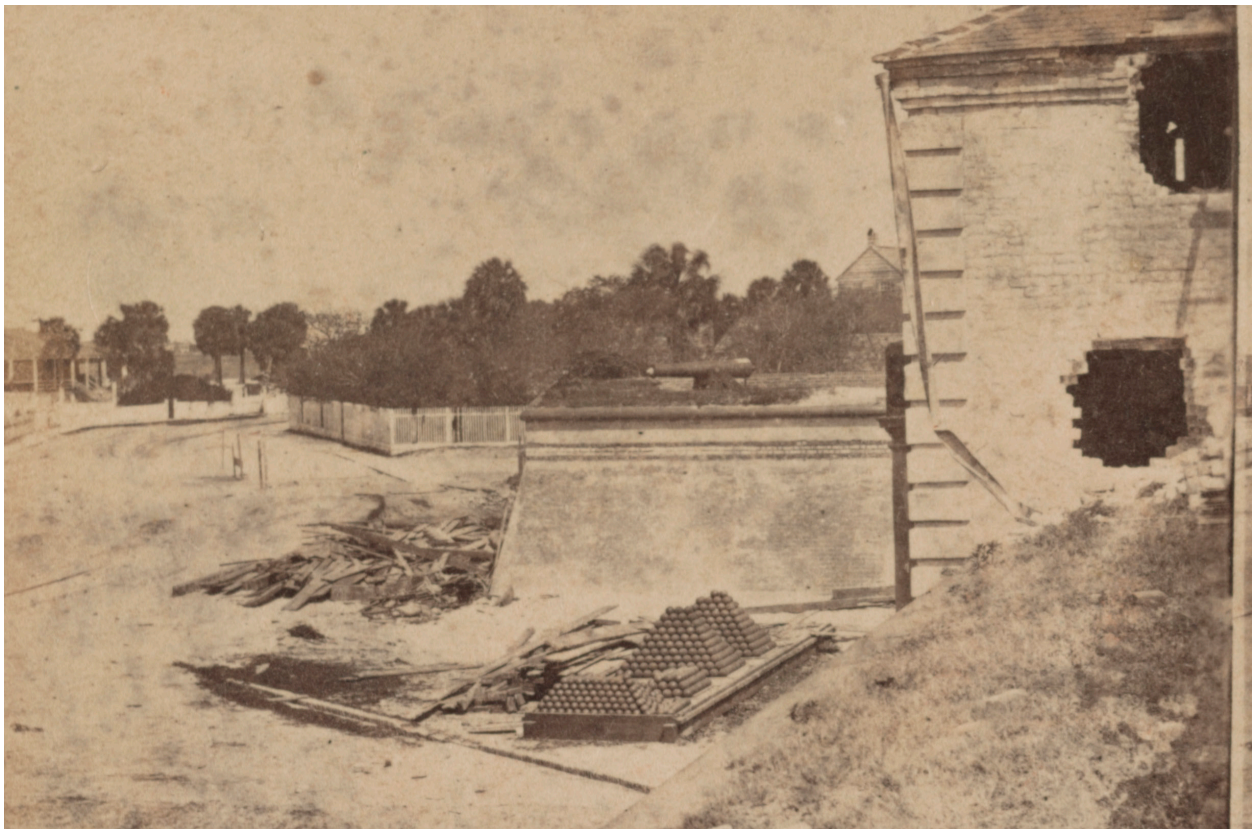


Figure 2.19. Damage at Fort Moultrie after April bombardment. (Source: Osborn & Durbec, photographer. *Fort Moultrie, no. 1*. Charleston Fort Moultrie South Carolina United States, 1861. [Charleston, S.C.: Osborn & Durbec's Southern Stereoscopic & Photographic Depot, 223 King Street] Photograph. https://www.loc.gov/item/2015645344/.).

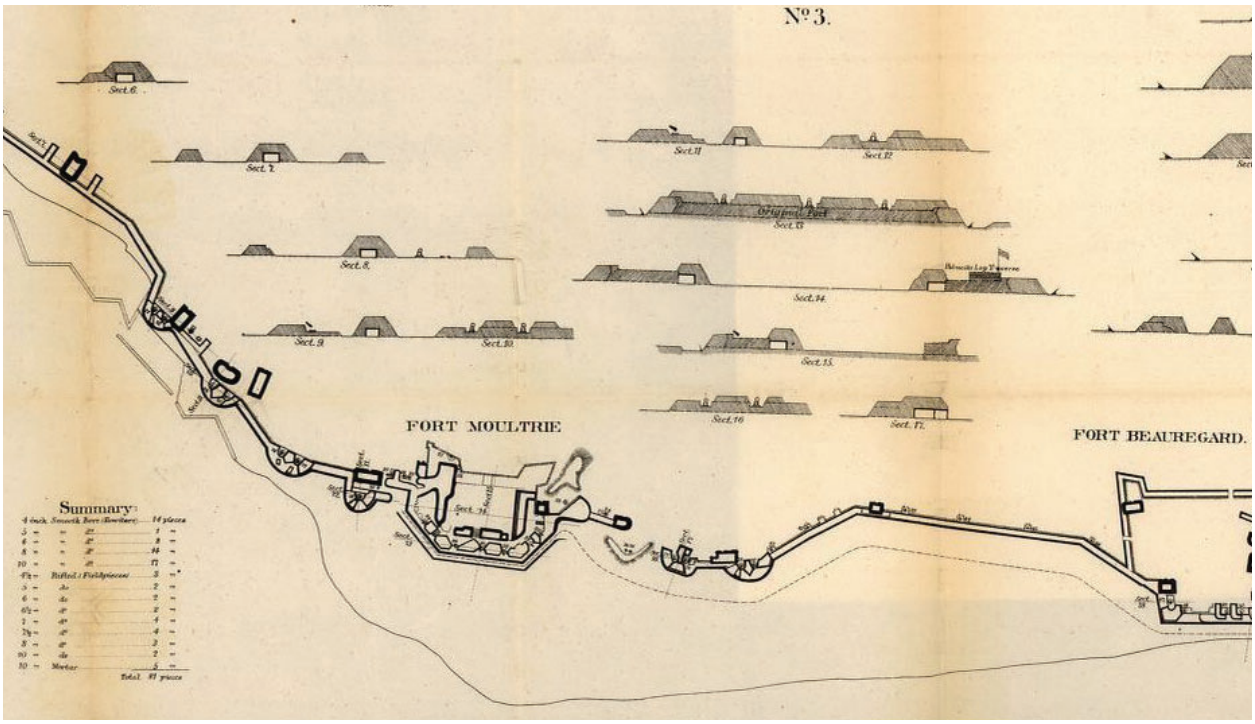


Figure 2.20. Map showing the extensive defenses along on Sullivan's Island. (Source: *Defences of Charleston S.C. Fortifications on Sullivan's Island*. [Washington, Government Printing Office, 1865] Map. https://www.loc.gov/item/99448831/.).

To get Fort Moultrie in a defendable state, Capt. Foster directed the workers to first remove the large sand dune that had formed on the southeastern side of the fort. Workers dug tunnels down through the terreplein to serve as a connection between it and the caponniere. By November, a large number of masons arrived at Sullivan's Island from Baltimore in order to continue readying Fort Moultrie's defenses. Capt. Foster then ordered the construction of "two additional flanking defenses known as bastionets; the northeastern one a wooden platform mounting four field-pieces, and the northwestern one as a masonry insert jutting from the outer wall and designed to station riflemen. Both additions are to be protected by a stout board-fence ten-feet-high, topped by strips studded with nails."[120] Foster then traveled to Fort Sumter to oversee its construction, which was not yet completed. In his absence, over 100 masons carried out various repairs and alterations to the fort. In December, workers installed a 15-foot-wide ditch set behind a picket fence around the fort, constructed a bridge between the guardhouse and the north barracks, and stacked sand-filled barrels on the east to protect the garrison from sharpshooters.[121]

On December 20, 1860, South Carolina issued a formal Ordinance of Secession, declaring the state was no longer part of the United States. A "Committee on Foreign Relations" traveled to Washington D.C. in order to request the "transfer of all Federal military installations and properties to the new republic of South Carolina, most especially the three forts guarding Charleston Harbor."[122] Knowing that Fort Moultrie was undefendable from a land assault by South Carolina troops, commanding Federal officer Major Robert Anderson decided to withdraw to Fort Sumter. On December 26, the enlisted men's wives and children departed for Fort Johnson, while two companies of Federal troops arrived at Fort Sumter. The following day, the South Carolina militia peacefully seized Castle Pinckney. That evening, the South Carolina militia arrived at Fort Moultrie and found that exiting Union troops had intentionally sabotaged the fort—in particular its armament capabilities. Overseen by former US Artillery Major, Roswell Ripley, repairs to the Fort Moultrie began immediately. A crew of 200 enslaved African Americans began constructing a series of traverses off the fort's southeast angle. Workers remounted the damaged guns and installed a new flagstaff, which displayed the South Carolina flag.

120. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."
121. Ibid.
122. Ibid.

Figure 2.21. 1865 image of Fort Moultrie's interior. Note the palmetto tree, and earthwork character of the site (Source: Interior views of Fort Moultrie, Charleston, S.C., April. Charleston South Carolina United States. [Photographed 1865, printed between 1880 and 1889] Photograph. https://www.loc.gov/item/2014646409/.).

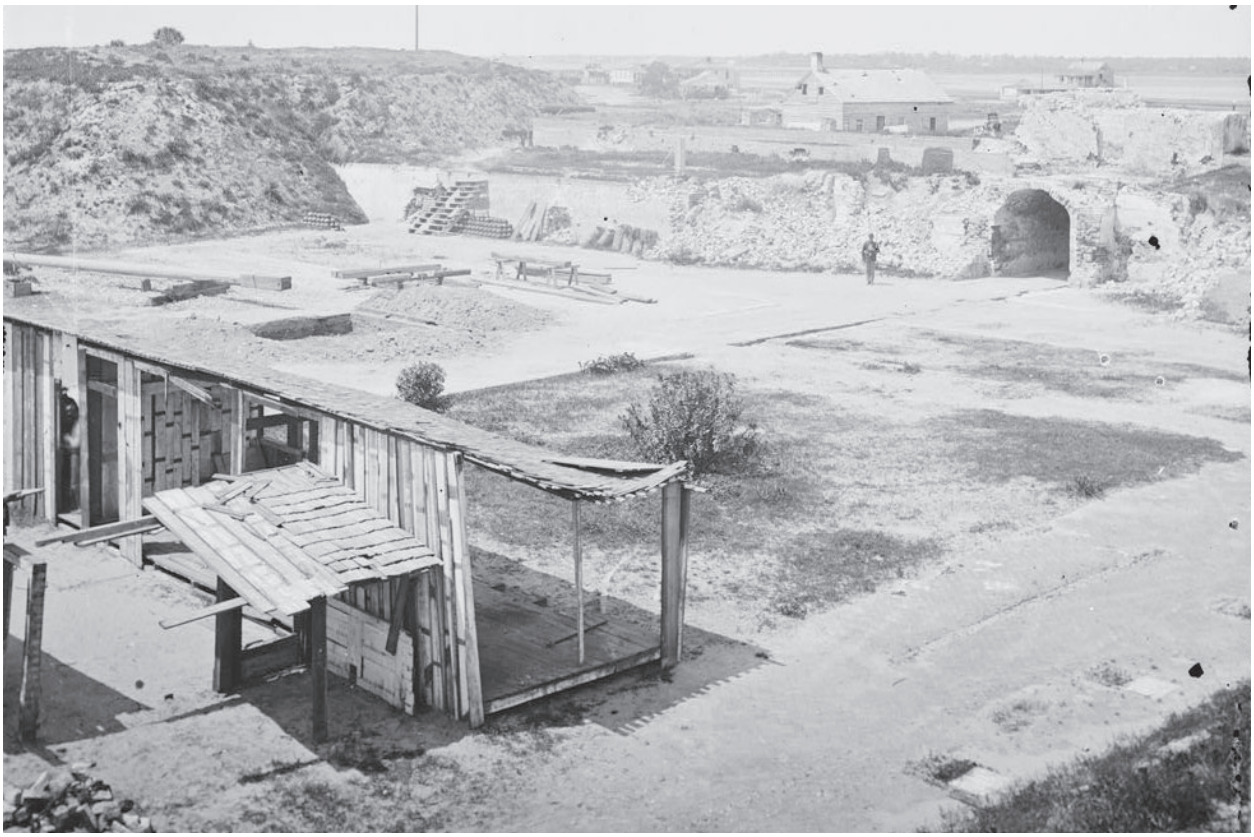


Figure 2.22. 1865 photograph of Fort Moultrie. Note the temporary structures in the interior, the absence of the barracks, and the buildup of sand at the fort walls. (Source: *Charleston, South Carolina vicinity. Interior view of Fort Moultrie. Sullivan's Island*. United States, 1865. Photograph. https://www.loc.gov/item/2018671238/.).

Figure 2.23. 1865 photograph of Fort Moultrie's sally port, Moultrieville, and cove to the northwest. (Source: *Charleston, South Carolina vicinity. Interior of Confederate Fort Moultrie showing ruins of sally-port and walls*. United States, 1865. Photograph. https://www.loc.gov/item/2018670983/.).

At Fort Sumter, Federal troops remained steadfast in their commitment to hold the fort despite the guns of the harbor fixed on them. In January 1861, Federal commanders devised a plan to resupply Fort Sumter, bringing food, supplies, and more troops to the isolated stronghold aboard a private steam ship. In New York, the *Star of the West* was made ready and loaded with the cargo. Arriving at the harbor early on the morning of January 9, the *Star of the West* slowly approached what its captain believed to be Fort Sumter. As daybreak lightened the sky, another steamship was there waiting, as South Carolina governor Francis W. Pickens had been tipped off to the secretive mission. The steamer signaled back to the militia-occupied batteries at Fort Moultrie and Morris Island, which commenced firing at the *Star of the West*, forcing it to retreat from Fort Sumter. The event marks a critical event leading to the opening shots of the Civil War in April 1861. The dissolution of the Union and the creation of the Confederate States of America then transpired quickly, as by mid-February 1861, seven states had seceded, regular troops had been raised, and the Confederate States of America had appointed Jefferson Davis president. State militias proceeded to takeover federal military installations throughout the south and stockpiled guns and ammunition. In March, Brig. Gen. P.G.T. Beauregard, was placed in command of the Confederate forces in South Carolina.

By the beginning of April, the months-long occupation of Fort Sumter had greatly reduced the stores of food for the Federal garrison. Maj. Anderson ordered bread rations cut in half, even as work to ready Fort Sumter continued. The Confederates were also busy, constructing various batteries and defenses throughout the harbor, including a large floating battery. The floating battery was then positioned off Sullivan's Island in order to easily fire upon any ships coming to resupply Fort Sumter. On April 11, Anderson denied a formal request by Beauregard to surrender Fort Sumter. The following day, the bombardment of Fort Sumter began when Confederate forces fired from Fort Johnson on James Island at 4:30 am on April 12, 1861.

From batteries on Morris Island, James Island, Fort Moultrie, and the floating battery, Confederate soldiers fired upon Fort Sumter. Maj. Anderson

Figure 2.24. 1865 photograph of the exterior of Fort Moultrie's sally port. Note the presence of (temporary) wood guard house buildings and a war-time gate in the right side of the image. (Source: *Charleston, South Carolina vicinity. Interior view of Fort Moultrie. Sullivan's Island*. United States, 1865. Photograph. https://www.loc.gov/item/2018671243/.).

directed his troops to fire back. The bombardment lasted a day and a half and forced Maj. Anderson to surrender his post. Historian Frank Barnes states, "[b]ut for shortages in manpower and supplies, Major Anderson might well have continued the fight in April of 1861…The walls were unbreached; only two guns (and those not being used) were dismounted or damaged by Confederate gun fire. Fire had done the worst; living quarters were the parts of the fort perhaps most affected"[123] (Figure 2.18 and Figure 2.19).

One of the terms of surrender allowed Maj. Anderson to lower the fort's US flag in a ceremony which included a 100-gun salute. The ceremony was cut short when a firing accident on the 47th round resulted in the first death of the Civil War. Later that day, the Confederate garrison replaced the Federal troops at Fort Sumter and raised the flag of the Palmetto Guard and the First National Flag of the Confederacy.

On April 15th, President Lincoln, now convinced that the dissolution of the Union would not proceed peacefully, called for the mustering of 75,000 troops. Several days later, he "ordered the blockade of all Southern ports from South Carolina to Texas."[124] By the middle of June 1861, Virginia, Arkansas, North Carolina, and Tennessee had seceded, and both Federal and Confederate armies quickly established defensive positions. On Sullivan's Island, the Confederates "constructed Battery Bee, about a half mile to the west of Fort Moultrie; Battery (or Fort) Beauregard, the same distance to the east; and Battery (or Fort) Marshall, at the eastern end of the island."[125] The following year six more batteries were built. Over the course of the war, the Confederates operated "seventy-two major defensive positions" in the harbor to protect the vital city of Charleston.[126]

123. Frank Barnes, "Fort Sumter: April 7, 1863," (United States Department of the Interior: National Park Service, 1950), 1.

124. Douglas W. Bostick, *Charleston Under Siege: The Impregnable City,* (Charleston, SC: The History Press, 2010), 11.

125. Riley, "Historic Fort Moultrie in Charleston Harbor," 67.

126. National Register of Historic Places, Civil War Defenses of Charleston Thematic Resources, Charleston, South Carolina, http://www.nationalregister.sc.gov/MPS/MPS007.pdf.

Gen. Beauregard oversaw the defense of the city and developed a strategy for its protection (Figure 2.20). Historian Douglas Bostick describes the defense system:

> [Beauregard] designed a harbor defense utilizing three interlocking circles of fire. Fort Sumter was the center of the first line, which also included Batteries Gregg and Wagner on Morris Island to the south and Fort Moultrie, Fort Beauregard, Batteries Bee, Marion and Marshall and four small batteries, all on Sullivan's Island. The second circle of fire included the James Island fortifications of Fort Johnson and Batteries Cheves, Wampler and Glover; Fort Ripley and Castle Pinckney in the harbor; a battery on Hog Island; and two batteries in Mount Pleasant. The final circle of fire depended on batteries in Charleston. Artillery crews placed range buoys in the harbor to aid in firing on any Union ships moving through.[127]

Beauregard devised his plan as new rifling technology developed over the course of the war greatly expanded the destructive capability of cannon fire. The new technology effectively ended Fort Moultrie's ability to withstand a bombardment from Union ships in the harbor. Beauregard therefore directed workers to surround and bury Fort Moultrie with mounds of sand, leaving room for cannons to fire up and over the fort's sand-covered walls.

The new technology also allowed the firing of shot far greater distances than ever before. In early August 1863, Federal troops encamped in the marsh between James and Morris Islands began constructing a new battery, nicknamed the "Swamp Angel." They designed this battery to reach Charleston, some five miles away. Upon completion several weeks later, the weapon was aimed for the city. In the overnight hours on August 22, the bombardment of Charleston began. Rounds of "Greek Fire"—incendiary bombs—hit their targets. The range of the Swamp Angel's missiles traveled "farther than any previously-recorded artillery projectiles."[128] Shocked Charlestonians fled, leaving behind a city that was gradually being turned into ruins. Concurrent with the shelling of Charleston, the Union fleet anchored off the harbor bar, maintained the stronghold on Morris Island, and continued the bombardment of Fort Sumter. The initial week-long shelling, in which over 5,000 shots were fired, rendered Fort Sumter practically useless.[129] The shelling of Fort Sumter continued for another year, with varying degrees of intensity. The last assault on Fort Sumter lasted 61 days, "during which 14,666 heavy rounds [were] fired against its Confederate garrison, killing sixteen and wounding 65. Henceforth, the Union siege-forces [remained] largely static behind their defenses, until the war's end."[130]

In September 1863, a battle between the gunners at Fort Moultrie and the Union naval fleet resulted in the death of 16 Confederate soldiers. Images of the fort shortly after this incident show that the barracks had been destroyed, and the fort resembled an earthwork (Figure 2.21 - Figure 2.25). At this time, "Confederate strength on Sullivan's Island [consisted] of 950 heavy-artillery gunners, 183 light artillerymen, 204 cavalry troopers, and 4,512 infantrymen — a total of 5,882 men on paper, although effective strength [was] really only 5,013 men."[131] By early 1864, the number of available troops on the island stood at roughly 2,900, part of a total of 14,000 troops stationed around Charleston Harbor.

The Union blockade of the harbor made living in the besieged city difficult, as those who remained paid exorbitant prices for essential goods when they were even available. Blockade runners—fast moving ships that transported goods in and out of the city—continuously tested the porosity of the blockade. As the war continued through 1864 and the number of dead soldiers on both sides of the conflict grew, the determination to continue the war was tested. However, the Confederates were not yet willing to surrender. As 1864 came to an end, Union General William Tecumseh Sherman began his "March to the Sea," with 60,000 troops. The army swept through the south, destroying large swaths of Confederate controlled territory, and forcing the surrender of Savannah in late December. By the beginning of February 1865, Union troops closed in on the Charleston area as General Sherman's Union troops moved into South Carolina and marched to Columbia.

127. Bostick, *Charleston,* 40.
128. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."
129. Bostick, *Charleston*, 93.
130. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."
131. Ibid.

Then on February 17, the remaining troops, including the last Confederate garrison to hold Fort Moultrie, abandoned their posts and the city. The flag of the United States once again flew over Charleston. Within two months, Confederate General Robert E. Lee surrendered his army to Union General Ulysses S. Grant, effectively ending the war. However, the celebratory feeling amongst northerners, as well as those formerly enslaved in the south, was tempered by the April 14, 1865 assassination of President Lincoln.

Landscape Summary: 1860-1865

The Civil War produced significant changes to the site, particularly in terms of buildings and structures. (Illustrations 2.5 and 2.6). Preparations for potential conflict in early 1860 resulted in the modification of the fort, including the addition of two bastionets at the northeast and northwest angles and a flanking caponniere at the south wall. On the night of the bombardment of Fort Sumter, return fire resulted in some damage to the fort (Figure 2.18 - Figure 2.19). The Confederates proceeded to make necessary repairs.

During the war, US warships bombarded Fort Moultrie. As a result, most of the buildings in the interior of the fort, including the quarters and barracks buildings, were significantly damaged and subsequently removed. Not able to withstand the bombardment, by 1863, the garrison was directed to bury the Scarp Wall, magazines, and other fort features with sand for protection, essentially turning Fort Moultrie into an earth work (Figure 2.21 - Figure 2.25). Immediately outside the fort, at least two wooden guardhouse buildings flanked the sally port and a picket fence enclosed the space between the northeast and northwest bastions (Figure 2.24). It is unknown what condition he Osceola monument and fence were during this period. A linear network of defensive works extended east and west outward from the fort along the beach (Figure 2.20).

By the beginning of the Civil War, in the reservation area north of the fort, a picket fence enclosed several buildings constructed several decades earlier. By the end of the war most of these buildings had been destroyed and the area was in a ruinous condition (Figure 2.23). The area to the east of the fort was in a similar condition, with only a few of the houses left standing.

Several trees still managed to grow inside the fort for at least a portion of the war, providing shade from the sun (Figure 4.2 and Figure 4.12). One photograph shows a palmetto tree growing inside the fort (Figure 2.21). Aside from these trees and coastal grasses, no other specific vegetation features are known to have grown on site during the war. The conversion of the fort into an earthwork resulted in an irregular topography. Views remained important during this period, as sight lines across the harbor and to Fort Sumter were militarily significant.

Key

1	Civil War- Era Confederate Batteries and Earthworks
2	Brick Chapel and Storehouse
3	"Camp Women" Area
4	Stable
5	"Citizen's Houses"
6	Wharf
7	"Citizen's Houses"

Notes

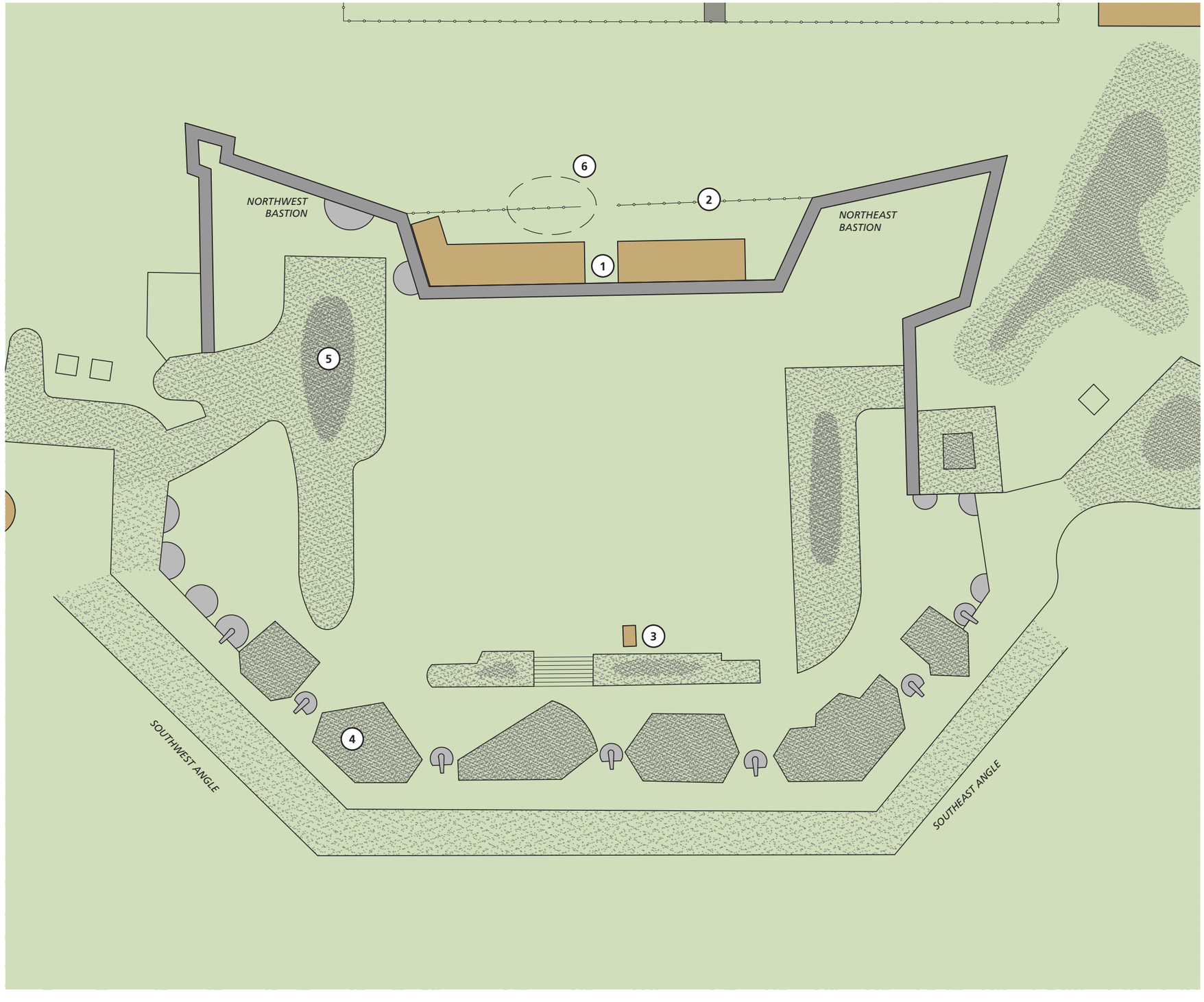
1. This illustration shows a composite of the site as it existed between 1860 and 1865. For clarity, not all landscape features are shown.

Credits

1. "US Coast Survey Defenses of Charleston, SC Fortification on Sullivan's Island," 1865 [Map].
2. "Sectional View of Fort Moultrie," ETIC 392/25927.
3. "US Coast Survey, Defenses of Charleston, South Carolina, Fortifications on Sullivan's Island," 1865, [Map.], Willenbücher.

Illustration 2.5
Period 6 (1860-1865)
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019



Building Key

1	Guard Houses
2	Fence
3	Hot Shot Furnace
4	Bomb Proofs
5	Powder Magazine (Covered)
6	Osceola's Gravesite

Notes

1. This illustration shows a composite of the site as it existed between 1860 and 1865. For clarity, not all landscape features are shown.
2. Osceola's gravesite is shown as a dashed circle, as research did not reveal an understanding of gravesite conditions during theis period.

Credits

1. "Plan of Fort Moultrie, Charleston Harbor," 1842, [Map.], Bowman.
2. "Charleston Harbor," 1849, [Map.], A.D. Bach.
3. "Peacetime Fort Moultrie," 2012, [Map.],Battlefields in Motion, Ltd.
4. "US Coast Survey, Defenses of Charleston, South Carolina, Fortifications on Sullivan's Island," 1865, [Map.], Willenbücher.

Illustration 2.6
Period 6 (1860-1865)
Fort Moultrie, Enlargement

Fort Sumter and Fort Moultrie
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Figure 2.25. 1865 photograph looking north across sally port to the North Reservation area. Note the absence of buildings but the presence of the wharf. (Source: *Charleston, South Carolina vicinity. View of Fort Moultrie*. United States, 1865. Photograph. https://www.loc.gov/item/2018670984/.).

Post-Civil War (1865-1885)

The mourning of President Lincoln cast an extended shadow over the war's end. Over 700,000 people—both soldiers and civilians—died in the conflict. The war destroyed towns and cities; roads, bridges, and rail lines were in shambles; and the collective trauma caused by the four years of Civil War was widespread. Yet, the war reunited the Union and brought an end to slavery in America. During the Reconstruction Era (1861-1898), the nation took stock of what had transpired and looked forward toward peace and rebuilding. However, the task of rebuilding the nation into one that was inclusive to all Americans, including white supporters of the Confederacy, as well as the four million formerly enslaved African Americans, was a major challenge. Over time, while many white southerners found a foothold in the post-war American society, a reign of racial terror, discrimination, and segregationist policies inhibited African American integration throughout the South.

In Charleston, the Federal military presence, coupled with the state of ruin, meant that the city maintained a wartime character. On Sullivan's Island, the war left the island "a battle-scarred landscape of massive earthen fortifications, ruins of antebellum beach cottages, and financially destitute owners" (Figure 2.26 - Figure 2.27).[132] People gradually returned to Sullivan's Island as "Charleston elites were able to renew their wealth with new industries."[133] By the 1870s, "much of the western half of the island was again covered by houses."[134] Immediately following the war, Federal troops occupied the forts of the harbor, with rotating companies of African American troops stationed at Fort Moultrie. The Federal occupation of Charleston and the harbor was short-lived as forces turned attention to conflicts occurring on the Western frontier.[135] Federal troops garrisoned Fort Moultrie until October 12, 1866, when the "128th U.S. (Colored) Infantry Regiment [were] mustered out of service, leaving Fort Moultrie empty and abandoned."[136]

Rebuilding seacoast defenses after the war was a massive task. Most fortifications were in a state

132. Karl Philip Sondermann, "Remembering the Legacy of Coastal Defense: How an Understanding of the Development of Fort Moultrie Military Reservation, Sullivan's Island, South Carolina, Can Facilitate its Future Preservation" (2013). All Theses. Paper 1649, 23.
133. Sondermann, "Remembering the Legacy," 23.
134. Sullivan's Island Historical and Architectural Inventory - 1987, 3.
135. Sondermann, "Remembering the Legacy,"24.
136. Battlefields in Motion, "Fort Moultrie 1809-1898, A General Timeline."

Figure 2.26. 1865 photograph looking east from the fort's interior. Note the spare character of the East Reservation Character Area. (Source: *Charleston, South Carolina vicinity. Interior view of Fort Moultrie. Sullivan's Island*. United States, 1865. Photograph. https://www.loc.gov/item/2018671237/.).

of disrepair or complete ruin. Furthermore, the forts of the Second and Third Systems were now obsolete due to the "introduction of steam power in ironclad warships that increased tactical mobility and rendered fixed-shore positions less of a threat to modern warships, and revolutionary improvements in artillery and ammunition, such as the new rifled cannon and the penetrating qualities of their explosive shells that made it possible for navies to damage the masonry forts."[137] Therefore, a new type of fortification had to be developed to address these two issues. Over the next decade, engineers refined plans for what the new forts would feature. The few repairs that workers completed during the 1870s focused mainly on rearming existing forts with new, higher powered guns and constructing detached batteries.[138] However, the new works did not improve the overall state of American seacoast defenses.

At Fort Moultrie, the task of fort upkeep initially rested on the shoulders of just one person, a Mr. Gleason.[139] "The impossible task of one individual maintaining a four-acre fortress with little supervision or funding resulted in the steady deterioration of the fort's armament

137. S. Hitchcock, S. Styles, and C. Goetcheus, *Fort Moultrie Cultural Landscape Inventory*, 7.

138. Joel W. Eastman, Bolling W. Smith, and Glen M. Williford, "United States Defense Fortifications 1970-1876," in *American Seacoast Defenses, A Reference Guide*, Mark A Berhow editor, (McLean, VA: CDSG Press, 2004), 54.

139. Sondermann, "Remembering the Legacy,", 24.

Figure 2.27. Interior view of Fort Moultrie, Charleston, S.C., taken in 1867. (Source: Barnard, George N, photographer. *Interior view of Fort Moultrie, Charleston, S.C., taken in*. Fort Moultrie South Carolina United States, None. [Charleston, SC.: g.n. barnard, no. 263 king street? between 1867 and 1880?] Photograph. https://www.loc.gov/item/2015650228/.).

and emplacements."[140] Eventually, Congress appropriated funds for repair work, which began in 1872. Major General Quincy Gilmore, the engineer tasked with the transformation of southeastern Atlantic fortifications, directed workers to remove all the sand and other makeshift defenses erected by the Confederates and to remove "everything within the scarp walls … with the exception of the 1809 Powder Magazine in the northwest bastion."[141] The improvements to the fort under Gilmore's command included the completion of six service magazines, the Principal Service Magazine, the Sally Port Complex, the east bombproof, half of the west bombproof, the Terreplein and Parapet, new poured concrete foundations for new ammunition magazines and gun positions, and the repair of the Scarp Wall and 1809 Powder Magazine.[142] In 1877, the funding for repairs and alterations ran out. As Congress did not appropriate additional funds for the continuation of work, only "general repair and preservation work was undertaken" after this point.[143] The initial rebuilding activity that was completed cleared the way for the modernization of the fort to come 20 years later.

Other developments at the fort during this period included the burial of five crewmen from the *USS Patapsco*, eight years after their deaths. The Union sailors had died when the *Patapsco* hit a Confederate mine and sank. "In 1873…Benjamin Maillefert, who was removing the wreck of the Patapsco…sent the remains to Fort Moultrie, and

140. Ibid.
141. Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory*, 7.
142. John C. Garner, Jr., "Historic Structure Report, Architectural Data Section, Fort Moultrie," (Southeast Regional Office, National Park Service, September 1973), 27.
143. Riley, "Historic Fort Moultrie in Charleston Harbor," 72.

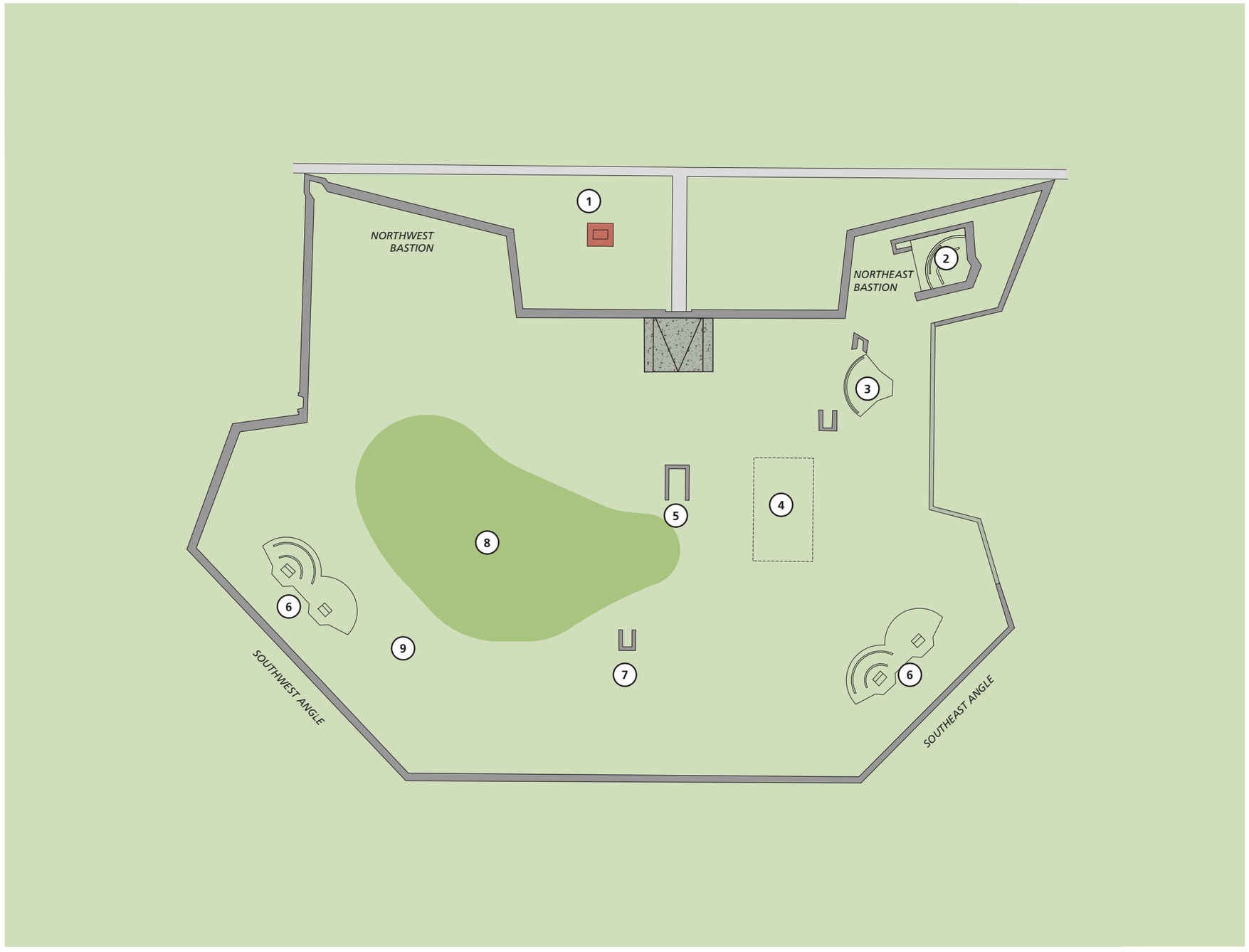
they were buried next to Osceola's grave."[144] No marker was immediately placed at the gravesite. By 1872, the wooden fence around Osceola's grave was replaced with an iron fence.[145] No known images of this iron fence are known to exist.

Landscape Summary: 1865-1885

After the war, Fort Moultrie underwent a rebuilding period (Illustration 2.7). The Civil War left Fort Moultrie in a ruinous condition, though the sand had protected portions of the fort's brickwork. Back in control of the fort, federal engineers rehabilitated the important defensive position. To this end, workers constructed a number of new buildings and structures including six service magazines, the Principal Service Magazine, the Sally Port Complex, the east bombproof, half of the west bombproof, Terreplein and Parapet. Workers also poured new concrete foundations for new ammunition magazines and gun positions and repaired the Scarp Wall and 1809 Powder Magazine. Workers covered most of these features with sand and sodded them, producing an irregular topography in the interior of the fort. North and east of the fort, little post-war documentation exists, limiting an understanding of the rebuilding activities in these areas. However, it is known that a number of residences were constructed in close proximity to the fort during the rebuilding period. Additionally, by 1872, the wooden fence around Osceola's grave was replaced with an iron fence, though no image of this fence is known to exist.

During this period, Fort Moultrie maintained its navigational role. To this end, the military added a front range light housed in a wooden tower to the northeast angle of the fort in 1872. They also added a companion range light near the lighthouse keeper's residence (Figure 4.20). In 1878, workers removed the range light from the northeast angle and moved it several hundred feet east to the beach area and enclosed it in a picket fence (Figure 4.23). The vegetative character of the site during this time is unknown. Middle Street continued to divide the reservation into two areas.

144. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 7 page 18.
145. Bearrs, "Osceola," 51.



Building and Feature Key

1 Osceola's Grave
2 Gun Position No. 1
3 Gun Position No. 2
4 Principal Service Magazine
5 Sally Port
6 Gun Position
7 South Service Magazine
8 Lower Level Turf Area
9 Southwest Service Magazine

Notes

1. This illustration shows a composite of the site as it existed between 1865 and 1885. For clarity, not all landscape features are shown.

Credits

1. "Plan of Fort Moultrie," ETIC 392/25994.

Illustration 2.7
Period 7 (1865-1885)
Fort Moultrie, Enlargement

Fort Sumter and Fort Moultrie
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Endicott Period (1885-1918)

Endicott Board and Fort Moultrie Modernization

In 1885, 20 years after the end of the Civil War, President Cleveland assembled the nine-member Endicott Board, so named for its chairman, Secretary of War William Endicott. The Endicott Board was a "joint Army-Navy-civilian board" charged with the "review the entire coast defense situation and to submit recommendations for a program based upon newly developing weapons."[146] The board envisioned a defense network that shifted "emphasis from fortification structures toward the weapons contained therein."[147] Building upon the groundwork laid in the 1870s, the board recommended the construction of new batteries, within or outside of fort walls, designed to be low-profile and built of robust reinforced concrete.[148] Other battery features included "steel cannon on disappearing carriages, powerful mortar batteries, underwater electronic minefields, and light guns which could be pointed, loaded, and fired rapidly to protect the minefields against penetration by destroyers and minesweepers."[149] The Endicott's Board's ensuing report identified 27 essential sites to receive the new armament, including Charleston Harbor. Congress did not appropriate funding to complete the works for several years however, and "from 1876 until 1898 with the advent of the Spanish-American War the fort remained basically unchanged."[150]

With the threat of war with Spain looming, work on the new defenses of Fort Moultrie began in 1896 and consisted of three concrete batteries:

> Battery Bingham was begun in April and completed by June 30, 1898. This emplacement consisted of two gun pits separated by an underground service magazine. A gallery was also built to connect the battery with the 1872-1876 Principal Magazine. The two Armstrong 4.7-inch rapid-fire guns were mounted in October and small additions made to the concrete work, including a six-inch thick apron, in November 1898.
>
> Battery McCorkle was commenced January 2, 1899 arid was completed by May of that year but the three Driggs-Seabury 15-pounders were not mounted until April 1901.
>
> Battery Lord was erected in 1903 and the two Driggs-Seabury 15- pounder rapid-fire guns were mounted in December of that year.[151]

All three batteries were constructed within Fort Moultrie's walls, saving Fort Moultrie from becoming obsolete. While Fort Sumter received the major firepower of the harbor defense network (Battery Huger), the "three small-caliber batteries [of Fort Moultrie] would deny enemy minesweepers from breaking through the harbors mine defenses, a key component of Charleston's future twentieth-century coastal defense planning."[152]

The use of Charleston Harbor as a key link in the coastal defense network depended on the ability to navigate through its notorious shoals. Ever-shifting, the harbor's navigation channels required regular dredging to allow for both commercial and military ship traffic in and out of the port. The succession of storms that occurred after the Civil War brought the issue back to the forefront, and calls were made for a more permanent solution. Therefore, in 1882, Col. Quincy Gillmore developed a solution based on the construction of two new jetties that would create a straight opening through the arcing bar at the mouth of the harbor.[153] Finished in 1895, the jetties extended outward from locations on Morris Island and Sullivan's Island. The successful completion of the jetty project allowed for the establishment of the Charleston US Navy Yard in 1903.[154] "The Charleston Navy Yard was one of most significant Navy installations constructed. The military kept the yard active for the first half of the twentieth century, and the vessels built here— particularly during World War II—are well-documented for their contributions to the eventual Allied victory."[155]

146. Lewis, *Seacoast Fortifications*, 77.
147. Ibid., 89.
148. Ibid.
149. Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory*, 7.
150. Garner, Jr., "Historic Structure Report,"12.
151. Ibid., 29-30.
152. Sondermann, "Remembering the Legacy,"39.
153. US Army Corps of Engineers, "Charleston District History," website. http://www.sac.usace.army.mil/About/History/.
154. Charleston Navy Yard Historic District National Register Nomination, Section 8 page 14.
155. Ibid.

Figure 2.28. 1893 Sanborn Map of area east of Fort Moultrie. (Source: S*anborn Fire Insurance Map from Moultrieville, Charleston County, South Carolina*. Sanborn Map Company, Jul, 1893. Map. https://www.loc.gov/item/sanborn08164_001/.).

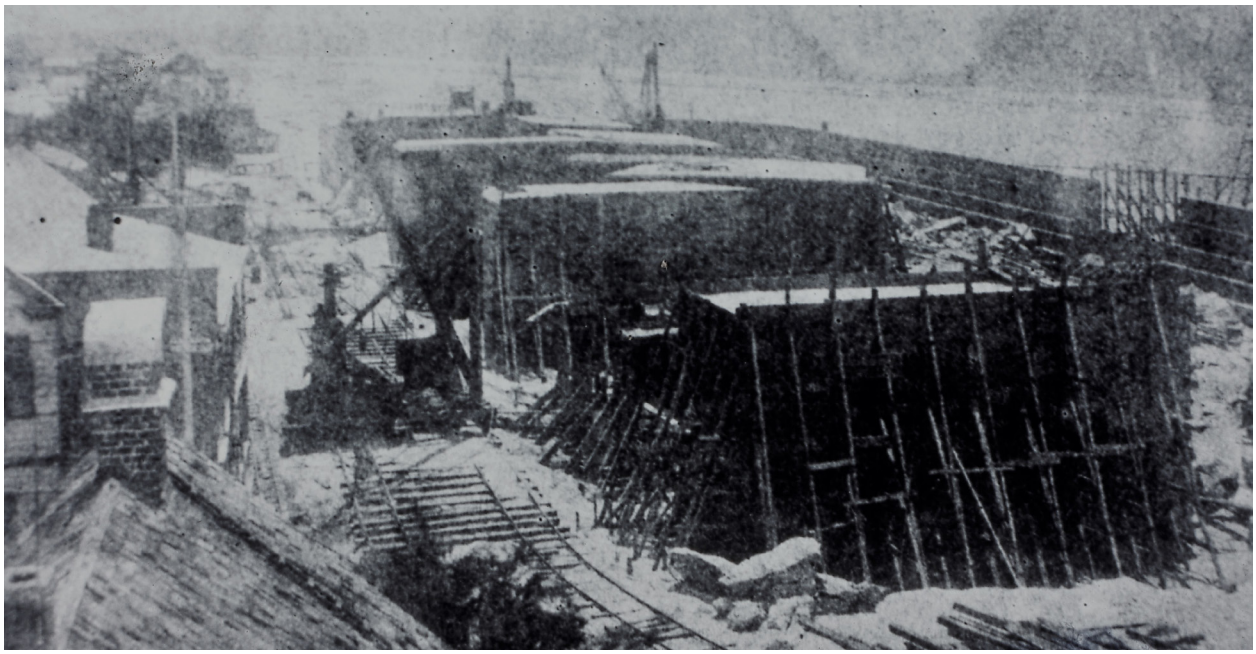


Figure 2.29. Circa 1897 photograph of the construction of Battery Jasper in East Reservation Character Area. Note presence of houses in the vicinity. These residences were removed during or shortly after the construction of the battery (Source: Open Parks Network. "Construction of Battery Jasper, Fort Moultrie, South Carolina." http://purl.clemson.edu/F9920D2E6DE5951A799B4BFD9B4BF314. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

Fort Moultrie Military Reservation

The Fort Moultrie Military Reservation (FMMR), officially established by the US Army Corps of Engineers in 1896, grew rapidly during the first decades of the twentieth century. Concurrent with the modernization of Fort Moultrie, the military constructed additional batteries on Sullivan's Island during this period. The transfer of approximately 80 acres of Sullivan's Island by South Carolina to the United States in 1898 allowed for the construction of Batteries Jasper, Logan, Gadsen, Thomson, and a mortar battery (called Fort Capron).[156] Battery Jasper, completed in 1898, was the most militarily impressive of the new constructions, consisting of four ten-inch breech-loading rifles mounted on disappearing carriages.[157] The carriages meant that "the gun recoiled directly to the loading position irrespective of the angle at which it was fired," protecting it from return fire.[158] The construction of Battery Jasper necessitated the removal of numerous residences (Figure 2.28 - Figure 2.29). "Small individual generators located inside the battery's concrete walls or separate powerhouse structures" provided power to the batteries.[159] All of these batteries were sited east of Fort Moultrie, as part of the expanding reservation, which prior to this point only extended northward. The new batteries required additional troops, but with "barely two hundred soldiers assigned [to the new batteries], they were severely shorthanded and lacked appropriate support facilities to execute their mission."[160] By 1907, commanders doubled the troop levels at the reservation, making FMMR the largest military installation in South Carolina.[161]

Captain Abbot, who was familiar with stone jetty construction, knew that the new batteries needed protection from the dynamic environment of Charleston Harbor. In 1897, he oversaw the construction of "four hundred and forty linear feet of eight-foot above grade timber seawalls. Located on the seaside of the existing beach dunes, this substantial barricade was protected from damage by an eight-foot wide large irregular shaped stone boulder riprap wall between the seawall and ocean."[162] As the reservation sprawled eastward, so did this system of island protection. Also at this time, workers built a new wharf called the Engineer Wharf west of Bowman's Jetty, connecting Fort Moultrie to the harbor water. A short system of small-gauge railroad line extended from the new wharf northward to Fort Moultrie and the rest of the reservation.[163]

After the construction of the batteries, the Army continued to expand the FMMR, increasing it to 300 acres. Initially the expansion corresponded with a name change; the larger reservation was to be called Fort Getty. Public outcry however, resulted in the reservation's name reverting to Fort Moultrie. The expansion of the reservation across Sullivan's Island transformed its "late nineteenth century beach resort identity into one of the largest coastal defense fortifications in the Southeastern United States."[164] As researcher Karl Philip Sondermann states,

> The post was constructed on the site of over one hundred demolished civilian-owned beach cottages and tourist-focused businesses, completely clearing the area between Moultrieville and Atlanticville. Filling this now vacant space, a professional garrison of Coastal Artillery Corps soldiers established themselves as part of the island community, effectively replacing the declining local beach tourism economy, and supporting Charleston's regional redevelopment.[165]

A 1915 plan detailing the eastern end of Sullivan's Island shows the extent of the FMMR (Figure 2.30). Over 40 distinct buildings and structures spanned across the reservation's western portion. In addition to the fort and the newly constructed batteries, buildings, and structures of the reservation included barracks, office spaces, animal pens, work spaces, a hospital, stable, and church. An artesian well, drilled in 1898, provided limited water to the reservation. Before this point, rainwater collected in cisterns (one inside the fort, and others north of the fort) served as the source of potable water for the island. Workers

156. Riley, "Historic Fort Moultrie in Charleston Harbor," 67.
157. Edwin C. Bearss, "Battery Jasper Historic Structures Report – Part II Historical Data Section," (Division of History, Office of Archeology and Historic Preservation, National Park Service, October 1968), 29.
158. Ibid., 33.
159. Sondermann, "Remembering the Legacy,"74.
160. Ibid., 42.
161. Ibid., 45.
162. Ibid., 60-61.
163. Ibid., 68.
164. Ibid.
165. Ibid.

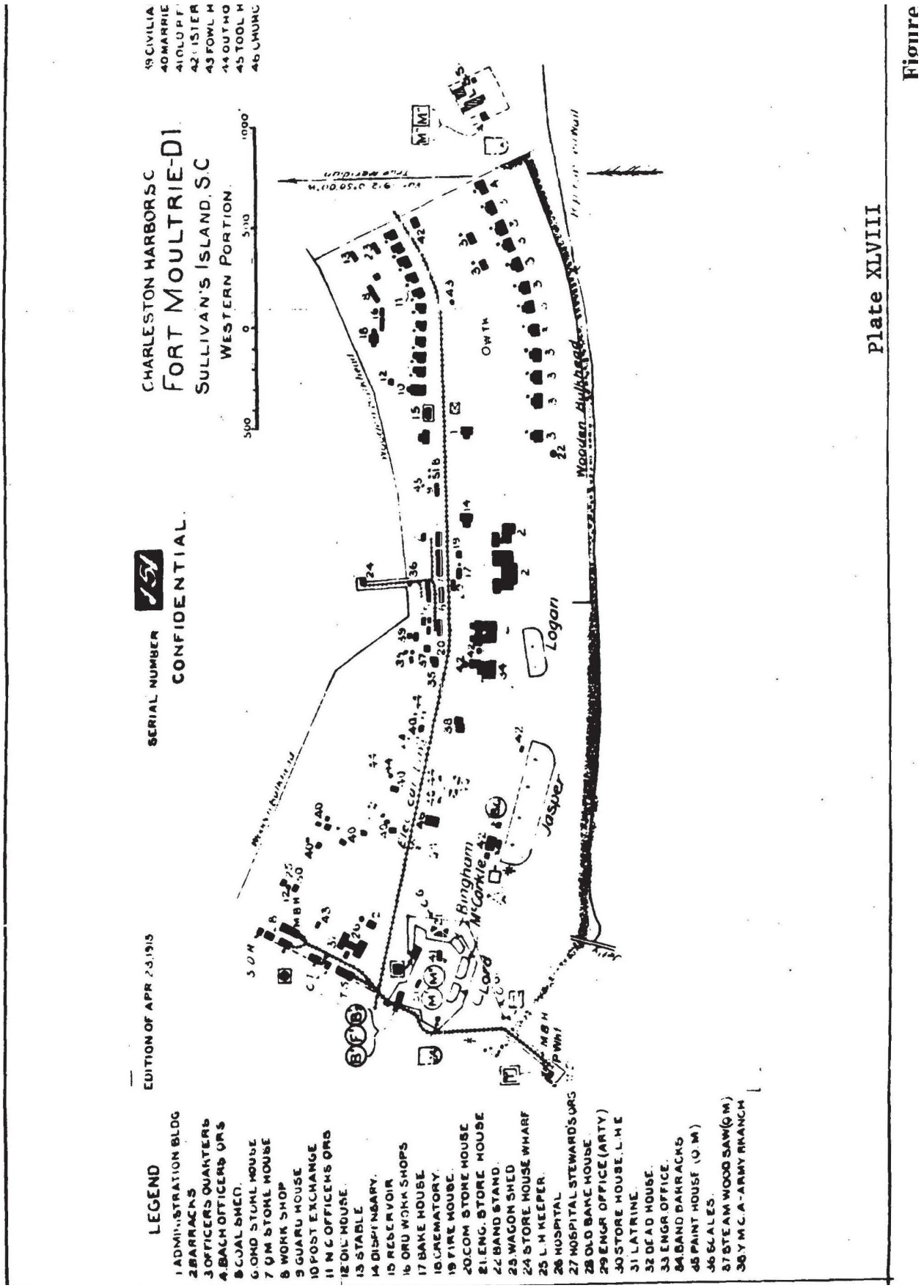


Figure 2.30. 1915 Fort Moultrie Military Reservation (Western Portion) plan. (Source: Fort Moultrie Cultural Landscape Inventory, May 1997).

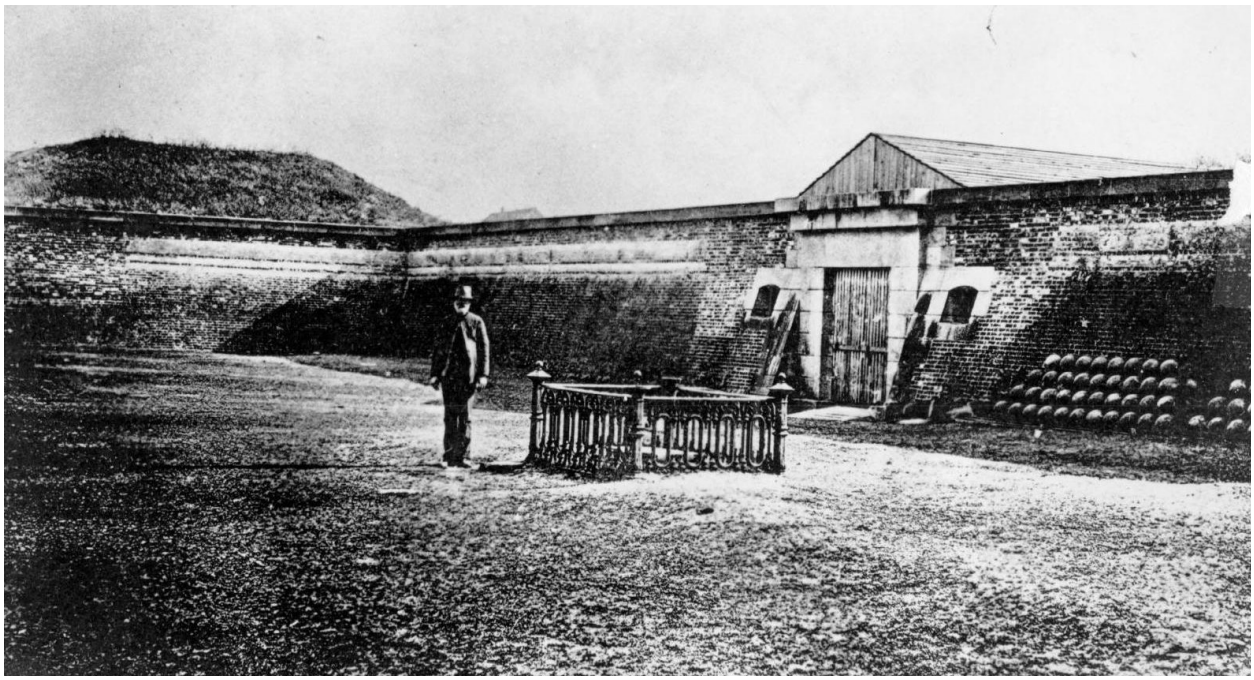


Figure 2.31. 1892 photograph of Osceola's grave showing iron fence. Also note the reconstructed Sally Port Complex entrance, and irregular topography within the fort. (Source: Open Parks Network. "Illustration of Osceola grave, Fort Moultrie, South Carolina." http://purl.clemson.edu/1901557B9A2C2560D8C9F5724102160F. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.)

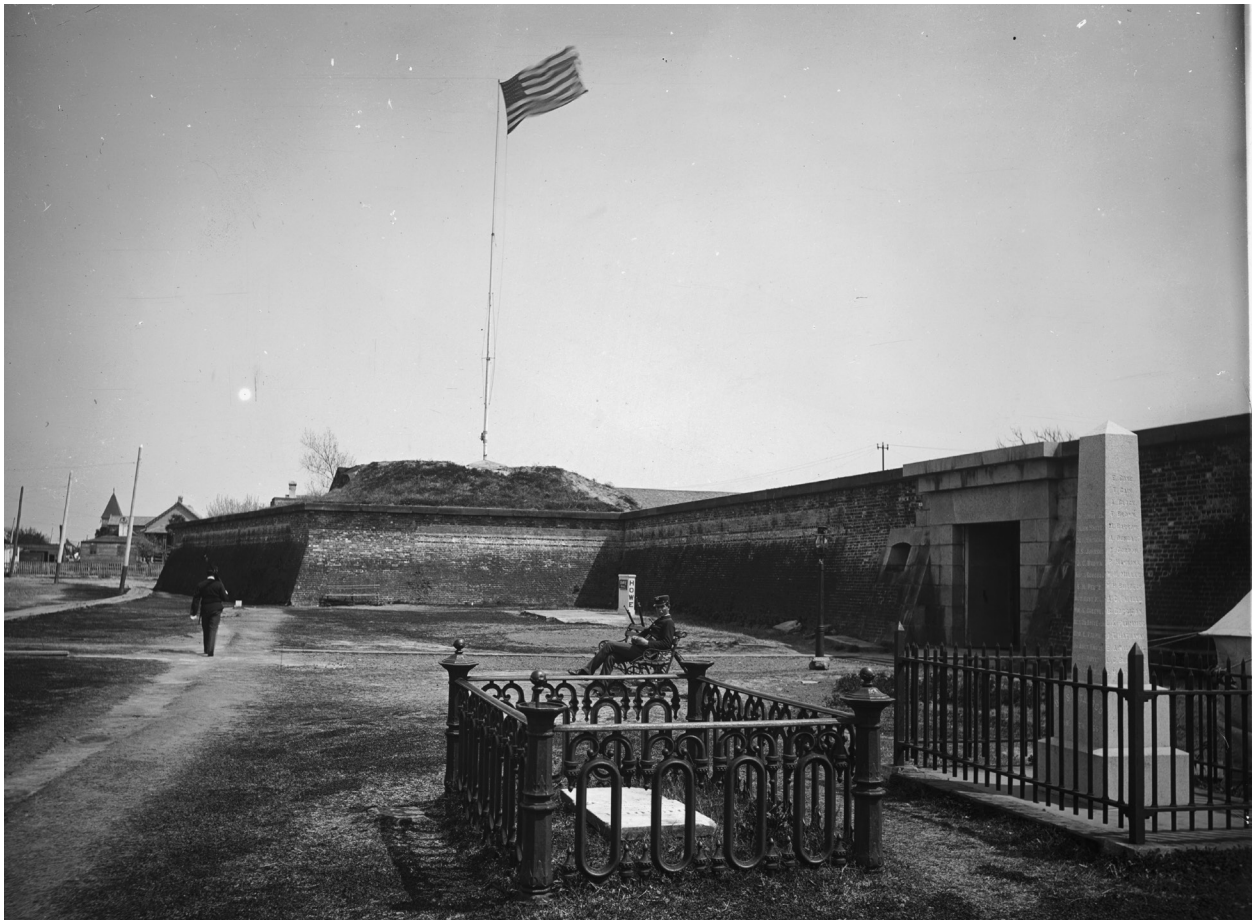


Figure 2.32. Entrance to Fort Moultrie. Notice the Howe Monument in background. The exact date of this photo is unknown. The image holder dates it to ca. 1900, but it may be more recent than that. (Source: Detroit Publishing Co., Copyright Claimant, and Publisher Detroit Publishing Co. Osceola's grave, Fort Moultrie, Charleston, S.C. Charleston. South Carolina United States, ca. 1900. Photograph. https://www.loc.gov/item/2016799325/.).

constructed two large reservoirs in 1898 to supply water to Battery Jasper. While the western portion of FMMR developed as well, much of the development occurred east of Fort Moultrie and the Endicott-period batteries. The reservation was organized in keeping with the then-popular "city beautiful" landscape planning movement, featuring a formal arrangement of features and a symmetrical organization of the site as a whole.[166] The military maintained landscaping throughout the reservation to keep a stately appearance. In 1906, workers planted oleanders on the north and south sides of Battery Jasper and silver maples between the battery and the seawall to the south. In 1907, landscapers planted Bermuda grass and more trees around the battery. Circulation features present at in this portion of the reservation included a roadway north of the new batteries and a "shell and mud roadway" connecting Batteries Logan and Jasper.[167] In 1908, workers added another reservoir.

The memorial area outside the sally port of the fort was redeveloped during this period. Accounts indicate that the metal fence that enclosed Osceola's grave was replaced with a new iron fence in the late 1880s.[168] A photograph from 1892 shows the site, including the iron fence and the absence of any maker related to the *Patapsco* sailors (Figure 2.31). At some point between 1892 and 1918 workers had erected a monument honoring the Union sailors who died in the sinking of the *USS Patapsco*.[169] They enclosed the small granite obelisk monument with an iron fence, and sited the monument where the five sailors were buried in 1873 next to Osceola's grave outside the Sally Port Complex entrance (Figure 2.32).

During World War I, American forces used Fort Moultrie as a training area, with as many as 3,000 military personnel at the reservation at this time.[170] Changes made to the fort during the war included the installation of anti-aircraft weapons to counter aerial warfare, which was a new threat. In the harbor, other WWI defenses included the placement of an anti-submarine net. While a German U-Boat entered US waters up the coast at Cape Hatteras, Charleston Harbor was never directly threatened. Army commanders also proceeded to construct Non-commissioned Officers' (NCO) Quarters in the area between Fort Moultrie and the growing reservation to the east. Additionally, workers built a cantonment camp to house 1,500 soldiers north of Battery Jasper. After the war, Army command greatly reduced the number of troops at the reservation, and the fort entered a peacetime operations period.

Landscape Summary: 1885-1918

The Fort Moultrie Military Reservation underwent an explosive growth during this period, densifying and expanding its footprint across the western portion of Sullivan's Island (Illustrations 2.8 and 2.9). The growth significantly altered the spatial organization and cluster arrangement of the reservation. Unfortunately, limited visual documentation of this period survived to the present day.

Fort Moultrie modernized its defensive capabilities through the addition of three massive concrete batteries that were positioned along the inside of the fort's south wall. The batteries featured the latest advancement in artillery capability. Workers also constructed several buildings atop the irregular sand fill, including the primary base end station, Position Finding Station, and latrine, resulting in the further density within the fort (Figure 2.30 and Figure 4.51). The immediate exterior of the fort was similarly built up, with a large storehouse built outside the east scarp wall, a search light and power station outside the western wall, and two barracks buildings, a powerhouse, and three monuments (Osceola's, the USS Patapsco, and the Howe Monument) located outside the Sally Port Complex entrance on the north over the course of the period (Figure 2.32). The iron fence that surrounded Osceola's grave was replaced with another iron fence in the late 1880s, but by the early decades of the 20th century the fence was in disrepair. A clearly defined circulation system also developed during this period, connecting the fort with the auxiliary buildings, structures, and batteries beyond the fort itself. The military added trees and shrubs in keeping with the City Beautiful movement.

North of the fort, workers constructed a number of new buildings to serve the needs of the expanding

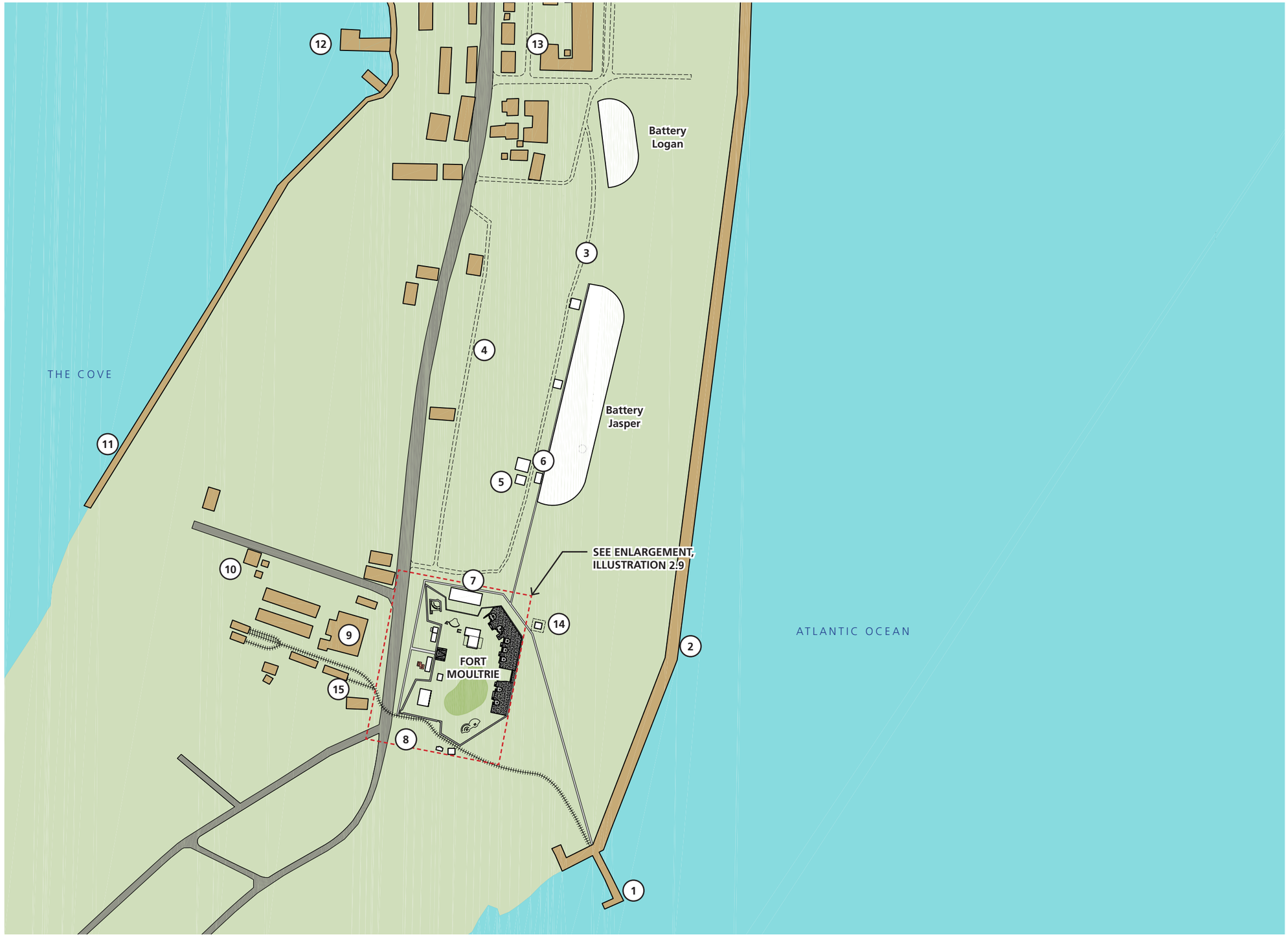
166. Ibid., 54.
167. Bearss, "Battery Jasper Historic Structures Report," 68.
168. Bearrs, "Osceola," 51.
169. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 8 page 67.
170. Sondermann, "Remembering the Legacy,"109.

military reservation. Following the tradition set 100 years prior, the Army built a new hospital in the center of the north reservation area, with several hospital support buildings surrounding it (Figure 4.21). Immediately west of the hospital complex was a linear row of storehouses that were located along a light gauge rail line that extended north from a dock along the beach south of the fort. In the northeast corner of the area, workers constructed a lighthouse keeper's residence (Figure 4.19).

By the end of the century, the area east of the fort contained numerous houses arranged along several roadways. The military demolished most of these houses in 1898 to accommodate the construction of Battery Jasper, a massive battery that was oriented east-west along the island (Figure 2.29). Both walkways and service drives connected Battery Jasper to the rest of the fort landscape. Support buildings included the Battery Jasper Powerhouse, several Reservoirs (likely replacing the use of older cisterns), and latrine immediately north of the battery. During WWI, the military added various temporary buildings and structures to the reservation landscape, reflecting a war-time readiness. A wooden bulkhead lined the south end of the beach area.

In terms of site vegetation, during the early period, the bombproof mounds were covered in coastal grasses (Figure 4.3). Later, during the expansion of the reservation, the Army planted oleanders on the north and south sides of Battery Jasper and silver maples between the battery and the seawall to the south. In 1907, landscapers planted Bermuda grass and more trees around the battery. Native coastal vegetation grew in relatively undisturbed locations.

Circulation features present during this period included several roadways serving the fort and nearby residences (Figure 2.28), several sections of walkway surrounding the fort (Figure 2.32), and a rail track extending north-south along the western edge of the site and to the construction site of Battery Jasper (Figure 2.30).



Key

1	Engineer's Wharf
2	Wood Bulkhead and Rip Rap Seawall
3	Concrete Walkway
4	Service Road
5	Battery Jasper Reservoirs No. 1 and No. 2
6	Battery Jasper Powerhouse
7	Engineer's Storehouse
8	Rail Line
9	Hospital Complex
10	Light-Keeper's House
11	Bulkhead
12	Quartermaster's Wharf
13	Barracks
14	Front Range Light
15	Torpedo Storehouse

Notes

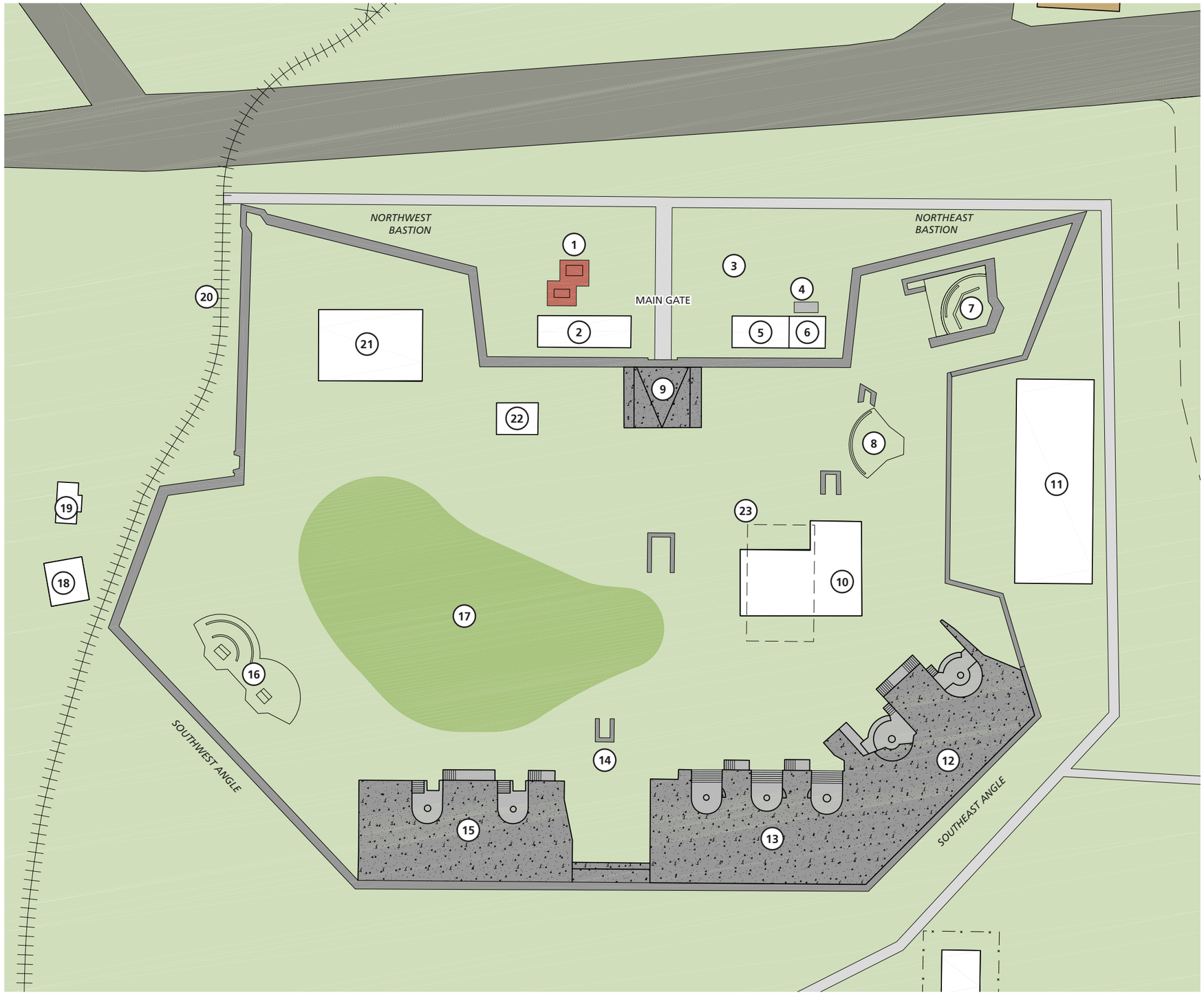
1. This illustration shows a composite of the site as it existed between 1885 and 1918. For clarity, not all landscape features are shown. Refer to CLR text for the dates of construction and removal.
2. Note, Battery Logan is not a part of the current Fort Moultrie cultural landscape.

Credits

1. "Charleston Harbor, S.C., Fort Moultrie-D1, Sullivan's Island, S.C. Western Portion," 1915 [Map].
2. Constructing Quartermaster, "Fort Moultrie, S.C.," ETIC 392/25972.

Illustration 2.8
Period 8 (1885-1918)
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019



Building and Feature Key

1 Osceola's Grave and Patapsco Monument
2 Barrack
3 Gun Display
4 Howe Monument
5 Barrack
6 Powerhouse
7 Gun Position No. 1
8 Gun Position No. 2
9 Sally Port
10 Position Finding Station
11 Engineer's Storehouse
12 Battery Bingham
13 Battery McCorkle
14 Service Magazine
15 Battery Lord
16 Gun Position No. 3
17 Lower Level Turf Area
18 Search Light
19 Search Light Power Station
20 Rail Line
21 Primary Base End Station
22 Latrine
23 Principal Service Battery (underground)

Notes

1. This illustration shows a composite of the site as it existed between 1885 and 1918. For clarity, not all landscape features are shown. Refer to CLR text for the dates of construction and removal.

Credits

1. "Charleston Harbor, S.C., Fort Moultrie-D1, Sullivan's Island, S.C. Western Portion," 1915 [Map].
2. Constructing Quartermaster, "Fort Moultrie, S.C.," ETIC 392/25972.

Illustration 2.9
Period 8 (1885-1918)
Fort Moultrie, Enlargement

Fort Sumter and Fort Moultrie
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Post-WWI, The Great Depression, and World War II (1918-1947)

The advancement in armament technology during WWI resulted in some of the lighter-gauge weapons installed at the Endicott Period batteries becoming obsolete. In fact, during the war, the Army removed guns from several of the batteries.[171] As a result, the need to garrison the reservation after the war was lessened, resulting in the reduction of the reservation's garrison to roughly 100 troops. Between 1920 and 1921, workers demolished many of the cantonment buildings sold the materials for scrap, as they were not needed to house soldiers.

Though the war had ended, FMMR continued its role as a training base. Between 1926 and 1927, the military constructed a new National Guard training camp area northeast of Fort Moultrie, immediately to the east of the hospital complex. Soon thereafter, a regular company of enlisted soldiers garrisoned the reservation (Figure 2.33). The permanent troop presence made the task of maintaining the various reservations batteries and buildings easier and helped buoy the spirits of Sullivan's Island residents during the Great Depression.[172] Much of the reservation had been wired for electricity in the early 1900s, so by the 1920s and 1930s, much of it was outdated. Therefore, during an update of the reservation's electrical system, workers installed modern electric amenities such as dishwashers in the reservation housing. The improvements "provided its garrison with a better quality of life than most Americans struggling through the Great Depression."[173] It is unknown if these updates were related to a specific New Deal program, or just pertained to necessary maintenance.

The Great Depression spurred the creation of various federal relief agencies, including the Civilian Conservation Corps (CCC). Beginning in 1933, FMMR served as the headquarters of the southeastern CCC District—District 1—and as an extensive camp for enrollees in the program. Here, "CCC recruits constructed their own area with administrative, living, supply, and recreational buildings throughout 1934."[174] The Fort Moultrie camp was primarily a pre-deployment conditioning station, being responsible for "inprocessing, providing basic technical skill training, and medical evaluations for a majority of South Carolina's initial allocations of 3,500 men in the organization's

171. Sondermann, "Remembering the Legacy," 141.

172. Ibid., 146.
173. Ibid., 167.
174. Ibid., 209.

Figure 2.33. Layout of Middle Street across from Fort Moultrie, South Carolina, 1931. (Source: Open Parks Network. "Layout of Middle Street across from Fort Moultrie, South Carolina, 1931." http://purl.clemson.edu/D15D89E66236E2E9D209863A9F91DEEF. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

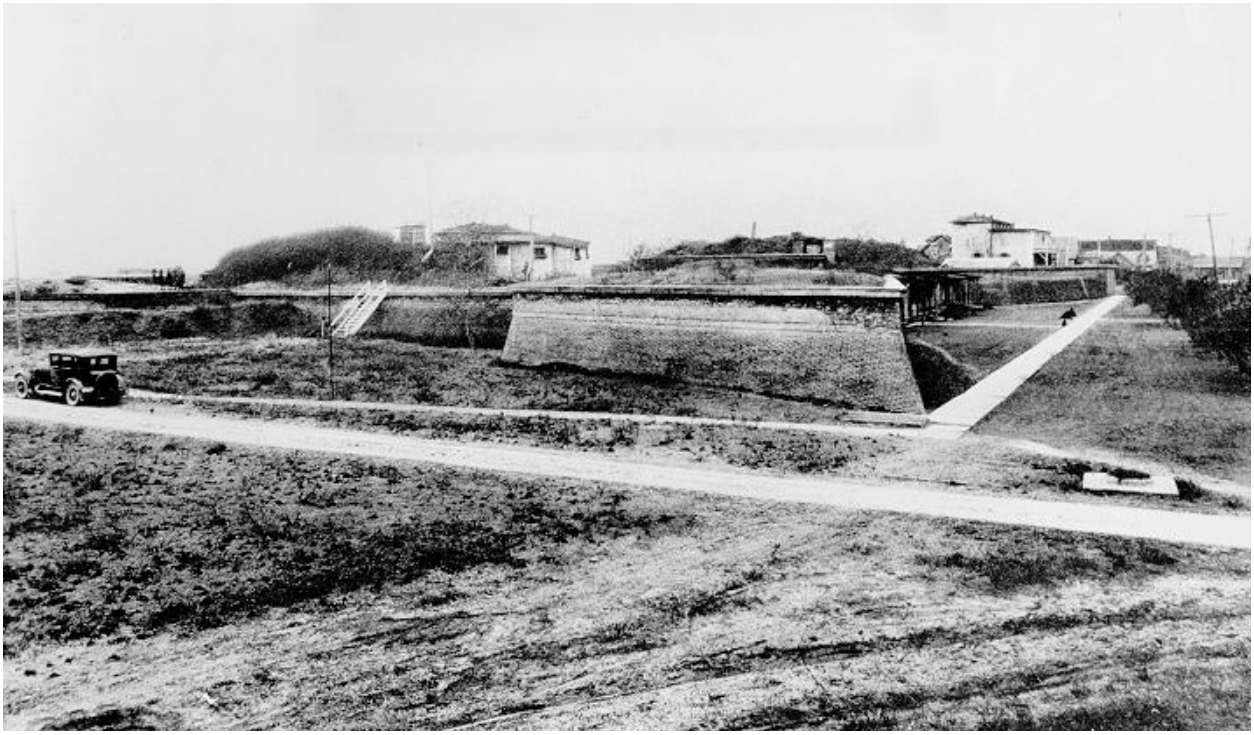

Figure 2.34. Circa 1930s photograph of Fort Moultrie with northeast bastion in foreground. Note the drives, walkways, and paths in the image. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

first year."[175] The camp was also responsible for distributing program supplies throughout the region.

Based in part on the conservation-focused mission of the CCC, landscape plantings on Army bases became standardized at this time. Guidance provided by the US Army Quartermaster's Landscape Unit identified "regionally appropriate plants that individual quartermasters could reference during their post's landscaping improvements."[176] At FMMR for instance, this included plantings of sabal palms and *Ligustrum* shrubs at the hospital. It is probable that the fence surrounding Osceola's grave was updated at this time with new corner post finials that resembled artillery shells.

The combination of the economic situation and the continual advancement of military technology resulted in more guns being disarmed by the end of the 1930s. During this time, potentially in response to potential war, the military drafted a new defensive plan for the area. The plan would now rely on "Battery Capron/Butler's mortars, [Fort Sumter's] Battery Huger's 12-inch guns, Battery Thompson's 10-inch guns, Battery Lord's 3-inch rapid-fire guns, and a mobile battery of four, 155mm guns."[177] The removal of the armament from McCorkle and Bingham left only one operational battery within Fort Moultrie, though a new mobile battery was positioned along the seawall between Battery Jasper and Battery Logan (Figure 2.34). By this time, the seawall, working in conjunction with the jetties, initially resulted in the stabilization of the beach. Thus, during the 1930s, the seawall was set back much further from the ocean than when it was constructed; and a large beach area formed south of Fort Moultrie and the Endicott Batteries. In addition to providing new space for the addition of batteries and buildings, "numerous species of vegetation like sea oats, pennyworts, and sandspurs flourished in this windswept environment."[178]

With the rising threat of entanglement in World War II, military commanders instituted a new defensive strategy for the harbor in the late 1930s. Comprised of a joint force of the US Army and

175. Tara Mitchell Mielnik, *New Deal, New Landscape: The Civilian Conservation Corps and South Carolina's State Parks*, (University of South Carolina Press, 2011); Karl Philip Sondermann, "Remembering the Legacy," 180.
176. Sondermann, "Remembering the Legacy," 209.
177. Ibid.,147.
178. Ibid., 159.

US Navy, the program was designed to "facilitate prompt action against air, submarine, and surface craft that threatened the port or shipping in the area."[179] In September 1941, military command established a "Harbor Entrance Control Post" (HECP) at Fort Moultrie to serve as the command center for the program.[180] The HECP was initially housed in the WWI-era Primary Base End Station facility located at Fort Moultrie's northwest bastion, but in 1943, workers built a new structure at the fort's northeast bastion to house the unit. Over the course of the war, the reservation "modernized its defenses by removing numerous outdated Endicott armaments and replaced them with updated weapons and methods of protecting them"[181] (Figure 2.35 through Figure 2.41. This entailed the removal of all Endicott-era weapons from Battery Huger, Jasper, McCorkle, Thomson, and Capron/Butler, which occurred in 1943. Battery Lord within Fort Moultrie contained the last of the armaments from that period. New defensive works spanned across Sullivan's Island including at Battery Jasper where the military installed a set of "fixed 90mm rapid-fire dual-purpose antitorpedo boat and anti-aircraft guns." [182] While workers made these updates, the construction of two new batteries—Batteries 520 and 230—commenced. The massive Battery 520 was sited at the east end of Sullivan's Island, and Construction 230 was located between Batteries Jasper and Logan. Because of the shifting need for resources during the war, these modern batteries were never fully operational.

In addition to the construction of the new and updated defensive works, activity at FMMR also included conducting "numerous training exercises to practice engaging enemy vessels and preventing enemy amphibious landings that were well publicized in the local press, reassuring Charleston's citizens that they were safe from the war's impacts."[183] At this time, 3,000 troops were garrisoned at FMMR, necessitating the construction of many more support buildings. The military sited many of the new buildings in the western portion of FMMR, on the little vacant land still available. "In addition to these efforts to

Figure 2.35. Circa 1943 photograph of Battery Jasper and wartime reservation. Note the camouflage paint on the battery. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.36. Circa 1941 military drill at Fort Moultrie. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.37. 1943 photograph showing northern portion of Fort Moultrie looking west toward Moultrieville. Note the camouflage paint and the three towers located within the fort at this time. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

179. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, 22.
180. Ibid.
181. Sondermann, "Remembering the Legacy," 179.
182. Ibid.,194.
183. Ibid.,191.

Figure 2.38. Circa 1943 photograph of Battery Jasper, with a putting green near the beach in the background. (Source: Open Parks Network. "An old picture of Battery Jasper and a cannon in the pit, Fort Moultrie, South Carolina." http://purl.clemson.edu/99A8FFAC1CF48748FA1F3594F1DC3410. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

Figure 2.39. 1944 image of Sullivan's Island and the development of the Fort Moultrie Military Reservation. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.40. Undated photograph of the station hospital north of Fort Moultrie. Note the symmetrical landscape plantings. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

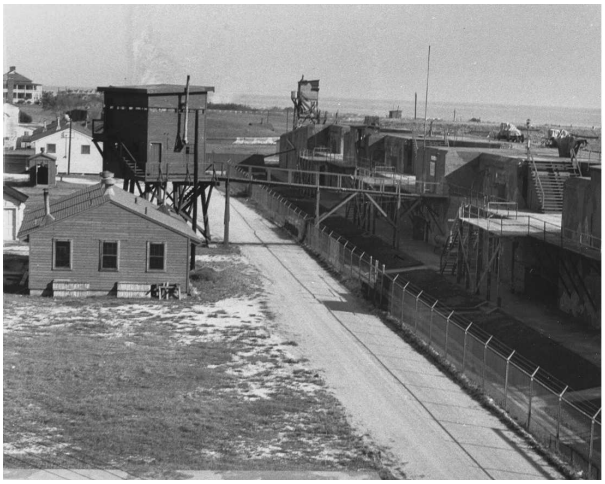

Figure 2.41. Circa 1945 photograph of the rear of Battery Jasper. Note the presence of barbed wire fencing, and the elevated walkway. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

maximize the post capacity, certain key original Endicott-era administrative structures like the post hospital, headquarters, and guardhouse were expanded to assist with the post's enlarged mission."[184]

By 1943, the defense network of numerous searchlights, anti-submarine and -torpedo defenses, and coastal batteries, resulted in the significant reduction of threats to American coastal areas.[185] As testament to the success of the defense network, "in September 1942, German U-boats laid a dozen mines at the entrance of Charleston Harbor, but minesweepers soon detected them and cleared the approaches."[186] Therefore, as resources, including guns and soldiers, were needed elsewhere as WWII continued, the FMMR garrison was replaced with limited service personnel. The reduction in the garrison emptied buildings at FMMR. Made aware of the additional space, the Army stationed the new Women's Army Corps (WAC) at FMMR, whose servicewomen occupied the barrack buildings near Battery Logan. At first, WAC servicewomen filled "vacant administrative and logistical positions in the post's diminishing garrison;" and as the war continued, "the WACs replaced administrative staff at FMMR hospital, drove the post's ambulance, supervised the post commissary, guarded FMMR's two main entrances along Middle Avenue, and provided

184. Ibid., 207.
185. Ibid.,197.
186. Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory,* 9.

school bus escorts and crossing guards for the post's children being transported to and from school."[187] The WAC paved the way for female integration in the US armed forces.[188]

With the war coming to an end in the summer of 1945, military commanders realized the ineffectiveness of FMMR. As Sondermann writes, the "Second World War's advances in military technology, showed that early twentieth century coastal defenses could be easily defeated by modern aerial attack or bypassed by increasingly mobile forces, making harbor defense reservations, like FMMR obsolete."[189] Recognizing the location was instead ideal for an Army Recreation Center, FMMR served as a vacation site for thousands of returning service members over the course of the summer of 1946. Troops fished, watched movies, and played games on the island that was once known as a summer resort for Charleston elites. After the summer, Army command began closing extraneous bases and slated the FMMR for decommission.

Landscape Summary: 1918-1947

From the end of WWI to the end of WWII, the Fort Moultrie Military Reservation continued to evolve in keeping with advancements in warfare technology and the needs of the US Military (Figure 2.34, Illustration 2.10 and 2.11).

Between the wars, the fort served as a training facility for enlisted soldiers, and during the Great Depression, CCC enrollees. This land use necessitated the addition of numerous temporary buildings across the reservation to accommodate the influx of new recruits. Following the Great Depression, WWII produced an arms race that forced the US military to expand its defensive and offensive capabilities and provided the impetus for landscape change at Fort Moultrie. Over the course of the war, the military added many new buildings and structures to the reservation to support military efforts. Such features included housing units, several watchtowers, and search lights (Figure 2.35, Figure 2.37, and Figure 4.17). The hospital complex north of the fort also grew at this time. Within the fort, the Army established the Harbor Entrance Control Post in 1941. The post was first located in the primary base end station (Figure 4.38). However, in 1943, the Army constructed a new building to house the HECP on the eastern interior of the fort. The construction of the HECP building resulted in the demolition of a portion of the Scarp Wall between the southeast angle and northwest bastion as well as the engineer's storehouse that was located outside of the Scarp Wall. Toward the end of the war, the military built Construction 230, located off Batty Jasper's southeast corner (Figure 4.26). Completed in 1944, it was designed to feature two guns atop a bombproof bunker. The battery was never armed however and was instead used for storage. Around this time, the military determined most of the fort's armament to be outdated and removed guns from several of the batteries.

Soldiers and crew members made use of a several new or improved circulation features on site during this period including a walkway extending from near Battery Jasper south towards the wharf along the beach, improved roadway north of Battery Jasper, and informal circulation within Fort Moultrie itself. The addition of the CCC crews also transformed the reservation landscape through the standards they implemented on the site. Such standards, as applied to Fort Moultrie, included installing regionally-appropriate plantings, design using regular and symmetrical forms, and the ornamentation of the landscape with the iconography of the military such as unused ammunition shells (Figure 4.38 and Figure 4.40). The update to the fence around Osceola's grave is reflective of such landscape improvements. Shortly after the war, Fort Moultrie was decommissioned.

187. Sondermann, 199-200.
188. Ibid., 200.
189. Ibid.,179.

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Key

1	Engineers Wharf
2	Wooden Bulkhead and Rip Rap Seawall
3	Concrete Walkway
4	Gymnasium and Recreation Hall
5	Service Road
6	Reservoir No. 3
7	M.T.O. Barracks
8	Reservoir No. 2
9	Reservoir No. 1
10	Battery Jasper Powerhouse
11	Hospital
12	Hutment Camp
13	N.C.O. Quarters

0′ 300′ 600′ North

Notes

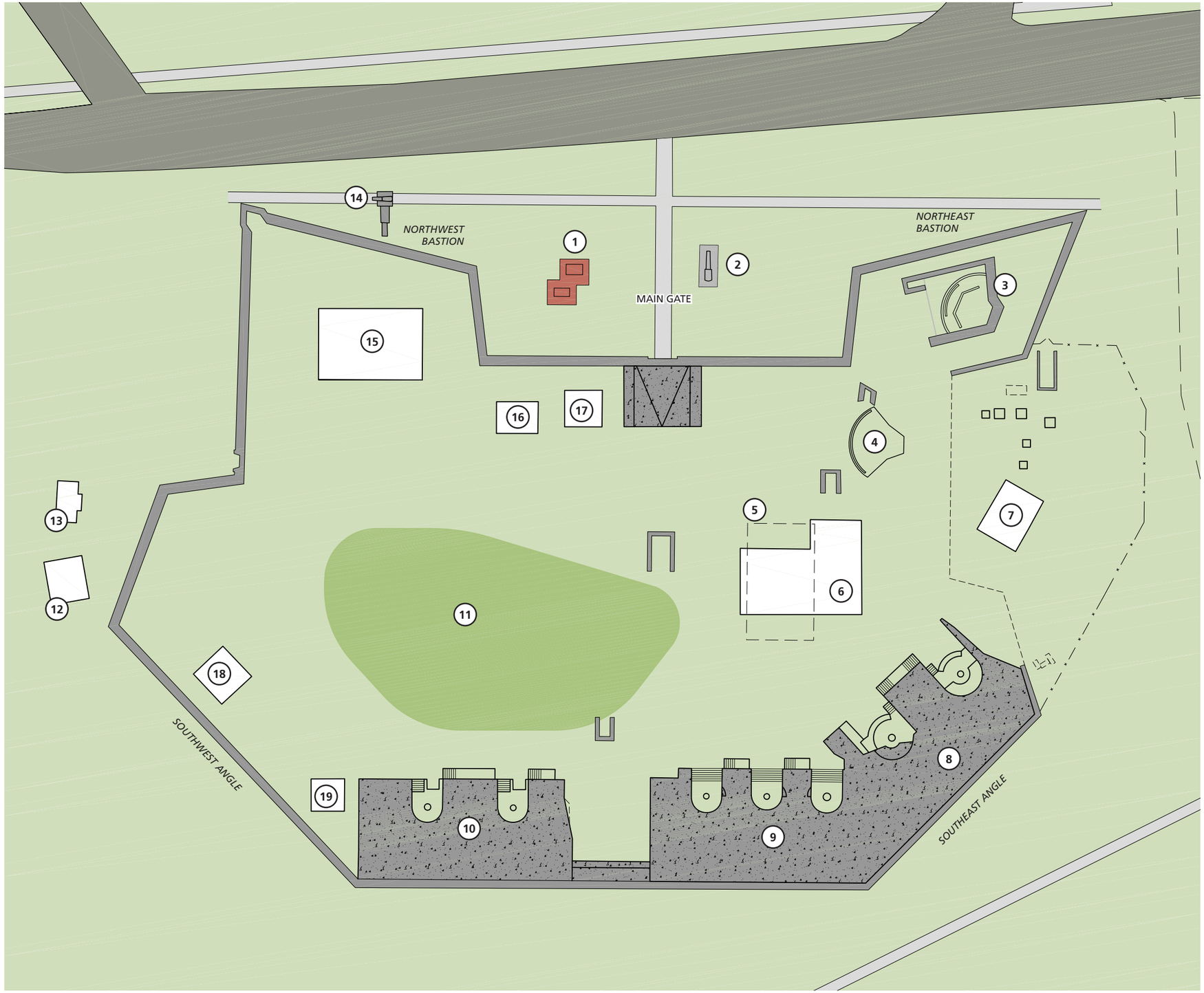
1. This illustration shows a composite of the site as it existed between 1918 and 1947. For clarity, not all landscape features are shown. Refer to CLR text for the dates of construction and removal.
2. Battery Logan is not part of the current Fort Moultrie cultural landscape.

Credits

1. “Fort Moultrie Military Reservation - Main Post Structures 1934-1947.” National Geographic World Map. 2012 [Map].
2. Declassified Army-Drawn Study Map of Fort Moultrie. 1945. Courtesy of Cost Defense Study Group.

Illustration 2.10
Period 9 (1918-1947)
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019



Building and Feature Key

1	Osceola's Grave and Patapsco Monument
2	Gun Display
3	Gun Position No. 1
4	Gun Position No. 2
5	Principal Service Magazine (underground)
6	Position Finding Station
7	Harbor Entrance Control Post (HECP)
8	Battery Bingham
9	Battery McCorkle
10	Battery Lord
11	Lower Level Turf Area
12	Search Light
13	Search Light Power Station
14	FMMR Entrance Gate
15	Primary Base End Station
16	Latrine
17	Tower
18	Tower
19	Unidentified Structure

Notes

1. This illustration shows a composite of the site as it existed between 1918 and 1947. For clarity, not all landscape features are shown. Refer to CLR text for the dates of construction and removal.

Credits

1. "Fort Moultrie Military Reservation - Main Post Structures 1934-1947." National Geographic World Map. 2012 [Map].
2. Declassified Army-Drawn Study Map of Fort Moultrie. 1945. Courtesy of Cost Defense Study Group.

Illustration 2.11
Period 9 (1918-1947)
Fort Moultrie, Enlargement

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Deactivation and NPS Management (1947-2017)

On August 15, 1947, the Army deactivated FMMR, which ended the 171 years of military defense of Charleston Harbor from Sullivan's Island (Figure 2.42).[190] The Army also decommissioned Fort Sumter at the same time. The following year, the Army turned FMMR over to the State of South Carolina and Sullivan's Island. As Sondermann writes,

> The difficulty in determining an appropriate civilian reuse for most of these decommissioned fortifications, resulted in a period of neglect and abandonment, until a community consensus could be achieved. The 1950 local government's decision to assimilate FMMR's military landscape into Sullivan's Island surrounding residential community would heavily influence the island's development over the next sixty-five years.[191]

The commemoration of the military history of Sullivan's Island was a major focus of ideas about how to move forward with the inherited Army installation. As news of the Army's decision to decommission Forts Moultrie and Sumter spread, local and national support for protecting and preserving the significant sites grew. As such, in April 1948, the National Park Service (NPS) designated Fort Sumter a National Monument (FOSU). The designation was not extended to Fort Moultrie at this time; and due to "limited interest from outside developers and the need to create an economic stimulus, the Sullivan's Island township commissioners began plans to purchase the Army installation" in order to revive the island's resort tourism industry.[192] However, residents instead petitioned the commissioners to "maintain the island's residential beach cottage character."[193] The existing zoning regulations would not allow for the creation of large resort buildings, and lots on the island were subdivided to provide opportunities

Figure 2.42. 1947 photograph during the decommissioning ceremony for Fort Moultrie Military Reservation. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.43. 1958 photograph of the interior of Fort Moultrie looking east. By this point, ten years after decommissioning, the fort was in a state of disrepair. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.44. 1958 aerial image of Fort Moultrie. Note the poor condition of remaining fort buildings. (Source: Open Parks Network. "Aerial view of Fort Moultrie before restoration work, Charleston, South Carolina." http://purl.clemson.edu/762525E23254B6B41007A33441819D46. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.)

190. Ibid., 205.
191. Ibid., 243.
192. Ibid., 244.
193. Ibid., 246.

Figure 2.45. Circa 1960s aerial photograph of Fort Moultrie taken after the removal of various features including the WWI-period building at the northwest bastion and unwanted vegetation. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.46. 1968 photograph of initial excavation of Fort Moultrie. (Source: Open Parks Network. "Man observing bulldozer lowering soil level, Fort Moultrie, 1868." http://purl.clemson.edu/CB7A5CF85D0CAB4CD4E739E6010D5814. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.)

for residential development. Development pressure meant that many of the existing larger FMMR buildings, including the hospital complex, were demolished.

The NPS plan entailed the donation of 14 acres of old Fort Moultrie property to the NPS, which included "the old Fort Moultrie, the dunes and beach area in front of the fort, and the old Parade ground area on the cove side of Middle Street where FMMR hospital had been located."[194] The plan was approved, and in April 1960, under authority of the Historic Sites Act of 1935, Fort Moultrie was designated a national monument and became part of the FOSU. No enabling legislation was created as part of this process. Soon thereafter, "NPS moved administrative offices from downtown Charleston into the bombproofs and principal magazine" at the fort.[195]

The NPS received the historic fort in poor condition (Figure 2.43 and Figure 2.44). The fort was overgrown with vegetation. Buildings that had not been removed were in varying states of disrepair. The NPS immediately began a three-year rehabilitation project at the fort. The $500,000 project included the removal of unwanted vegetation and derelict buildings and the creation of walking paths and interpretive displays (Figure 2.45 - Figure 2.46).[196] NPS-operated Fort Moultrie officially opened to the public in April 1963 (Figure 2.47). Around this time, the decorative artillery finials on the fence surrounding Osceola's grave had been painted orange.

The public received Fort Moultrie well. The NPS, wanting to expand the interpretive timeline of FMMR, requested that an additional 14 acres containing the surviving Battery Jasper and Construction 230 be added to the national monument. The State of South Carolina agreed and transferred this land, along with additional beach area, to the NPS in 1967. The new resources "allowed the NPS to open one gun position in Battery Jasper to inform the public about the island's Endicott history around the Spanish American War and how the batteries were converted for use in the World Wars."[197] In 1966, additional interpretive activity included the construction of a temporary replica of the first Fort Moultrie outside of the fort to commemorate the 190th anniversary of the Battle of Sullivan's Island.[198] While the military's protection of Charleston Harbor had ended, military presence continued when in 1971, the Navy constructed a two-story brick building on top of Construction 230 to use as a Shipboard Electronics System Evaluation Facility, now known as the Space and Naval Warfare Systems Command (SPAWAR).[199]

194. Ibid., 250.
195. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, 26.
196. Sondermann, "Remembering the Legacy," 251.
197. Ibid., 256.
198. Stanley South, "A Progress Report on the Exploratory Archeology at Fort Moultrie," (Institute of Archeology and Anthropology, University of South Carolina, November 24, 1973), 4.
199. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 7, Page 19.

Figure 2.47. 1968 photograph showing tourists walking through the fort and toward Battery Lord. Note large tree by South Service Magazine. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

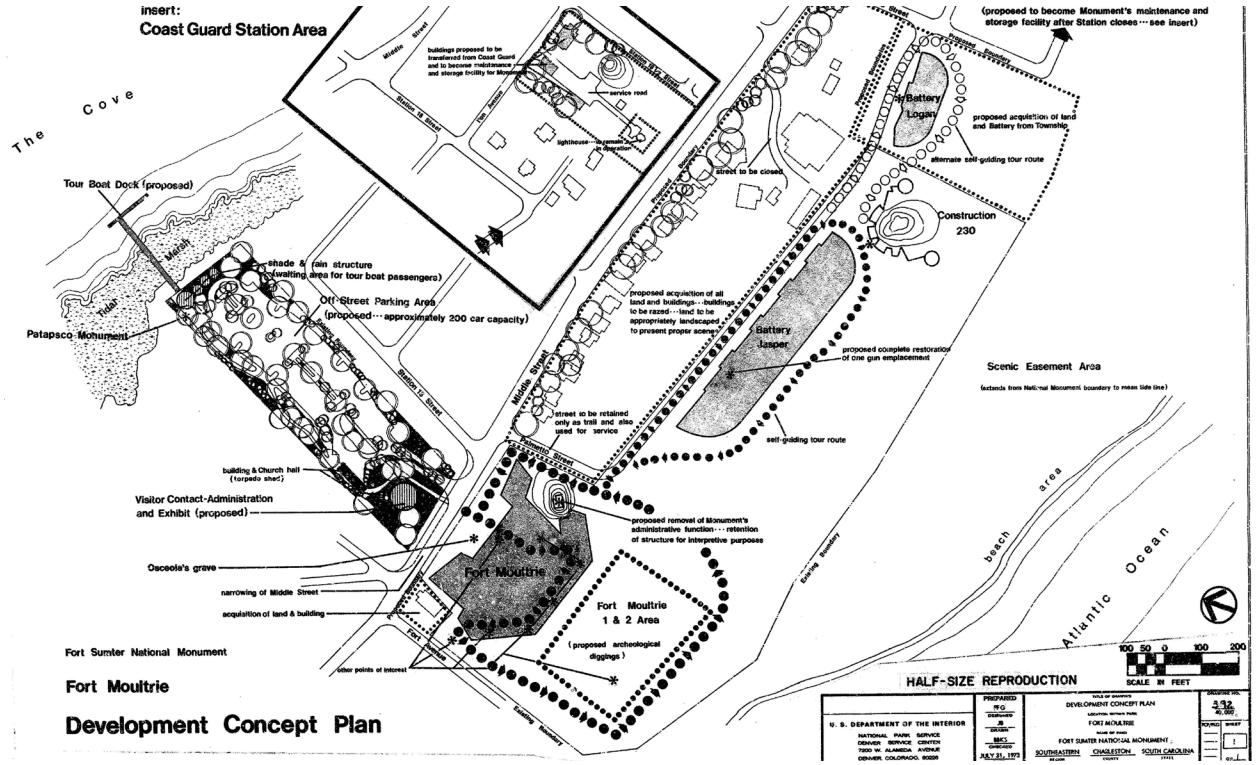


Figure 2.48. 1973 Fort Moultrie Development Concept Plan showing proposed boundary and alterations to the landscape including the construction of a visitor's center. (Source: NPS Southeast Regional Office, ETIC # FOSU_392_40000_[54103]).

The approaching Bicentennial of the American Revolution spurred much archeological, restoration, and development activity at related NPS units, including Fort Moultrie. In preparation for the event, in 1973, the NPS commissioned a master plan proposing development activity for the fort (Figure 2.48). Researchers completed the first archeological project at Fort Moultrie in the fall of the same year. Led by Stanley South of the Institute of Archeology and Anthropology at the University of South Carolina, the work focused on locating Fort Moultrie No. 1 (Figure 2.49).[200] During the survey, South and his crew uncovered timbers dating to the late eighteenth century, which South postulated were the remnants of Fort Moultrie No. 1. John E. Ehrenhard and Dick Ping Hsu of the NPS Southeast Archeological Center (SEAC) conducted a subsequent survey, which disproved South's theory and instead attributed the timbers to the never-completed British Fort Arbuthnot.[201] The location of the first fort remains unknown.

A work order outlined the major restoration project to be conducted at Fort Moultrie to ready it for the Bicentennial (Figure 2.50 through Figure 2.53). The work pertained to,

200. Stanley South, "A Progress Report on the Exploratory Archeology at Fort Moultrie," 1.
201. John E. Ehrenhard and Dick Ping Hsu, "Archeological Investigations at Fort Moultrie, Sullivan's Island, South Carolina (Preliminary Report)" (Southeast Archeological Center, Tallahassee, Florida, National Park Service, US Department of the Interior, 1977), 19.

Figure 2.49. 1973 archeology project led by Stanley South, here showing the trenching dug outside of the Sally Port Complex entrance. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 2.50. 1975 photograph of interior of Fort Moultrie during restoration work. Note the Bicentennial flag below the US flag. (Source: Open Parks Network. "Extended view of restoration site, sea in background, Fort Moultrie, South Carolina." http://purl.clemson.edu/7A1C1E8471CAD19B7BDDE4C531BB659D. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

Figure 2.51. 1976 photograph of interior of Fort Moultrie during restoration work. (Source: Open Parks Network. "iew of interior restoration work, Fort Moultrie, South Carolina." http://purl.clemson.edu/4DF03BDCC5CB4B31AD5636D9B3ECBD78. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

Figure 2.52. 1976 photograph of interior of Fort Moultrie during restoration work as it neared completion. (Source: Open Parks Network. "View of restored site, Fort Moultrie, South Carolina." http://purl.clemson.edu/9B84DD83E0B83C8860A68725DEDA488C. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

> . . . the preservation, restoration and reconstruction of Fort Moultrie's historic structures to the appearance of the historic period. Specific features of the work are demolition work; restoration of powder magazine, west brick wall at northwest bastion, historic wood doors, wood window and miscellaneous metal of H.E.C.P. building including the exterior, camouflage painting; reconstruction of retaining walls, vaulted spaces and gun emplacements; patching, dampproofing and waterproofing concrete surfaces; finish grading and sodding; new historic hardware; new electrical service and distribution.[202]

The Fort Sumter National Register nomination provides additional detail of the restoration project,

> Between 1974 and 1975, the NPS excavated and repaired significant features of Fort Moultrie: a portion of the Parade Ground, two Barracks Foundations, 1809 Powder Magazine, Traverse, and Postern. The present [2016] configuration of Fort Moultrie's southwest seafront, west salient, and northwest bastion was constructed by the NPS in 1974-1975. Battery Lord (1903) was removed from the southwest seafront and replaced by the 1870s Battery Reconstruction; three 1874 gun positions that had been covered by earth in the 1940s were not restored. Instead, reproductions of typical Civil War-era gun positions were constructed as interpretive features.[203]

While the restoration work was ongoing, the archeological project led by Ehrenhard and Ping Hsu included the area north of the fort in the space planned for the construction of the Fort Moultrie Visitor Center. In this phase of the work, the archeology crew uncovered the location of the two iterations of the hospital constructed in this location. Construction on the visitor center began shortly after the SEAC crew finished the project and was completed in 1976 (Figure 2.54).[204] The new building "provided an auditorium and observation area for visitors, as well as staff office

Figure 2.53. 1977 aerial image of Fort Moultrie showing completed restoration, installation of walking path, and the presence of interpretation of the first Fort Moultrie. (Source: Open Parks Network. "Aerial view of Fort Moultrie Visitor Center and Fort Moultrie, South Carolina." http://purl.clemson.edu/236C7D882854291DDF1F7814AD33C314. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

Figure 2.54. Aerial image of north reservation character area shortly after 1975 development. Note the small areas of raised beds alongside the walkway. (Source: Open Parks Network. "Aerial view of Fort Moultrie and visitor center, Fort Moultrie, South Carolina." http://purl.clemson.edu/BA39B67E78985F9C2FFCAC03B39F544A. Original located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.).

202. National Park Service, Denver Service Center, "Restoration of Fort Moultrie, Project No, 5430-1886," (National Park Service, Denver Service Center, No Date), 1-4.
203. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 8 page 69.
204. Ibid., Section 8 Page 70.

space."[205] Plans included parking sited adjacent to the Visitors Center, with room for 74 cars and two buses. The Visitor Center and parking area was also the site of the Fort Moultrie Cemetery, which contained the graves of at least 17 burials relating to the "Army's post cemetery or possibly unrelated civilian burial activities."[206] In 1978, General William Moultrie was reinterred in between the parking lot and the Cove. Initially, a gravestone marker indicated the burial site. In the mid-2000s, the NPS added an iron enclosure, flagpole, and brick pad to mark the location.[207]

Along with the restoration of the site, the NPS also focused on expanding the interpretive programming both within and outside of the fort through upgrades to the site's circulation (Figure 2.53 and Figure 2.54). Inside the fort, an interpretive circulation network was developed. Entering in from the concrete-paved Sally Port Complex, a short walkway extended southward toward South Service Magazine. The walkway was at first unpaved, but within several years, was paved in concrete and later in brick. The walkway then intersected with another concrete pathway that skirted the interior sides of the Southwest Service Magazine, 1870s Battery Reconstruction, South Service Magazine, Battery McCorkle, Battery Bingham, and the HECP mound. This walkway connected with Gun Position No. 2 on the east side of the fort, and the interpreted Civil War period gun position area on the west side of the fort. Within the Civil War gun position area, a wide area of bluestone flagging was installed. From the north end of the flagging, the concrete path continued north and then along the Terreplein where is enclosed the 1809 Powder Magazine below. The concrete path terminated at the parade wall where a short flight of wooden stairs was constructed to access the restored Parade Ground.

Outside the fort, the NPS constructed a concrete-and-shell interpretive walkway that extended around nearly the entirety of the fort, encompassing a portion of the open space to the south. From the entrance walkway, the concrete-and-shell interpretive walkway extended eastward where it arched southward around the northeast salient. The walkway continued north-south along the east side of the fort before arching southeast to the presumed locations of the first two iterations of the fort south of the fort, and then looped back northward and terminated with the Postern on the west side of the fort.

With this work completed, the NPS developed an interpretive program highlighting the fort's long history (Figure 2.55). The new design presented visitors with a reverse-chronology of events. The walking tour started with the WWII features of the fort, and then proceeded through the Civil War to the American Revolutionary War. This progression has existed since at least 1985.[208] Numerous guns dating to specific periods of Fort Moultrie's military history, interpretive signs, and a walking tour guide supported the interpretive program. Around this time, the finials atop the Osceola gravesite fence were removed.

In the 1980s and 1990s, park management shifted to visitor services improvements (Figure 2.56). In 1986, the NPS purchased property in order to construct a tour boat facility (formerly known as Dockside II) in downtown Charleston. Completed in August 2001, the NPS designed the new facility to replace two preexisting launch points for NPS ferry access to Forts Sumter and Moultrie.[209] Following the acquisition of the tour boat facility site, the NPS added the historic US Life Saving Station, located 0.8 miles east of Fort Moultrie in 1990. The NPS added Charleston Light better known as the Sullivan's Island Lighthouse to the national monument in 2008. The US Coast Guard still maintains the light as it is an active lighthouse. It is on the grounds of the historic Life Saving Station. The area contained resources dating to the Endicott period of FMMR development.

In 1989, Hurricane Hugo battered the South Carolina coast. "The barrier islands, including Sullivan's Island, were completely over-washed, in some cases to a depth of six feet. . .At Fort Moultrie, the flagpole was destroyed, the Parade

205. Opperman, *Fort Sumter National Monument Historic Structure Report, Volume I*, 27.
206. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 8 Page 79.
207. Ibid., Section 7 page 20.
208. Craig Frazier and Joanne Wahbeh, "Fort Moultrie III, Fort Sumter National Monument, Historic Structure Preservation Guide," (National Park Service, Denver Service Center, 1985), 1-1.
209. National Park Service, Fort Sumter National Monument Draft General Management Plan – Environmental Assessment, (National Park Service, 1998), 9.

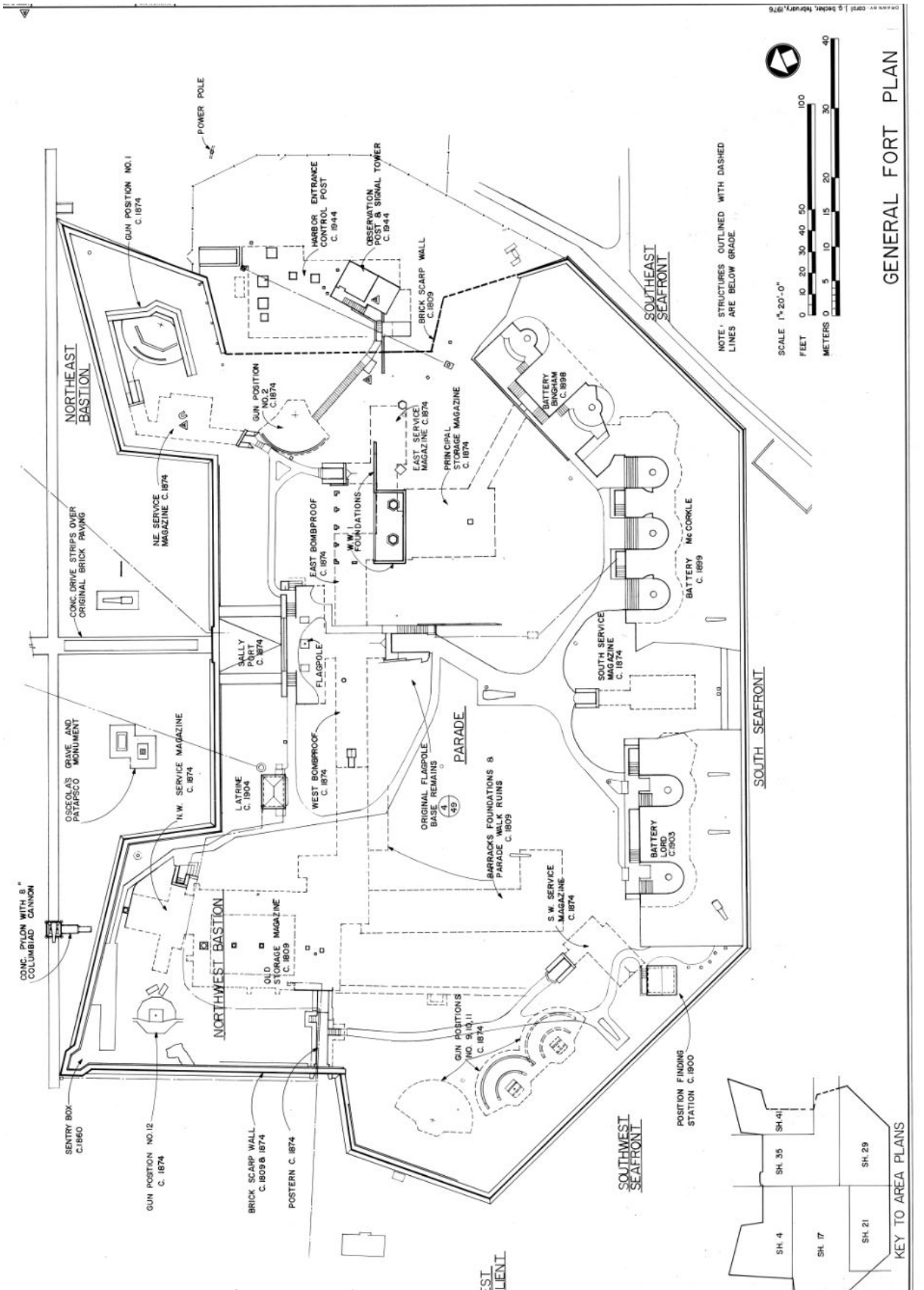


Figure 2.55. 1976 HABS plan of Fort Moultrie. (Source: Historic American Buildings Survey, "Fort Moultrie, West Fort Street & Central Avenue, Sullivans Island, Charleston County, SC." Measured drawing, Historic American Landscapes Survey, National Park Service, U.S. Department of the Interior, 1976.).

ground was flooded to four feet, and the postern doors were heavily damaged."[210] After the storm, residents replaced modest homes with new houses that were larger and out of scale with the historic context, impacting the viewshed from the fort. In response, the NPS acquired a 49-acre scenic easement to limit the "use of the lands surrounding Battery Logan and along the shore in front of Fort Moultrie."[211] The NPS also purchased the lot adjacent to the west side of the fort in order to prevent the construction of a new house in this location. At some point in the 2000s, Osceola's Gravesite fence was restored with replicas of the original 1880s finials.

Recent administrative activity concerning Fort Moultrie and FOSU includes the addition of the Sullivan's Island Lighthouse to the national monument in 2008. In 2016, the Keeper of the National Register approved a revised National Register of Historic Places nomination, which includes the new lighthouse complex as well as an expanded discussion of Fort Moultrie's historic landscape. In 2017, a team completed field work as part of a Cultural Landscape Report. Lastly, in 2019, as a part of the John D. Dingell, Jr. Conservation, Management and Recreation Act, Fort Sumter National Monument was reclassified as the Fort Sumter and Fort Moultrie National Historical Park.[212]

Landscape Summary: 1947-2019

After decommissioning, Fort Moultrie went through a period of neglect before an extensive restoration transformed the fort into a public historic park (Illustrations 2.12 and 2.13). Soon after the war, the military demolished many of the temporary buildings and structures constructed for the war effort for scrap. The demolitions resulted in a more spatially-open landscape dissimilar to the reservation's historic character. The site suffered

210. Ibid., 22.
211. Ibid., 35.

212. The research and analysis for this report ended in 2017, as such any changes made to the site between 2017 and 2019 are not documented here. During report production, the site's park status was reclassified. Given the importance of this change, it is included in this summary.

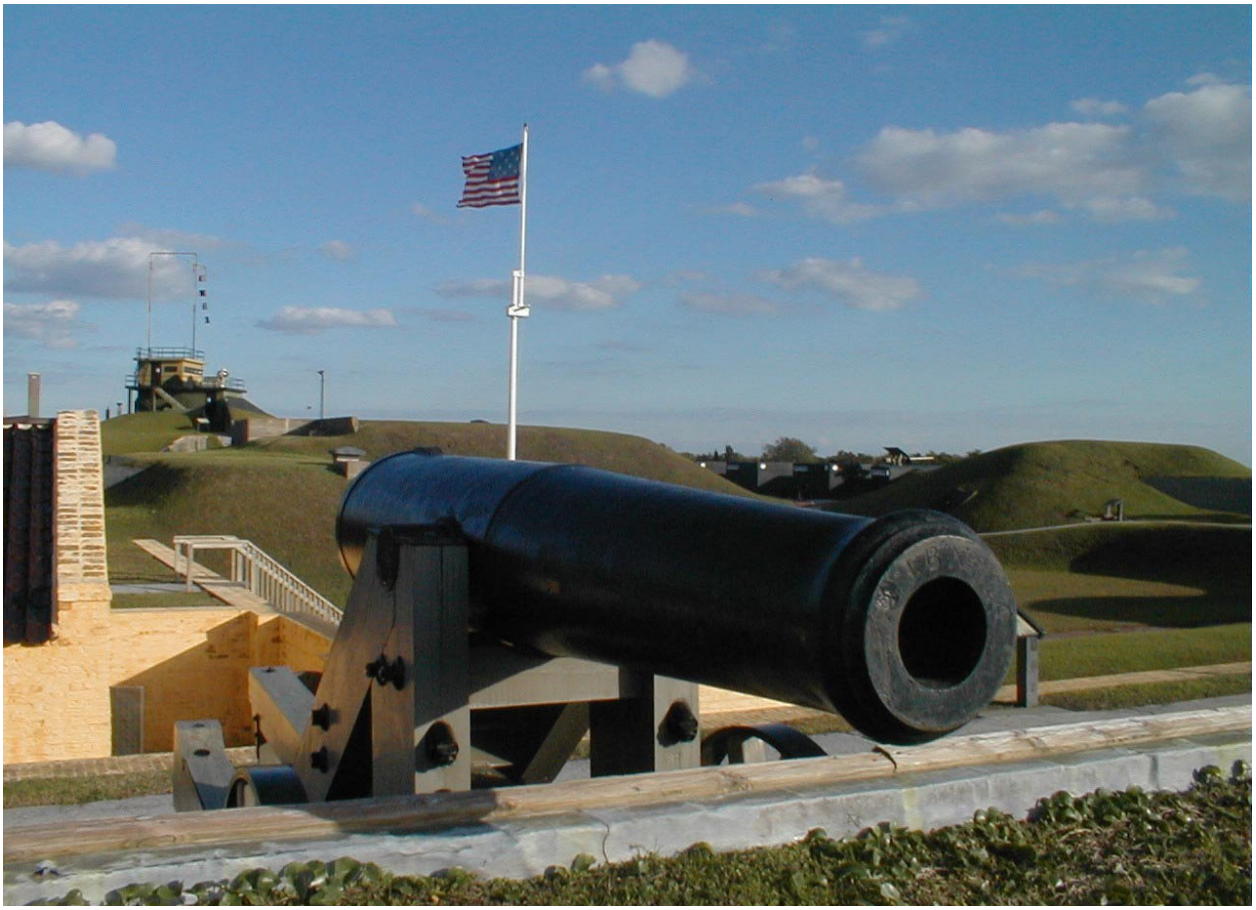


Figure 2.56. 2000 photograph of interior of Fort Moultrie. Note the well-maintained appearance of the fort. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

from deferred maintenance, with old structures and spontaneous vegetation present within the fort. Military use of the site continued through the use of the HECP building.

In 1960, after a period of ownership by the State of South Carolina, the NPS acquired the Fort Moultrie site, adding the site to the Fort Sumter National Monument. Soon thereafter, the NPS undertook an initial restoration project at the site, and by 1963, the fort was open to the public (Figure 2.47). The NPS added adjacent acreage in 1967. In preparation for the American Bicentennial in 1976, the NPS conducted another restoration, this time excavating large sections of the fort, establishing a circulation network, building a visitor center, removing a 1903 battery, and reconstructing an 1870 battery emplacement among other alterations (Figure 2.52). The result was a fort landscape that interpreted the long history of Fort Moultrie, showcasing its involvement in the defense of the harbor since 1776 (Figure 2.53).

In 1973, the Navy constructed a two-story building on top of the earth mound covering Construction 230 to use as the SPAWAR Facility, continuing military use of the site. Throughout this period, the beach area continued to grow in size, allowing for a maritime forest to colonize the north side of the beach.

Key

1	Reservoir No. 1
2	Reservoir No. 2
3	Reservoir No. 3
4	Battery Jasper Powerhouse
5	Concrete Walkway
6	Path

Notes

1. This illustration shows a composite of the site as it existed between 1947 and 2017. For clarity, not all landscape features are shown. Refer to CLR text for the dates of construction and removal.
2. Battery Logan is not part of the current Fort Moultrie cultural landscape.

Credits

1. Aerial photographs. USGS. 1957.
2. "Fort Moultrie Plan - Present State." SERO, National Park Service. 1973. [Map]

Illustration 2.12
Period 10 (1947-2017)
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019

Building and Feature Key

1	Fort Moultrie No. 3 Scarp Wall
2	Sally Port Complex
3	Battery Bingham
4	Battery McCorkle
5	Battery Lord
6	South Service Magazine
7	Principal Service Magazine
8	East Service Magazine
9	Northeast Bastion Service Magazine
10	Gun Position No. 1
11	Gun Position No. 2
12	Harbor Entrance Control Post (HECP)
13	Gun Display
14	Latrine
15	Primary Base End Station
16	Search Light Power Station
17	Patapsco Monument
18	Osceola's Grave
19	Unknown Structure
20	Unknown Structure
21	Southwest Service Magazine
22	Position Finding Station
23	FMMR Entrance Monument

Notes

1. This illustration shows a composite of the site as it existed between 1947 and 2017. For clarity, not all landscape features are shown. Refer to CLR text for the dates of construction and removal.

Credits

1. Aerial photographs. USGS. 1957.
2. "Fort Moultrie Plan - Present State." SERO, National Park Service. 1973. [Map]

Illustration 2.13
Period 10 (1947-2017)
Fort Moultrie, Enlargement

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019

Existing Conditions

Introduction

This section describes the existing conditions of the Fort Moultrie (FOMO) unit of Fort Sumter and Fort Moultrie National Historical Park (FOSU) using a combination of contemporary photographs, plan view graphics and narrative description. Fieldwork was completed in November 2017. Team members photographed, mapped, and made notes on the location and condition of various observed features. The purpose of this section is to provide a detailed record of the landscape and its features, as they currently exist.

This inventory organizes site features by landscape characteristic, which are the "tangible and intangible aspects of an inventory unit which have either influenced the history of the development of the landscape, or are products of its development, respectively."[213] Further, "these aspects individually and collectively give a landscape its historic character and aid in the understanding of its cultural importance."[214] The NPS identifies thirteen landscape characteristics: natural systems and features, spatial organization, land use, cultural traditions, cluster arrangement, circulation, topography, vegetation, buildings and structures, views and vistas, constructed water features, small-scale features, and archeological sites. The landscape characteristics found at Fort Moultrie include all of these, which are defined as follows:

> Natural Systems and Features: Natural aspects that often influence the development and resultant form of a landscape.
>
> Spatial Organization: Arrangement of elements creating the ground, vertical, and overhead planes that define and create spaces.
>
> Land Use: Organization, form, and shape of the landscape in response to land use.
>
> Cultural Traditions: Practices that influence land use, patterns of division, building forms, and the use of materials.
>
> Cluster Arrangement: The location of buildings and structures in the landscape.
>
> Circulation: Spaces, features, and materials that constitute systems of movement.
>
> Topography: Three-dimensional configuration of the landscape surface characterized by features and orientation.
>
> Vegetation: Indigenous or introduced trees, shrubs, vines, ground covers, and herbaceous materials.
>
> Buildings and Structures: Three-dimensional constructs such as houses, barns, garages, stables, bridges, and memorials.
>
> Views and Vistas: Features that create or allow a range of vision, which can be natural or designed and controlled.
>
> Constructed Water Features: The built features and elements that utilize water for aesthetic or utilitarian functions.
>
> Small-Scale Features: Elements that provide detail and diversity combined with function and aesthetics.
>
> Archeological Sites: Sites containing surface and subsurface remnants related to historic or prehistoric land use.

Landscape Context

Fort Moultrie is located in Charleston County, South Carolina, near the west end of Sullivan's Island, a barrier island north of Charleston Harbor and the city of Charleston. Fort Moultrie is a unit of the Fort Sumter and Fort Moultrie National Historical Park, which also includes Fort Sumter,

213. Robert R. Page, *National Park Service Cultural Landscapes Inventory Professional Procedures Guide*, (Washington D.C.: U.S. Department of the Interior, National Park Service Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, January 2009), 7-4.
214. Ibid., 53.

located in Charleston Harbor; the U.S. Coast Guard Historic District, located one mile east of Fort Moultrie on Sullivan's Island; and Liberty Square, located in downtown Charleston. Fort Sumter encompasses approximately 170 acres spread across these four units. Fort Moultrie, which the NPS added to Fort Sumter National Monument in 1960, occupies 58.28 acres and holds a scenic easement on an additional 61 acres of adjacent land.[215]

Fort Moultrie's cultural landscape reflects the evolution of coastal defense technology and strategy stretching over almost two centuries, from the construction of the first Fort Moultrie (1776) through the Second World War. Beginning in 1895, Fort Moultrie was a part of the Fort Moultrie Military Reservation (FMMR), which occupied over 300 acres on Sullivan's Island. During its five decades of active military use, the United States Army constructed a variety of buildings and structures on the site, both around and within the current boundaries of the study area of this CLR. Today, the Fort Moultrie cultural landscape contains various features from these different periods of development, including those associated with the early-nineteenth-century fort, those associated with the United States Army use of the site in the late nineteenth century and into the middle twentieth century, and more recent additions by the National Park Service.

The Fort Moultrie site is an L shape with Middle Street bisecting the unit into two parcels. The site extends from Charleston Harbor on the south to The Cove and the Intracoastal Waterway on the north. The northern parcel contains the North Reservation Character Area, with the Visitor Center (1976), the Torpedo Storehouse (1902), a parking lot, pier, and two burial sites. South of Middle Street, the site contains the Fort Moultrie Character Area, with Fort Moultrie 3 (1807-1809) and its surrounding landscape with walkways, two burial sites, and interpretive features. East of the fort, the East Reservation Character Area includes Battery Jasper (1898), the Battery Jasper Powerhouse (1909), Construction 230 (1943-1944), roadways, pedestrian paths, ruins of former structures, and interpretive displays. The Beach and Forest Character Area occupies the southern edge of the site. It contains a maritime forest, dunes, and shoreline.

The properties adjoining the study area are mostly residential. Residential streets with a mixture of historic and new buildings surround the site on every side except on the shorelines to the south and north. A church occupies the parcel immediately west of the Visitor Center. It is located at the intersection of Station 12 Street and Middle Street. There are two residential structures further north on Station 12 Street that are adjacent to the Visitor Center parking lot's western boundary. Six residential structures occupy lots along the eastern boundary of the Visitor Center parcel; these properties are on Station 13 Street. A Sullivan's Island public beach access parking lot occupies the parcel on the west side of Fort Moultrie; it is south of Middle Street. Residential structures occupy parcels along the north side of Poe Avenue immediately opposite Battery Jasper. A residential neighborhood adjoins the eastern boundary of NPS property adjacent to Battery Logan.

Illustrations 3.1 and 3.2 map the existing conditions of the site.

Natural Systems and Features

Geology

Fort Moultrie is located on Sullivan's Island, a barrier island facing the Atlantic Ocean immediately north of Charleston Harbor. Sullivan's Island, like all barrier islands, is susceptible to climatic forces and ocean conditions including storms, waves, sand accretion, and erosion.[216] The western end of Sullivan's Island, the location of Fort Moultrie, has experienced several decades of sand deposition with many acres of newly accreted land added along its shoreline. According to a study of this process, the "dominant direction of sediment transport along Sullivan's Island is from north to south…. Based on the prevailing transport patterns and the accretion rates…, Sullivan's Island as a whole probably gains between 20,000 and

215. Acreage totals from Statement of Work. The 2016 National Register Nomination lists Fort Moultrie as containing 29.51 acres with a scenic easement of an additional 49.77.

216. Norman S. Levine and Charles Kaufman, "Land Use, Erosion, and Habitat Mapping on an Atlantic Barrier Island, Sullivan's Island, South Carolina," *Journal of Maps* 4:1, 162.

50,000 cubic yards per year."[217] The south edge of the study area includes the beach facing the Atlantic Ocean and Charleston Harbor. West of the beach is a line of sand dunes. Behind/west of the sand dunes, there is a strip of maritime forest. The Fort Moultrie cultural landscape occupies the area west of the maritime forest.

Soils

According to the United States Natural Resource Conservation Services online Web Soil Survey, the project site contains three soil classifications. These include Made Land, Coastal Beaches and Dune Land, and Capers silty clay loam. The majority of the site has Made Land; this includes most of the northern parcel around the Visitor Center, the area immediately surrounding Fort Moultrie, and the open area in front of Battery Jasper. The Coastal Beaches and Dune Land soils occupy an area that stretches along the coast and extends north to include the zone immediately south of Fort Moultrie. Capers silty clay loam is limited to the northwest corner of the North Reservation Character Area, near the burial site of William Moultrie.

Hydrology

No streams or wetlands were observed on site. The other water-related resources include the Atlantic Ocean and Charleston Harbor south and west of the site. The Cove, which is north of the site, is a salt marsh inlet. The Intracoastal Waterway enters the northeast corner of The Cove.

Climate

The climate of Fort Moultrie is similar to that of Charleston and Fort Sumter. January is the coldest month and July is typically the hottest. The average high temperature in January is 57 degrees and the average high temperature in July is 88 degrees. The average annual precipitation is 51.06 inches, with August being the wettest month. According to a Climate Change Summary for Fort Sumter, the average annual temperature for the area has increased since 1950, but the rate of increase has not been "statistically significant."[218]

217. Applied Technology and Management, *Local Comprehensive Beach Management Plan, Town of Sullivan's Island*, (Sullivan's Island, SC, May 1992), 11.
218. Patric Gonzalez, *Climate Change Summary, Fort Sumter National Monument, South Carolina*, (Washington, DC: Natural Resource Stewardship and Science, U.S. National Park Service, January 20, 2015),1.

Topography

The Fort Moultrie site is relatively flat. According to a 1990 survey of the property, the average elevation for the site is between six and nine feet above sea level. The sand dunes along the southern edge of the study area rise approximately ten feet above the surrounding area, reaching over 17 feet above sea level. There are also constructed topographic features, like the mound at Construction 230, which rises approximately 25 feet higher than the surrounding ground, and the moat around the perimeter of Fort Moultrie. The topography inside of Fort Moultrie is irregular due to the construction of earthworks to protect/bomb-proof military structures.

Spatial Organization

The Fort Moultrie study area contains four zones defined by the arrangement of and visual relationships between landscape characteristics, in particular buildings, circulation, and vegetation. These spatial units include the area around and inside of Fort Moultrie No. 3, the area surrounding Battery Jasper and Construction 230, the area around the Visitor Center, and the woods and dunes along the shore. These four zones conform to the identified character areas.

The Fort Moultrie Character Area is bounded by Middle Street on the north, pedestrian walkways and vegetation on the south and east, and by Station 12 Street on the west. The grounds around the fort are level and feature open lawn and meadows. The maritime forest along the shoreline forms the visual spatial boundary south of the fort. The mown lawn and the walkway visually connect the open space to the fort. The circulation along the east side of the fort also visually separates this area from the North Reservation Character Area. Mature trees and adjacent residential areas form the visual boundary to the west.

The interior of the fort has its own spatial organization. The interior has two levels. The lower level is on the same grade as the ground surrounding the fort. This level features the parade ground, Barracks Foundation, Enlisted Men's Barracks Foundations, Traverse, and 1809 Powder Magazine. The space has an irregular shape and only occupies the southwestern half

of the fort's interior. The remaining area of the fort's interior is elevated from this lower level and features a Terreplein supported by earth ramparts that contain the gun emplacements or large turf-covered earth mounds that cover buried structures like magazines.

The Parade Ground (LSC ID 090254) is an important organizing feature within the fort. A large portion of the Parade Ground features level, manicured turf. The north, east, and south sides of the Parade Ground transition to steep turf slopes that are part of the ramparts or protective mounds. The west side of the Parade Ground is paved in brick that covers the area adjacent to the Parade Ground wall and Barrack Foundations.

The Terreplein occupies the upper level on the northwest bastion and west salient. This is covered with turf or bluestone pavers. It is the location of gun positions recreating the fort's appearance in the Civil War-era. Gun batteries occupy positions behind the three seafront walls on the southwest, south, and southeast of the site. The eastern half of the fort is covered in irregular shaped mounds over buried structures and is also the location of the HECP. From the Terreplein and gun emplacements, views are available into the surrounding landscape, towards the adjacent character areas, and across Charleston Harbor to Fort Sumter in the distance.

The large cluster of buildings on its southern edge and a large open space that extends to the shore of the inlet north of the site form the spatial organization of the North Reservation Character Area. The Visitor Center and Torpedo Storehouse occupy the southern edge of this area. North of the Visitor Center, the parking lot creates a large open space that transitions into another open lawn area that continues to the water's edge on the north. Vegetation screens the residential lots east of the parking lot, but the houses are still visible. A church occupies the adjoining property west of the parking lot. Thick hedges and evergreen trees screen these areas from view. Overall, the area is open with landscape plantings along the perimeter of the site and a few specimen trees growing within the interior of the space. The plantings along the perimeter and unobstructed sightlines towards the north visually connect the pier on the north with the Visitor Center on the south. Pedestrian circulation and the William Moultrie burial site further enhance the visual connectivity of the site.

The East Reservation Character Area is bounded on the north by Poe Avenue, on the east by a grove of trees and an open field around Battery Logan, a meadow to the south, and by Fort Moultrie No. 3 on the west. The maritime forest and other vegetation visually define its edges on the east and south. Vegetation planted in residential yards lining Poe Ave form the visual edge to the north. Battery Jasper visually dominates the spatial character of the area. The massive building stretches almost the full length of the character area and fills practically every vista within the site. Mown lawn surrounds the building, and there are remnants of historic circulation on the north side between the building and Poe Avenue. A fence along Poe Avenue visually reinforces the boundaries of the site.

Dense vegetation, topography, and views create the spatial character of the Beach and Forest Character Area. Views are limited within the maritime forest because the dense growth of evergreen trees and shrubs creates a sense of enclosure. Along the southern edge, views are across meadows to Battery Jasper and Fort Moultrie. On the south, views are towards the ocean and Charleston Harbor.

Vegetation

Natural Vegetation

The southern edge of the Fort Moultrie study area includes a natural area along the shoreline. This area is comprised of accreted land added to this area of Sullivan's Island. A successional forest has established itself in and around the dunes (Figure 3.1). A NPS vegetation report on Fort Moultrie classifies this plant community as a Wax-myrtle-Carolina Laurel Cherry-Toothache-tree Shrubland.[219]

Plants observed in the maritime forest area during fieldwork include:

- Hackberry - *Celtis laevigata*
- Salt grass - *Distchilis spicata*
- Fiddle-leaf morning glory - *Ipomoea stolonifera*

219. Rachel H. McManamay, Anthony C. Curtis, and Sarah L. Corbett, *Vegetation Mapping at Fort Sumter National Monument*, (Washington D.C.: National Resource Data Series NPS/SECN/NRR-2012/320, National Park Service, May 2012), 5.

Figure 3.1. Maritime forest edge. (WLA Studio 2017).

Figure 3.2. Meadow and turf lawn area south of Fort Moultrie. (WLA Studio 2017).

- Marsh elder - *Iva frutescens*
- Southern red cedar - *Juniperus silicicola*
- Wax myrtle - *Morella cerifera*
- Seaside panicum - *Panicum amarum*
- Virginia creeper - *Parthenocissus quinquefolia*
- Pinus taeda - *Loblolly pine*
- Cherry laurel - *Prunus caroliniana*
- Live oak - *Quercus virigniana*
- Palmetto - S*abal palmetto*
- Green-brier - *Smilax auriculata* and *S. rotundifolia*
- Beach pea - *Strophostyles helvola*
- Sea oats - *Uniola paniculata*
- Toothache tree - *Zanthoxylum clava-herculis*

Cultural Vegetation

Existing cultural vegetation at Fort Moultrie includes planted trees, shrubs, and turf. The areas around the buildings and parking lots feature maintained lawn areas with specimen trees in the lawns and along the property's perimeter. Mown lawn extends south of Fort Moultrie to an interpretive area focused on the nineteenth-century events of the site. The NPS has allowed the large open space south of Fort Moultrie and Battery Jasper to transition into a meadow, maintained by a once-per-year mowing schedule. The maritime forest establishes the southern edge of the meadow and the maintained lawn areas (Figure 3.2).

The NPS utilizes turf to stabilize the earthworks, Terreplein, and foundation ruins inside of Fort Moultrie. Turf is also growing in the Parade Ground. Bermuda grass (*Cynodon dactylon)* is the most common turf type. There are examples of desire line paths worn into the turf, exposing the underlying soil. These occur in the Parade Ground and near the gun positions where visitors repeatedly cross the turf areas between paved areas. A few exotic invasive perennials, shrubs, and trees are present in the turf areas. These include dollar weed (*Hydrocotyle spp.*), plantain (*Plantago lanceolata)*, and mulberry (*Morus spp.*). Yaupon shrubs (*Ilex vomitoria)* have established themselves on steep slopes that a park contractor mows less frequently. There are sabal palmettos (*Sabal palmetto)* and live oaks (*Quercus virginiana*) planted in the turf areas outside of the fort, both in the open lawn north of the fort and in the open lawn south of the fort.

The Visitor Center has raised brick planters along the foundation and planting islands within the pedestrian plazas. These planters feature a variety of evergreen trees; shrubs, including hollies (*Ilex* sp.), yaupon, sabal palmetto; and muhly grass (*Muhlenbergia capillaris*). The parking lot has planting islands in which grow large, mature live oak trees, crape myrtles (*Lagerstroemia indica*) and sabal palmettos. A combination of evergreen trees (mostly live oak) and evergreen shrubs (including oleander (*Nerium oleander)* and pittosporum (*Pittosporum tobria*) grow along the perimeter of the parking lot to create visual buffers screening adjacent properties.

The East Reservation Character Area around Battery Jasper has mown turf around the buildings, specimen trees growing in the turf areas, and a large open meadow in the open space south of the building. Sabal palmetto trees are growing in the area close to the north elevation of Battery Jasper. Several large trees grow near the wooden

fence along the north boundary of the site. These include pine (*Pinus taeda*) and live oak. Woody plants growing along the east edges of this character area, including along the fenced area around Construction 230, are spontaneous species, including hackberry and pine, that survive because their location prevents them from being frequently mown.

Threatened and Endangered Species

No threatened or endangered species are currently known to exist within the Fort Moultrie cultural landscape.

Buildings and Structures

The Fort Moultrie cultural landscape includes buildings related to the United States Army's development of the site as a coastal defense installation and to the National Park Service's management of the property as a national historical park. Many of the buildings have ancillary structures and landscape features that relate to their military use and to recent management by the NPS. The inventory organizes the buildings and structures by character area. Building conditions are as noted in the NPS's Listed Classified Structures inventory. The buildings and structures include:

Fort Moultrie Character Area

Fort Moultrie No. 3 (LSC ID 000393)

The third fort to occupy on this site, Fort Moultrie No. 3 was constructed between 1807 and 1809 (Figure 3.3). The fort has an irregular hexagon plan. Three long walls face south towards Charleston Harbor. The east and west sidewalls end in salient angles on the northeast and northwest corners of the fort. The north wall is recessed from these corners. A section of the east Scarp Wall is missing; the army removed the section between 1943 and 1944 when constructing the Harbor Entrance Control Post (HECP). Today, this area has a chain link fence surrounding the base of the turf-covered foundation of the HECP. The National Register nomination describes the Scarp Wall as "constructed of brick laid up in Flemish bond, its height ranging from nine to fourteen feet. About 450 linear feet around, it encloses an area

Figure 3.3. Fort Moultrie, looking south from Visitor Center roof. (WLA Studio 2017).

of about one and one-half acre."[220] The fort has two entrances that pass through the historic Scarp Wall: the Sally Port Complex on the north wall and the Postern entrance on the northwest wall. The majority of visitors enter the fort through the Sally Port Complex and the tour route is designed for visitors to exit through the Postern. On the south walls is the outline of a doorway and two walls that are the remnants of the flanking caponniere. There is an entrance into the lower level of the HECP located outside the fort south of the northeast bastion.

The interior of the fort includes structures, circulation, and landscape features that date from several periods of development (Figure 3.4). The National Register nomination describes the main building campaigns as "original construction, repairs and rebuilding in the early 1780s, the Endicott era of 1898-1901, World War II defensive construction, 1942-44, and NPS excavation and construction, 1974-76"[221]. Subsequent sections describe the individual features inside the fort but a general description of the fort follows.

A level Parade Ground occupies the center of the fort's interior courtyard. A brick walkway leads from the Sally Port Complex entrance to the upper level of the fort. Concrete, brick, and bluestone paver walkways provide a circulation route along the interior of the parapet and the different batteries and gun positions.

220. National Register of Historic Places, "Fort Sumter National Monument, Sullivan's Island, Charleston County, South Carolina, 16000190, page 21.
221. Ibid.

Figure 3.4. Fort Moultrie interior, looking southeast from Terreplein. (WLA Studio 2017).

There are ruins of two barracks on the lower level, west and north of the Parade Ground. These are the Enlisted Men's Barracks Foundation and Barracks Foundation. The stucco and brick foundations are filled with turf and surrounded by brick plazas. A freestanding structure called the Traverse is located at the entrance into the Postern through the west wall. During the historic period, the Traverse protected the adjacent 1809 Powder Magazine, a second freestanding structure located to the north.

On the upper level, a Terreplein extends from the southeast corner of the fort to the salient angle in the northwest corner. There are gun batteries located on this upper level, each reflecting a different period of military technology and architecture. The batteries on this level include Battery Bingham, Battery McCorkle, the 1870s Battery Reconstruction, and the battery with Civil War-era guns above the southwest seawall. The Terreplein continues west and north, wrapping around the 1809 Powder Magazine building. The walkways along the batteries and the Terreplein feature a variety of materials, including brick, concrete, and bluestone pavers.

Many of the walls and roof surfaces of the fort are mounds covered with turf. These turf mounds cover most of the upper areas except for the exposed batteries, walkways, and other WWII-era structures that extend beyond this level. These mounds cover the South Service Magazine, Southwest Service Magazine, Principal Service Magazine, Ordnance Storeroom, and Northeast Bastion. The mounds also cover the area above the Sally Port Complex and extend back to the north Scarp Wall.

Figure 3.5. Battery Bingham (foreground) and Battery McCorkle looking southwest from HECP. (WLA Studio 2017).

The LSC entry identifies the Scarp Wall as an individual structure. According LCS ID 000393 the Scarp Wall of Fort Moultrie No. 3 is in good condition.

Battery Bingham (LCS ID 012153)

Battery Bingham is a reinforced-concrete structure built on the southeast seawall of Fort Moultrie (Figure 3.5). It measures 65' x 85'. It has two gun positions. A wood staircase leads from the concrete walkway from the HECP down into east side of the gun platform. A concrete retaining wall supports the upper level on south of the battery. A brick walkway on the foundation level connects the lower levels of the battery to a set of concrete steps leading down into the service magazines. The structure is coated in a dark black Acrymax membrane surface. Battery Bingham is in fair condition.

Battery McCorkle (LCS ID 012154)

Battery McCorkle is west of Battery Bingham on the south seawall of Fort Moultrie. It is a three-gun battery constructed of reinforced concrete and covered in Acrymax membrane. Battery McCorkle measures 125' x 58'. It has a brick walkway with a herringbone pattern along its foundation. The concrete walkway from the HECP joins the brick walkway at the battery. There are tabby concrete pads at the base of the staircase leading to the gun platforms. Two sets of concrete stairs lead down to the magazines on the lower levels. An iron fence surrounds the stairwell openings. Battery McCorkle is in fair condition.

South Service Magazine (LCS ID 012145)

The South Service Magazine is west of Battery McCorkle and located near the center of the south seawall (Figure 3.6). It is a barrel-vaulted

Figure 3.6. South Service Magazine and 1870s Battery Reconstruction. (WLA Studio 2017).

Figure 3.7. Terreplein bluestone paver and turf area. (WLA Studio 2017).

brick chamber covered in a large earth mound. The entrance faces north and features a sandstone pediment and coping. A concrete walkway wraps around the base of the mound, connecting Battery McCorkle to the 1870s Battery Reconstruction. A brick walkway leads from the Sally Port Complex to the entrance into the South Service Magazine. The South Service Magazine is in good condition.

1870s Battery Reconstruction (LCS ID 090257)

The 1870s Battery Reconstruction is west of the South Service Magazine and is located on the west end of the south seawall. It has two emplacements for guns. There is an earthen parapet wall with stone block revetments. Two guns are mounted on concrete half-circles with iron traverse rails. The rest of the ground plane is planted in turf. A concrete walkway, with sections from two different construction dates, passes along the north side of the battery, between the battery and the earth slope leading down into the Parade Ground. The 1870s Battery Reconstruction is in good condition.

Southwest Service Magazine (LCS ID 012146)

The Southwest Service Magazine is west of the 1870s Battery Reconstruction and is located along the southwest seawall. The Southwest Service Magazine is a concrete and brick chamber covered with a large turf mound and features a sandstone pediment and coping. A concrete walkway passes along the base of the turf mound and on the upper edge of the turf-covered slope leading down into the area of the Parade Ground. The Southwest Service Magazine is in good condition.

Terreplein (LCS ID 090258)

The Terreplein is a turf and bluestone-paved area that extends north from the southwest corner of the fort (Figure 3.7). The Terreplein parapet walls follow the outline of the west and northwest Scarp Walls. An 8'-tall brick wall supports the interior side of the Terreplein and elevates it above the Parade Ground. The walking surface along the parapet wall on the southern half of the Terreplein is paved with bluestone pavers. The paved area is approximately 30' wide. There is also a panel of turf along the western edge of the space above the parade wall. The southern end of the Terreplein is the location of a reconstructed gun position with two guns. This area has parapet walls covered in block revetments. The parapet wall becomes brick north of this gun position. There are stone and brick bases with iron traverse rails and iron pintles for gun carriages near the salient in the west Scarp Wall. Two guns are in position on the northwest section of the Terreplein. The Terreplein continues north along the west Scarp Wall and wraps around the 1809 Powder Magazine. The Terreplein's parapet wall in the northwest salient is capped with wood shingles. A 5'-wide concrete walkway follows the retaining wall around the 1809 Powder Magazine before ending at a wood staircase leading down into the Parade Ground area near the Traverse. A dirt path leads from the concrete walkway to a narrow passage through the Scarp Wall and toward the northwest bastionette. The Terreplein is in fair condition.

Northwest Bastionette

The Northwest Bastionette is located at the northwest salient of the fort. It is constructed of brick, flaring out from the Scarp Wall and terminating at an acute angle.

1809 Powder Magazine (LCS ID 012144)

The 1809 Powder Magazine is located in the northwest corner of the lower level courtyard in the interior of the fort (Figure 3.8). It is a one-story,

Figure 3.8. North Façade of 1809 Powder Magazine. (WLA Studio 2017).

Figure 3.10. Barracks Foundation. (WLA Studio 2017).

Figure 3.9. East façade of Traverse and Parade Wall. (WLA Studio 2017).

Figure 3.11. Enlisted Men's Barracks Foundation looking north. (WLA Studio 2017).

gable-front brick building with parapet walls on its north and south facades measuring 24' x 37'.There is a doorway on the north and a window on the south. The building is enclosed on three sides by the parade wall and on the south side by a fourth wall. It has a tile-covered roof. There is a lightning rod mounted in the narrow space between the buildings west wall and the parade wall. The ground outside of the building is paved in brick. The 1809 Powder Magazine is in good condition.

Traverse (LCS ID 090253)

The Traverse is approximately 20' south of the 1809 Powder Magazine and immediately east of the Postern (Figure 3.9). The Traverse is a solid brick structure measuring 20' x 9'. It has battered walls and a barrel-arched roof. The Traverse is in good condition according the LCS.

Barracks Foundation (LCS ID 090263)

The Barracks Foundation is east of the Traverse (Figure 3.10). It has a 1' to 2'-tall brick wall outlining the perimeter of the barrack wall. It measures approximately 20' x 19'. The interior of the foundation is filled with turf. The east end is partially buried in the large turf mound that covers the Sally Port Complex. Small stone step marks the entrance into the Barracks on its north wall. Bricks cover the ground on the north and south sides and approximately half of the west side. The remaining section on the north side is turf and bare earth. The Barracks Foundation is in good condition.

Enlisted Men's Barracks Foundation (LCS ID 090256)

The Enlisted Men's Barracks Foundation is south of the Traverse (Figure 3.11). It has a 1' to2'-tall stucco wall outlining the perimeter of the barrack wall. It measures approximately 20' x 70'. Its interior is filled with earth and covered in turf. There are stone blocks marking the original entrances into the structure. The ground around the feature is paved in brick. The south end is partially covered by the turf mound that contains the Southwest Service Magazine. The Enlisted Men's Barracks Foundation is in good condition.

Sally Port Complex (LCS ID 012150)

The Sally Port Complex contains rooms and passages connecting the main entrance into the fort

Figure 3.12. Sally Port Complex looking north. (WLA Studio 2017).

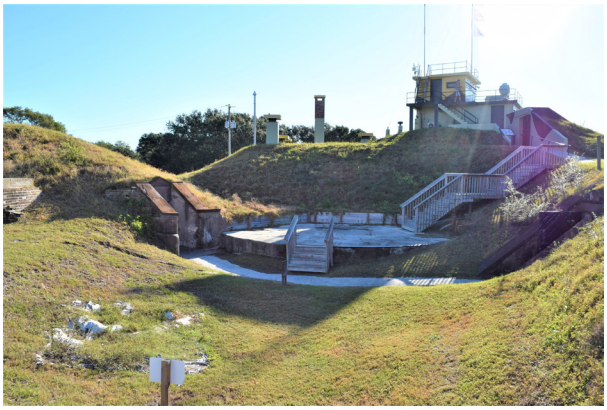


Figure 3.13. Gun Position No. 2, Northeast Bastion Service Magazine, and HECP looking east. (WLA Studio 2017).

with the fort's interior courtyard (Figure 3.12). The exterior entrance features a rectangular opening with granite surround. The interior-side opening has a sandstone pediment with dates "1776 1876" inscribed. Two concrete retaining walls extend south from the entrance to support the turf mounds that cover the complex. A set of concrete steps lead from the courtyard level following the eastern retaining wall. To the west of this entrance, there is a brick walkway leading to a wooden flagpole mounted on a brick and concrete base. The Sally Port Complex is in fair condition.

Gun Position No. 2 (LCS ID 012152)

Gun Position No. 2 is located between the East Service Magazine and the Northeast Service Magazine (Figure 3.13). It is surrounded by turf-covered magazines, Sally Port Complex, and the lower levels of the HECP. There is a quarter-circle concrete gun platform, approximately 22' x 27', with an iron traverse rail. A wood wall retains the turf mounds on the north, east, and south sides of the platform. The gun platform is accessed by a wood staircase. A second wood staircase leads

Figure 3.14. Gun Position No. 1 looking southwest. (WLA Studio 2017).

from the platform to the upper level and entrance into the HECP. A concrete walkway follows the base of the gun platform wall connecting the two magazines. Gun Position No. 2 is in fair condition.

East Service Magazine (LCS ID 012148)

The East Service Magazine is south of Gun Position No. 2. It is a brick barrel-vaulted chamber topped by a large turf mound. The entrance has sandstone pediment and coping. The East Service Magazine is in good condition.

Northeast Bastion Service Magazine (LCS ID 012149)

The Northeast Bastion Service Magazine is north of Gun Position No. 2 (Figure 3.13). It is a barrel-vaulted chamber covered in large turf mound. The passageway through the Northeast Bastion Service Magazine connects Gun Position No. 1 and Gun Position No. 2. The Northeast Bastion Service Magazine is in good condition.

Gun Position No. 1 (LCS ID 012151)

Gun Position No. 1 is in the Northeast Bastion and is accessed through the Northeast Service Magazine (Figure 3.14). There is quarter-round, concrete pad with wooden rails for a gun platform. There are brick pavers at the entrance into the Northeast Service Magazine. There are wood and brick walls retaining the large turf mounds covering adjacent structures. The brick parapet wall has sandstone coping. Gun Position No. 1 is in fair condition.

Harbor Entrance Control Post (LCS ID 012156)

The Harbor Entrance Control Post (HECP) is a three-story building constructed of reinforced concrete. The lower level is covered by a turf mound. Air vents and other equipment associated

with the building protrude out of the mounds. The upper two stories extend above the surrounding structures with an observation deck and various mounted signal equipment. The HECP eastern wall protrudes beyond the salient walls on the southeast and northeast corners. A chain link fence surrounds the foundation of the structure, connecting the two ends of the remaining east Scarp Wall on the north and south side of the structure. The second level features the original signal light and the box that once held the signal flags. The park flies fours signal flags from this level. The Harbor Entrance Control Post is in good condition.

Position Finding Station Foundation (LCS ID 012155)

West of the HECP, the foundation of the Position Finding Station is visible on the earth mound covering the Principle Service Battery. The ruins include a concrete wall and hexagonal concrete pedestals upon which the army mounted equipment. The Position Finding Station Foundation is in good condition.

Principal Service Magazine (LCS ID 012147)

The Principal Service Magazine is underneath the Position Finding Station Foundation and is covered in a large turf mound. The Principal Service Magazine is in good condition.

North Reservation Character Area

Torpedo Storehouse (LCS ID 012161)

The Torpedo Storehouse (1902) is located west of the Visitor Center (Figure 3.15). Its front facade faces south towards Middle Street. The brick front-gabled building is one story. There are entrances on the north and south facades. The NPS added a front-gabled portico to the south facade. The adjacent Visitor Center is constructed on an elevated terrace that slopes down to the east facade of this building. The Torpedo Storehouse is in good condition.

Fort Moultrie Visitor Center

The NPS constructed the existing Visitor Center in 1975-1976 (Figure 3.16). It is constructed of brick and is situated on an elevated, earthen terrace. The primary entrance into the building is on the northeast corner, facing the parking lot. It has brick steps and an ABA ramp on its north side. Low brick walls extend out from the building to create planting beds along the east façade. The

Figure 3.15. Torpedo Storehouse looking north. (WLA Studio 2017).

Figure 3.16. Visitor Center looking northwest. (WLA Studio 2017).

south façade has a second entrance, through which most visitors exit the building to begin their tour of Fort Moultrie. This space has a wide brick entrance plaza framed by brick walls. The roof is accessible via two separate staircases. Visitors have an elevated view towards Fort Moultrie from the roof. The Fort Moultrie Visitor Center is in good condition.

Fort Moultrie Visitor Center Pier

The NPS constructed the pier on The Cove in 1976 (Figure 3.17). The pier has concrete pilings supporting a concrete walkway with new metal railings. A floating pier is attached to the east end of the pier. The Fort Moultrie Visitor Center Pier is in good condition.

East Reservation Character Area

Battery Jasper (LCS ID 012159)

Battery Jasper is approximately 340 feet east of Fort Moultrie (Figure 3.18). Constructed by the United States Army in 1898, it is a massive reinforced concrete building with a steel superstructure that was the location of four batteries armed with 10-inch disappearing rifles. The building is 683' long

Figure 3.17. Visitor Center Pier looking north. (WLA Studio 2017).

Figure 3.19. Battery Jasper looking south. (WLA Studio 2017).

Figure 3.18. Battery Jasper looking southeast. (WLA Studio 2017).

Figure 3.20. Battery Jasper Powerhouse looking southeast. (WLA Studio 2017).

and 125' wide.[222] The building was coated with an Acrymax membrane system for weatherproofing. The building is in poor condition with rust evident on metal parts, water infiltrating its interior, and evidence of spalling and cracking in the concrete walls (Figure 3.19). The most western gun position of Battery Jasper is open to the public. Battery Jasper is in poor condition.

Battery Jasper Powerhouse (LCS ID 012160)

Located on the north side of Battery Jasper, the Batter Jasper Powerhouse is a one-story brick building that housed electrical equipment for Battery Jasper and Battery Logan (Figure 3.20). The building is side gabled with a single entry on the north and south facades. It has two windows on the east and west facades and a single window on the north and south facades. The windows have wood frames and sashes. The windows and doors feature granite lintels and sills. The roof is covered in corrugated metal. The Battery Jasper Powerhouse is in good condition.

Construction 230 (LCS ID 012162)

Located southeast from Battery Jasper, Construction 230 is a concrete and earthen battery (Figure 3.21). A two-story brick building sits on top of an earthen mound, which contains underground magazines accessed through three large concrete entrances. The brick building has several antennae mounted on the roof. The entire complex is surrounded by a chain-link fence. The NPS uses an office in Construction 230 for its law enforcement rangers. It uses the underground magazines and fenced area for material storage. The United States Navy occupies the rest of the building as the SPAWAR Facility. Construction 230 in in good condition.

Construction 230 Gun Positions #1 and #2

Two anti-aircraft gun emplacements are northeast and southeast of Construction 230 and are part of the Construction 230 complex (Figure 3.22). They feature Panama Mount-type gun artillery emplacements constructed from reinforced concrete. Steel traverse rails and elements of the center pedestal mount are visible. Grass grows in

222. 2016 NRHP nomination, Section 7, page 18.

Figure 3.21. Construction 230 looking east. (WLA Studio 2017).

Figure 3.23. 2017 photo of presumed cable terminal with rip rap in background. (Source: WLA Studio, 2017).

Figure 3.22. Construction 230 Gun Position No. 1 looking southeast. (WLA Studio 2017).

Figure 3.24. Bulkhead looking south. (WLA Studio 2017).

the interior of feature. Gun Positions #1 and #2 are in fair condition.

Beach and Forest Character Area

Cable Terminal Building/Unidentified Concrete Structure

There is an unidentified concrete structure at the shoreline southwest from Fort Moultrie (Figure 3.23). This reinforced concrete building has a flat roof and a rectangular opening on its north façade. It probably functioned as a cable terminal building or was associated with the searchlights for Fort Moultrie. This structure is in fair condition.

Bulkhead

There are remnants of a wood bulkhead at the shoreline southwest of Fort Moultrie (Figure 3.24). The bulkhead has timber pilings that are approximately 8" in diameter. Horizontal wood members support wood planks ranging in width. Many pieces of the bulkhead are missing. There is rip-rap piled on the landward side of the bulkhead. This feature is in poor condition.

Bowman's Jetty

There are remnants of a stone jetty extending into the harbor south of Fort Moultrie. The majority of the feature is submerged and only the tops of the stones are visible at low tide. The condition of this feature is unknown.

Wharf Ruins

There are remnants of iron support piers buried into the edge of the shoreline. These appear related to a historic wharf that was in this location. The piers are badly rusted and in poor condition.

Utilities

Most utilities are buried underground within the Fort Moultrie study area. Aboveground utilities include overhead power and communication cables and poles along Middle Street that do not cross in front of the Visitor Center but are visible from Fort Moultrie. There are metal light standards in the Visitor Center parking lot and wood light standards in the open space north of Battery Jasper. There is one pedestrian light standard at the plaza near the William Moultrie grave that is

Figure 3.25. Electric meters and junction box on Palmetto Street. (WLA Studio 2017).

Figure 3.26. Manhole cover in lawn north of Fort Moultrie. (WLA Studio 2017).

constructed from concrete but is inoperable. There are fire hydrants visible along the adjacent public streets. There are power meters and electrical boxes that appear associated with the transition from overhead to buried power lines in the planting strip east of Fort Moultrie along Palmetto Street (Figure 3.25). There is also an electrical transformer panel on the west side of the Visitor Center parking lot. The parking lot has drain grates that are part of the stormwater management system.

Historic utility features are present in the Fort Moultrie landscape. These typically are buried concrete or metal structures with only their tops visible at ground level or with their tops protruding just above ground level. This includes circular access vaults covered in steel manhole covers north of Fort Moultrie and metal drain grates north of Fort Moultrie. At least one manhole cover is stamped with "US" (Figure 3.26). There are also concrete utility vaults covered with heavy metal panels that are electrical or drainage junction boxes.

Cluster Arrangement

The existing buildings and structures of the site are arranged within their individual character areas. In the Fort Moultrie Character Area most buildings and structures are clustered along the interior of the Scarp Wall following the perimeter of the open courtyard and Parade Ground. The buildings and structures in the North Reservation are clustered in close proximity to each other near Middle Street. Both the Visitor Center and the Torpedo Storehouse are set back from the road creating a lawn space between the buildings south facades and the road. Battery Jasper forms an east-west spine through the East Reservation and secondary and axillary buildings and structures are located in relationship to Battery Jasper. Construction 230 is located at the east end of Battery Jasper. There is no visible cluster arrangement of structures in the Beach and Forest Character Area.

Land Use and Cultural Traditions

There are a variety of land uses within the study area of Fort Moultrie. These include administration/tourism, cemetery/memorial, commemoration, interpretation, military, recreation, and visitor services.

Administration/Tourism

The offices for NPS staff are located in the Torpedo Storehouse. The office for the NPS law enforcement ranger is located in Construction 230. The Visitor Center is the main visitor contact station. Restrooms and water fountains are located on the exterior of the building, accessed from the brick plaza on the north façade. Park Rangers are available at the Visitor Center and at Fort Moultrie to provide additional interpretation.

Cemetery/Memorial

There are four known locations of burials. Osceola's Grave, the Patapsco Monument, William Moultrie's grave, and a graveyard located in the landscape islands of the Visitor Center parking lot.

Commemoration

The entire Fort Moultrie site has characteristics of a commemorative landscape. Historic structures,

monuments, and interpretive features distributed across the site convey to a visitor the historic use of the site and its historic significance.

Interpretation

Interpretation is available through a variety of interpretive signs and exhibits. The Visitor Center includes exhibits on the history of the site and the people who interacted with Fort Moultrie and Sullivan's Island. A tour route through Fort Moultrie has interpretive signs and wayside panels describing specific structures, their use, or contextual history about coastal defenses and military technology. There are interpretive signs and wayside panels in the landscape that describe historic events or provide information about exhibited historic resources.

Military

The United States Navy operates the SPAWAR Facility in Construction 230.

Recreation

Visitors and residents of Sullivan's Island use the paths and beaches at Fort Moultrie as a recreational resource.

Circulation

Vehicular

Fort Moultrie is located on Middle Street, a main east/west thoroughfare on Sullivan's Island. The road is standard asphalt construction with two 11' to 12'-wide travel lanes. Middle Street bisects the northern parcel of the park with the Visitor Center from the southern parcel with Fort Moultrie and Battery Jasper. Palmetto Street intersects Middle Street east of the fort. It turns into Poe Avenue, which parallels Battery Jasper before turning north and intersecting again with Middle Street.

Construction 230 is accessed by a paved driveway that enters the northeast corner of the fenced area near the intersection of Poe Avenue and Station 15 Street (Figure 3.27). An unimproved roadway, approximately 5' wide, parallels the north façade of Battery Jasper (Figure 3.28). It is approximately 1000' long. This drive is composed of gravel and crushed shells. Grass has encroached onto its edges and across large sections of the drive. It joins

Figure 3.27. Driveway and Service Road at Construction 230 looking south. (WLA Studio 2017).

Figure 3.28. Battery Jasper Roadway looking west. (WLA Studio 2017).

the paved road at the intersection of Poe Avenue and Palmetto Street; and the NPS still uses it as a service road. There is an unimproved parking area, with space for approximately 25 cars, at the corner of Palmetto Street and Poe Avenue, near Cannon Row, which is owned by the Town of Sullivan's Island (Figure 3.29). Visitors and residents of Sullivan's Island use this lot when accessing the beach and the trails at Fort Moultrie. A second unimproved service road leads around the west side of the Construction 230 fence to the former magazine entrances on the lower level, which the NPS currently use for storage. This roadway is approximately 350' long.

Vehicular access to the Visitor Center parking lot is along a driveway on the east side of the Visitor Center. The parking lot has approximately 75 automobile parking spaces and three parking spaces for buses (Figure 3.30). An unpaved service road crosses the open lawn south of the Visitor Center connecting to Cove Avenue near the northeast corner of the site.

Figure 3.29. Parking area at Battery Jasper looking east. (WLA Studio 2017).

Figure 3.31. Meadow paths and beach paths looking southeast. (WLA Studio 2017).

Figure 3.30. Visitor Center Parking Lot looking north. (WLA Studio 2017).

Figure 3.32. Front Brick Walkway. (WLA Studio 2018).

Paths

There are turf paths mown through the meadow south of Fort Moultrie. Two of these paths connect to the concrete walkway that provides visitors with an interpretive loop through the open space south of the fort. One path heads southwest towards the south end of the public beach area west of Fort Moultrie (Figure 3.31). This path is approximately 250' long. A second path goes along the edge of the meadow connecting to a wide sandy path to the beach southeast of Fort Moultrie. This path is approximately 190' long. A third path is cut through the meadow between this same beach access point to the unimproved parking area near Cannon Row. This path is approximately 622' long.

Two paths exist inside Fort Moultrie. One leads to the northwest bastionette. A second leads from the brick surface adjacent to the Barracks Foundation to the Sally Port Complex entrance into the interior of the fort. These are both "social paths" worn into the turf by frequent foot traffic.

Pedestrian

There are a variety of pedestrian walkways at Fort Moultrie. The following description organizes them by character area. The inventory describes resources in a clockwise direction when possible within each character area.

Fort Moultrie Character Area

Outside of Fort Moultrie, pedestrian circulation includes brick and concrete walkways. The main pedestrian route to the Sally Port Complex entrance into the fort is a brick walkway laid in standard running bond with a single soldier course edge (Figure 3.32). It connects on the north to an ABA ramp and crosswalk leading across Middle Street. It is approximately 95' long and 10' wide. A concrete walkway intersects this walkway and leads west to Osceola's Grave and Patapsco Monument (Figure 3.33). It is approximately 35' long and 4' wide. A brick, herringbone plaza surrounds these burial sites. A second concrete walkway intersects with the main brick walkway closer to Middle Street and travels parallel to the street until it reaches the northeast corner of the fort, where it

Figure 3.33. Concrete Path to Osceola's Grave and Patapsco Monument. (WLA Studio 2017).

Figure 3.35. Concrete Path to HECP exterior entrance. (WLA Studio 2017).

Figure 3.34. Concrete Path on east side of Fort Moultrie looking southwest. (WLA Studio 2017).

Figure 3.36. Brick walkways at Sally Port Complex looking north. (WLA Studio 2018).

turns south and leads to the open space south of the fort (Figure 3.34). This walkway continues into the grass field toward an interpretive area with two cannon and interpretive panels describing events at the site in the eighteenth century. The walkway continues past the exhibits, looping back north, returning toward the fort, passing its west wall, and ending at the Postern. This walkway is constructed from concrete with crushed shell aggregate. It is approximately 1,650' long and 5' wide. The walkway is in generally good condition, but there are cracked sections, a result from settling. A short section of concrete walkway provides access to the lower level entrance into the HECP (Figure 3.35). This is 37' long and 4' wide. It is constructed from concrete with a stone aggregate. It is in good condition except for minor cracks.

Inside of the fort, the walkways are concrete, brick, and stone paver. The area immediately outside of the Sally Port Complex entrance into the interior courtyard is concrete. This connects to a 5'- wide brick walkway that leads south toward the South Service Magazine (Figure 3.36). It has a herringbone pattern with a single soldier course edge. At the south terminus of this walkway, it forks as it connects to a concrete walkway at the base of the turf mound covering the South Service Magazine. A short section of walkway leads west from the Sally Port Complex toward a flagpole mounted on a brick platform. This walkway is 3' wide and laid in a basket weave pattern. A set of four brick stairs leads up to the base of the flagpole.

A 5'-wide, shell aggregate concrete walkway travels between Battery Bingham and Battery McCorkle along an elevated platform in the southeast corner of the fort (Figure 3.37). This walkway intersects with an older brick walkway at the foundation levels of Battery McCorkle and Battery Bingham (Figure 3.38). This walkway is brick herringbone pattern with a single soldier edge. This brick surface provides pedestrian access to the concrete stairs leading to the gun platforms. Two sets of concrete stairs lead to the lower level of Battery McCorkle's magazines. There are concrete landings at the top of these two stairways. The walkways, landings, and stairs in this area are in

Figure 3.37. Concrete walkway between Battery Bingham and Battery McCorkle. (WLA Studio 2017).

Figure 3.39. Older concrete in foreground against newer concrete. (WLA Studio 2017).

Figure 3.38. Brick walkways, concrete steps, and concrete landings at Battery McCorkle. (WLA Studio 2017).

Figure 3.40. Bluestone paves and concrete walkway on Terreplein looking east. (WLA Studio 2017).

good condition.The concrete walkway resumes at the northwest corner of Battery Bingham and continues west toward the southwest corner of the fort. This walkway is 4.5' wide with score joints every 6'.

The concrete walkway leading from Battery McCorkle past the South Service Magazine to the 1870s Battery Reconstruction features a visibly different, presumably older, form of concrete than the section leading to Battery McCorkle from the southeast corner of the fort. The surfaces of the older sections of concrete are uneven and more worn than the newer sections. The newer sections of sidewalks are in good condition. The older sections are in fair condition. Both of these older and newer walkways have very visible, bright-white aggregate that appears to be small shell shards. The shell aggregate is much finer in the concrete used in the interior of the fort compared to the concrete used outside of the fort (Figure 3.39).

There is a newer concrete walkway and a small interpretive panel with a small, flagstone paver surface at the 1870s Battery Reconstruction.

The walkway paving material changes again and becomes the older concrete type as the walkway passes the Southwest Service Magazine and opens up to the Terreplein and the gun emplacements along the southwest seawall. The areas around the gun emplacements are paved in bluestone pavers (Figure 3.40). The bluestone pavers extend approximately 26' to 30' from the face of the parapet wall. The bluestone pavers are not mortared but have small aggregate filling the spaces between the pavers. The pavers are in good condition except for minor chips on the edges of individual pavers. The pavers continue to the west salient, where a 5'-wide concrete walkway continues north toward the northwest bastionette. This concrete appears to be the older variety of concrete described above. This concrete is worn and in fair condition with pockmarks and cracks. The walkway loops around the parade wall around the north and east sides of the 1809 Powder Magazine before terminating at a wood staircase leading down into the lower level of the Parade Ground (Figure 3.41). The staircase has 13 steps and is constructed from pressure treated lumber.

Figure 3.41. Wood staircase leading into Parade Ground looking south. (WLA Studio 2017).

Figure 3.42. Brick surface of Parade Ground. (WLA Studio 2017).

Portions of the courtyard are paved in brick laid in running bond. The brick plaza surrounds the two barrack foundations, the area at the base of the parade wall, around the Traverse, and around the 1809 Powder Magazine. The brick along the west side of the Enlisted Men's Barracks appears older than the rest of the brick that covers the Parade Ground surface (Figure 3.42). The older brick surface is uneven and the bricks are worn and in fair condition. The newer brick is in good condition. The area on top of the Sally Port Complex is not accessible to the public, but there are remnants of a pedestrian circulation system that connects the west and east sides of the fort. This includes stone stairs and short sections of brick walkways that lead over the concrete structure on top of the Sally Port Complex. There is also a concrete staircase on the eastern retaining wall of the Sally Port Complex entrance into the interior of the fort. These features are in good condition.

A concrete walkway passes Gun Position No. 2 between the entrances into Northeast Bastion

Figure 3.43. Concrete walkway and staircase at Gun Position No. 2. (WLA Studio 2017).

Service Magazine (Figure 3.43). This walkway is constructed of the older form of shell-aggregate concrete described above. Its edges are worn and its surface is cracked.

A wood staircase leads up to the surface of the Gun Position No. 2 platform. A second wood staircase leads from the south corner of the platform up the slope towards the HECP from Gun Position 2. It connects to a new section of concrete that continues south towards Battery Bingham, returning to the main pedestrian walkway to the Sally Port Complex entrance. A second section of new concrete intersects this walkway and leads to the entrance into the HECP. These sidewalks are approximately 5'wide. They are in good condition. The wood staircases are in good condition.

North Reservation Character Area

The pedestrian circulation in the North Reservation Character Area includes both concrete walkways and plazas and brick walkways and plazas.

A 5'-wide concrete sidewalk parallels the north side of Middle Street in front of the Visitor Center. This is a continuation of Sullivan's Island's streetscape system. A curvilinear section of concrete walkway intersects this sidewalk and provides pedestrian access to the Torpedo Storehouse (Figure 3.44). The Visitor Center has an 18'- wide brick walkway that leads to its southeast entrance from the intersection of Middle Street and the driveway into the Visitor Center parking lot. A section of the retaining wall along the walkway to the northeast entrance is exposed due to the removal of bench planking. There is a concrete plaza at this corner with an ABA ramp leading to the crosswalk across Middle Street towards Fort Moultrie. A concrete

Figure 3.44. Concrete walkway on Middle Street and walkway to Torpedo Storehouse looking north. (WLA Studio 2017).

Figure 3.46. Concrete walkways and main entrance to Visitor Center looking south. (WLA Studio 2017).

Figure 3.45. Concrete walkway east side of Visitor Center looking north. (WLA Studio 2017).

Figure 3.47. Concrete walkway towards Visitor Center pier looking north. (WLA Studio 2017).

walkway leads around the east façade of the Visitor Center towards the Visitor Center parking lot (Figure 3.45). This walkway is approximately 8' wide and is elevated 6" from the adjacent roadway by a concrete curb. This walkway leads to a concrete plaza near the northeast corner of the Visitor Center, which is the main entrance into the Visitor Center from the parking lot (Figure 3.46). These concrete walkways feature a broom finish and are in good condition. There is a brick plaza at the entrance into the Visitor Center, accessed by a flight of brick stairs on the east and a brick-surfaced accessible ramp on the west. An 8'-wide concrete walkway continues north from the brick-surfaced ramp along the west property line towards the parking lot and pier on Cove Inlet (Figure 3.47). Two narrow concrete walkways, approximately 3' wide, intersect this wider walkway to provide access to the entrance into the north façade of the Torpedo Storehouse. Secondary walkways intersect with the main walkway along the west property line. These short sections of concrete walkway connect to the parking lot. The two interior planting islands of the parking lot have concrete sidewalks around their perimeter that are approximately 6.5' wide. There is a concrete plaza near the entrance onto the NPS pier and near the William Moultrie Grave. The NPS pier has a concrete surface. All these features are in good condition.

East Reservation Character Area

Pedestrian circulation features in the East Reservation Character Area include new concrete walkways installed by the NPS and older concrete walkways that appear contemporary with Battery Jasper. A 5'-wide concrete walkway leads east from Fort Moultrie toward the northwest corner of Battery Jasper. This walkway passes Cannon Row and aligns with an older concrete walkway that travels along the north façade of Battery Jasper (Figure 3.48). There are two small concrete pads on either side of this walkway, near the northwest corner of Batter Jasper, that are for viewing interpretive panels on coastal defense and Battery Jasper. This walkway has had sections

Figure 3.48. Concrete walkway towards Battery Jasper looking east. (WLA Studio 2017).

Figure 3.49. Concrete walkway on north side of Battery Jasper looking east. (WLA Studio 2017).

replaced with newer concrete. The newer sections have larger aggregate and a 2" troweled edge. The pads at the interpretive panels are smooth with no visible aggregate. The new sections of concrete are in good condition. The older sections are in fair condition with cracked edges and worn surfaces. The concrete walkway leads east between Battery Jasper and Battery Jasper Powerhouse. A section of concrete walkway in poor condition intersects this walkway and goes north along the west façade of Battery Jasper Powerhouse. The concrete walkway along the north façade of Battery Jasper widens east of Battery Jasper Powerhouse, becoming almost 10' wide (Figure 3.49). There are four concrete walkways and four concrete ramps intersecting the walkway along the north foundation of Battery Jasper. These terminate at a drainage ditch approximately 12' north from the walkway along Battery Jasper. These walkways and ramps are in good condition except for minor cracks and chips. There is a short section of concrete walkway leading from the parking lot at Construction 230 to an entrance into the structure's northeast façade. It is in good condition.

Trails

Sullivan's Island Nature Trail crosses the eastern edge of the study site. This travels through land in the scenic conservation easement. It travels south from the intersection of Station 16 Street South and Atlantic Avenue. It is approximately 1,170' long. There is a boardwalk intersecting this trail that leads to a viewing platform on the seaward side of the dunes. There are numerous informal trails leading through the dunes and the maritime forest in this area.

Small-Scale Features

There is a wide variety of small-scale features at Fort Moultrie. Most date from the late-nineteenth century or twentieth century. The following description organizes them by the type of feature. Within each feature, the narrative describes them by sub-type (i.e. type of sign) or by location within the character areas.

Signs

Fort Moultrie contains a variety of signs distributed across the landscape and at individual buildings and structures. These include entrance signs, information kiosk, regulatory signs, warning signs, interpretation signs, and destination signs. In general, the signs at the site are in good condition.

Entrance Signs:

- A double-sided park entrance sign is mounted between brick piers near the entrance into driveway at Visitor Center. The east side is painted aluminum (Figure 3.50). The NPS arrowhead logo is mounted on the east face of one brick pier. The west side of sign is painted wood with raised text (Figure 3.51).
- There is a park identification sign at Battery Jasper and Cannon Row.

Regulatory Signs:

- A "Welcome to Sullivan's Island" sign is posted at the path to the beach south of Fort Moultrie. This appears to be a municipal sign and not an NPS Sign. It contains information about local rules and regulations.
- Reflective aluminum signs and high density plastic (HDPE) signs are posted at various locations around the park displaying

Figure 3.50. East side of entrance Sign. (WLA Studio 2017).

Figure 3.52. Example of regulatory sign. (WLA Studio 2017).

Figure 3.51. West side of entrance Sign. (WLA Studio 2017).

Figure 3.53. Example of warning sign. (WLA Studio 2017).

visitor information about park hours, fees, and rules and regulations (Figure 3.52). One example is at the entrance to the parking lot displaying park hours and designating Fort Moultrie as a U.S. Fee Area. Another example is posted adjacent to the walkway west of Fort Moultrie displaying park use regulations.

Warning Signs:

- The NPS has metal warning signs mounted on wood posts in strategic locations within the fort to prevent visitors from accessing restricted areas (Figure 3.53). These include signs saying "KEEP OFF THE HILLS".

Interpretive Signs:

- Many of the structures in Fort Moultrie have identification signs providing the name of the structure and describing its function. These are typically constructed from HDPE mounted on either wood or metal posts (Figure 3.54).
- There are interpretive panels that vary in size, commonly 24" x 36", distributed across the landscape. These include low-profile wayside exhibits and vertically-oriented exhibits. These are high-pressure laminate mounted on aluminum bases (Figure 3.55).

Destination Signs:

- There are at least two types of destination signs in Fort Moultrie and at the Visitor Center. One type is rectangular, constructed from HDPE that provides directional arrows for the tour route. A second type of directional sign is mounted near Gun Position No. 2. It says "Tour Fort Moultrie" and has an arrow directing people to the staircase leading to the HECP.

Fences, Gates, and Railings

There are a variety of fences, gates, and railings located across the Fort Moultrie landscape. Many limit visitor access to restricted areas of the site

Figure 3.54. Example of interpretive sign. (WLA Studio 2017).

Figure 3.56. Fences at Osceola's Grave and Patapsco Monument looking southwest. (WLA Studio 2017).

Figure 3.55. Example of interpretive panel. (WLA Studio 2017).

Figure 3.57. Fence at HECP lower-level entrance looking south. (WLA Studio 2017).

or delineate the boundaries of the site. Several buildings and structures have integrated railings or affixed sections of fencing that are described in the buildings and structures section. The fences, gates, and railings in the Fort Moultrie landscape include:

Fort Moultrie Character Area

- A metal chain suspended by three wooden 4" x 4" posts on the Terreplein prevents visitors from accessing the area on top of the Sally Port Complex.
- A post and chain located on top of the Sally Port Complex prevents visitors from walking across the top of the Sally Port Complex roof.
- Two wrought iron fences surround Osceola's Grave and Patapsco Monument (Figure 3.56).
- A chain-link fence surrounds the eastern foundation of the HECP (Figure 3.57).
- A wood post-and-rail fence west of Fort Moultrie encloses the north side of the adjacent lot along Middle Street; there is a metal gate at this location for vehicular access to the site.
- Pedestrian walkways have metal-tube railings on steep sections leading up to the HECP and down to Battery Bingham.
- A metal railing is mounted above the Sally Port Complex entrance into the interior of the fort.
- Two metal bollards are mounted in the walkway east of the fort to prevent vehicular access into the open space south of the fort.

East Reservation Character Area

- A wood post and rail fence along Poe Avenue marks the north property line near Battery Jasper; a metal gate is mounted near Cannon Row to provide vehicular access to the site (Figure 3.58).
- Metal posts, the remnants of post-and-chain fence that once marked the north property line, are visible near the northeast corner of study area.
- The chain-link fence enclosing the Construction 230 site has three gates

Figure 3.58. Wood post and rail fence near Battery Jasper looking southeast. (WLA Studio 2017).

Figure 3.60. Reproduction English 18-pounders looking northwest. (WLA Studio 2017).

Figure 3.59. Chain link fence and gate at Construction 230. (WLA Studio 2017).

Figure 3.61. Pre-Civil War-era guns at Northwest Bastion looking north. (WLA Studio 2017).

providing vehicular access into the site (Figure 3.59).

- Battery Jasper has sections of chain-link fence restricting visitor access into the building.

Guns, Gun Carriages, Weapons, and Equipment

Fort Moultrie has numerous guns and weapon-related artifacts displayed both inside the fort and in exhibits on the grounds. The interpretive tour at Fort Moultrie provides a timeline of artillery on exhibit, from the American Revolutionary War era reproduction guns displayed south of the fort (Figure 3.60), Civil War-era guns displayed on the western side of the fort (Figure 3.61), Spanish-American War-era guns at the 1870s Battery Reconstruction (Figure 3.62), to Endicott-era guns displayed at Batteries Bingham and McCorkle. The guns and carriages are in good condition. The guns include:

Fort Moultrie Character Area

- Two reproduction English 18-pounders in field south of Fort Moultrie.
- Two 15-pounder rapid fire guns in Battery McCorkle and Battery Bingham.
- Two 15-inch Rodmans on reproduction carriages mounted on fore-pintle barbettes at the 1870s Battery Reconstruction.
- 32-pounder gun on a reproduction carriage mounted on wood and iron 360-degree traverse at gun position 14.
- 8-inch Columbiad on a reproduction carriage mounted on wood and iron 360-degree traverse at gun position 16.
- Two 10-inch Columbiads on reproduction carriages mounted on fore-pintle barbette at gun positions 5 and 7.
- 24-pounder tube mounted on a wooden sled under a reproduction Cannon Gin.

Numerous pintles and traverses located at gun positions across the Terreplein do not have mounted guns. These feature iron pintles set into either concrete or brick mounts. They include:

Figure 3.62. 1870s Battery Reconstruction. (WLA Studio 2017).

- Gun positions 1, 2, and 3 have pintle mounts but do not have traverses or mounted guns.
- Gun positions 4, 6, 8, 11, and 12 have brick and iron pintles and stone and metal traverses.
- Gun positions 9, 10, and 13 have neither pintles nor traverses.

North Reservation Character Area

- Buoyant Mine at Torpedo Storehouse.

East Reservation Character Area

- 7-inch Triple-Banded Brooke.
- 10-inch Parrott Rifle.
- 8-inch Parrott Rifle.
- 10-inch Confederate Columbiad.
- Modified 10-inch Columbiad.
- 10-inch Rodman.
- 10-inch Rodman.
- 13-inch Mortar.

Flagpoles

Fort Moultrie has numerous flagpoles mounted across the landscape. The flagpoles are in good condition. These include:

- Wooden flagpole inside the fort west of the interior entrance of the Sally Port Complex.
- A metal flagpole on the northwest corner of the Visitor Center near the main entrance.
- Flagpole mounted next to William Moultrie grave.
- Signal flags are flown from observation level of the HECP

Figure 3.63. Composite wood bench looking north. (WLA Studio 2017).

Figure 3.64. Recycled plastic bench at pier. (WLA Studio 2017).

Benches and Tables

The NPS has placed benches across the Fort Moultrie landscape for visitor use. There is a variety of styles, with different materials and designs. These include:

- One backless bench with composite wood slats is on a metal base in the location of a concrete structure that previously held a gun tube; this is along the walkway in the open space south of Fort Moultrie (Figure 3.63). This bench is new and in good condition.
- There are four, 4'-wide, recycled plastic benches on the pier at the Visitor Center (Figure 3.64). These benches are in good condition.
- There are three benches at the plaza near the entrance onto the pier (Figure 3.65). These feature 3" x 3"square, composite wood slats mounted on brick bases. They are in good condition.
- There are five modern picnic tables arranged under the canopy of sabal

Figure 3.65. Wood and brick bench at plaza near pier looking south. (WLA Studio 2017).

Figure 3.66. Plastic bench on concrete base at Battery Jasper looking east. (WLA Studio 2017).

palmettos and live oak trees that form a picnic area on the north edge of the Visitor Center parcel.

- The brick plaza at the main entrance to the Visitor Center has a seat wall with 3" x 3" square, composite wood slats. It is in good condition.
- There is one plastic, backless bench mounted on a concrete base on the north side of Battery Jasper near the Battery Jasper Powerhouse (Figure 3.66). It is in fair condition.

Trash Receptacles

There are metal trash/recycling receptacles in the Visitor Center parking lot (Figure 3.67). There is a trash dumpster inside the fence at Construction 230. These are new and in good condition.

Monuments and Markers

Monuments include those at burial sites and NPS boundary markers. All of the monuments and markers are in good condition. These include:

Figure 3.67. Trash and recycling receptacle at Visitor Center. (WLA Studio 2017).

Patapsco Monument (LSC ID 012164)

The *Patapsco* Monument is a granite obelisk on a granite base. It is 7'-6" tall. Its inscription includes the names of the *Patapsco* crewmen.

Osceola's Grave Monument (LSC ID 090262)

Osceola's Grave is marked with a flat marble monument with an inscription that reads "OCEOLA Patriot and Warrior Died at Fort Moultrie January 30th, 1838."

William Moultrie's Gravesite

William Moultrie's grave is marked by a flat granite slab surrounded by a brick plaza. There is an iron fence enclosure and a flagpole next to the grave.

Bench By The Road

There is a black steel memorial bench installed east of the NPS pier overlooking The Cove. This is part of the Bench by the Road Project, placed here to memorialize the lives of the enslaved Africans who passed through the area. This was the first Bench by the Roadside ever installed and was set in place with a special ceremony in July 2008. The bench is in good condition.

Reservation Markers

There are granite markers, inscribed with the initials "U + S", marking at least one corner of the former Fort Moultrie Military Reservation (Figure 3.68).

Boundary Markers

There are metal pens set into concrete and PVC marking the corners of the park boundary.

Figure 3.68. Granite marker. (WLA Studio 2017).

Figure 3.69. View south from HECP. (WLA Studio 2017).

Other Small-Scale Features

There is a metal bike rack at the Visitor Center parking lot. There is also a weather station box located along the walkway between the Visitor Center and the Visitor Center pier. They are both in good condition.

Views and Vistas

Today, an established maritime forest obscures direct views to the water except for a naturally-occurring corridor that provides a visual connection with Fort Sumter (Figure 3.69). Water is visible in the distance over the tops of the forest, which reinforces the military history of the site as a coastal defense installation. Other important views are between the different structures. Because elevated viewing platforms are available for visitors at the Visitor Center, at the HECP, and at Battery Jasper, visitors have the ability to view into and across the structures despite their enclosure walls. Views towards Battery Jasper from the HECP, for example, provide a good perspective of the building's size, design, and arrangement of surviving features contemporary with the structure. The view of the interior of Fort Moultrie from the HECP also provides an excellent overview of the fort layout and of the different design characteristics of the various batteries. The platform on the roof of the Visitor Center provides a view of most of the site's resources and the arrangement of buildings and structures. From this position, a visitor sees the spatial relationship between Charleston Harbor, Fort Moultrie, and Battery Jasper.

A view looking north across open fields is expansive, stretching from Construction 230 and Battery Jasper on the east (Figure 3.70) to Fort Moultrie on the west (Figure 3.71). This view helps a visitor to recognize the physical relationship of the buildings and to infer a historical association.

Constructed Water Features

Fort Moultrie has several constructed water features that date from the U.S. Army's development and use of the property in the late-eighteenth and early-nineteenth centuries. Most of these features are utilitarian features that supported the function of adjacent buildings or general operation of the military reservation. Other features are newer and include those that the NPS has added to manage stormwater. These features include:

Gutter and Drain at Parade Wall

There is a drainage feature at the southeast terminus of the parade wall (Figure 3.72). A brick gutter appears to address erosion at the connection point between a turf mound and the wall. The brick would collect water and divert it to the brick pavement on the courtyard level of the Parade Ground. There is also a 4' corrugated pipe laid parallel to the brick gutter. The brick gutter is in good condition; the pipe has collapsed and is in poor condition.

Postern Drain

To address the periodic flooding in the Postern, NPS staff installed an underground pump and drain in the Postern corridor. The system is unable to handle high volumes of water. The outlet of this water is unknown, but the consultant team

Figure 3.70. View looking northeast to Battery Jasper and Construction 230. (WLA Studio 2017).

Figure 3.71. View looking north to Fort Moultrie. (WLA Studio 2017).

Figure 3.72. Drain gutter at Parade Ground wall in Fort Moultrie. (WLA Studio 2017).

observed water flowing from a pipe near the beach at the location of the historic wharf. The system is operable, but its condition is unknown.

Battery Jasper Reservoir No. 1 (LCS ID 012157)

Battery Jasper Reservoir No.1 is north of Battery Jasper, between the unpaved roadway north of the battery and the fence line along the north edge of the property (Figure 3.73). It is one of three reservoirs located along open space north of Battery Jasper. Battery Jasper Reservoir No. 1 is constructed from reinforced concrete. It is square with each wall being approximately 28' long and 6' high. An artesian well, contained in an adjacent concrete structure, fed the cistern with fresh water. Turf covers the top of the structure. Battery Reservoir No. 1 is in fair condition with cracks in the concrete walls.

Battery Jasper Reservoir No. 2 (LCS ID 012158)

Battery Jasper Reservoir No.2 is east of Battery Jasper Reservoir No. 1. It measures 37.5' x 38' and is 4' high. A concrete cap covers the feature. A modern pump system attaches to the east and west sides of the structure. These are contained within brick screen walls. It is in poor condition with cracks in the concrete walls.

Battery Jasper Reservoir No. 3 (LCS ID 012159)

Battery Jasper Reservoir No. 3 is near the east end of Battery Jasper and located on the south side of the unpaved roadway (Figure 3.74). It is of similar construction as the other reservoirs. It measures approximately 28.5' square and is approximately 2' tall. Grass grows within the walls. The walls are in poor condition.

Figure 3.73. Battery Jasper Reservoirs; No. 1 in foreground looking northeast. (WLA Studio 2017).

Figure 3.74. Battery Jasper Reservoir No. 3 looking southeast. (WLA Studio 2017).

Battery Jasper Drainage Swale and Drain Gutter

A concrete gutter runs along the bottom of a grassed swale that parallels most of the north façade of Battery Jasper (Figure 3.75). The concrete gutter is approximately 8" wide. Removable iron plates cover the gutter. This gutter leads west toward a buried drain junction box in the open space northwest of Battery Jasper. The junction box is concrete and covered with an iron plate. The feature is in generally good condition, except for cracks in some of the iron plates.

Figure 3.75. Drain gutter at Battery Jasper looking east. (WLA Studio 2017).

Archeological Sites

Fort Moultrie has several known archeological sites and, considering its long period of occupation, many unknown archeological sites. This study limits the list of archeological sites to those subjected to archeological investigation. This would exclude William Moultrie's grave and the Patapsco Monument.

Moultrie Hospital

The NPS constructed the Fort Moultrie Visitor Center on the site of the former Fort Moultrie Hospital. An archeological investigation documented this building prior to the construction of the existing Visitor Center.

Fort Moultrie Cemetery

The Fort Moultrie Visitor Center parking lot occupies the location of the Fort Moultrie Cemetery. Landscape islands in the parking lot exist where undisturbed graves were found.

Osceola's Grave (LSC ID 090262)

Osceola is buried at a marked site in the lawn area north of Fort Moultrie. The site is enclosed by cast-iron fence. The fence has four octagonal corner posts. The ground surrounding the gravesite is paved in brick that extends to include the area around the Patapsco Monument. Archeologists investigated the site in the 1960s following a report of vandalism.

Fort Moultrie No. 1 (LCS ID 000076), Fort Moultrie No. 2 (LCS ID 000077), and Fort Arbuthnot

Archeologists have explored the areas south of Fort Moultrie No. 3 searching for the exact location of previous forts. The locations of Fort Moultrie No. 1 and Fort Moultrie No. 2 are unknown.

Key

1 Battery Jasper Powerhuose
2 Battery Jasper Reservoir No. 1
3 Battery Jasper Reservoir No. 2
4 Battery Jasper Reservoir No. 3
5 Osceola's Grave
6 Patapsco Monument
7 Torpedo Storehouse (Currently Functions as Administrative Headquarters)
8 NPS Pier
9 Moultrie's Grave
10 Bench (Placed by Toni Morrison Society as Part of Bench by the Road Program)
11 Picnic Area
12 Open Lawn
13 Visitor Parking
14 Cemetery (Unmarked)
15 Visitor Center
16 Turf Area
17 Meadow
18 Cannon Row
19 Informal Path
20 Cable Terminal
21 The Grillage
22 Gun Position, Typ.
23 Sullivan's Island Nature Trail and Boardwalk
24 Bowman's Jetty (Presumed)

Notes

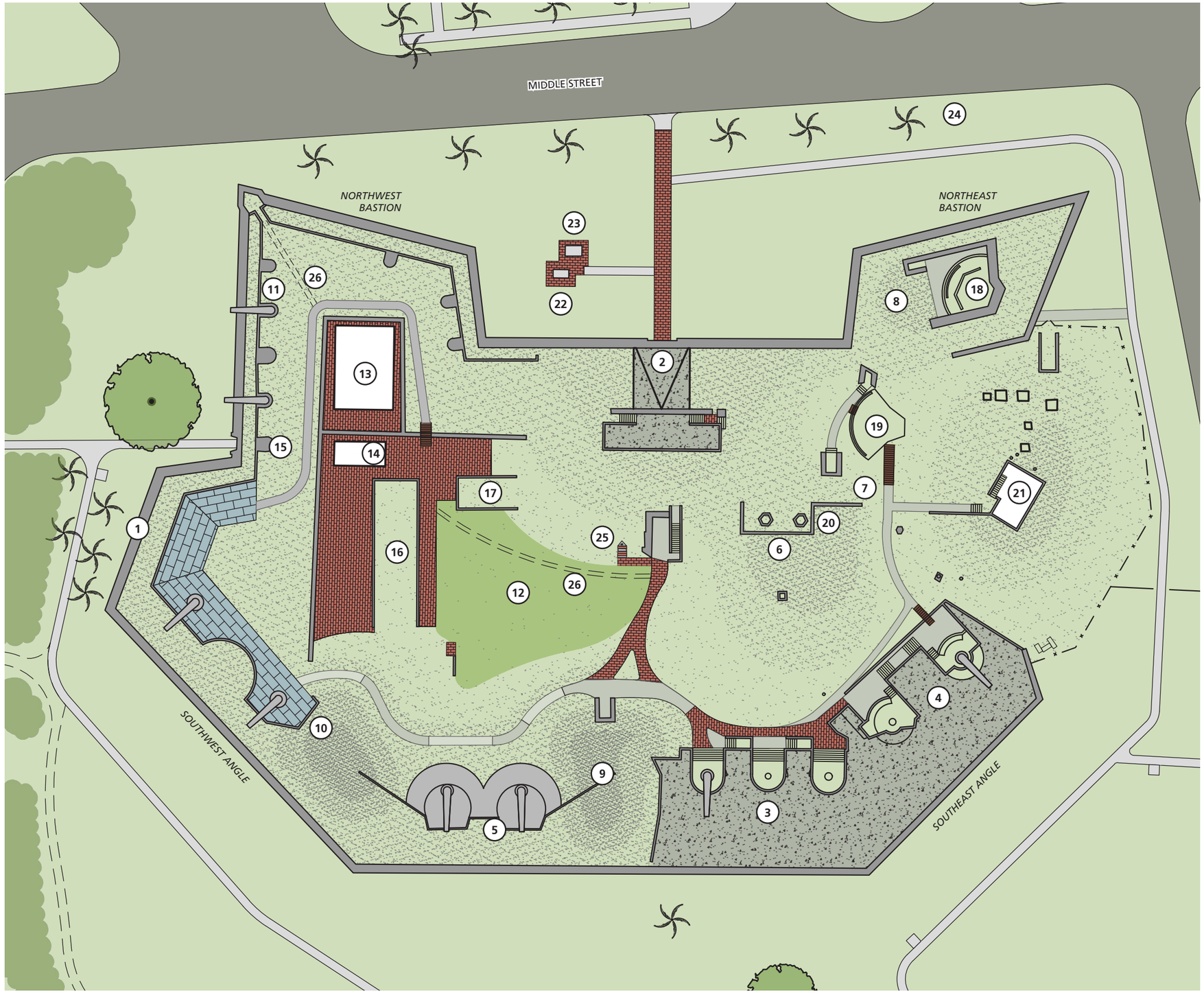
1. CLR study boundary derived from NPS GIS parcel data, which is approximate. Ownership boundary includes areas not incorporated into Fort Sumter National Monument. CLR Study Boundary was expanded to reflect historic conditions of Fort Moultrie Military Reservation.

Credits

1. National Park Service
2. Field Work, November 2017

Illustration 3.1
Existing Conditions
Fort Moultrie

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019



Material Key

- Upper Lawn
- Lower Lawn
- New Concrete Paving
- Old Concrete Paving
- Concrete Structure
- Brick Paving
- Blue Flagstone Paving
- Wooden Structure

Building and Feature Key

1	Fort Moultrie No. 3 Scarp Wall
2	Sally Port Complex
3	Battery McCorkle
4	Battery Bingham
5	1870s Battery Reconstruction
6	Principal Service Magazine
7	East Service Magazine
8	Northeast Bastion Service Magazine
9	South Service Magazine
10	Southwest Service Magazine
11	Terreplein
12	Parade Ground
13	1809 Powder Magazine
14	Traverse
15	Postern
16	Enlisted Men’s Barracks Foundation
17	Barracks Foundation
18	Gun Position No. 1
19	Gun Position No. 2
20	Position Finding Station
21	Harbor Entrance Control Post (HECP)
22	Patapsco Monument
23	Osceola’s Grave
24	Circa 1930 Sabal Palmettos
25	Flagpole
26	Desire Path

Credits

1. National Park Service
2. Field Work, November 2017

Illustration 3.2
Existing Conditions
Fort Moultrie, Enlargement
Fort Sumter and Fort Moultrie National Historical Park Cultural Landscape Report

August 2019

Analysis and Evaluation

Introduction

For cultural landscapes such as Fort Moultrie, documenting existing conditions and analyzing and evaluating natural and human-made historic resources is critical in the development of a strategy for their management and treatment. Cultural landscape analysis involves two primary activities: evaluating historic significance and assessing historic integrity. Both use criteria determined by the National Register of Historic Places, which has developed nationally-recognized methods for evaluating the significance and integrity of historic buildings and landscapes. The evaluation of historic significance identifies the important historical associations of the property, as well as its architectural, archeological, and social value. The property's significance is tied to a discrete period of time (period of significance) in which its important contributions were made and the broader historic contexts (historic context themes) within which the activities that occurred on the property may be placed.

The analysis and evaluation section considers the site's history within recognized historic contexts to determine its contribution to the broad patterns of American history. It is important to note that historic resources, particularly cultural landscapes, change over time. As a result, a cultural landscape may have several areas of historical significance and multiple periods of significance. In order to determine whether a landscape feature contributes to the historic significance of the landscape at Fort Moultrie, this chapter compares the existing conditions of landscape features to its understood historic state. The objective of this analysis is to identify the specific features associated with the historic periods and assess to what degree they continue to convey their historic significance.

To aid in this assessment, landscape features are categorized based on their contribution to our understanding of the historic character of the landscape during the period or periods of significance. These categories are:

- Contributing
- Noncontributing
- Missing
- Undetermined

Contributing landscape features survive from the periods of significance and continue to reflect their historic appearance and function. Noncontributing landscape features include those added to the site since the periods of significance or that no longer retain enough physical integrity to convey their historic appearance or function. Missing features existed during the period of significance but have been removed, destroyed, or cannot be recognized in their current condition. Undetermined include features whose age cannot be determined or whose contribution to the historic landscape is unknown. Please refer to the table at the end of this chapter for a summary of this information.

The process to identify landscape elements follows a National Park Service methodology that categorizes all landscape elements as one of thirteen landscape characteristics:

- Archeological Sites
- Buildings and Structures
- Circulation
- Arrangement of Buildings
- Constructed Water Features
- Cultural Traditions
- Land Use
- Natural Systems and Features
- Small-Scale Features
- Spatial Organization
- Topography
- Vegetation
- Views and Vistas

Landscape characteristics are the "tangible and intangible aspects of an inventory unit which have either influenced the history of the development of the landscape, or are products of its development,

respectively."[223] Further, "these aspects individually and collectively give a landscape its historic character and aid in the understanding of its cultural importance."[224] Based on this understanding of the landscape, National Register of Historic Places methodology aids in establishing a site's significance.

National Register Status

The National Historic Preservation Act of 1966 authorized the creation of the National Register of Historic Places (NRHP) as the official list of the Nation's historic places worthy of preservation. The National Park Service is responsible for maintaining the list and coordinating with public and private entities to identify, evaluate, and protect America's historic and archeological resources. The National Park Service has developed criteria for evaluating historic resources to determine their eligibility for listing on the National Register. The National Register Criteria for Evaluation examine a property's age, integrity, and significance. To be considered historic, a property typically needs to be at least fifty years old. To possess integrity, a historic landscape needs to look and feel to some degree how it did in the past. The categories of integrity used to evaluate a property include: location, design, setting, material, workmanship, feeling, and association. The property must also be associated with historical events, activities, or developments that were important in the past. The National Register identifies the type of significance of a property based on the following criteria:

- Criterion A: Association with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: Association with the lives of persons significant in our past; or
- Criterion C: Embodiment of the distinctive characteristics of a type, period, or method of construction, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: Yielding or potential to yield information in history or prehistory.

A site may be significant in any or all of these four criteria. Based on these criteria, a statement of significance can be drafted for a site.

Fort Moultrie is currently listed in the National Register of Historic Places (NRHP). "With passage of the National Historic Preservation Act on October 15, 1966, all historic areas of the National Park System, including Fort Sumter National Monument (FOSU), were administratively listed in the National Register of Historic Places (36 CFR 60.1)."[225] The NRHP documentation for Fort Moultrie, along with Fort Sumter, was accepted in 1978. A recent update to the NRHP nomination was accepted in 2016. The revised nomination "updated documentation that records changes to the park's boundary and resources, considers new areas and periods of significance, and classifies resources per NRHP documentation standards."[226] Per "*NPS Director's Order 28: Cultural Resource Management Guideline, Appendix Q: Preparing National Register Forms*, all the historic resources in Fort Sumter National Monument [were] documented in a single National Register form (as opposed to preparing separate forms for properties representing different aspects of the park's history)."[227] The following section incorporates findings from the 2016 FOSU NRHP nomination revision, while addressing Fort Moultrie separate from the other FOSU National Monument resources. Note that Fort Sumter National Monument became Fort Sumter and Fort Moultrie National Historical Park in March 2019.

Contributing Resources

The 2016 NRHP nomination identifies the following contributing resources currently present at Fort Moultrie:

- The site of Fort Moultrie No. 1 (described as three acres)
- The site of Fort Moultrie No. 2 (seven-tenths of an acre)

223. Robert R. Page, *National Park Service Cultural Landscapes Inventory Professional Procedures Guide*, (Washington D.C.: U.S. Department of the Interior, National Park Service Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, January 2009), 7-4.
224. Ibid., 53.
225. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 7 page 6.
226. Ibid.
227. Ibid.

- Fort Moultrie No. 3
- 1809 Powder Magazine
- Barracks Foundation
- Enlisted Men's Barracks Foundation
- Five 1870s magazines (South, Southwest, Principal, East, and Northeast Bastion)
- Sally Port Complex
- Battery Bingham
- Battery McCorkle
- Harbor Entrance Control Post (HECP)
- Gun Position No. 1
- Gun Position No. 2
- Position Finding Station Foundation
- Battery Jasper
- Battery Jasper Reservoirs No. 1, No. 2, and No. 3
- Battery Jasper Powerhouse
- Construction 230
- Osceola's Grave
- *Patapsco* Monument
- Torpedo Storehouse

Period of Significance

The 2016 update to the FOSU NRHP nomination assigns a 1776-1948 period of significance to the site.[228] This date range includes the construction and use of Fort Moultrie No. 1 through its two subsequent iterations and its development related to several periods of war and peace.

The National Register is clear in its guidelines for resources less than fifty years old, stating that exceptional significance is required to include such resources. As such, the development activities related to the commemoration of the American Bicentennial—which Fort Moultrie holds a central role—is not yet included in the period of significance. However, similar to the Mission 66 period, the historic theme pertaining to the NPS Bicentennial commemoration activity warrants future evaluation of significance as the fifty-year mark for this theme approaches.

Statement of Significance

Fort Moultrie is significant at the national level under Criterion A in the area of Military History for its association with several of the defining military conflicts in American history. The property is also significant at the local level under Criterion A in the area of Social History for its role in the commemoration of the American Revolution.[229] Fort Moultrie is nationally significant under Criterion C for its reflection of various periods of military architecture including the Second Coastal Defense System and the Endicott Period. Lastly, the site is national significant under Criterion D for the archeological investigations that have revealed information concerning the whole breadth of the site's history and for the information it may yield through future investigations.

Criterion A: Military History

Fort Moultrie is nationally significant for several periods of military history, perhaps most famously as the location for the Battle of Sullivan's Island, which was fought on June 28, 1776. In the lead up to the battle, enslaved laborers and other workers under the command of William Moultrie, hastily constructed a massive palmetto log fort on the southwest coast of Sullivan's Island. The location was chosen for its proximity to a main navigational channel into Charleston Harbor. Though the fort was not complete on the day of the battle, Patriot forces successfully defended Charleston Harbor by repelling nine British ships as they tried to enter the harbor. The battle marked the first naval engagement by the British against American forces of the Revolutionary War. The result of the battle dealt a blow to the British's early attempts to control the Southern theater of the war and delayed British campaigns in the region for three years.

Fort Moultrie is also nationally significant for the role it played in the start of the American Civil War. In 1860, Fort Moultrie—by then a stately brick structure with guns mounted *en barbette*—was in Federal control as calls for secession from the Union rang out throughout the South over fears of the abolition of slavery and Federal interference in state affairs. As tensions rose in South Carolina after the state voted to secede, Federal forces abandoned Fort Moultrie and occupied Fort Sumter in the middle of the harbor. Several months passed, with South Carolina and Confederate officials making repeated requests for Federal troops to leave Fort Sumter. At a stalemate, the

228. Ibid.

229. Note that the significance assigned under Criterion A for commemoration is not in relation of the development activities that took place during the Bicentennial, such as the construction of the visitor's center and development of the landscape into a historic site.

Confederates, stationed at positions throughout the harbor, including Fort Moultrie, instigated the start of the Civil War with the bombardment of Fort Sumter on April 12, 1861. Union troops subsequently withdrew from Fort Sumter and for the remainder of the war, Fort Sumter, along with Fort Moultrie and numerous other fortifications, were part of the Confederate defensive network for the protection of Charleston.

The Civil War was the last conflict Fort Moultrie fired artillery at enemy forces. However, the fort participated in all subsequent conflicts as the largest military base in South Carolina—Fort Moultrie Military Reservation.[230] Fort Moultrie is thus significant for its reflection of the modernization of coastal defenses following the Civil War, as represented by the Endicott Era batteries constructed both within and outside of Fort Moultrie's walls. Technological advancements in both artillery and detection capabilities transformed the site from an outdated nineteenth century fortification to a capable twentieth century coastal defense installation.

Criterion A: Social History

Fort Moultrie is significant at the local level in the area of Social History for its role in the commemoration of the American Revolution, as well as other events that have been offered at the site. The significance of the Battle of Sullivan's Island was immediately recognized, and the following year, 1777, the first annual "Palmetto Day" (now known as Carolina Day) was celebrated by locals. Every year since, "white Charlestonians continued to celebrate Palmetto Day, renamed Carolina Day, on June 28. Local African Americans reserved their festivities for Independence Day, July 4," in addition to Juneteenth and First Night celebrations.[231] Commemoration of the Battle of Sullivan's Island has occurred off-site as well. In 1877, a monument dedicated "To the Defenders of Fort Moultrie" was installed in White Point Garden in Charleston. Other commemorative events include the occasional living history program and historic weapons firings of the battle itself at the site.

Fort Moultrie has long been a site of tourism, given its proximity to the resort town of Moultrieville. During period of peacetime, tourists treated the fort as a leisure park and as a venerated site of historical interest. Other commemorative activities of significance include the memorialization of both Osceola and the crewmen of the *Patapsco*. Both memorials include the installation of a granite marker and wrought iron fence surrounding their gravesites outside the Sally Port Complex entrance of the fort. The two monuments are now interpreted with signage.

Criterion C: Architecture

Fort Moultrie is nationally significant in the area of Architecture as an excellent example of the evolution of military building traditions that developed over the course of nearly two centuries. While this evolution has resulted in the loss of much historic material, the surviving cultural resources at the site nevertheless convey important periods in military architectural history. Fort Moultrie No. 3, constructed in 1809, is representative of Second Coastal Defense System fortifications that were construed in the first decades of the nineteenth century. These defenses are characterized by the use of casemated gun emplacements that allowed for guns to be mounted within a fort, *en barbette*, as opposed to on top of the fort's exterior walls. The fort was outfitted with a collection of buildings and structures, many of which were destroyed over the course of the Civil War. However, several features remain from this period including the sections of the fort's Scarp Wall and 1809 Powder Magazine. The fort was rebuilt after the war, which transformed the interior of the fort into a collection of earth and turf covered bombproofs. Two decades later advancements in military architecture and armament resulted in the construction of Batteries Lord, McCorkle, and Bingham within the fort and Batteries Jasper and Logan east of the fort. These large concrete batteries are representative of the Endicott Period of military construction. Lastly, several WWII era constructions showcase coastal defenses dating to the mid twentieth century and include the HECP building and Construction 230.

Criterion D: Archeology

Fort Moultrie is nationally significant in the area of Archeology for the investigations that have revealed information concerning the whole

230. Sondermann, "Remembering the Legacy," 45.
231. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 8 page 65.

breadth of the site's history and for the information it may yield through future investigations. The first official archeological investigation at Fort Moultrie occurred in 1968 and focused on the grave of Osceola. Then, beginning in the mid-1970s, several investigations sought to identify the location of Fort Moultrie No. 1. While there has been some conflicting interpretation of the findings, as of the present, the exact location of the first fort is unknown. Other investigations were undertaken as part of site mitigation for the construction of the Visitor Center complex and parking lot. In this location archeologists uncovered the site of two hospitals as well as a cemetery containing at least 17 graves. Other subsequent investigations have revealed partial information about the broad developmental timeline of the site and highlighted the potential information that future investigations could yield.

Analysis of Landscape Characteristics

Natural Systems and Features

Historic Condition

Fort Moultrie Character Area
During the historic period, natural systems and features greatly informed the development of the Fort Moultrie site. The location of Fort Moultrie No. 1 on Sullivan's Island was selected based on its proximity to a primary channel (later named Maffitt's Channel) into Charleston Harbor. The west end of Sullivan's Island afforded a commanding view of the harbor, the channel, and the Atlantic Ocean beyond. The terrain of the fort's location was mostly flat. At the start of the Civil War, the ocean and sand dunes had crept closer to the fort's walls. With the addition of Bowman's Jetty in 1839, land was restored in front of the fort, helping to create the Beach and Forest Character Area.

North Reservation Character Area
The Cove, a protected salt marsh inlet that provided a safe docking site for the island, was located north of the fort. From here, workers floated building materials down a constructed canal for the construction of the three iterations of Fort Moultrie.

East Reservation Character Area
Given its location along the beachfront of Sullivan's Island, the East Reservation Character Area shared the same natural systems and features as the Fort Moultrie Character Area during the period of significance.

Beach and Forest Character Area
For most of the historic period, the currents off the beach to the south of the fort eroded the base of Fort Moultrie. To fix the issue, in 1839, the Army Corps of Engineers constructed Bowman's Jetty along the south side of the character area. The jetty worked immediately and slowly began the process of accretion of new beach area. In the late nineteenth century additional jetties were constructed that increased the stability of the beach as well as calmed the harbor's water in the location. This allowed for the construction of a wharf at the beach area directly south of the fort.

Post-Historic and Existing Condition

Fort Moultrie Character Area
The natural systems and features that factored into the placement of Fort Moultrie have been altered by the engineering activities of the nineteenth century. The addition of the jetties along with the combination of harbor dynamics and tidal forces gradually filled in Maffitt's Channel with sand and silt.

North Reservation Character Area
The Cove and salt march continue to occupy the northern reaches of the character area.

East Reservation Character Area
The natural systems and features of the East Reservation Character Area were historically more directly connected to the beach environment. However, with the accretion of sand to the area's south, a maritime forest has developed along the southern edge of the character area. The forest has noticeably built up since Hurricane Hugo.

Beach and Forest Character Area
After 1948, the natural systems and features of the site remained generally the same as during the late WWII Period. The beach area continued to grow in size due to the jetties over the course of the twentieth century, and the maritime forest community remains dynamic.

Summary
By retaining much of the natural systems and features of the site, including its overall terrain and connection to The Cove and Charleston Harbor, Fort Moultrie retains integrity of natural systems and features.

Landscape Features

- Site terrain (generally flat)
    - Contribution Status: Contributing
    - Condition: Good
- The Cove / Salt Marsh
    - Contribution Status: Contributing
    - Condition: Good
- Charleston Harbor
    - Contribution Status: Contributing
    - Condition: Good
- Atlantic Ocean
    - Contribution Status: Contributing
    - Condition: Good
- Maffitt's Channel
    - Contribution Status: Contributing
    - Condition: Poor
- Maritime Forest
    - Contribution Status: Non-contributing
    - Condition: Good

Topography

Historic Condition

Fort Moultrie Character Area

Throughout the period of significance, the whole of the Fort Moultrie site was generally flat. Depictions of the landscape during the Fort Moultrie No. 1 Period show the fort perched on a small bluff of unknown height above the harbor water. Though not confirmed by archeology, accounts of the fort note the presence of a ditch twelve deep and twenty feet wide surrounding the first fort.[232] The interior of the fort was flat with no cultural topographic features present.

Though limited documentation exists for the short-lived Fort Moultrie No. 2, period accounts provide descriptions of several topographical features for the fort. A new ditch surrounded the fort, which was dug to a depth of eight feet. A glacis abutted the ditch. As the fort appears to have been essentially a palmetto fort set atop a brick foundation, no cultural topographic features are known to have existed within the fort walls.

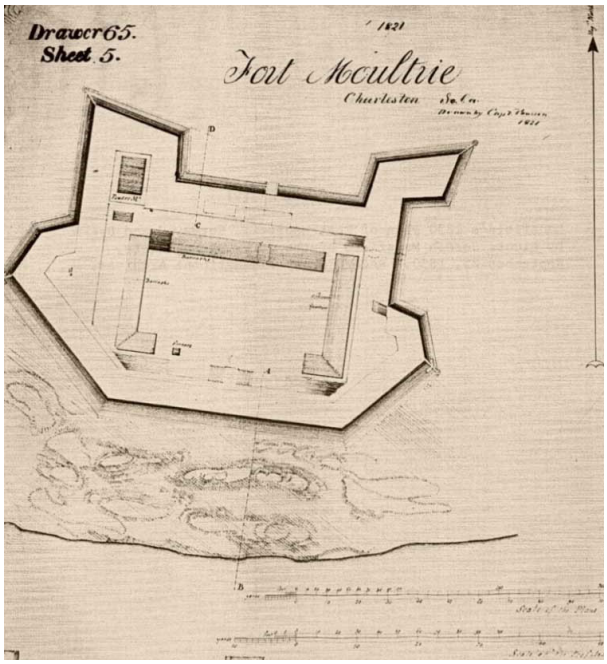


Figure 4.1. 1821 plan of Fort Moultrie by Capt. William T. Poussin. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html., US National Archives, Record Group 77 (Office of the Chief of Engineers), Cartographic Branch, College Park, Maryland, Drawer 65, Sheet 5).

Documentation concerning Fort Moultrie No. 3 is more readily available. Capt. Poussin's 1821 plan of Fort Moultrie contains cross-section drawings of the fort and the landscape between it and the beach (Figure 4.1). The plan shows irregular sand dunes between the new fort's glacis and the water to the south. Cultural topography of the fort is also shown, with the interior of the fort containing three distinct levels: the parapet, the terreplein, and the parade. These three levels remained intact until the Civil War. Other topographic features present at this time included a large sand dune which had formed on the southeastern side of the fort. The dune was removed immediately prior to the Civil War. In its place a new glacis was built.

During the Civil War, rifling technology rendered Fort Moultrie's meager brick construction extremely vulnerable. Therefore, Gen. Beauregard ordered workers to cover the majority of the fort in sand to protect it. The fort then took on an earthwork character, with irregular mounds of sand and turf rising out from the flat Parade Ground (Figure 4.2). In the 1870s, the fort's interior was reconstructed, which resulted in the

232. Garner, Jr., "Historic Structure Report, Architectural Data Section, Fort Moultrie," 14.

Figure 4.2. Conrad Wise Chapman "Fort Moultrie Interior," 1863. Note the three trees growing in the interior of the fort, signal light in the distance, and the access points into the bombproofed structures. (Source: Battlefields in Motion, Ltd., http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html. Original held by the Museum of the Confederacy, Richmond, Virginia, with Catalog Number: 0985.14.00037w).

removal of most of the fort's antebellum features. The changes resulted in Fort Moultrie containing two basic levels: a Terreplein and the parade ground which was characterized by irregular topography ranging from virtually flat to large sand-and-turf mounds (Figure 4.3). The sand-and-turf mounds—some of which rose twenty feet above the parade ground—covered the new magazines, gun positions, and batteries constructed during the fort's reconstruction period as well as the subsequent Endicott period. Additional changes to the fort during the Endicott period included the construction of three new batteries within Fort Moultrie's Scarp Wall. The military constructed new batteries along the Terreplein and were surrounded by earth. By the start of WWII, the interior of Fort Moultrie contained an irregular topography of earthen mounds disturbing the otherwise flat Parade and Terreplein (Figure 4.4).

North Reservation Character Area

The area north of the fort contained an overall flat topography throughout the period of significance. The only discernable variation in topography in the area was the narrow band where the land sloped slightly down towards sea level at The Cove in the northern edge of the area.

East Reservation Character Area

The construction of Battery Jasper altered the otherwise flat topography of the area. Its construction resulted in the addition of a small elevated earth berm surrounding the battery on its east, south, and west sides. Along its north side, workers created a long drainage swale to collect runoff from the battery. A concrete and metal grate gutter ran along the bottom of the swale. In 1943, construction began on Construction 230; the last modification to the topography of the site during the period of significance. The two-gun battery spanned roughly 150' and rose 25' from its flat surroundings (Figure 4.5). The building of both Construction 230 and Battery Jasper necessitated some amount of grading, but topographical changes beyond the footprint of the structures were likely minimal.

Beach and Forest Character Area

During the period of significance, the Beach and Forest Character Area slowly grew as the installed jetties and breakwaters resulted in accretion. Natural tidal action resulted in the narrow span of beach containing a slight slope and the formation of sand dunes. Behind the dunes, a relatively flat area formed, stabilized by colonizing vegetation.

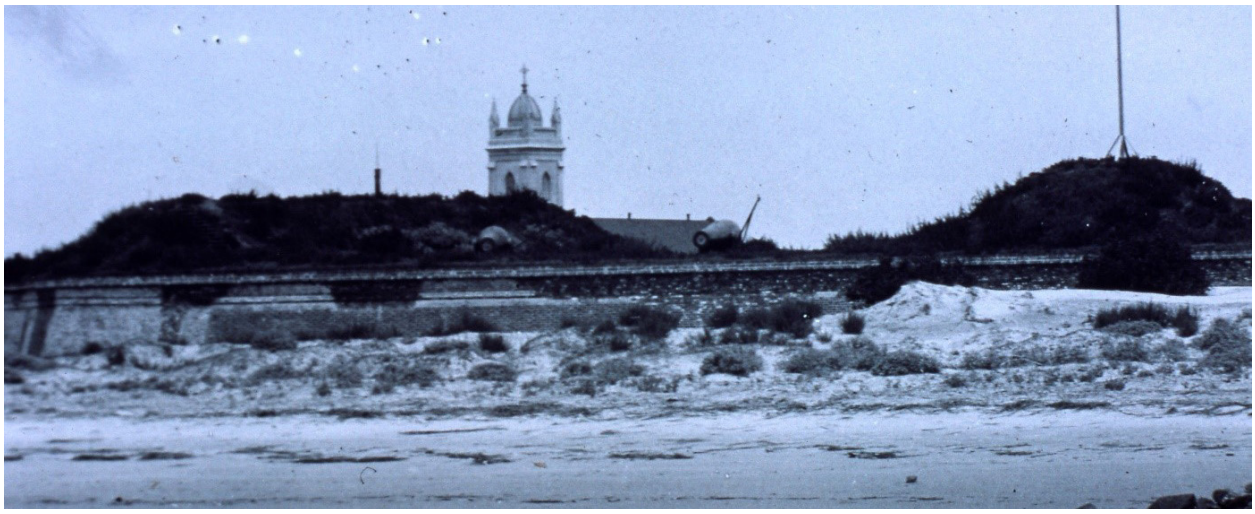


Figure 4.3. 1891 image of Fort Moultrie looking northwest. Note Large mounds covering the service magazines, flagpole, one mounted gun, and a portion of a jetty in the foreground. (Source: Open Parks Network. "Exterior of Fort Moultrie, South Carolina, 1891." http://purl.clemson.edu/26EBDC502AF6F418719C85ED93D6094C. Original located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.4. 1943 image of Fort Moultrie looking west prior to the construction of the HECP building. Note the camouflaged paint on the fort walls, towers, and informal circulation. This image contains a wealth of information that will be referenced throughout this section. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 4.5. 2017 image of Construction 230, with modern building on top. The area is secured with a chain link fence. (Source: WLA Studio, 2017).

Post-Historic and Existing Condition

Fort Moultrie Character Area

After 1948, the irregular topography within the fort was modified two more times. First, in the 1960s, after NPS acquisition of the site, minimal excavation of the fort's interior occurred. The resulting topography remained until the mid-1970s when the Bicentennial restoration project commenced. The project resulted in a more extensive excavation of the fort. Workers removed much of the sand from the fort, especially from the western portion. The work partially reestablished the nineteenth century Parade Ground near the northwest bastion. The northern and eastern portions within the Scarp Wall were not excavated in the same manner and resulting in the retention of an elevated topography. Two prominent depressions are located to the east of the Sally Port Complex and the northeast bastion in the location of Gun Positions No. 1 and No. 2, which are connected by an underground passage. Additionally, while the excavation project reestablished the flat grade of the Terreplein in some areas, mostly in the northwest portion of the fort, the remainder of the Terreplein level features irregular topography (Figure 4.6). Currently the fort sits approximately 7' above sea level.

North Reservation Character Area

After the period of significance, no known alterations were made to the topography of the North Reservation Character Area, except for the grading work likely done prior to the construction of the Visitors Center and parking lot. The NPS constructed the Visitor Center atop an earthen

berm, and workers constructed several other artificial small hills in the parking area north of the building (Figure 4.7). At some point after construction, the NPS filled in the south end of the area to create a slope from the Visitor Center building. The area remains generally flat otherwise.

East Reservation Character Area
After the period of significance, no known alterations were made to the topography of the East Reservation Character Area, and the area remains generally flat except for the earthen mound at Construction 230, the mounding present at the base of Battery Jasper, and the drainage swale north of Battery Jasper (Figure 4.8).

Beach and Forest Character Area
After the period of significance, no known alterations were made to the topography of the Beach and Forest Character Area. The area remains generally flat except for the sand dunes that stretch east to west behind the beach.

Summary
Despite the removal of many antebellum features, the overall topography of the site is similar to that of the historic period. Individual topographic features of the site include irregular earthen mounds (bombproofs) within the fort, the Terreplein and Parade, as well as Construction 230. The generally flat terrain still characterizes a majority of the site. All these features are character-defining, contribute to the period of significance, and are in good condition. Therefore the "topography" landscape characteristic retains integrity from the period of significance.

Landscape Features

- Irregular topography (bombproofs) within Fort Moultrie
    - Contribution Status: Contributing
    - Condition: Good
- Irregular topography (bombproof) at Construction 230
    - Contribution Status: Contributing
    - Condition: Good
- Earth berm at Battery Jasper
    - Contribution Status: Contributing
    - Condition: Good
- Drainage swale at Battery Jasper
    - Contribution Status: Contributing
    - Condition: Good

Figure 4.6. 2017 image of irregular topography within the interior of the fort. (Source: WLA Studio, 2017).

Figure 4.7. Aerial image of north reservation character area shortly after 1975 development. Note the small areas of raised beds alongside the walkway. (Source: Open Parks Network. "Aerial view of Fort Moultrie and visitor center, Fort Moultrie, South Carolina." http://purl.clemson.edu/BA39B67E78985F9C2FFCAC03B39F544A. Original located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.8. 2017 image of west side of Battery Jasper showing berm at its base (Source: WLA Studio, 2017).

- Parade ground
    - Contribution Status: Contributing
    - Condition: Good
- Flat terrain
    - Contribution Status: Contributing
    - Condition: Good
- Sand dunes
    - Contribution Status: Contributing
    - Condition: Good
- Modern topographic changes at Visitor Center
    - Contribution Status: Non-contributing
    - Condition: Good

Land Use

Historic Condition

Throughout the period of significance, Fort Moultrie was used for military purposes. Beginning in the late seventeenth century, Sullivan's Island held a strategic military position. Its location in the Charleston Harbor resulted in the island, and Fort Moultrie in particular, being involved in several of the most significant military conflicts in American history. As the military reservation grew outward from the fort, new land uses that supported the military base developed, including residential and occupational land uses. With the deactivation of the fort in 1947, land use shifted to historical tourism and recreation.

Fort Moultrie Character Area

As Fort Moultrie itself was the dominant feature in the Fort Moultrie Character Area, this area featured a predominantly military land use for the entirety of the period of significance. Beginning in 1776 with the construction of a hastily built palmetto log fort, Fort Moultrie progressed through a series of reconstructions and reinventions, all in an attempt to keep the fort responsive to advancements in military technology. As part of the military lands use of Fort Moultrie, a residential component to the landscape developed through the construction of soldier and officer barracks during the short tenure of Fort Moultrie No. 2. The construction of barracks and quarters for Fort Moultrie No. 3 continued this use. With the burials and subsequent commemoration of Osceola and the crewmen of the *Patapsco* a memorial land use was established in this portion of the reservation. Lastly, during periods of peacetime, Fort Moultrie was open to the public, who treated the fort much like a park. This activity marked the beginning of recreation land use in the character area.

North Reservation Character Area

A year after workers rebuilt Fort Moultrie in 1809, a garrison of troops was permanently stationed at the fort. From this point forward, an ever-changing number of soldiers occupied the site. Their presence necessitated the addition of various support buildings to the growing military reservation. Such buildings included a hospital, additional residential units, stable, and bake house. Thorough the period of significance, this area was reconfigured to accommodate new buildings as needed. At some point during the early nineteenth century, a cemetery was established in the center of the character area, establishing a memorial land use.

East Reservation Character Area

As maps and images of the East Reservation Character Area from the historic period are limited, an accurate understanding of this part of the reservation is difficult to establish. It is known that during the Civil War period, beach cottages stood throughout the area, signifying a residential land use. Residential use continued after the war, but with the addition of the Endicott Era batteries at the turn of the century, these buildings were demolished, ending residential land use in this area. In 1898, the military constructed Battery Jasper in the area, with Battery Logan added the following year. The construction of these batteries established a military land use for the area. This land use continued through the building of Construction 230. This military land use remained until deactivation of the Fort Moultrie Military Reservation in 1947.

Beach and Forest Character Area

Given that the process of accretion that formed the Beach and Forest Character Area is comparatively recent, knowledge of the historical use of the area is limited. Depictions of the landscape during the Civil War show people fishing from the beach. People also used the area was for transportation. This use dates to the construction of the Engineer's Wharf and associated railroad line located directly south of the fort. The area was also served as a buffer from the water, with riprap and breakwaters installed to protect the fort.

Post-Historic and Existing Condition

Fort Moultrie Character Area

With the decommissioning of Fort Moultrie, the fort's role in the defense of Charleston ended. For a time, however, military land use continued through the Navy's use of the HECP-HDCP building. The Navy used this building as a Test and Calibration facility. After a period in which the fort was owned by the State of South Carolina, in April 1960, under authority of the Historic Sites Act of 1935, Fort Moultrie became part of Fort Sumter National Monument. This action resulted in a historical tourism land use developing within the character area as well as the reintroduction of recreation. These land uses continue today.

North Reservation Character Area

After the period of significance, land use in the North Reservation Character Area changed from a support role for the Fort Moultrie Military Reservation to a support role for the interpretation and management of Fort Moultrie National Monument. In 1975, as part of Bicentennial development plans, the NPS constructed a Visitor Center and associated parking lot in the area. The NPS also used the historic Torpedo Storehouse as administrative offices. After completion of the new complex, upon insistence from his descendants, NPS reinterred General William Moultrie in a space between the Visitor Center and The Cove. This burial, along with those still located in the historic cemetery continue the memorial land use of the character area.

East Reservation Character Area

The initial boundary for the Fort Moultrie unit did not include the East Reservation Character Area. The NPS added this portion of the landscape—containing Battery Jasper and Construction 230—to the monument in 1967. In 1971, the Navy constructed a two-story building on top of the earth mound covering Construction 230 to use as the SPAWAR Facility, continuing military use of the site.

Beach and Forest Character Area

Use of the Beach and Forest Character Area after the period of significance primarily relates to recreation and interpretation. As part of the Bicentennial activities of the fort, the NPS constructed a replica palmetto fort in the area to interpret the American Revolution period. Photographs from the 1960s through the present show a series of informal roadways and pedestrian trails cutting through the character area, providing access to the beach.

Summary

In summary, throughout the period of significance Fort Moultrie's land use centered on military operations. Most other land uses that developed in the historic period were in support of the military reservation. With the decommissioning of the reservation and its later incorporation into Fort Sumter National Monument (now Fort Sumter and Fort Moultrie National Historical Park), the primary land use changed to interpretation, tourism, and recreation. A memorializing land use also exists at the site, though it does not feature as prominently as these other uses. The recreation land use contributes to the period of significance, as Fort Moultrie has been used by the visiting public since at least the 1860s.

Landscape Features

- Military Land Use
    - Contribution Status: Contributing
- Recreation
    - Contribution Status: Contributing
- Memorialization / Commemoration
    - Contribution Status: Contributing
- Historical Tourism / Interpretation
    - Contribution Status: Non-Contributing

Cultural Traditions

Historic Condition

Fort Moultrie Character Area

During the period of significance, cultural traditions that influenced the appearance and function of the site primarily relate to military traditions. The design of all three iterations of Fort Moultrie were based on the fort-building traditions established and constantly revised by military professionals. The separation of enlisted soldiers from officers into different barracks is also part of military culture. Throughout the period of significance, women and enslaved African Americans were a part of daily military life but were segregated from white male soldiers and assigned different roles and responsibilities. The cultural tradition of warfare itself, and the lengths militaries go to arm and protect, is deeply woven into the history of Fort Moultrie. The burial of

the Seminole Chief Osceola and the crewmen of the *USS Patapsco* outside the Sally Port Complex established memorialization and commemoration traditions in this character area.

North Reservation Character Area
The North Reservation Character Area was similarly informed by military traditions, though its role related to the daily functioning of the fort. At various points during the period of significance, a hospital stood in the area, which eventually grew into a small complex including various storehouse buildings, a bake house, and a morgue. The military also used the area as a small cemetery, reflecting traditional burial practices. As the reservation grew, the North Reservation Character Area became more densely developed, with the hospital featuring an increasingly larger footprint.

East Reservation Character Area
Cultural traditions that influenced the development of the East Reservation Character Area pertain to military traditions. The design, placement, and operation of the Endicott and WWII era batteries that were located here during the period of significance derived from established military traditions and practices.

Beach and Forest Character Area
The Beach and Forest Character Area differs slightly from the three other character areas in that the cultural traditions that most influenced its historical develop pertain to coastal engineering practices. Beginning with the installation of breakwaters and Bowman's Jetty in the 1830s, engineers sought to control the erosive effect the harbor waters had on Sullivan's Island and Fort Moultrie. In 1897, workers constructed seawalls along the edge of the sand dunes. A large beach area formed to the south of Fort Moultrie as a result of these engineering activities, but this occurred mostly after the end of the period of significance.

Post-Historic and Existing Condition
Fort Moultrie Character Area
After the period of significance, the military traditions that influenced the historical development of the site ended. In its place, cultural traditions related to commemoration, memorialization, interpretation, and tourism developed. With its inclusion into Fort Sumter National Monument in 1960, the site became part of the federal tradition of protecting and preserving places of historical importance. This tradition is closely tied to the tradition of tourism; and in 1963, the NPS opened Fort Moultrie to the public for visitation.

North Reservation Character Area
After the Army decommissioned the base, workers cleared the North Reservation Character Area was of buildings to prepare it for subdivision and residential development. The Army retained Torpedo Storehouse and used it as a school for the adjacent church. With the creation of the national monument, the NPS selected the area as the site for a Visitor Center and parking area. With their construction in 1976, the area became associated with the traditions of interpretation and tourism. The burial traditions established in the period of significance continued, but in a different way, as the cemetery now lies under the parking area. The reinternment of General Moultrie in the area furthers the memorialization traditions of the site.

East Reservation Character Area
The East Reservation Character Area was added to Fort Moultrie in 1967. This action extended the interpretive and tourism traditions of the fort landscape eastward to include more modern resources. In 1971, the Navy constructed a two-story building on top of the earth mound covering Construction 230 to use as the Shipboard Electronics System Evaluation Facility, now known as the Space and Naval Warfare Systems Command (SPAWAR), continuing the military use of the site.

Beach and Forest Character Area
After the period of significance, the engineering traditions that took place during the historic era ceased, as the projects to correct shoaling in the harbor were successful. The remains of these projects continue to line the shore and include the area of riprap, the timber bulkhead, and the jetties (Figure 4.9). With the creation of the national monument, the beach area became accessible to the public.

Summary
The cultural traditions that shaped the development of the Fort Moultrie left an indelible impression. The landscape is a composite of these traditions, which are reflected by both historic and modern features. While traditions related to the defense of the harbor are no longer active,

the continued presence of the fort, batteries, and assortment of historic resources speaks to the strong influence of these traditions.

Landscape Features

- Cultural tradition: Fort Construction
  - Contribution Status: Contributing
- Cultural tradition: Military Culture
  - Contribution Status: Contributing
- Cultural tradition: Recreation
  - Contribution Status: Contributing
- Cultural tradition: Memorialization/ Commemoration
  - Contribution Status: Contributing
- Cultural tradition: Engineering
  - Contribution Status: Contributing
- Cultural tradition: Historical Tourism
  - Contribution Status: Non-contributing
- Cultural tradition: Interpretation
  - Contribution Status: Non-contributing

Buildings and Structures

Historic Condition

Fort Moultrie Character Area

In 1776, William Moultrie ordered the construction of a palmetto fort to serve as the first line of defense for Charleston Harbor.[233] The exact location of the fort is currently unknown. Contemporary research has concluded that the fort stood to the south of the current fort. Historian Edward M. Riley describes Fort Moultrie as follows:

> The fort was planned to be a square with a bastion at each angle, sufficiently large to contain when finished one thousand men. It was built of palmetto logs laid one upon the other, in two parallel rows at sixteen feet distance, bound together at intervals with timber dovetailed and bolted with logs. The spaces between the two lines of logs were filled with sand, and the merlons (the solid intervals between embrasures) were walled or revetted with palmetto logs notched into one another at the angles, well bolted together, and strengthened with pieces of timber. The walls were sixteen feet thick, filled in with sand, and two feet high above the platform.[234]

Figure 4.9. Timber bulkhead and riprap at beach area south of the fort (Source: WLA Studio, 2017).

At the time of the Battle of Sullivan's Island, the fort was not fully constructed, with "only the walls facing the channel and the city (the front and southwest sides) and the two channel bastions were finished."[235] In order to protect the north side of the fort, workers constructed wood and sand traverses, though these too remained unfinished. It is assumed that over the next two years workers repaired and completed the fort, now named Fort Moultrie. Reports indicated the presence of officers' quarters, huts for soldiers, and casemated rooms containing chimneys.

During the British occupation of the fort after 1780, which was renamed Fort Arbuthnot, workers began to lay out a new fort at the site of Fort Moultrie. The new defensive work, referred to as Moncrief's Fort, was never completed. The American Revolution ended in 1783, and less than a year later, a major hurricane mostly destroyed Fort Moultrie. Locals then deconstructed what was left of the fort to use the materials, reducing Fort Moultrie No. 1 to ruins.

In August 1794, the work of rebuilding Fort Moultrie began; and in November 1798, workers

233. Though the exact location of the first fort is not known, it is possible the fort spanned the area between the Fort Moultrie Character Area and the Beach and Forest Character Area. For clarity the fort will be treated as wholly within the Fort Moultrie Character Area.

234. Riley, "Historic Fort Moultrie in Charleston Harbor," 63-64.

235. Ibid., 64.

completed Fort Moultrie No. 2. Historian Edwin Bearss describes the fort as follows:

> The fort was an enclosed five-sided work, surrounded by a ditch and glacis. The glacis had a width of 50 feet, while the ditch's depth was eight feet. It was 17 feet from the bottom of the ditch to the top of the parapet; the interior height of the parapet above the terreplein was six-foot. Positioned in the ditch, which was dry, were a hot-shot furnace, a well, and five blinds or curtains. The furnace and well were in opposite angles. On the terreplein were located "The Place of Arms" and the "Cazerne." "The Place of Arms" was enclosed by seven-foot ramparts, while the interior height of the Cazerne was 13 feet and its exterior 10 feet. At the east end of the Cazerne was a well, and at its west end was the magazine. Four structures were sited between the fort and the back beach. One of these housed the bake oven and the others served as officers' quarters and barracks.[236]

While the foundation of the Scarp Wall was brick, the fort is presumed to have been mostly constructed of palmettos. As noted by Bearss' description, the fort contained additional buildings and structures. Unfortunately, little information exists pertaining to the manner of construction of the hot shot furnace, place of arms, cazerne, and a magazine. These buildings and structures were in addition to various others noted on J. Purcell's 1796 plan of the reservation.

Purcell's plat map of the fort landscape reveals that "four structures were sited between the fort and the back beach. One of these housed the bake oven and the others served as officers' quarters and barracks"[237] (Figure 4.10). The barracks and quarters were located close to the fort, and the bake house was located on the eastern side of a north-south aligned road west of the fort. The plan also shows the presence of various other buildings, scattered throughout the area. No other information is known about these buildings and structures. Bearss speculated that Fort Moultrie No. 2 was located further south than Fort Moultrie No. 3. If this is the case, these support buildings were sited within the Fort Moultrie Character Area, within the current foot print of the fort.

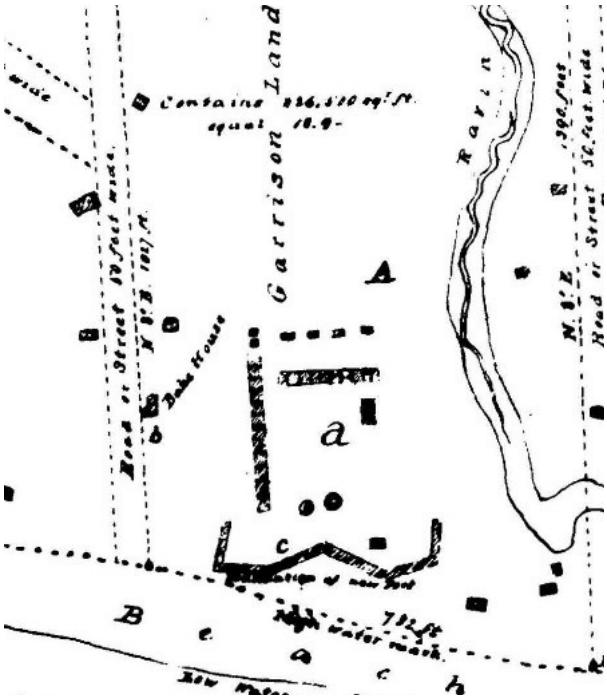


Figure 4.10. Joseph Purcell's 1796 plat of Fort Moultrie. "A plat of part of Sullivan's Island showing the lands laid out and reserved for the use of Fort Moultrie. From a survey taken under the direction of His Excellency the Governor in August 1796, by J. Purcell, D.S." (Source: E. Bearss, "The First Two Fort Moultries," copied from National Archives, RG 77).

In 1804, just five years after completion, another hurricane severely damaged the fort and its buildings. Fort Moultrie sat vacant for several years. When assessed by Jonathan Williams, Chief of the US Army Corps of Engineers, he found the fort to be mostly unworthy of saving. Employing enslaved labor, Williams oversaw the demolition of the old fort and the construction of a new one—Fort Moultrie No. 3—which workers completed in January 1809. The brick irregular hexagon-shaped fort "measured slightly more than 400 feet at its widest point with ramparts fifteen feet high and packed with sandy soil between triple courses of heavy brick, topped around its outer edges by granite coping-stones. The upper slopes of Moultrie's ramparts were furthermore sodded with grass, so as to retain this filler-soil in place."[238]

The entrance into Fort Moultrie was located on the fort's north side at the sally port. Inside the fort, six buildings—three barracks, two officers' quarters, and an 1809 Powder Magazine—were symmetrically laid out in the northern portion of the central Parade Ground. A solid brick Traverse was located immediately south of the

236. Bearss, "The First Two Fort Moultries," 63.
237. Ibid., 63-64.
238. Battlefields in Motion, "Fort Moultrie May 1860 - Peacetime Federal Garrison."

Figure 4.11. Digital rendering of north face of Fort Moultrie as it was in 1860. (Source: Battlefields in Motion Ltd., http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html.).

1809 Powder Magazine in 1820. As preparation for the War of 1812, workers expanded the fort's barracks buildings. In 1828, they added piazzas to the barrack buildings. The storage magazine was designed as "a free-standing, brick structure, rectangular in plan (24 ft. X 37 ft.), with a barrel-vault roof, double sloped on the exterior, with gables."[239] By 1821, workers constructed a new hot shot furnace near the southwest angle of the fort. Within a decade, the furnace was no longer present. In 1840, workers constructed a replacement hot shot furnace, only to be replaced again in 1856.

In 1831, work began on a series of breakwaters designed to protect Fort Moultrie from the effects of the harbor waters. This initial project generally failed, so in 1837, engineers installed a more robust interconnected system of breakwaters and jetties to span across the southern extent of the fort, which was successful.

By 1860, the fort contained multiple buildings and structures, many of which were painted in a yellow wash meant to reflect the sunlight and blend into the nearby beach (Figure 4.11 and Illustration 2.3). Included within the fort's walls at this time were two large barracks buildings for enlisted soldiers, officers' quarters, the main storage magazine, the hot-shot furnace, the Traverse, a guardhouse (c. 1835), four service magazines, a storage shed, a sentry box, a caponnier, and a summer house. Workers had constructed the guardhouse by 1835. The brick building formed a "T" over the sally port entry, with the majority of the structure located behind the Scarp Wall. Both the sally port and the guardhouse featured wooden pitched roofs. The four service magazines were located below the terreplein; two behind the western barracks, one under the flight of stairs on the south side of the Parade Ground, and another to the west of the guardhouse. The small storage shed was located atop the terreplein on the fort's east side and had a pitched shed roof. The sentry box was a small simple structure that provided covered, but not protected, standing space for a watch guard. The sentry box was located at the southwest angle, providing a clear view of the harbor. The summer house was an open frame structure with a roof covering located on the terreplein at the southeast angle.

The Civil War resulted in significant changes to the fort's buildings and structures. Two caponnieres were constructed immediately prior to Confederate occupation. The structures were located at the southwest and southeast angles, allowing for the protection of the fort's walls in the event of land assault. The Federal garrison constructed a brick bastionet at the northwestern angle and a wooden bastionet at the northeast angle. After the Confederate takeover of Fort Moultrie, orders were given to construct three large wooden traverses on the fort's eastern seafront. Workers also erected additional sand bag traverses at this time and added merlons to the parapet. Periodic bombardment of the fort resulted in the damage of many of the fort's buildings and structures. By 1863, the whole of the fort resembled an earthwork, with sand covering a most of its vulnerable masonry structures. At this time the barracks were dismantled for their materials. In 1864, work on fortifying the fort from Union bombardment continued, with the construction of several new bombproof. Period photographs show the addition of temporary open-air sheds, partially-enclosed buildings, and additional wooden structures of unknown purpose within the sand-covered Scarp Wall (Figure 4.12). Immediately outside the Scarp Wall, flanking the sally port, stood several small guardhouse buildings (Figure 4.13).

In 1872, Major Quincy Gilmore, the engineer tasked with the transformation of southeastern Atlantic fortifications, directed workers to remove all the sand and other makeshift defenses erected by the Confederates and to remove "everything within the scarp walls . . . with the exception

239. Garner, Jr., "Historic Structure Report, Architectural Data Section, Fort Moultrie," 37.

of the 1808 Storage Magazine in the northwest bastion."[240] The improvements to the fort under Gilmore's command included the completion of the East Service Magazine, South Service Magazine, Southwest Service Magazine, Principal Service Magazine, the Sally Port Complex, the east bombproof, half of the west bombproof, Terreplein, Postern, poured concrete foundations for new gun positions (Gun Position No. 1 and No. 2), and the repair of the Scarp Wall and 1809 Service Magazine.[241] The service magazines ringed the fort's interior underneath the level of the Terreplein and were accessed via doorways at the parade level. The Principal Service Magazine was located in the eastern portion of the fort in the approximate location of the old officers' barracks. The structure was covered with a mound of earth and turf. Workers finished the Sally Port Complex, "a series of interconnected barrel-vaulted brick corridors and passages," in 1874.[242] Guard rooms flanked the central passage that connects the outside of the fort with the parade. The addition of an earthen mound covering most of the structure at the level of the terreplein bomproofed the Sally Port Complex. A photograph shows wood planking covering the roof of the structure in 1892 (Figure 4.14). The east and west bombproofs flanked the parade side of the Sally Port Complex, protecting it from enemy fire. Gun Position No. 1 was located on elevated earth fill at the northeast bastion. The quarter-circle concrete foundation was surrounded on three sides by a short brick wall. Gun Position No. 2 was located to the southeast of Gun Position No. 1 in a slight depression surrounded by earthen mounds. It also featured a quarter-circle foundation for its gun emplacement. A passage through the Northeast Bastion Service Magazine connected the gun positions.

Workers added a front range light housed in a wooden tower to the northeast angle of the fort in 1872, with a companion range light located to the north in the North Reservation Character Area. It is unclear if these were entirely new range lights or reassembled from those constructed immediately after the war and located elsewhere on the island.

Figure 4.12. 1865 image of interior of Fort Moultrie looking southwest. Note the presence of wooden buildings complete with chimneys and the small trees between the buildings. (Source: Open Parks Network. "Photograph of interior of Fort Moultrie and supplies, South Carolina, 1865." http://purl.clemson.edu/6C2DBB459E60020F51AC0BA1EA7F3F7D. Original located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.13. 1865 photograph of the exterior of Fort Moultrie's sally port. Note the presence of (temporary) wood guard house buildings and a war-time gate in the right side of the image. (Source: *Charleston, South Carolina vicinity. Interior view of Fort Moultrie. Sullivan's Island*. United States, 1865. Photograph. https://www.loc.gov/item/2018671243/.).

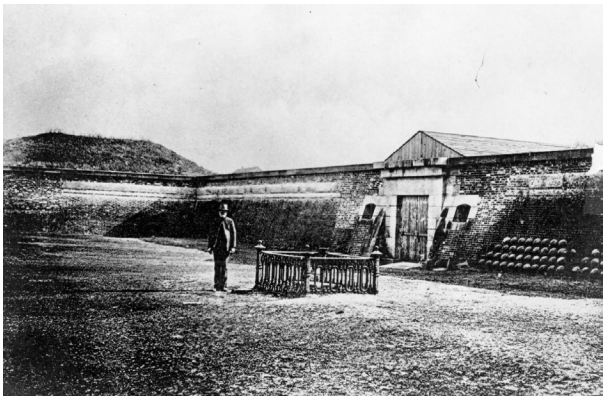


Figure 4.14. 1892 photograph of Osceola's grave showing iron fence. Also note the reconstructed Sally Port Complex entrance, and irregular topography within the fort. (Source: Open Parks Network. "Illustration of Osceola grave, Fort Moultrie, South Carolina." http://purl.clemson.edu/1901557B9A2C2560D8C9F5724102160F. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

240. Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory, Fort Sumter National Monument*, 7.
241. Garner, Jr., "Historic Structure Report, Architectural Data Section, Fort Moultrie," 27.
242. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 7, page 22.

The Endicott Era resulted in major changes to Fort Moultrie. Between 1898 and 1903, engineers constructed three new batteries within the fort's Scarp Wall. The batteries—Bingham, McCorkle, and Lord—were concrete and located on the Terreplein of the fort (Figure 4.15). Battery Lord was nearly centered on the fort's seaside, with Battery McCorkle immediately to its east. Battery Bingham was placed at the southeast angle of the fort. Batteries Lord and McCorkle contained two mounted guns, while Bingham contained three.

This work was part of a much larger expansion of the Fort Moultrie Military Reservation (FMMR), which began at the turn of the century and continued through the early 1920s. Workers constructed additional buildings in the area at this time, including a two-story primary base end station at the fort's northwest bastion (c. 1915), primary battery/mine command station and mining casemate to the southeast of the Primary End Base Station, self-contained horizontal base (c. 1920), a latrine atop the fill west of the Sally Port Complex (c. 1904), and a Position Finding Station north of the southeast angle on top of the covered Principal Service Magazine (Appendix A.12).

Outside the fort's Scarp Wall, workers constructed the following: an electrical power station east of the Sally Port Complex entrance (c. 1898), two one-story barracks buildings flanking the exterior of the Sally Port Complex replacing the power station (c. 1908), an engineer's storehouse tucked into the space between the northeast and southeast angles (c. 1915), a small single-story post office located immediately east of the northwest bastion (c. 1905), and a search light and searchlight power station south of the post office (c. 1920) (Appendix A.13). Workers constructed additional buildings and structures outside the boundaries assessed in this CLR.

World War II resulted in additional modifications to the Fort Moultrie Character Area. Unfortunately, the 1945 Army reservation plan is not as detailed as those drafted between 1908 and 1921 (Appendix A-14). However, the availability of photographs from this period allow for an understanding of the fort landscape, and show a war-ready fort landscape, with the Scarp Wall and various fort buildings painted in a camouflage pattern and the site enclosed by barbed wire fencing. The 1945 plan of the fort notes the continued presence of several of the wartime features added earlier including the Self-contained Horizontal Base and the Endicott Batteries. New features included a meteorological station and the Harbor Entrance Control Post (HECP) Building. The post, which since 1941 occupied the old Primary Base Station, moved into a newly constructed HECP building located between the northeast bastion and southeast angle (Figure 4.16). Workers constructed the multi-storied building atop a bombproof concrete bunker covered in sand and turf. The complex featured a signal station, observation station, administrative offices. From this location personnel controlled the armament of the fort. The construction of the building resulted in the demolition of a portion of the Scarp Wall between the southeast angle and northwest bastion as well

Figure 4.15. 1943 image of Battery Lord looking west. In addition to the battery, not the presence of the shed roof building and tower to the east. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 4.16. View of HECP build looking north from outside Scarp Wall. Note how its construction impacted the east wall fo the fort. (Source: WLA Studio, 2017).

Figure 4.17. View of WWII-era Fort Moultrie prior to the construction of the HECP building. Note the various buildings and structures in the fort's interior, sandbagging around the gun positions, informal circulation, and a flight of stairs providing access to the fort on the east. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

as the engineer's storehouse. The HECP building was the last building constructed within the Fort Moultrie Character Area during the period of significance.

Additional modifications to the fort included the removal of all but Battery Lord's guns, as the Army found them to be obsolete. The concrete emplacements remained in place and served as locations for searchlights and other uses. Though not noted on the 1945 plan, a 1943 photograph shows that workers had painted the searchlight power station outside the fort camouflage. South of the building was a temporary tent, and south of the tent the searchlight is shown enclosed in an elevated wooden structure. A lookout tower was constructed next to the latrine located atop the fill over the Sally Port Complex entrance. An additional lookout structure was located beside the Self-contained Horizontal Base at the southwest angle. Figure 4.4 and Figure 4.17 depict these structures.

North Reservation Character Area

During the colonial period, it is unknown if any buildings or structures stood in the North Reservation Character Area. It is known that workers constructing Fort Moultrie No. 1 used a canal that ran through the area to transport palmetto logs.

By the time workers had constructed Fort Moultrie No. 2 in 1796, the land north of the fort had been set aside for a military reservation. Purcell's 1796 map of the Fort Moultrie landscape shows a bridge spanning the marsh immediately west of where the canal met The Cove.

The construction of Fort Moultrie No. 3 in 1809 shifted the use of the fort landscape northward and initiated the use of the North Reservation Character Area as a support zone for fort operations. The exact progression of construction activities in this area is unknown, as documentation of the area is limited. By 1844, the area was full of buildings as outlined by Bearss:

From left to right the structures fronting on the east side of the parade ground were: (1) a brick storehouse (51' x 21') of two stories occupied by the Quartermaster's and Subsistence Departments; (2) a wooden building (141' x 21') of one story divided into two rooms a and quartering the autler; (3) a wooden building (141' x 20') of one story divided into five rooms occupied by Company D's a barracks, messroom, and kitchen; (4) a wooden building (25' x 16') of one story divided into two rooms, occupied by the drum major; and (5) a wooden building (20' x 16') of one story used as a blacksmith shop. The buildings, from right to left, fronting on the opposite side of the parade ground were: (6 & 7) One wooden building (100' x 20') and a second (76' x 20') both single story, divided into five rooms, and occupied by Company E as a barracks, messhall, and kitchen; (8) a wooden building (40' x 18') of two stories and divided into five rooms, occupied as a hospital kitchen; (9) a wooden building (50' x 25') with a gallery on three sides, two stories high, divided into five rooms, and occupied as a hospital. It housed three large and one small ward, an operating room, and could shelter 24 patients; (10) a wooden building (50' x 20') of one story and occupied as a bakery; (11) a wooden building (25' x 17') of one story and serving as a carpenters shop; and (12) a wooden building (34' x 19') of one and one-half stories, occupied as a stable, with six stalls and a room for forage.

Two antebellum maps of the area depict these buildings graphically. Alexander D. Bache's 1849 plan, which was amended in 1853, shows the presence of at least 11 buildings or structures, including a large wharf protruding northward from the back of the area and the rear range beacon (Appendix A-7). A plan dated to around 1855 depicts the area in great detail (Figure 4.18). The plan shows 13 buildings. Buildings include: office space, a company store, residences for laundresses, a black smith shop, a wood yard, gun shed, ordinance supply and store space, a hospital, hospital kitchen, hospital men's room, a bake house, a carpenter shop, and a barn.[243] The buildings lined the eastern and western property boundaries of the area, leaving an open Parade Ground between.

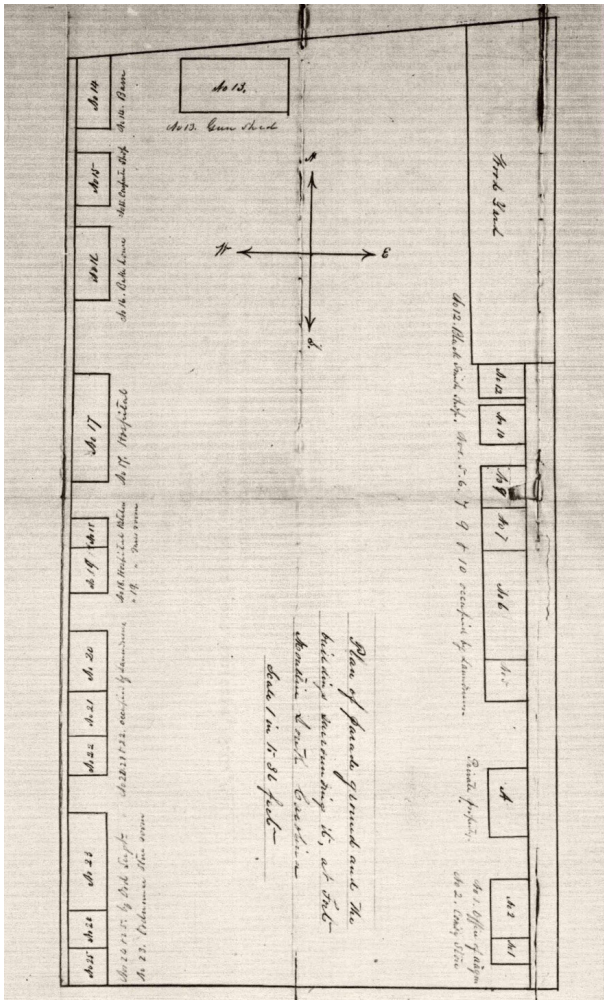


Figure 4.18. Circa 1855 plan of North Reservation Character Area showing the extent of development in this area prior to the Civil War. (Source: Battlefields in Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html. Located in U.S. National Archives).

By 1860, there were a variety of buildings in this area (Appendix A-8). In an 1860 plan, the building labeled "office space and company store" on the 1855 plan is labeled "brick storehouse and chapel."[244] The 1860 plan also does not show the blacksmith shop, woodyard, gun shed, bakehouse, and hospital buildings. The 1860 plan shows the location both the beacon lights at the fort, with the rear beacon depicted at the northern extent of the area next to the wharf.

243. Note, the buildings on the east side historically stood on the edge of the current NPS property boundary. They are included in this discussion to illustrate the growth and diverse use of the North Reservation Character Area.

244. Note, the location of the brick storehouse and chapel historically stood on the edge of the current NPS property boundary. It is included in this discussion to illustrate the growth and diverse use of the North Reservation Character Area.

Little documentation exists concerning the period immediately following the Civil War. However, it is known that a Victorian-style lighthouse keeper's house was constructed sometime in the 1870s or 1880s in the northeastern portion of the area (Figure 4.19). An 1893 photograph also shows one or two small buildings near the front porch of the house. These may be the buildings labeled on later plans as oil house and lighthouse keeper's storehouse.[245] The lighthouse keeper looked after the front range light near the fort as well as its companion rear range light housed in a wooden tower located near the house (Figure 4.20).

In 1902, a new two-story hospital was constructed along Middle Street across from the fort (Figure 4.21). The hospital featured four symmetrical bays with each bay containing four six-over-six windows. The upper and lower stories each featured a centrally-located doorway crowned by a rectangular transom. A roof dormer with paired windows aligned with the doorways, further emphasizing the building's symmetry. A two-tiered porch supported by simple columns wrapped around the building (both porches were enclosed in the early 1940s). Three flights of stairs provided access on the building's south side. The building did not feature any ornate detailing. The photograph also shows a small portion of the morgue building that was constructed off the northwest corner of the hospital in 1908. The construction of the morgue began the expansion of the hospital complex in the area.

By 1918, the Army had constructed three new additions to the hospital. The wood-frame hospital additions "were built on a wood post foundation enabling them to be moved as needed after the war for new uses."[246] The additions remained attached to the main hospital buildings until the demolition of the entire complex in the 1950s. In 1918, a two-story wood-frame hospital storehouse was constructed on the north side of the hospital.

Plans dating to 1908, 1915, and 1921 show the expansion of Fort Moultrie Military Reservation in greater detail, however, as these plans were

Figure 4.19. Circa 1890 photograph of lighthouse keeper's quarters and associated structures and fencing in North Reservation Character Area. (Source: US Lighthouses. "Charleston (Sullivan's Island) Lighthouse." https://www.us-lighthouses.com/sullivans-island-lighthouse.).

updated over a period of years, the exact dates for construction of many buildings and structures is unknown. Between 1896 and 1921, the following buildings stood in the area: a Torpedo Storehouse (c. 1904), cable tank building, a loading room, service dynamite room, mining boathouse, fowl house, garage building, oil house, lighthouse keeper's house, lighthouse keeper's storehouse, the hospital complex, and the "old" bake house. The hospital complex had grown to include the main building, morgue, steward's quarters, and dispensary. A wooden bulkhead is shown in different locations depending on the plan.[247] The earlier plans show the bulk head running north-south along the western edge of the property boundary, while on the later plans it is shown spanning northwest to southeast in the rear of the character area. See Appendix A-11 through A-14.

During WWII, the Army altered the configuration of the North Reservation Character Area. On the 1945 fort plan, the torpedo storeroom and cable tank buildings are labeled as the Artillery Engineer's Office, though the buildings appear to have remained unchanged. The garage also remained in the eastern portion of the area. The hospital complex continued to expand at this time, adding a hospital barracks building, hospital supply building, and a hospital linen supplies building. It is unclear if these were all new constructions or whether the use of existing buildings changed. It is

245. Note, the location of the Light House Keeper House historically stood on the edge of the current NPS property boundary. It is included in this discussion to illustrate the growth and diverse use of the North Reservation Character Area.

246. Sondermann, "Remembering the Legacy," 135.

247. Note, the location of the steward quarters historically stood on the edge of the current NPS property boundary. It is included in this discussion to illustrate the growth and diverse use of the North Reservation Character Area.

Figure 4.20. Circa 1890 photograph of rear range lighthouse and associated wharf in north Reservation Character Area. (Source: US Lighthouses. "Charleston (Sullivan's Island) Lighthouse." https://www.us-lighthouses.com/sullivans-island-lighthouse.).

Figure 4.21. Circa 1910 photograph of recently constructed hospital building in north Reservation Character Area. Note early sidewalk along Middle Street, fencing along property edge, and associate residence to the east. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 4.22. View of Civil War-era Fort Moultrie and shoreline looking north. Note that this image shows a still-developed reservation area and surrounding context. Most of these building were destroyed during the war. (Source: Battlefields in Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html. Originally published as woodcut-engravings in the October 31, 1863 issue of Harper's Weekly (Volume VII, Number 357 Page 701).

likely that at least the barracks building was a new construction. These improvements were the last made to the North Reservation Character Area during the period of significance.

East Reservation Character Area
Several graphic depictions of Fort Moultrie No. 1 illustrate the area immediately east of the fort. A 1776 plan of Fort Moultrie by Lt. Colonel Thos. James depicts a line of defensive platforms extending eastward from the southeastern bastion. The 1780 *Plan d'Amboy* shows the defensive platforms as well as at least two small buildings of unknown use to the east of the fort (Appendix A-2). It is assumed that these works were constructed of palmetto logs as well.

After the Revolutionary War, Sullivan's Island became increasingly used as a summer retreat location. The first map to depict this growth is J. Purcell's 1796 plat of Fort Moultrie (Appendix A-3). Throughout the surrounding area, various buildings are depicted, but as they were not the subject of the plan, their exact placement in the landscape cannot be determined. Bache's map of the island offers a much clearer understanding of the area (Appendix A-8). The map, which covers a time between 1849 and 1858, shows a number of presumed residences surrounding Fort Moultrie. Within the East Reservation Character Area, it appears that ten residences stood. At this time, the East Reservation Character Area's southern border was along the waterfront. By 1837, workers installed a series of jetties, bulkheads, seawalls, and riprap along this edge (Appendix A-7). Originating at Bowman's Jetty south of the fort, a timber bulkhead fronted by riprap spanned the extent of the approximate location of the southern character area boundary. Bache's map also shows that the front range beacon used for navigation into the harbor was located along the southern edge of the character area.

The East Reservation Character Area included many houses at the beginning of the Civil War. During the Civil War, Union bombardments destroyed many of these houses or troops intentionally demolished them for defensive purposes. An 1863 illustration by Otto Enz shows that several dwellings still stood in the area as did the range light (Figure 4.22). By 1865, like much of Sullivan's Island, the East Reservation Character Area contained a variety of defensive works. Stretching along the character area's seafront, a series of small earthen batteries connected Fort Moultrie with Fort Beauregard to the east (Appendix A-10). After the war ended, the task of rebuilding began. Within a few years, the western side of Sullivan's Island again contained numerous houses.

In 1878, workers removed the range light from the northeast angle and moved it east several hundred feet. It is unknown if the light was reused entirely or only partially. In 1883, workers painted the range light red, and three years later, moved it 12 feet westward. A photograph showing the range light dated to around 1885 shows a three-story wooden structure with the upper story light ringed by a platform and rail fence (Figure 4.23). The range light was moved again in 1888, this time 55 feet to the west. A second front beacon, less ornate than the first, was constructed at this time. A combination of the ranges located on Sullivan's and Morris Island guided ships into the harbor. The front range light was likely removed during the next phase of fort development—the Endicott Era.

The East Reservation Character Area was chosen for the location of the Endicott Era batteries not placed within Fort Moultrie itself. Workers first constructed Battery Jasper (Figure 4.24). Located amongst existing beach cottages, the enormous multi-story battery measured 683' x 125' x 22' when completed in 1898. The battery featured four-gun emplacements located on its top side, each containing a sighting room, magazine, and ordnance storage deck. The guns were situated along the north side of the battery and featured rounded southeast and southwest corners. The War Department constructed Battery Logan to the southeast of Battery Jasper in 1898-1899.[248] The smaller battery featured two gun emplacements, but otherwise resembled Battery Jasper. To power these new batteries, the Army constructed the Battery Jasper Powerhouse near Battery Jasper's northwest corner (Figure 4.25). Built in 1909, the small brick building featured a gable roof, two windows at each gable end, and an entry on its north side. A battery control tower, located on the north side of Battery Jasper, was constructed in 1914. The elevated building featured a bridge that spanned over the road running along the north

248. The NPS holds a scenic easement for the Battery Logan area but is not part of Fort Sumter National Monument.

Figure 4.23. Circa 1885 photograph of front range lighthouse and associated fencing in East Reservation Character Area. Fort Moultrie is located to the northwest. Note the vegetation-covered mounds inside Fort Moultrie. (Source: George LaGrange Cook Photograph Collection, South Carolina Library, Digital Collections, http://digital.tcl.sc.edu/cdm/singleitem/collection/scook/id/183/rec/1).

face of the battery, connecting it to the center of Battery Jasper. A small gable-roofed latrine for use by the batteries' garrison was constructed in 1915. By the early 1920s, the houses that were not initially demolished for the construction of the batteries had been removed, resulting in a more specifically-military landscape. This character continued into the WWII era.

During the WWII period, the military altered the East Reservation Character Area again. The War Department constructed Construction 230 located off Battery Jasper's southeast corner (Figure 4.26). Completed in 1944, it was designed to feature two guns atop a bombproof bunker. Given the date of construction, the battery was in fact never armed and was instead used for storage. While space was limited for the addition of new buildings, the Army constructed a number of Modified Theater of Operations (MTO) buildings in the area north of Battery Jasper. Some of these MTO buildings were constructed in what is now NPS property. The small buildings were designed to be temporary, featuring concrete block foundations, fiberboard, and rolled felt sheathing. Near these buildings and the Battery Jasper Powerhouse was a mine cable junction box, which was a concrete structure that measured roughly 5' x 8' and stood about two feet above grade. To the west of the control tower was a gable-roofed building of unknown purpose. Several other small buildings stood in this area during the war period. A beer hall, potentially dating to 1926, straddled the northeast corner

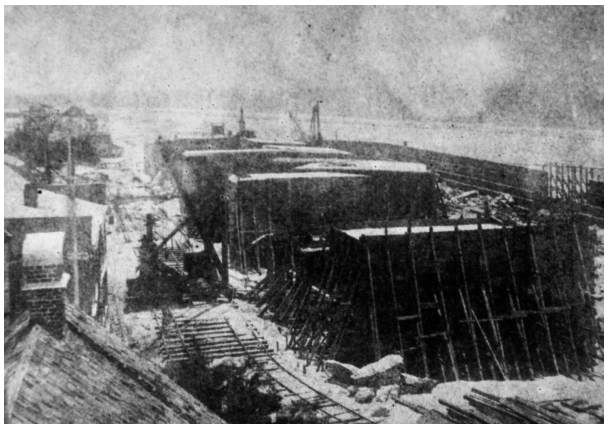


Figure 4.24. Circa 1897 photograph of the construction of Battery Jasper in East Reservation Character Area. Note presence of houses in the vicinity. These residences were removed during or shortly after the construction of the battery (Source: Open Parks Network. "Construction of Battery Jasper, Fort Moultrie, South Carolina." http://purl.clemson.edu/F9920D2E6DE5951A799B4BFD9B4BF314. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility.)

Figure 4.25. 2017 photograph of Battery Jasper Powerhouse immediately north of Battery Jasper's west end (Source: WLA Studio, 2017).

Figure 4.26. U.S. Army Photograph of Construction 230, taken January 20, 1944. Note the facility was never fully activated. (Source: Karl Philip Sondermann, "Remembering the Legacy," courtesy of the National Archives, Record Group 338, Box 139, General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie, College Park, MD).

Figure 4.27. Early 1900s photograph of Engineer Wharf and associated covered boat shed. (Source: Karl Philip Sondermann, "Remembering the Legacy," Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

of the character area. Lastly, as in the previous periods, power poles were located throughout the area, primarily located along the roadways.

Beach and Forest Character Area

A large portion of the Beach and Forest Character Area did not exist for the majority of the period of significance, thus limiting the presence of buildings and structures. The first structure built in the area was Bowman's Jetty, which was designed to control the erosion issue along Sullivan's Island. The jetty, finished in 1839, projected outward 400 feet from the beach directly south of Fort Moultrie. Constructed of palmetto logs fill with large granite blocks, Bowman's Jetty worked immediately, adding hundreds of feet of new sandy beach to the east of the structure.

At the turn of the century, while the Endicott batteries were being constructed, engineers devised and installed timber bulkhead and riprap seawalls as additional protective measures. Most of this network existed in the East Reservation Character Area, although a portion of it spanned the western portion of the Beach and Forest Character Area. These structures combined with the previously built jetties resulted in the continued accretion and stabilization of the beach area. Now that a protective space for ship docking had been formed by the steady beach accretion, a new wharf called the engineer wharf was constructed to the west of Bowman's Jetty (Figure 4.27). The wharf extended several hundred feet southwest into the harbor water. A presumed boat shed structure stood on the wharf's westside. What is labeled as a "cable terminal" appears to have been located behind the riprap, northeast of the wharf. No other structures are known to have stood in the Beach and Forest Character Area during the period of significance.

Post-Historic and Existing Condition

Fort Moultrie Character Area

After the period of significance, numerous changes to the landscape's buildings and structures occurred beginning in the fall of 1946. By the mid-1960s, just after Fort Moultrie became part of Fort Sumter National Monument, the NPS removed several of the buildings within the fort's interior, including the Primary Base End Station, latrine, as well as the various towers, storage spaces, and miscellaneous structures. At this time, they also demolished most of the Position Finding Station, leaving only a section of its wall set into an earthen mound.

The buildings surrounding the fort also underwent changes. It is unclear if the building that sat just west of the northwest bastion of the fort, as seen in period photos, was the old post office building or a newer construction. If it was the old post office building, photographs indicate the building was significantly modified since the early 1900s. If the building was newer, it appeared to have been in place by the 1950s. The building was destroyed when Hurricane Hugo struck the coast in 1989. A small gabled ell building located between the fort's Scarp Wall and the potential post office building appears on a 1958 aerial image (Figure 4.28). At some point during the early 1960s, this building was removed (Figure 4.29). The NPS also removed the WWI era searchlights and searchlight power station during the initial fort restoration period.

Figure 4.28. 1958 aerial image of Fort Moultrie. Note the poor condition of remaining fort buildings. (Source: Open Parks Network. "Aerial view of Fort Moultrie before restoration work, Charleston, South Carolina." http://purl.clemson.edu/762525E23254B6B41007A33441819D46. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.29. Circa 1960s aerial photograph of Fort Moultrie taken after the removal of various features including the WWI-period building at the northwest bastion and unwanted vegetation. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 4.30. Aerial photograph showing in-process 1975 restoration of Fort Moultrie, note the concentration of work on west side of the fort. (Source: Open Parks Network. "Aerial view of Fort Moultrie under restoration work, South Carolina." http://purl.clemson.edu/16CED3825D5570CA4902464F94B41765. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

The more extensive 1975 restoration project at the fort resulted in the most substantial changes to the fort since the 1870s reconstruction period (Figure 4.30). Over the course of the project, workers reconstructed a portion of the Civil War era terreplein, repaired the 1870s Terreplein, and uncovered the 1809 Powder Magazine, 1820 brick Traverse, and the foundations of two barracks buildings that were constructed in 1809 (Figure 4.31). The parade wall, which supported the Civil War terreplein was also exposed at this time. The NPS decided to retain Batteries Bingham and McCorkle and remove Battery Lord (Figure 4.32). In place of Battery Lord, the NPS added the 1870s Battery Reconstruction (Figure 4.33). The battery was located on a section of the Terreplein between two earthen mounds that cover the South and Southwest service magazines. Similarly, the NPS added reconstructions of several Civil War era gun to the terreplein, stretching from the southwest seafront to the northwest bastion (Figure 4.34). Workers repaired the Scarp Wall at this time, though the section removed for the construction of the HECP building was not restored, as the building was retained. As part of the Bicentennial activities of the fort, the NPS constructed a partial replica of the original palmetto fort to interpret the American Revolutionary War Period.

Since the restoration project, various repairs to the buildings and structures within the Fort Moultrie Character Area have occurred. Such work included the reconstruction of the interior flagpole which was destroyed by Hurricane Hugo. In the mid-2000s, a major project on the Sally Port Complex to find and fix leaks within the structure. Workers moved dirt from the top of the Sally Port Complex as part of the project. Additional repairs included coating Batteries McCorkle and Bingham in an Acrymax membrane system in 2005.

North Reservation Character Area

Like the Fort Moultrie Character Area, the North Reservation Character Area underwent dramatic change after the period of significance. After decommissioning, the Army removed most of the buildings and structures, including the extensive hospital complex, from the area. However, several buildings along the eastern and western edges of the character area were spared demolition. Along the western property boundary, they retained the circa 1902 Torpedo Storehouse and cable tank room. The adjacent church used the building as a school house for a time. During the construction of the Fort Moultrie Visitor Center in 1975, the NPS demolished the cable tank room along with several other structures. The NPS also converted the

Figure 4.31. 1975 restoration of parade wall, service magazine, Traverse, and parade. Note amount of excavated fill in the foreground (Source: Open Parks Network. "View of restored site, Fort Moultrie, South Carolina." http://purl.clemson.edu/9B84DD83E0B83C8860A68725DEDA488C. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.34. 2017 photo of Civil War-era battery reconstruction (Source: WLA Studio, 2017).

Figure 4.32. 2017 photo of Batteries Bingham and McCorkle (Source: WLA Studio, 2017).

Figure 4.35. 2017 photo of Torpedo Storehouse (Source: WLA Studio, 2017).

Figure 4.33. 2017 photo of 1870s battery exhibit (Source: WLA Studio, 2017).

Figure 4.36. 2017 photo of presumed cable terminal with rip rap in background (Source: WLA Studio, 2017).

Torpedo Storehouse for administrative use (Figure 4.35). The conversion slightly altered the historic fabric of the building. The NPS constructed the Visitor Center building in the approximate location of the main hospital building (Figure 4.7). The modern brick building featured a modern angular design, that was incongruent with the historic character of the site, but in keeping with other NPS buildings being constructed at this time. The NPS later added a modern dock extending into the Cove north of the site. No other buildings or structures have been added to the North Reservation Character Area since the construction of the Visitor Center.

An adjustment in the property boundary when the NPS acquired the property north of Middle Street meant that at least one building historically related to the FMMR—the building last used as the hospital steward's quarters—was not part of the park. The building currently is designated a Town of Sullivan's Island historic landmark.

East Reservation Character Area
After the period of significance, the Army removed the majority of buildings and structures built during WWII including MTO buildings, latrine, command towers, and related buildings. Battery Jasper and Battery Logan, Construction 230, the Battery Jasper Powerhouse, and the mine cable junction box remained at the site. Alterations to Battery Jasper has included general maintenance and repairs and coating the structure in an Acrymax membrane system.

Beach and Forest Character Area
What is presumed to be the cable terminal building and the remnants of the wharf and timber bulkhead are still located in the Beach and Forest Character Area (Figure 4.36).

Summary
Throughout Fort Moultrie's developmental history numerous buildings and structures stood within the CLR study boundary. Many of the buildings and structures were temporary, while others were extensively modified and/or removed. The surviving buildings and structures convey a long history of coastal defense the evolution of the United States military.

Landscape Features

- Fort Moultrie No. 3 (Scarp Wall)
    - Contribution Status: Contributing
    - Condition: Good
- 1809 Powder Magazine
    - Contribution Status: Contributing
    - Condition: Good
- Traverse
    - Contribution Status: Contributing
    - Condition: Good
- Bowman's Jetty
    - Contribution Status: Contributing
    - Condition: Unknown
- Sally Port Complex
    - Contribution Status: Contributing
    - Condition: Fair
- Principal Service Magazine
    - Contribution Status: Contributing
    - Condition: Good
- South Service Magazine
    - Contribution Status: Contributing
    - Condition: Good
- Southwest Service Magazine
    - Contribution Status: Contributing
    - Condition: Good
- Postern
    - Contribution Status: Contributing
    - Condition: Good
- East Service Magazine
    - Contribution Status: Contributing
    - Condition: Good
- Terreplein
    - Contribution Status: Contributing
    - Condition: Fair
- Northwest Bastionette
    - Contribution Status: Contributing
    - Condition: Fair
- Gun Position No. 1
    - Contribution Status: Contributing
    - Condition: Fair
- Gun Position No. 2
    - Contribution Status: Contributing
    - Condition: Fair
- Northeast Bastion Service Magazine
    - Contribution Status: Contributing
    - Condition: Fair
- Battery Bingham
    - Contribution Status: Contributing
    - Condition: Fair

- Battery Jasper
  - Contribution Status: Contributing
  - Condition: Poor
- Battery McCorkle
  - Contribution Status: Contributing
  - Condition: Fair
- Torpedo Storehouse
  - Contribution Status: Contributing
  - Condition: Good
- Battery Jasper Powerhouse
  - Contribution Status: Contributing
  - Condition: Good
- Mine Cable Junction Box
  - Contribution Status: Contributing
  - Condition: Unknown
- HECP-HDCP Building
  - Contribution Status: Contributing
  - Condition: Good
- Construction 230
  - Contribution Status: Contributing
  - Condition: Good
- Barracks Foundation
  - Contribution Status: Contributing
  - Condition: Good
- Enlisted Men's Barracks Foundation
  - Contribution Status: Contributing
  - Condition: Good
- Position Finding Station Foundation
  - Contribution Status: Contributing
  - Condition: Good
- Cable terminal building
  - Contribution Status: Contributing
  - Condition: Unknown
- Riprap
  - Contribution Status: Contributing
  - Condition: Good
- Timber bulkhead
  - Contribution Status: Contributing
  - Condition: Poor
- Visitor Center
  - Contribution Status: Noncontributing
  - Condition: Unknown
- Former steward's quarters
  - Contribution Status: Noncontributing
  - Condition: Unknown
- SPAWAR facility on Construction 230
  - Contribution Status: Noncontributing
  - Condition: Unknown
- 1870s Battery Reconstruction
  - Contribution Status: Noncontributing
  - Condition: Good

Cluster Arrangement

Historic Condition

Fort Moultrie Character Area

During the period of significance, the clustering of buildings, structures, and spaces within the Fort Moultrie Character Area was evident. While the exact arrangement of features in and around Fort Moultrie No. 1 is unknown, during the Fort Moultrie No. 2 period, distinct clustering of the fort's support buildings occurred. At this time, the barracks, officers' quarters, and bake house were arranged around an open parade ground north of the fort.

With the construction of Fort Moultrie No. 3, clustering of features in the character area occurred within the Scarp Wall. Here, the barracks, officers' quarters, Powder Magazine, hot shot furnace, guardhouse, and other structures encircled the Parade Ground in the center of the fort. The Civil War produced additional areas of clustering, such as immediately outside of the sally port entrance where a collection of fencing and buildings stood and the clustering of temporary structures throughout the interior of the fort. The war also resulted in the destruction of other clusters of buildings and structures, including the 1809 barracks and quarters. The reconstruction of the fort in the 1870s did not reintroduce the former clustering present before the war, and instead the fort's interior was characterized by the clustering of sand and turf covered bombproof magazines and gun emplacements. With the addition of Endicott Era batteries and two WWI-era buildings to the interior of the fort, the clustering within the fort became denser. Outside of the fort, a growing number of buildings and structures encircled the exterior Scarp Wall. The Army introduced additional buildings and structures during WWII, placing them throughout the interior of the fort. As a result, no distinct clusters of buildings or structures were apparent, as the fort was visually busy.

North Reservation Character Area
The construction of Fort Moultrie No. 3 led to the addition of buildings and structures to serve as support for the fort. These buildings lined the eastern and western property boundaries of the North Reservation Character Area, leaving a central parade ground devoid of any structures. In this sense the clustering found within the North Reservation Character Area mirrored that—at least in principal—of the Fort Moultrie Character Area to the south. The Civil War resulted in the loss of this clustering of features, and in their place the Army added new buildings and structures to the area.

Plans and maps from the early twentieth century show that over the course of four decades three distinct clusters of buildings developed. First, a hospital complex, grounded by the main hospital building located along Middle Street across from the fort, grew northward into the character area. At the end of the period of significance, the complex contained at least ten separate buildings. Along the west side of the character area, a cluster of buildings oriented north-south developed along railroad tracks. These buildings were used for the storage of explosives. Lastly, in the northeast corner of the site, a small cluster of buildings pertaining to the lighthouse developed and included the Lighthouse Keeper's house, an oil room, and storage building.

East Reservation Character Area
Clustering present in the East Reservation Character Area during the period of significance initially pertained to the grouping of private cottages that developed during over the course of the nineteenth century. These buildings were removed during the construction of Batteries Jasper and Logan. From this point forward, the area south of the batteries remained mostly free of additional buildings or structures. The area immediately north of the fort, however, was increasingly developed. From around 1915 to 1945, a cluster of buildings and structures developed in the vicinity of Battery Jasper. The cluster contained a latrine, the south row of MTO buildings, a mine cable junction box, and a battery control tower. Finally, the addition of Construction 230 between Batteries Jasper and Logan filled the space that one provided separation between the massive batteries and formed a cluster of defensive works prior to decommissioning.

Beach and Forest Character Area
There was no clear cluster arrangement present in the Beach and Forest Character Area during the period of significance.

Post-Historic and Existing Condition
Fort Moultrie Character Area
After the period of significance, the cluster arrangement present within the Fort Moultrie Character Area was again altered. The excavations of a portion of the fort and the removal or retention of buildings and structures created a fort landscape that was less dense than it was in the 1940s. Even with the site being less dense, the interior of the fort still features a clustering of buildings and structures within the Scarp Wall, albeit with no clear grouping of features.

North Reservation Character Area
The majority of the buildings and structures were demolished after decommissioning, thus ending the patterns of cluster arrangement present in the area. The construction of the Visitor Center and the retention of the Torpedo Storehouse produced an administrative use cluster in the southern portion of the area.

East Reservation Character Area
Most of the buildings and structures constructed during WWII in the East Reservation Character Area were removed after the period of significance. However, the clustering of structures at the northwest corner of Battery Jasper, as well as the clustering of Battery Jasper and Construction 230 remains intact. The addition of the SPAWAR Facility atop Construction 230 adds to the cluster.

Beach and Forest Character Area
There is no clear cluster arrangement present in the Beach and Forest Character Area.

Summary
Cluster arrangement present within the FMMR was initially formal, symmetrical, and in keeping with military customs. The site was repeatedly altered by the weathering caused by war and natural processes, as well as by Army engineers who attempted to keep the fort modern and effective as a defender of the southern coast. These alterations impacted the formality to the clustering of buildings and structures, especially so within Fort Moultrie itself. Remnants of the original

clustering remain within the fort and in the East Reservation Character Area.

Landscape Features

- Clustering of buildings and structures within Fort Moultrie's Scarp Wall
    - Contribution Status: Contributing
    - Condition: Good
- Clustering of buildings and structures at Battery Jasper's northwest corner
    - Contribution Status: Contributing
    - Condition: Good
- Clustering of defensive works
    - Contribution Status: Contributing
    - Condition: Good
- Administrative use cluster
    - Contribution Status: Non-contributing
    - Condition: Good

Spatial Organization

Historic Condition

Fort Moultrie Character Area

Over the course of the period of significance, the spatial organization of the Fort Moultrie Character Area changed repeatedly as settlement on Sullivan's Island increased, the military reservation grew, and land use shifted from military defense to residential and tourism uses. Still, several overarching patterns of spatial organization remained fairly consistent for much of the historic period and included the orientation of all three iterations of Fort Moultrie to the shoreline, the symmetrical and formal arrangement of buildings within the fort's walls, and the fort's relationship with the FMMR development that radiated outward over time.

Fort Moultrie's placement along the shoreline was in direct relation to the Charleston Harbor—its shoals, channels, and need for protection. A primary route into the harbor, Maffitt's Channel, also known as Beach Channel, ran along the south side of Sullivan's Island. The placement of Fort Moultrie here in 1776 established the location as a strategic position for the defense of Charleston. The next two iterations of the fort were also located along the shoreline and formed a key part in the defensive network of the harbor.

Military traditions resulted in the pattern of spatial organization found within the fort for the majority of the period of significance. Though the exact layout of buildings and structures within Fort Moultrie No. 1 is unknown, it can be assumed that the site featured a formally organized layout. Likely, enlisted soldier tents were separated from officers' quarters. Temporary dwellings for enslaved workers at the fort at this time would have likely been further segregated. Fort Moultrie No. 2 was depicted in Purcell's 1796 plat of the fort landscape. While the organization within the fort is not clearly shown, an area north of the fort, presumed to be the location of Fort Moultrie No. 3, was shown as containing barracks, quarters, and a bake house. The buildings featured an inward-facing orientation and open Parade Ground between them. No buildings appear to have been located on the south side of this area, enabling a direct and open flow between the fort and the northern parade ground. Depictions of Fort Moultrie No. 3 show the formal arrangement more clearly. The buildings and structures within the fort mostly ringed the inside edge of the Scarp Wall, providing an open Parade Ground in the center of the fort. This organization of space was repeated in the fort's reconstruction in the 1870s. With the modernization of the fort that took place between the late 1800s and the 1940s, the organized and symmetrical organization of fort features was lost.

Lastly, since the early nineteenth century, a number of other spaces developed around Fort Moultrie. These spaces are found within the other character areas discussed below.

North Reservation Character Area

Definite spatial organization of the North Reservation Character Area did not occur until the use of the area by the U.S. Army beginning in the early ninetieth century. From that point forward, the spatial organization of the North Reservation Character Area was defined by both natural and cultural boundaries, military cultural traditions, and its relation to the surrounding FMMR landscape.

The Cove, a marshy inlet that spanned Sullivan's Island's northern edge, served as a natural boundary for north side the area. The eastern and western boundaries were defined by property lines. The southern boundary for the area was formed by a roadway, eventually named Middle Street. Within these boundaries, for much of the nineteenth century, a formal and symmetrical organization of

space existed in the character area. At this time, buildings and structures of various uses flanked a central parade ground, which was again open on its south side. This formal arrangement reinforced the symmetrical layout of Fort Moultrie to its south. After the Civil War, the addition of an increasing number of FMMR buildings resulted in the loss of this pattern of spatial organization. In its place, space was organized by the negotiation of access to the densely organized buildings and structures within the area.

East Reservation Character Area
Like the Fort Moultrie Character Area to its west, the East Reservation Character Area's most influential spatial organizing feature was the beach and harbor to its south. For the first part of the period of significance, the edge was defined by the ever-shifting beach and dunes. With the addition of engineering solutions however, the edge was straightened and reinforced with a timber seawall and riprap.

As the United States military did not acquire the western, northern, and eastern boundaries until the last decade of the 1800s, the spatial boundaries in this area evolved as dwellings, roads, fences, and other features were constructed. By 1905, a light gauge railroad line was constructed along the north side of Battery Jasper. The line was converted into a service roadway by 1917. The circulation feature generally established a northern boundary for the area.

Within the character area, patterns of spatial organization initially pertained to the platted lots for cottages. Maps dating to the mid nineteenth century show there was room for at least two rows of dwellings in the area. The construction of Battery Jasper resulted in the demolition of all residential buildings and significantly reorganized the spatial character of the area. From this time forward, the majority of the site remained open south of the batteries. A barbed wire fence enclosed the area on the north along the service road, further demarking the spatial separation of this area from the rest of the FMMR. Construction 230, added as WWII was coming to an end, interrupted the open space between the two Endicott Batteries, but did not alter the overall spatial arrangement of the area.

Beach and Forest Character Area
During the period of significance, the Beach and Forest Character Area was much smaller than its present condition and was contained to an area south of the fort. Within this small area, patterns of spatial organization pertained to the dynamics between the tidal forces of the harbor and the engineering practices that sought to minimize their effects on the landscape. As a result, beginning in the mid nineteenth century and progressing through the early twentieth, engineers created a clear spatial boundary between the beach and the fort landscape with a system of jetties, seawalls, and riprap fortifications. This network of engineered protections resulted in the eventual growth of the character area, most of which occurred after the period of significance.

Post-historic and Existing Condition
Fort Moultrie Character Area
After the period of significance, the NPS substantially altered the interior spatial organization of the fort to present a comprehensive interpretive program. As a result, many of the buildings and structures within the fort were demolished, while others were repaired and repurposed. Portions of the fort's interior were excavated, which created new spaces within the fort's overall layout. Thus, from 1975 onward, the fort has featured a variety of spaces used to interpret the fort's history. This presentation of the landscape has meant that no overall pattern to the organization of the site is apparent. However, an interpretive trail route that progresses through the site unifies the fort and provides for a sense of connection between spaces. Outside the fort, the construction of a paved interpretive trail that enclosed the fort landscape on its east, south, and west sides defined the Fort Moultrie Character Area boundary. Within this space, an open lawn provides views towards the fort and towards the harbor.

North Reservation Character Area
The change in property boundaries, demolition of most of the buildings and structures from the period of significance, and the construction of the Visitor Center reorganized the spatial character of the site. When the property that contained the North Reservation Character Area was transferred to the NPS, a slender row of properties along the area's east side was not included. This effectively shrunk the size of the historic character area. Since

1975 the North Reservation Character Area has featured three district spaces arranged south to north: the Visitor Center area, the parking area, and an open lawn area. The parking area is further divided by the presence of two islands, one being a typical parking island that divides parking spaces, and the other being the site of the old cemetery. The northern extent of the area extends out beyond the property boundary to the north on account of the NPS pier that provides access to the site from the water.

East Reservation Character Area
After the period of significance, the East Reservation Character Area also underwent changes to its spatial organization, though the alterations were not as substantial as those in other areas. The predominate pattern of the site still features Battery Jasper and the service road along the northern edge of the area, with a mostly open landscape occupying the southern portion. With the growth of the beach and forest, the spatial experience of the area has changed, as the beach and open water beyond has shifted hundreds of feet southward. Along the southern edge of the character area, which once featured beach views, now is constrained by the vertical and horizontal growth of the maritime forest.

Beach and Forest Character Area
The Beach and Forest Character Area's spatial arrangement is a product of cultural and natural boundaries. The beach forms the area's southern edge and property boundaries form its western and eastern boundaries. The northern boundary for the character area is defined as the approximate location of the former timber seawall that once served at the southern edge for the East Reservation Character Area. A spontaneous vegetation community has developed along this edge, resulting in obscured views toward the harbor. Within the character area itself, the site is loosely organized by the narrow beach area in contrast to the vegetated maritime forest to its north, creating two spaces within the area.

Summary
Throughout its developmental history, the site's spatial organization changed as the fort landscape incrementally grew larger and the defensive strategy for the protection of Charleston Harbor evolved. After the NPS acquired the site in 1960, it altered the spatial organization of the property. The resulting pattern of spatial organization is still largely influenced by the constraints of waterbodies on the site's north and south sides. Within these confines, the patterns of organization pertain to the interpretive and commemorative landscape created and maintained by the NPS.

Landscape Features
- Orientation of all three iterations of Fort Moultrie to Charleston Harbor and The Cove
    - Contribution Status: Contributing
    - Condition: Fair
- Relationship between character areas due to the development of the FMMR
    - Contribution Status: Contributing
    - Condition: Fair
- Open space south of Battery Jasper
    - Contribution Status: Contributing
    - Condition: Fair
- Spatial boundary formed by maritime forest
    - Contribution Status: Non-contributing
- Interpretive division of space within fort
    - Contribution Status: Non-contributing
    - Condition: Fair

Vegetation

Historic Condition
Fort Moultrie Character Area
Despite serving as the core of the historic landscape, few references exist concerning specific vegetation features present within the Fort Moultrie Character Area during the period of significance. Early accounts describe the island at large, and as such, these accounts will form the basis for this analysis.

When Charles Towne was settled in 1670, accounts indicate that Sullivan's Island was densely wooded. This character remained in place until 1700 "when the assembly passed an act directing that the trees be cleared."[249] A few trees were spared for use as navigational aids for ships in the harbor, though the location of these trees is not clearly indicated on period plans.

249. Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory, Fort Sumter National Monument*, 3.

Figure 4.37. August 1860 image of fort interior showing cultural vegetation features, including two types of shrubs and turf groundcover. Photograph taken by James M. Osborn and Frederick E. Durbec. (Source: Battlefields In Motion, Ltd. http://moultrie.battlefieldsinmotion.com/Old-Photos-and-Maps.html.).

A plan of Fort Moultrie No. 1 depicts the presence of three trees located in the central parade (Appendix A-1). Soldier tents are shown amongst the trees, indicating they served to provide shade in the exposed island environment. It is unknown what species of trees these were. Plans of Fort Moultrie No. 3 do not show the presence of any natural or cultural vegetation in the vicinity of the fort, which seems to be an accurate depiction of the site. An account from Edgar Allan Poe, who was stationed at Fort Moultrie in 1827, described the vegetation around Fort Moultrie as "scant or at least dwarfish," noting the presence "bristly palmetto," but with "no trees of any magnitude" present near the fort.[250]

Depictions of the fort immediately prior to the Civil War show a well-ordered landscape. In particular, a trimmed evergreen hedge bordered a formal walkway that led from the sally port to the flight of stairs centered on the seaside of the fort (Figure 4.37). The continuity of the hedge was interrupted on the east in order to provide access to the officers' quarters. Here, a shorter walkway was bordered by what appears to be a different species of shrub. From the walkway, the hedge, which may have been the same type or species used for the longer walkway border, fanned outward to border the foundation of the quarter's building. The arrangement of the hedges and walkway resulted in a parterre-like appearance on the eastern side of the fort's interior. The species of the two shrubs is unknown, but the longer border shrub may have been a myrtle based on an analysis of historic photographs. According to a 1977 archeology report, "flower gardens were planted in a 10-to 11-foot bed between the piazza [of the officers' quarters] and the parade ground. The level of the flower bed was just 1 to 2 inches below the brick walk and up to 3 inches above the parade level. Bricks set on end separated the garden from the parade ground."[251] No photographs or illustrations of the fort show the presence of this reported flower bed. Instead, at this time, the interior of the fort, including these hedged areas, was turf grass. While the western side of the fort's interior did not feature the same hedge and path layout, several small trees lined the front (east) side of the building.

Photographs from 1861 to 1865 show that the formal landscape was severely damaged due to shelling by the Union Army. By the end of the war much of the antebellum vegetative character

250. Edgar Allen Poe in Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory, Fort Sumter National Monument*, 6.

251. Ehrenhard and Hsu, "Archeological investigations at Fort Moultrie Sullivan's Island, South Carolina (preliminary report)," 32.

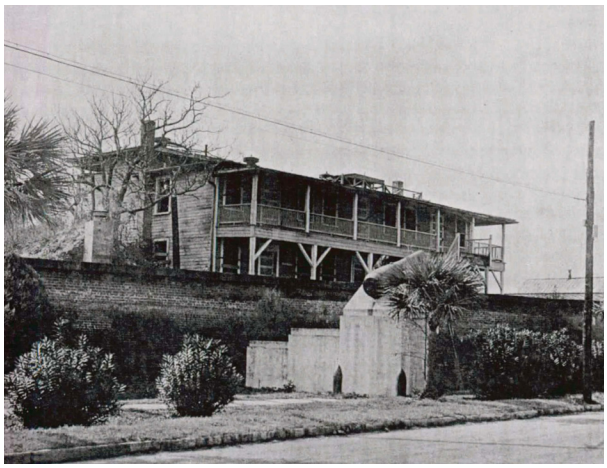


Figure 4.38. Circa 1930s photo of installed plants along Middle Street. (Source: Photograph by Abbie Rowe, National Park Service, reproduced in Fort Moultrie Cultural Landscape Inventory).

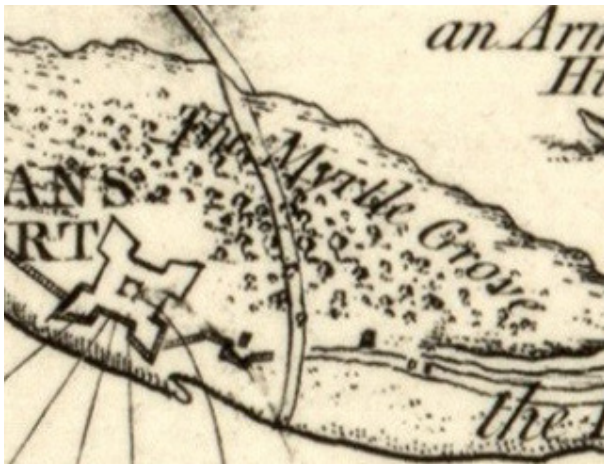


Figure 4.39. 1776 map of Fort Moultrie and vicinity. Note the presence of the "Myrtle Grove" surround the fort on the north and east. (Source: Faden, William, and Thomas James. *A plan of the attack of Fort Sulivan, near Charles Town in South Carolina by a squadron of His Majesty's ships on the 28th day of June , with the disposition of the King's land forces and the encampments and entrenchments of the rebels, from the drawings made on the spot*. [1776] Map. https://www.loc.gov/item/gm71000631/.).

was lost. However, several trees appear to have survived for the duration of the war, providing shade to Confederate soldiers, much like trees did for the patriot forces during the American Revolution (Figure 4.12). After the war, the interior of the fort was reconfigured, and resulted in the removal of any surviving vegetation. The new fort interior featured several sand and turf covered bombproofs, which it likely the only vegetation present within the fort at this time. The vegetative character outside the fort during this period is unknown, though depictions show a mostly barren and sandy landscape.

Limited photographs of Fort Moultrie exist from the Endicott Era. These photographs show that the turf covering the bombproofs had given way to coastal grasses and other less manicured vegetation by the end of the century (Figure 4.38). It also appears that by 1890, at least one tree was growing within the fort. Whether the planting was intention, it is not known. To remedy the situation, between 1904 and 1906, crews planted Bermuda grass within the fort, including on the bombproofs. Outside the fort, photographs show that during the Endicott Period sparse dune vegetation consisting of grasses and small shrubs grew on the south. In 1906, a "number of oleanders were planted between the seawall and Fort Moultrie," though their specific location is unknown.[252] Lastly, in 1907, the Army installed "a hedgerow of 'japan hardy orange plants'" along Middle Street (Figure 4.38).[253] This could be in reference to *Poncirus trifoliata*.

252. Bearrs, "Fort Moultrie No. 3," 271.
253. Ibid.

By the early 1930s, photographs show the presence of scattered trees of unknown species growing within the fort's interior. There is no indication that the Army intentionally planted the trees. Photographs from the WWII period show that most of the fort's interior was covered in turf, except for the areas worn bare by pedestrian movement. At this time, a cluster of trees stood on the east side of the Position Finding Station, as well as to the southeast of the Primary End Station. Other trees grew on the slopes of various bombproofs. Outside the fort, the row of shrubs planted in 1907 continued to line Middle Street on the character area's north side. By the early 1930s, palmettos appear to have been interplanted with the "orange plants."

North Reservation Character Area

During the colonial era, a large grove of wax myrtle trees grew north and east of where Fort Moultrie was eventually located (Figure 4.39).[254] Therefore, while it appears that a large portion of Sullivan's Island was logged around 1700, the myrtles were likely spared. Poe's description of the landscape from 1827 notes that aside from the beach itself, the island was covered in a "dense undergrowth of the sweet myrtle so much prized by the horticulturists of England. The shrub here often attains the heights of fifteen or twenty feet and

254. Hitchcock, Styles, and Goetcheus, *Fort Moultrie Cultural Landscape Inventory, Fort Sumter National Monument,* 4.

Figure 4.40. 1935 photograph of hospital and ornamental landscape. Note the presence of agave and oleander (Source: Open Parks Network. "Post Hospital, Fort Moultrie, South Carolina." http://purl.clemson.edu/AC00E211A90473E38259C648D49205C5. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.41. Circa 1945 photograph of hospital and landscape. Note the changes in vegetation between this figure and Figure 4.40. Also note that the porch was enclosed by this time (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

forms an almost impenetrable coppice."[255] Thus, it appears the myrtle grove was still present well into the nineteenth century. Pinpointing the extent of the grove into the North Reservation Character Area is made difficult by the fact the trees are not shown on any maps from this period. Thus, it is possible that this area had been cleared and the myrtles Poe referred to were located further east, in the less developed portion of the island.

Throughout the nineteenth century, the area north of the fort is known to have contained various buildings and structures, but information concerning vegetation is not available. One artistic rendering of the area dated to 1861 appears to show the open Parade Ground between the buildings as covered in turf. After the Civil War, the area was redeveloped, with new buildings added. The earliest known photographs that clearly show the area date to around 1906 and do not show the presence of installed or natural vegetation aside from turf grass.

During the 1920s and 1930s the landscaping of the hospital complex grounds underwent several plantings. As the dates of the photographs are mostly unknown, establishing a timeline for the installation of plant material is difficult. However, it appears that in early 1930s, the landscape in front (south) of the main hospital building featured plantings of agave and oleander (*Nerium oleander*) (Figure 4.40). The agave (*Agave* spp.) lined the short walkway that connected the hospital to the sidewalk along Middle Street. The oleanders ran parallel to Middle Street. Photographs from the late 1930s and into the 1940s show that these plantings had been replaced by plantings of Sabal palmetto, new plantings of oleander, and potentially cedar (*Juniperus* spp.) or cypress (*Cupressus* spp.) trees (Figure 4.41). The arrangement of the new plantings was based on the direction provided by the Army's Landscape Unit, which was established during the 1930s to "provide landscaping guidance for all Army posts."[256] It appears that for the duration of the period of significance, this vegetation remained in place.

Unfortunately, few photographs show the North Reservation Character as it existed in the early twentieth century. Further, any vegetation in the area is obscured by the presence of multiple buildings and structures. However, maps, plans, and limited photographs indicate the presence of a salt marsh in the northern extent of the CLR boundary. Cordgrass (*Spartina sp.*) was likely the dominant plant species in the area.

East Reservation Character Area

The earliest depictions of the East Reservation Character Area show the area mostly devoid of vegetation, with the large swath of wax myrtles growing to the north of the area. Mid-nineteenth century maps of the area show it filled with cottages and what may be the presence of trees

255. Ibid., 6.

256. Sondermann, "Remembering the Legacy," 215.

Figure 4.42. Circa 1943 photograph of East Reservation Character Area showing Battery Jasper, cisterns, temporary towers, MTO buildings, and the building of Construction 230 in the background. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

within the residential lots. Photographs taken of the fort during the Civil War captured portions of the surrounding landscape and show the cottage area contained scattered palmetto trees growing amongst the houses. It is possible that the locally-popular group of palmettos called the "Five Indians" was present in or near the area at this time.

After the war, the construction of Batteries Jasper and Logan likely destroyed any vegetation in the area. An aerial photograph dated to 1924 does not show much vegetation except for the turf on top of Battery Jasper and uneven ground cover along the beach area. Photographs from the WWII period show the presence of large shrubs or trees, potentially oleanders, on the south side of Battery Jasper and scattered other small trees, potentially crepe myrtles (*Lagerstroemia indica*), near the northwest corner of the battery. The rest of the area seems to have been intentionally maintained as open space (Figure 4.42).

Beach and Forest Character Area

For much of the period of significance, minimal vegetation grew in the Beach and Forest Character Area, as the hard beach and tidal action did not allow for the growth of permanent vegetation communities. With the expansion of the character area beginning in mid-twentieth century, a maritime vegetation community formed. Early colonizing plants likely included sea oats (*Uniola spp.*), pennyworts (*Hydrocotyle bonariensis*), and sandspurs (*Cenchrus spp.*).

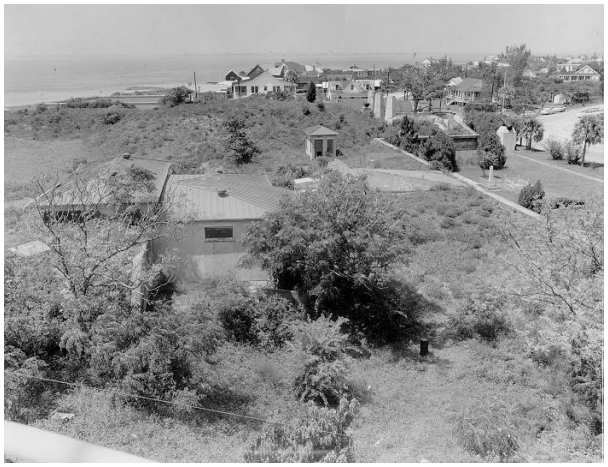


Figure 4.43. 1958 photograph of interior of Fort Moultrie looking west. Note the overgrown vegetation in the fort's interior (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 4.44. 1960s photograph of entrance area outside Fort Moultrie looking east. Note the young pine trees growing in various random spots in the landscape. (Source: Open Parks Network. "Osceola grave, Patapsco monument, and sally port entrance, Fort Moultrie, South Carolina." http://purl.clemson.edu/74AB9FC87FC41D095954ABC3C31A35F9. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Post-Historic and Existing Condition

Fort Moultrie Character Area

After the period of significance ended, the fort went through a period of deferred maintenance. Photographs from the 1950s and early 1960s show that the vegetation within the fort grew mostly unchecked. A dense cluster of shrubs and trees grew beside the Position Findings Station and northeast angle (Figure 4.43). Other areas of the fort, mostly atop the bombproofs, also contained spontaneous vegetation growth. However, with the addition of Fort Moultrie to Fort Sumter National Monument in 1960, the NPS initiated a minor restoration project, which resulted in the removal of much of the overgrown vegetation. Thus, in the 1960s, the vegetation within Fort Moultrie was

Figure 4.45. 2017 photo of Fort Moultrie from Visitor Center roof looking south showing the sabal palms growing along Middle Street. (Source: WLA Studio, 2017).

minimal and contained just a few trees and uneven grass ground cover. During the major restoration of the fort in the mid-1970s, this remaining vegetation was removed, except for limited areas of undisturbed grass.

Outside the fort, photographs from the 1960s show the presence of pine trees growing along the Scarp Wall near the entrance (Figure 4.44). These trees were removed sometime in the 1970s. The row of Japanese orange shrubs planted in the early 1900s remained located along Middle Street until around 2000. The interplanted palmettos, which likely date to around 1930 if not before, were retained and are still present along the road (Figure 4.45). Some new palmettos have been installed within the last 30 years. On the west side of the fort, various groupings of trees have stood post-period of significance. A cluster of unknown trees, potentially pines, grew for a time along the northwest salient. These trees were missing after 1989. A group of various trees including oak and sycamore continue to grow in the northwest corner of the character area. From this grouping, a row of trees continues southward along the edge of the property. South of the fort, spread out within the open area contained by the interpretive trail, are five trees—four palmettos and a live oak. The palmettos in this location help visitors understand the construction of the first Fort Moultrie.

North Reservation Character Area

With the removal of most of the buildings in the North Reservation Character Area, the vegetation in the area is more clearly discernable. In the 1950s and 1960s, the south end of the character area still contained the palmettos, oleander, and cedar/cypress, which grew into dense clumps. Trees grew unevenly along the eastern and western property boundaries, and the interior of the site, where the buildings once were, was open lawn.

The construction of the Visitor Center and associated parking area resulted in alterations and additions to the vegetative character of the area in 1975-1976 (Figure 4.7, Figure 4.46, Figure 4.47). Along the road, the NPS removed the oleanders and cedar/cypress trees planted in the 1930s but retained the Sabal palmettos. Some vegetation along the eastern and western borders was also retained. Additional palms were planted throughout the site, including over two dozen in the parking lot area. Several live oaks were also planted north of the building within the parking islands. Three crepe myrtles also appear to have been installed at this time. Various planting areas were created immediately surrounding the Visitor Center building. In the rear (north) of the Visitor Center, a planting of a number of unknown species was installed in a sloped planting bed shortly after construction. This planting bed now only contains grass. On the northwest side of the building, near the restrooms and rear of the Torpedo Storehouse, several small planting areas contain a variety of plants. On the southeast corner of the building, several wax myrtles (*Morella cerifera*) were installed. Recently, the park planted cypress trees along the east side of the edge of the property near the intercostal waterway and around Bench by the Roadside.

East Reservation Character Area

After the period of significance, the East Reservation Character Area remained mostly devoid of vegetation. Along the swale running parallel along Battery Jasper's north side, three Sabal palmettos were either installed or grew naturally. These trees are still present today. South of Battery Jasper, a large expanse of grass containing a few palmetto trees extended to the riprap seawall. At the seawall, spontaneous vegetation began to develop.

Beach and Forest Character Area

As a recently created land area, the Beach and Forest Character Area's vegetation consists of several zones of developing coastal vegetation communities. The maritime forest area, which occupies a large swath north of the beach contains

a mixture of live oak (*Quercus virginiana*), wax myrtle, yaupon, (*Ilex vomitoria*), and red cedar (*Juniperus virginiana*). The forest begins at the former seawall and extends east to west across the entire character area (Figure 4.48). The tree line thus creates a visual buffer between the historic core of the fort landscape and the beach to the south. Sand dunes containing a mixture of coastal grasses front the maritime forest on the south.

Summary

In summary, since the start of the period of significance in 1776, the overall vegetative character of the site appears to have always been rather sparse. Deforestation resulted in a lack of trees in the western portion of Sullivan's Island early on, and the clear views required for defensive positioning resulted in the limited installation of plant material. In terms of existing vegetation dating from the period of significance, it appears that at least a few of the Sabal palmettos that line Middle Street on both sides date, as well as those on the north side of Battery Jasper, date to around 1930. Some of the Sabal palmettos along the street have been planted within the last 30 years. The short turf grass throughout the site is also in keeping with the historic character. The natural salt marsh on the north end of the site has been present throughout the developmental history of the site. While in keeping with the native vegetative conditions of the region, the planting of palmettos and oaks in the Visitor Center, as well as the maritime forest to the south, do not contribute to the period of significance.

Landscape Features

- Grass / turf throughout the site
  - Contribution Status: Contributing
  - Condition: Good
- Palmettos lining Middle Street
  - Contribution Status: Contributing
  - Condition: Good
- Palmettos lining north side of Battery Jasper
  - Contribution Status: Contributing
  - Condition: Good
- Salt marsh
  - Contribution Status: Contributing
  - Condition: Good
- Post-1975 plantings in Visitor Center area
  - Contribution Status: Non-contributing
  - Condition: Good

Figure 4.46. 2017 photo of Visitor Center ornamental planting beds on south end of the building. (Source: WLA Studio, 2017).

Figure 4.47. 2017 photo of Visitor Center parking lot showing large live oaks and sabal palms. (Source: WLA Studio, 2017).

Figure 4.48. 2017 photo of the maritime forest's edge with meadow in the foreground and mown paths. (Source: WLA Studio, 2017).

- Natural vegetation communities in Beach and Forest Character Area
    - Contribution Status: Non-contributing
    - Condition: Good
- Trees along the property boundaries of the site
    - Contribution Status: Non-contributing
    - Condition: Good

Circulation

Historic Condition

Fort Moultrie Character Area

Prior to 1776, it is unknown if any circulation features existed within the Fort Moultrie Character Area. However, it is likely that informal paths were present within the parade ground, as well as constructed walkways such as that along the elevated wooden platforms. Maps depicting the Battle of Sullivan's Island show the presence of roadways east of the fort. By 1796 however, as the island became more settled, roads were constructed throughout the island. Though not confirmed as being wholly within the Fort Moultrie Character Area, three roads are shown in the general vicinity of the fort on Purcell's 1796 plat of the area (Appendix A-3). Two roadways, each measuring 50' wide, ran north-south along the area's eastern and western sides. An additional roadway, labeled as being 100' wide, entered into the site from the northwest. Subsequent plans of the fort do not show the two 50' wide roadways, but the 100' wide road is shown and now labeled as "Road to the Landing," which ran in the northwest portion of Sullivan's Island. The general alignment of the road appears to correspond with the road that appears on an 1849 map of Sullivan's Island and what became known as Middle Street, which serves as the northern border of the character area.

The construction of Fort Moultrie No. 3 introduced circulation features directly related to the fort. A sally port entryway provided access into the fort from the north. Posterns provided access to the interior on the east and west curtains of the fort. A paved alleyway ran in between the sally port entrance and the guardhouse. A ring of formal walkways located in the front of the fort's interior buildings encircled the Parade Ground and provided access to the barracks and quarters. The walkways appear to have contained different materials, with some sections containing flagstone and others brick. A central walkway leading from the sally port to the south side of the fort's interior cut through the parade, which at this time was covered in manicured turf. A spur walkway branched off from the central path and led directly to the officers' quarters. The central walkway and quarter's access walk appear to have been paved in rectangular flagstone. The central path led directly to a set of bifurcated stairs that stood at the south end of the fort interior (Figure 4.37). The stairs led to an elevated Terreplein that ringed the fort and provided pedestrian access to the gun positions. The gun positions appear to have featured the same flagstone as the central walkway. Additional access to the terreplein was provided by two ramps located along the parade wall east and west of the bifurcated stairs. By the end of the war, photographs show the presence of a badly damaged central walkway, but the other circulation features were either destroyed, removed, or buried under sand (Figure 4.49). Outside the fort's sally port, a short pathway provided access to Middle Street and the fort reservation buildings located to the north.

Images showing the interior of the fort shortly after reconstruction in the 1870s have not been located. It is known that the construction of service magazines introduced short underground passages that ran below bombproof coverings. Flights of stairs would have also been present within the fort. While images of the fort's interior at this time are missing, plans and images dating to the late nineteenth and early twentieth century show the presence of multiple circulation features located outside the fort.

By the early 1900s, while only separated by a few feet, two generally parallel circulation features extended between Middle Street and the fort. At this time, it appears that patrolling guards created a well-worn desire path just to the south of an elevated wooden boardwalk (Figure 4.50). In the image, the elevated path bends slightly around the northeast salient of the fort. A photograph taken around the same time, potentially just a few years later, shows the elevated boardwalk had been straightened and was placed several feet out from the salient. At this time, the entrance walkway into the fort was unpaved, though irregularly edged in an unknown material. On the east side of the

Figure 4.49. 1865 photograph of Fort Moultrie's sally port, Moultrieville, and cove to the northwest. (Source: *Charleston, South Carolina vicinity. Interior of Confederate Fort Moultrie showing ruins of sally-port and walls*. United States, 1865. Photograph. https://www.loc.gov/item/2018670983/.).

Figure 4.50. Circa 1900 photograph of entrance area of Fort Moultrie looking east. Note the presence of two parallel walkways, a light pole, the "Howe" monument, the Osceola's Grave, Patapsco Monument, flagpole, and benches. (Source: Detroit Publishing Co., Copyright Claimant, and Publisher Detroit Publishing Co. Osceola's grave, Fort Moultrie, Charleston, S.C. Charleston. South Carolina United States, ca. 1900. Photograph. https://www.loc.gov/item/2016799325/.).

Figure 4.51. Circa 1906 photo of the Fort Moultrie / Moultrieville Post Office, northwest salient of Fort Moultrie, the Primary End Base Station, and various circulation features including Middle Street and sidewalks (Source: Open Parks Network. "Post office and view of northwest bastion of Fort Moultrie, Charleston, South Carolina, circa 1906." http://purl.clemson.edu/EDA960A2BAD74B7BB0F1CEFF3FE62096. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

fort, the elevated boardwalk terminated at an unimproved crescent-shaped pathway that bowed outward from an unimproved vehicular drive that extended north-south along the east side of the fort. At this time, a flight of stairs was located on the eastern curtain wall, serving as an access point on that side of the fort. A 1908 fort plan shows the presence of a "cement walk" extending southwest from the crescent pathway across the southside of the fort and connecting with the Engineer Wharf (Appendix A-12).

During the first two decades of the twentieth century, FMMR commanders sought to improve the circulation network around the fort. The fort plan dating to 1908 shows the presence of a small-gauge rail line that extended north from the Engineer Wharf along the eastside of Fort Moultrie to the complex of ammunition buildings in the North Reservation Character Area. It appears use of the line was discontinued by the start of WWII as it does not appear on any plans or in photographs from that time. Lastly, a photograph from around 1906 shows a sidewalk lining Middle Street and a walkway extending toward the front of the fort from the west (Figure 4.51).

More photographs were taken of the fort's interior during the WWII period. The photographs show a general lack of formal walkways. Instead, a network of well-worn desire paths cut across the fort interior, leading to the fronts of buildings, flights of stairs, over bombproofs, and toward other fort features (Figure 4.4). The fort contained multiple flights of stairs during this period, with flights located at the three Endicott Era batteries, at the southwest angle, and at the east curtain wall prior to the construction of the HECP building. During this period, the entrance pathway leading to the Sally Port Complex gates was improved and was uniform in width and materials. The sidewalk outside the fort is still present at this time, though it is interrupted by the presence of large entrance monument outside the northwest salient.

North Reservation Character Area
Maps depicting the Battle of Sullivan's Island show the presence of a colonial era roadway extending along the eastern side of the fort and arching northwest to the north of the fort. It is possible that this portion of the road ran within the North Reservation Character Area. Aside from this possibility, no other formal circulation features are known to have existed in the area until a watercolor dating to 1861 shows a central pathway extending north-south through the parade ground, as well as potentially brick walkways extending across the front façades of the buildings in the area. After the Civil War, no clear understanding of circulation features is possible due to a lack of plans and images.

During the first decade of the twentieth century, more images and plans of the fort were produced. These show the rail line that originated at the Engineer Wharf crossing Middle Street and entering the North Reservation Character Area from the south. Upon entering into the area, the rail line forked into two parallel lines: one stopping at the Torpedo Storehouse and the other continuing northward to the cable tank building and mine storage facilities. An early image of the hospital building shows a walkway extending north from a sidewalk along Middle Street to the front flight of stairs at the main hospital building (Figure 4.21). While other walkways connecting the various buildings that developed in the area were likely present, ground-level photographs of the area for the remainder of the period of significance have not been located. Extrapolating the condition of the site from how it existed after the period of significance, an unimproved roadway extended north-south along the east side of the Torpedo Storehouse and cable tank buildings. After passing the buildings, the roadway arced toward the east, connecting to an adjacent roadway that ran parallel to The Cove.

East Reservation Character Area
Maps depicting the Battle of Sullivan's Island show the presence of a colonial era roadway extending along the eastern side of the fort and arching northwest to the north of the fort. It is possible that the north-south oriented portion of the road lay within the East Reservation Character Area. Aside from this possibility, no other formal circulation features are known to have existed in the area until Bache's map shows that by 1856 a roadway extended east-west along the northern edge of the character area. The roadway generally corresponds with the present location of Poe Avenue, though it is unknown what the road was called in the historic period.

Other circulation features created or improved during the initial FMMR expansion period

Figure 4.52. Circa 1941 photo of the north side of Battery Jasper showing service road and elevated walkway. (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Figure 4.53. 1977 aerial photo of the south side of Fort Moultrie. This image shows the interpretive walkway as it extends south towards the temporary Fort Moultrie No. 1 reconstruction exhibit. The ghosting of historic period circulation features is visible. (Source: Open Parks Network. "Aerial view of Fort Moultrie Visitor Center and Fort Moultrie, South Carolina." http://purl.clemson.edu/236C7D882854291DDF1F7814AD33C314. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

Figure 4.54. 1978 aerial photo of the west side of Fort Moultrie. This image shows the new interpretive walkway, along with the walkway extending towards Battery Jasper. (Source: Open Parks Network. "Aerial view of Fort Moultrie, Charleston beach in top right corner, Fort Moultrie, South Carolina." http://purl.clemson.edu/35A777BE3EDDBAD1D8E049AC61F4F57B. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

included a network of sidewalks and service roadways. By 1908, a concrete walkway extended from outside the southeast angle of the fort across the north side of Batteries Jasper and Logan. A service road ran parallel with the walkway, extending east-west from Battery Logan to a spot near the southeast angle of the fort from where the road made a 90-degree turn northward to connect with Middle Street (Figure 4.52 and Appendix A-11). These circulation features remained in place for the duration of the historic period. Additional circulation features that were added to the landscape during the WWII period include a ramp supported by sand fill on the south side of Battery Jasper and a short spur roadway that provided access to Construction 230 from the battery service road to its north.

Beach and Forest Character Area

The only known circulation features known to exist in the Beach and Forest Character Area during the period of significance were located along the beach, south of the fort. Here, beginning around 1900, the Army constructed a wharf and railroad line to serve the explosives complex to the north. Additionally, the southern portion of the concrete walk that originated on the east side of the fort connected the beach with the interior of the reservation.

Post-Historic and Existing Condition

Fort Moultrie Character Area

After the period of significance, the circulation in and around the fort was significantly altered. Unfortunately, images of the fort interior during the 1950s are few and do not reveal much in the way of circulation features. An aerial photograph of the fort taken in 1958 shows the presence of an informal path cutting across the fill in the western portion of the fort, a well-trodden parade area south of the Sally Port Complex, and paths leading to the Position Finding Station building at the HECP building (Figure 4.28). An aerial taken in the mid-1960s after the first restoration of the fort shows additional informal pathways encircling the bombproof mounds (Figure 4.29). Circulation features outside the fort at this time included an improved entrance walkway into the Sally Port Complex from the north and the continued presence of the diagonal walkway south of the fort.

The major restoration project in the mid-1970s again modified the existing circulation within the character area. Inside the fort, an interpretive circulation network was developed (Figure 4.53 and Figure 4.54). Entering in from the concrete-paved Sally Port Complex, a short walkway extended southward toward South Service Magazine. The walkway was at first unpaved, but within several years, was paved in concrete and later in brick. The walkway then intersected with another concrete pathway that skirted the interior sides of the Southwest Service Magazine, 1870s Battery Reconstruction, South Service Magazine, Battery McCorkle, Battery Bingham, and the HECP mound. This walkway connected with Gun Position No. 2 on the east side of the fort, and the interpreted Civil War period gun position area on the west side of the fort. Within the Civil War gun position area, a wide area of bluestone flagging was installed. From the north end of the flagging, the concrete path continued north and then along the Terreplein where is enclosed the 1809 Powder Magazine below. The concrete path terminated at the parade wall where a short flight of wooden stairs was constructed to access the restored Parade Ground. Throughout the post-historic period, the Parade Ground featured turf ground cover, crushed oyster shell, and brick paving. Portions of the brick paving likely date to the pre-Civil War period.

Outside the fort, during the site renovation in the mid-1970s, the NPS constructed a concrete-and-shell interpretive walkway that extended around nearly the entirety of the fort, encompassing a portion of the open space to the south. From the entrance walkway, the concrete-and-shell interpretive walkway extended eastward where it arched southward around the northeast salient (Figure 4.53 and Figure 4.54). The walkway continued north-south along the east side of the fort before arching southeast to the presumed locations of the first two iterations of the fort south of the fort, and then looped back northward and terminated with the Postern on the west side of the fort. This pathway was widened and repaved in the early 1990s, with periodic repairs made to it since that time. An additional pathway immediately south of the northeast salient provided access to the HECP underground bunker. The circa 1908 concrete walkway that extended through the area south of the fort was removed at this time, but its ghosting is still present.

North Reservation Character Area

After the period of significance, substantial changes occurred to the circulation features in the North Reservation Character Area. Specifically, during the construction of the Visitors Center and parking lot, the NPS removed the various walkways and access drives present during the Army's tenure of the site. Workers added a new north-south oriented entrance drive between the Visitor Center and the former hospital steward's quartering building (Figure 4.47). The new entrance drive served as the new eastern property boundary for the area. The drive provided access to a parking area that featured a modern curving layout, two planting islands, and space for seventy-two vehicles.

Pedestrian circulation was installed throughout the character area as part of the development of the site. By 1977, concrete pathways were installed as part of the planting islands. The northern island featured circulation in an "I" or "H" formation, with outer walkways inclosing the planting areas (Figure 4.7). From this island, painted guidance lines moved pedestrians either south toward a walkway along the eastern edge of the southern planting island or west towards a curvilinear walkway that extended for the whole of the character area. The northern terminus for the curvilinear walkway was the wharf and associated triangular plaza. Both the walkway and the plaza were paved with concrete. From here, the path curved around artificial topographic rises as it extended southward towards the Visitor Center. At two points along the walkway, a spur walkway extended eastward into the parking area. As the walkway approached the Visitor Center the path widened before forking into two directions. One pathway continued south along the west side of the Visitor Center, and the other arched eastward across the north face of the building and then turned south around the east side of the building. The path terminated at the Visitor Center's south entrance along Middle Street. A short walkway also curved northward to the Torpedo Storeroom building from the sidewalk along Middle Street.

Lastly, a trace of a historic era roadway was left in the northern portion of the character area. The remnant drive extends into the site from the east and bends towards the north end of the parking lot.

Figure 4.55. Illustration of distances between military fortifications in Charleston Harbor, here showing distance and sight line from Fort Moultrie to Fort Sumter. (Source: Perry, George T. *Part of Charleston Harbor, embracing forts Moultrie, Sumter, Johnson, and Castle Pinckney, also Sullivan, James & Morris islands; and showing the position of the Star of the West, when fired into from Morris Island*. Philadela., Lith. P.S. Duval & Son, 1861. Map. https://www.loc.gov/item/99448818/.).

East Reservation Character Area

After the period of significance ended, circulation within East Reservation Character Area underwent only minimal alterations and additions. A 1957 aerial photograph of the site shows the existence of two distinct informal vehicular pathways that generally extend east-west across the southern portion of the area, as well as the continued presence of the service road that ran across the north side of the batteries (Appendix A-15). All three paths extended from the previously established service access roads to the east and west of the battery area. Like the circa 1908 service road, the two newer drives were unpaved. From the service road, one of the newer drives spanned the area immediately to the south of the batteries. The other drive extended further south toward the beach area before running along the northern edge of the sand dunes and riprap. Overtime, these drives faded away from disuse.

After NPS acquisition of the site, park management retained the concrete walkway and service road that has existed since at least 1908. These two circulation features were incorporated in the interpretive and functional use of the site. Shortly after the 1975 restoration of the fort, a new paved road—Poe Avenue—was installed along the northern edge of the character area. The alignment appears to be based on historic roadway that was in use during WWII. Lastly, an informal pedestrian path that extended southward from Cannon Row

toward the beach appears to have been in place by the late 1980s.

Beach and Forest Character Area
After the period of significance, the concrete path that connected the Beach and Forest Character Area to the historic core of the fort was removed, however a trace of the walkway is still visible. Additional pedestrian pathways have been established as the area continues to grow. The mown path that leads from Cannon Row connects to the beach in the western portion of the character area. Toward the eastern end of the beach, two paths cut through the maritime forest and terminate at the beach. One of the pathways is the Sullivan's Island Nature Trail; an elevated boardwalk and foot path that was established by Charleston County in 2016.

Summary
In summary, various circulation features were present throughout the developmental history of the site, many of which are no long present. Circulation routes were altered, rearranged, created, or removed as the needs of the military base evolved. Still, complete or partial portions of historic circulation features remain in the landscape including the concrete walkway and service road north of Battery Jasper, and the reconstructed terreplein inside the fort. Most other circulation features were built as part of the 1975 restoration and development of the site.

Landscape Features
- Concrete walkway along Battery Jasper
    - Contribution Status: Contributing
    - Condition: Good
- Old Battery Service Road
    - Contribution Status: Contributing
    - Condition: Good
- Terreplein
    - Contribution Status: Contributing
    - Condition: Good
- Brick paving at barracks area
    - Contribution Status: Contributing
    - Condition: Fair
- Bluestone on Terreplein
    - Contribution Status: Non-Contributing
    - Condition: Good

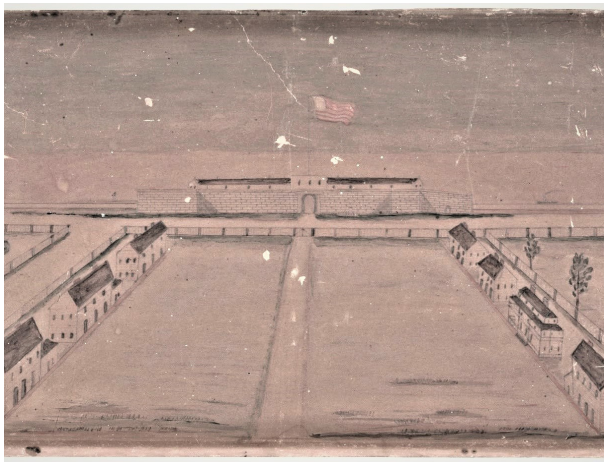


Figure 4.56. 1861 watercolor of North Reservation Character Area looking south towards Fort Moultrie. Note the axial arrangement of landscape features that frame the view of the fort. (Source: Open Parks Network. "View of Fort Moultrie, South Carolina, circa 1861." http://purl.clemson.edu/1DA9D8DF975CC4D0D8EF9716877DDC75. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

- Interpretive walkway outside fort
    - Contribution Status: Non-Contributing
    - Condition: Good
- Interpretive walkway within fort
    - Contribution Status: Non-Contributing
    - Condition: Fair
- Sullivan's Island Nature Trail
    - Contribution Status: Non-Contributing
    - Condition: Good
- Informal mown pathways south of the fort
    - Contribution Status: Non-Contributing
    - Condition: Good
- Modern pedestrian circulation features at Visitor Center and Parking Areas
    - Contribution Status: Non-Contributing
    - Condition: Good
- Entrance walkway at Sally Port Complex
    - Contribution Status: Non-Contributing
    - Condition: Good
- Sidewalks along Middle Street
    - Contribution Status: Non-Contributing
    - Condition: Good

Figure 4.57. 2017 image of Fort Moultrie interior showing restored Parade Ground area and open character of the fort's interior. (Source: WLA Studio, 2017).

Views and Vistas

Historic Condition

Fort Moultrie Character Area

The location chosen for Fort Moultrie No. 1 was based on its position along Sullivan's Island's beachfront. From this location the patriot forces had a commanding view of the Atlantic Ocean, the channels of Charleston Harbor, Charleston itself, and Morris Island. The position aided in the defeat of the British Navy during the Battle of Sullivan's Island. Other than this particular sweeping view, no other views or vistas are known to have held importance until the construction of Fort Moultrie No. 3.

The construction of Fort Moultrie No. 3, and eventually the surrounding FMMR complex, introduced additional views out from the fort landscape. The Terreplein allowed for nearly 360-degree views of the surrounding island and ocean. The guardhouse, northeast bastion, and northwest bastion allowed for specific views of the northern approach to the fort, serving as a sentry point for potential land assaults.

In 1829, the construction of Fort Sumter in the middle of the harbor began. Only one mile separated Fort Moultrie from Fort Sumter, which produced a clear, unobstructed view between the two forts that proved highly significant in American history. In April 1861 Confederate troops bombarded Union-held Fort Sumter, marking the beginning of the Civil War. As the war progressed, the views provided by Fort Moultrie's position along Sullivan's Island's beachfront was a major factor in the Confederate defensive strategy for the protection of Charleston Harbor (Figure 4.55).

After the war, the modernization of Fort Moultrie during the first half of the twentieth century resulted in the addition of watch towers within the character area. The vantage points provided new elevated views of the harbor and ocean (Figure 4.4). The towers also allowed for views to the surrounding FMMR.

North Reservation Character Area

The North Reservation Character Area did not contain many principal views or vistas for much of its history. Surely, the view north across an open landscape from Fort Moultrie No. 1 and No. 2 were important defensively. The primary vista present during the period of significance within the character area itself was produced by the symmetrical layout of reservation buildings, creating a vista along the parade ground towards the sally port of Fort Moultrie across Middle Street (Figure 4.56). This view, present during the first half of the nineteenth century, was lost after the Civil War with the development of the North Reservation Character Area into the hospital complex. The only other distinct view within the area was from the wharf and associated range light extending northward into the salt march, allowing for views into and around The Cove area.

East Reservation Character Area

The East Reservation Character Area did not contain many principal views or vistas for much of its history either. It was not until the Civil War, when defensive positions were added along the beach front of the character area that views out to the harbor and ocean proved significant. The construction of Battery Jasper and its associated watch towers reinforced the importance of these clear, unobstructed views (Figure 4.52).

Beach and Forest Character Area

Like the previous two character areas, the Beach and Forest Character Area did not contain many principal views or vistas for much of its history either. Its open character during the period of significance produced sweeping views of the ocean, harbor, and the other defensive works in the area.

Figure 4.58. 2017 image of Battery Jasper Reservoir No. 1 (Source: WLA Studio, 2017).

Post-Historic and Existing Condition

Fort Moultrie Character Area

After the period of significance, the principal views from Fort Moultrie remained mostly intact. The retention of the tower atop the HECP building still allows for sweeping views of the area, and the gun positions along the reconstructed Terreplein interpret the views present during the historic period. A portion of this historic view has been compromised by the expansion of the beach and forest to the south of the fort, which limits views of the beach and water beyond southeast of the fort. The 1975 restoration opened up the parade round, which produced a limited view across the central portion of the fort interior (Figure 4.57).

North Reservation Character Area

After the period of significance, one new view was created in the North Reservation Character Area. The design of the Visitor Center incorporated access to its roof. The rooftop vantage point allows visitors to have an elevated view of Fort Moultrie's north side, as well as the harbor to the south. This southerly view is now obscured by vegetation. Though a new wharf has been added to the north side of the character area and development has increased across the Cove, the views from this area remain intact.

East Reservation Character Area

The removal of the observation towers from the East Reservation Character Area resulted in the loss of the elevated views across the beach and into the ocean. Further, the expansion of the maritime forest south of the character area has impacted ground level views of the beach and water as well. The majority of the area is still kept open, which retains views within the area itself.

Beach and Forest Character Area

Again, due to the growth of the maritime forest, the wide-open views that were historically present in the area have been lost. However, the views out into the surrounding harbor remain intact.

Summary

In summary, the most significant views present at the site are those from the elevated sections within Fort Moultrie towards Fort Sumter and the harbor itself. These views remain mostly intact, though are impacted by the growth of the maritime forest southeast of the site. Other views that were present during the historic period have been lost due to the removal of buildings and structures that afforded them.

Landscape Features

- View from elevated areas within Fort Moultrie toward Fort Sumter and harbor
    - Contribution Status: Contributing
    - Condition: Good
- View from Battery Jasper toward the beach and ocean
    - Contribution Status: Contributing
    - Condition: Poor
- View from top of Visitor Center
    - Contribution Status: Non-contributing
    - Condition: Good
- View across the central portion of the fort interior
    - Contribution Status: Non-contributing
    - Condition: Good

Constructed Water Features

Historic Condition

Fort Moultrie Character Area

While the location of Fort Moultrie No. 1 was militarily strategic, it was not necessarily ideal from a construction standpoint. The clearing of the island of trees earlier in the century meant that palmetto logs had to be rafted to the site. The logs were then transported down a canal that extended south from the marshy cove area. It is unknown if the canal began as a natural channel, however by the beginning of the nineteenth century, it appears the canal featured the straight lines typical of a

Figure 4.59. 1865 image of sally port and entrance area. The hot shot furnace is shown through the opening, and the wooden fence is shown in the foreground (Source: *Charleston, South Carolina vicinity. Sally-port of Fort Moultrie*. United States, 1865. Photograph. https://www.loc.gov/item/2018670982/.).

constructed canal.[257] In 1828, after the construction of Fort Moultrie No. 3, the canal was filled in. No other constructed water features were present in the Fort Moultrie Character Area for the duration of the historic period.

North Reservation Character Area

In order to support the growing reservation north of the fort, by the mid-1840s, two cisterns stood in the North Reservation Character Area: "one between Company D's barracks and the band major's quarters, and the other between Company E's barracks and messhall."[258] In 1855 a brick cistern was constructed in the North Reservation Character Area to provide water to the complex of workers there. It is presumed another cistern was added to the area in the late nineteenth century as the reservation began expanding, but the location of this cistern is unknown.

East Reservation Character Area

No constructed water features are known to have stood in the East Reservation Character Area until the construction of Battery Jasper in 1898. At this time, the military constructed two reinforced concrete cisterns—each with a 30,000-gallon capacity—off the northwest corner of the battery. Reservoir No. 1 measured 28' x 28' and stood roughly 5' above grade (Figure 4.58). The larger of the two cisterns, Reservoir No. 2 measured roughly 38' x 38'. The cisterns were supplied by gutters atop Battery Jasper. An artesian well surrounded by a short concrete wall was constructed at this time in order to supplement the rainwater. A third cistern was constructed in 1908 on the east end of Battery Jasper. Reservoir No. 3 measured roughly 28' x 28' was constructed to hold 10,000 gallons.

Beach and Forest Character Area

No constructed water features are known to have been constructed in the Beach and Forest Character Area during the period of significance.

257. Garner, Jr., "Historic Structure Report, Architectural Data Section, Fort Moultrie," 33.
258. Bearss, *Fort Moultrie No. 3*, 116.

Post-Historic and Existing Condition

Fort Moultrie Character Area

After the period of significance, **a gutter and drain** were installed at the Parade Wall to improve drainage. Additionally, the NPS installed a **drain at the Postern** to improve drainage.

North Reservation Character Area

No constructed water features are known to have been added to the North Reservation Character Area after the period of significance. It is also unknown what happened to the historic cisterns in this area but were likely abandoned during the expansion of the military reservation in the early 20th century.

East Reservation Character Area

In the 1950s, the use of Battery Jasper Reservoirs Nos. 1 and 3 was discontinued. At this time, the caps of the structures were removed, and the cisterns were filled with earth. Reservoir No. 2 is still in use and features a new brick pump shed. The artesian well is still located by Reservoir No. 2.

Beach and Forest Character Area

No constructed water features are known to have been added to the Beach and Forest Character Area after the period of significance.

Summary

Few constructed water features were present at the site during the period of significance; however all remain except for the canal. These features, though not used to their full extent, reveal the large volume of water needed to sustain a military outpost the size of Fort Moultrie.

Landscape Features

- Battery Jasper Reservoir No. 1
  - Contribution Status: Contributing
  - Condition: Fair
- Battery Jasper Reservoir No. 2
  - Contribution Status: Contributing
  - Condition: Poor
- Battery Jasper Reservoir No. 3
  - Contribution Status: Contributing
  - Condition: Poor
- Battery Jasper Drainage Swale and Drain Gutter
  - Contribution Status: Contributing
  - Condition: Good
- Gutter and Drain at Parade Wall
  - Contribution Status: Non-Contributing
  - Condition: Poor
- Postern Drain
  - Contribution Status: Non-Contributing
  - Condition: Poor

Small-Scale Features

Historic Condition

Fort Moultrie Character Area

Whereas with many historic sites the small-scale features present during the historic period are typically unknown, an understanding of at least some of those of Fort Moultrie No. 1 is possible. Edwin C. Bearss described the known small-scale features of Fort Moultrie No. 1 as follows:

> In the southeast bastion the flagstaff was raised, bearing a blue flag with a white crescent on which was emblazoned the word, "LIBERTY." Three 18- and two 9-pounders were mounted in this bastion. Along the southeast curtain six French 26-pounders and three English 18-pounders were placed. There were three French 26-pounders and two 9- pounders in the southwest bastion. In the southwest curtain there were six cannon: 12-and 9-pounders. Connected with the front angle of each rear-bastion of the fort were cavaliers extending a short distance to the right and left or the main work. Three 12-pounders were mounted in each of them. All told there were emplaced in the fort and cavaliers 31 cannon; of which only 25, at any possible moment, could bear upon an enemy fleet anchored abreast the work. Even so, the four 9- pounders on the two inner sides of the front bastions could be scarcely used.[259]

From this description it can be gathered that the most prominent small-scale feature within the palmetto fort were the mounted guns as well as the iconic flag and associated flagstaff. The guns were taken by the British upon their retreat from the fort in 1783. Small-scale features known to have stood at Fort Moultrie No. 2 again pertained to mounted artillery, which included "ten French 24-pounders and six English 12-pounders."[260] No other small-

259. Bearss, *The First Two Fort Moultries*, 9-10.
260. Ibid., 67.

Figure 4.60. 1969 image of entrance monument at northwest salient. Note the ornamental artillery shells at the base of the monument. Also notice how the monument interrupts the sidewalk (Source: Open Parks Network. "Extended view of north face exterior, artillery and shells in left foreground, Fort Moultrie, South Carolina." http://purl.clemson.edu/DA1F39CEBED10938E95ABE03141B31A5. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

scale features have been discussed in the literature though it is likely a flagpole stood over this version of the fort as well.

Documentation of the small-scale features present within the fort after 1800 is more readily available, especially images and text from the Civil War period and later. Immediately prior and throughout the war, many various small-scale features were present within fort. Photographs show the presence of multiple piles of sand bags being used for bombproofing and for the protection of gun positions. Concerning the guns, Fort Moultrie contained 47 emplaced gun carriages and at the start of the war, though not all of them were mounted with guns. Photographs also show the presence of stacked building materials, artillery shells, and a flagpole. The flagpole was initially located on the southeast terreplein, near the interior flight of stairs. The flagpole was damaged over the course of the war and repositioned to the interior of the ruinous fort.

Outside the fort, other small-scale features were present. First, by 1841 the gravesite of Osceola featured a granite marker inscribed with the Seminole warrior's name as "OCEOLA." An account of the gravesite immediately after the Civil War details that a paling fence enclosed the monument on three sides with the fourth side formed by the re-entrant angle of the northwest bastion. By 1871, the paling fence had been replaced with an iron fence (Figure 4.14). A new iron fence was erected in the late 1880s.

Two additional areas of fencing were present outside the fort. The first was a picket fence that fronted the wet ditch along the east side of the fort. Another fence marked the threshold at Fort Moultrie's entrance. The entrance fence spanned the area between the northern bastions, enclosing a rectangular space in front of the sally port. The wooden post and picket fence featured what appears to be artillery shells as post toppers (Figure 4.59). Two large shells topped the posts on either side of the opening in the fence, while the other posts appear to have featured smaller caliber shells. The fencing was likely removed in the 1870s during the reconstruction of the fort.

In the 1880s, Osceola's Grave was vandalized, resulting in the installation of a new iron fence in the late 1880s. The fence contained large finial corner posts and ornamental decoration throughout the fence panels. Around this time, a granite obelisk monument to the soldiers who died aboard Patapsco was likely erected at their gravesite alongside Osceola, though a date for the installation of the Patapsco Monument is unknown. The obelisk contained the inscribed names of all those who died on the boat. By the early 1900s an iron fence, less ornate than the one surrounding Osceola's marker, enclosed the gravesite of the sailors. An image from this time shows the two monuments and their fences clearly. The image also shows the presence of a third feature, which appears to be a monument to someone named "Howe." The small "Howe" monument, which had the shape of a tombstone, was located tucked into the corner to the east of the Sally Port Complex entrance (Figure 4.50). Though unconfirmed, the monument may have been erected to honor General Robert Howe, a general from North Carolina in the Continental Army during the American Revolution who aided in the defense of Charleston at that time. The monument appears to have been whitewashed and painted with the word "Howe" vertically along the west side of the marker. The front face of the monument, which faced north, appears to have contained an affixed marker which also contained the word Howe and another unreadable word in smaller font below it. In front of the monument was an elevated platform, potentially made of concrete, with a small wood plank ramp on its

western side. Also visible in this image was an iron streetlight positioned near the Sally Port Complex entrance as well as Osceola's gravesite. In the photo, two of the four original corner post finials were missing. By the early 1930s, the finials on Osceola's Grave had been replaced with decorative pointed artillery shells in keeping with other landscape improvements ongoing at the time.

WWII introduced additional small-scale features to the Fort Moultrie Character Area. First, with the declaration of war on the Axis powers, barbed wire fencing was erected throughout the fort landscape, separating the military landscape from the surrounding civilian landscape. Secondly, at the east and west entrances into the reservation flanking Middle Street, the Army installed large entrance monuments that also served to reinforce the boundary between civilian and military landscapes (Figure 4.60). Though unconfirmed, the monuments were likely constructed of whitewashed concrete. The monuments featured a primary large pillar, the top of which tapered towards a smaller pedestal upon which a historic cannon was mounted. Two shorter sections of wall stepped down from the outside of the monument. Decorative artillery shells were placed to stand vertically at the base of the primary pillar. The face of the monument featured a bronze plaque containing the text:

FORT MOULTRIE
MILITARY RESERVATION
NAMED IN HONOR OF COL.
WILLIAM MOULTRIE WHO
COMMANDED FORT SULLIVAN
(NOW FORT MOULTRIE)
COMPRISING THE 2ND SOUTH
CAROLINA REGIMENT OF
INFANTRY AND A DETACH-
MENT OF THE 4TH SOUTH
CAROLINA REGIMENT
(ARLTILLERY) DURING THE
REVOLUTIONARY WAR

The entrance monument in the Fort Moultrie Character Area extended north from the northwest bastion, blocking pedestrian sidewalk access to the fort. The position forced people to pass through the security gate point that was located in the middle of the road during the war. Also at this time, decorative cannons were set out in the landscape. One cannon stood within the parade area within

Figure 4.61. 2017 image Osceola's Grave and Patapsco Monument showing monuments, fencing, and interpretation sign (Source: WLA Studio, 2017).

Figure 4.62. 2017 image of west face of Fort Moultrie park identification sign (Source: WLA Studio, 2017).

Figure 4.63. 2017 image of Buoyant Mine and interpretation sign (Source: WLA Studio, 2017).

Figure 4.64. 2017 image of William Moultrie's grave showing fencing, flag, and engraved monument slab (Source: WLA Studio, 2017).

the fort, another was set in the small lawn area outside the Sally Port Complex of the fort, and a smaller gun was mounted above the Sally Port Complex. Lastly, sandbags were used to create zigzagging trenches and to encircle and protect the gun positions on top of the batteries.

North Reservation Character Area
Little documentation exists of the small-scale features present in the North Reservation Character Area during the period of significance. Depictions of the landscape as it existed around the Civil War era show the presence of a white picket fence enclosing the entirety of the area. Though likely damaged during the war, the fence was replaced by the mid-1870s as the lighthouse keeper's complex developed. The fence likely remained in place until the construction of the hospital, as an early-twentieth century photograph shows what appears to be a chain-link fence along the south side of character area.

By the mid-1930s, the chain-link fence was removed, and military-theme landscaping elements were introduced. Such features included vertically-oriented artillery shells that were set in the ground to serve as border feature along the entrance walkway at the hospital and short piles of cannon balls flanked the bottom steps of the stairs up to the hospital's porch (Figure 4.40).

East Reservation Character Area
Scant information exists concerning the small-scale features present in the East Reservation Character Area during the period of significance. By the mid-nineteenth century, maps and photographs show picket fences enclosing the residential lots in the area. During the Civil War, lightly armed batteries spanned the area between Fort Moultrie and Fort Beauregard to the east. An 1865 map of these defenses indicate the presence of four mounted guns along the beachfront (Appendix A-10).

After the Civil War, residents rebuilt homes in the area, reintroducing the picket fencing present before the war. The front range light that was relocated to the area was enclosed by a picket fence. The construction of Battery Jasper likely resulted in the removal of these features. During WWII, as in other locations, barbed wire fencing enclosed Battery Jasper on its north side.

Beach and Forest Character Area
No known small-scale features were present the Beach and Forest Character Area during the period of significance.

Post-Historic and Existing Condition
Fort Moultrie Character Area
After the period of significance, Fort Moultrie was transformed from a military installation to a preserved historical park. As such, much of the small-scale features added after 1948 related to visitor orientation, public safety, and site interpretation. Outside the Sally Port Complex, a photograph taken in the 1950s shows the artillery shells atop corner posts of the fence surrounding Osceola's grave were pained an orange-red color. The image also shows the continued presence of decorative cannons in the open grass area outside the entrance. While only one seems to have been present during WWII, by the 1950s, two were positioned along the entrance walk.

In 1962, prior to the fort being opened to visitation, a chain-link fence was installed around the HECP building in order to prevent public access, a section of which is still present. An upright wayside was

Figure 4.65. 2017 image of Battery Row along a concrete walkway with associated interpretive signage (Source: WLA Studio, 2017).

located at the intersection of the entrance walkway and the sidewalk along Middle Street by 1969, though the information conveyed on the wayside is unknown. Initial interpretive signage included small signs at the Patapsco Monument and Osceola's Grave. A small wooden sign with painted lettering located near the northeast salient marked the location of the historic site. Other signage is shown at the entrances to at least one of the service magazines. These signs do not appear to have been of a standard NPS design. In 1969, after an incident of vandalism, a new granite marker for Osceola's gravesite was installed, with the historic grave marker removed to curatorial storage.[261] The new grave stone was inscribed with the text "OCEOLA Patriot and Warrior Died at Fort Moultrie January 30th, 1838." Both monuments remain at the site (Figure 4.61). Concerning Osceola's gravesite fence, for a period in the 1960s, the decorative shell finials were painted orange. By the 1970s the finials had been removed. The park restored the original type of finials sometime in the 2000s.

During the 1975 restoration of the fort, workers removed the entrance monuments and the decorative cannons outside the Sally Port Complex. The pillars, plaques, and guns moved down the street and now flank Middle Street near Station 18. After the restoration was complete, a number of small-scale features were added to the landscape. Both inside and outside the fort, a collection of guns and gun carriages from different periods of the fort's history were installed as part of the interpretive program. Some of the gun positions featured iron pintles set into either concrete or brick mounts, though not all positions featured mounted guns. A small aluminum flagstaff was temporarily positioned above the Sally Port Complex during the restoration. After the restoration, a white modern wood flagpole was positioned at the mid-slope of the bombproof protecting the Sally Port Complex's east side. This flagpole was destroyed during Hurricane Hugo and was replaced with a new flagpole in the mid-1990s. At some point after the restoration, standardized interpretive waysides were positioned at key features within the fort and along the interpretive trail outside the fort. Additional regulatory signs, including warning signs, stipulating permitted and prohibited activities are located throughout the interior of the fort. Exterior to the fort are additional regulatory, destination, and traffic signs. Batteries Bingham and McCorkle feature white signs with a styled font of their names affixed to their exterior. The NPS installed handrailing at flights of stairs within the fort. Several short sections of post and chain fencing were installed to disallow access to sensitive fort areas. Several gates exist in the northwest corner of the character area, blocking access to the open space on the west side of the fort. A metal swinging gate spans between a simple post and rail fence. A standard NPS park identification sign was located at the northeast corner of the character area, near the northeast salient. Lastly, a low post and rail fence begins outside the chain link fence at the HECP building and extends eastward into the East Reservation Character Area. Where the shell and concrete walkway cuts through the fence, two bollards were installed. A backless metal bench was installed in the open space along the interpretive trail south of the fort. The exact dates for the installation of all these features is unknown.

North Reservation Character Area

The removal of the hospital complex and most other buildings after the period of significance also cleared the landscape of most small-scale features. However, with the construction of the Visitor Center area, new small-scale features were added to the landscape. A photograph from 1976 shows what appears to be a newly-installed standard aluminum NPS park identification sign located outside the Visitor Center's south entrance. When the area on the south side of the building was filled and raised, a new sign spanning between two brick

261. National Park Service, *Fort Sumter National Monument Draft General Management Plan – Environmental Assessment,* 26.

piers and positioned mid-slope was installed. The east side of the sign featured a standard NPS unit identification sign design, whereas the west side featured a grey-painted wooden sign with painted white lettering (Figure 4.62). Another park identification sign was installed in outside the northeast bastion in 2014. A metal flagpole on the northwest corner of the Visitor Center near the main entrance was installed during construction. Other small-scale features within the area that were installed after the period of significance include various traffic control and destination signage, hinge-lid trash cans, bike racks, picnic tables, several types of benches, and interpretive waysides located both in front and behind the Visitor Center. A buoyant mine, originally located along cannon row, was installed outside the Torpedo Storehouse around 2014 (Figure 4.63). Lastly, a weather station box was constructed along the walkway between the Visitor Center and the Visitor Center dock.

Two notable commemorative small-scale features were also added after the period of significance. In 1978, General William Moultrie was reinterred at the site. His grave was initially marked by a flat granite slab. In the mid-2000s the park added a brick plaza, an iron fence enclosure and a flagpole next to the grave (Figure 4.64). Secondly, the first of the public benches commemorating the legacy of slavery installed by the Toni Morrison Society was dedicated at the site in 2008. The "Bench by the Roadside" was located east of the modern dock in the picnic area. The bench faces out over the salt march for a scenic, contemplative view.

East Reservation Character Area

Like the other character areas, the East Reservation Character Area received new small-scale features as part of its transition into a historic site. By 1977, a row of eight historic cannon—Cannon Row—was installed at the western end of the historic concrete walkway that leads to Battery Jasper (Figure 4.65). The eight guns point south towards the ocean. Interpretive waysides, installed at an unknown date, discuss Cannon Row, as well as the other features within the character area. A wood split-rail fence was installed in 2013. The fence marks the north property line near Battery Jasper and contained a metal gate mounted near Cannon Row to provide vehicular access to the site, including the town's emergency services for fast access onto the beach for emergencies. Informational signage, including standard South

Figure 4.66. This photograph shows the extent of the 1973 archeological excavation outside of Sally Port Complex (Source: Courtesy of Fort Sumter and Fort Moultrie National Historical Park).

Carolina roadside historical markers, regulatory signage, and interpretive information, spans the north side of the fence. Lastly, a modern chain-link fence encloses Construction 230.

Beach and Forest Character Area

At some point after the period of significance, a "Welcome to Sullivan's Island" sign was posted at the path to the beach south of Fort Moultrie. The sign appears to be a municipal sign and not an NPS Sign. It contains information about local rules and regulations. No other small-scale features are known to exist in the area.

Summary

As the Fort Moultrie Military Reservation evolved from a colonial-era fortification into a public historic site, the site's small-scale features also changed. The bulk of individual features pertain to signage located throughout the site. Other modern features include a variety of benches, waysides, and fencing. Several notable small-scale features exist at the site including General William Moultrie's grave, Osceola's Grave, and Patapsco Monuments, Toni Morrison's "bench by the road," and the collection of historic guns at the site.

Landscape Features

- Osceola's Grave fence
    - Contribution Status: Contributing
    - Condition: Good
- Osceola's Grave marker
    - Contribution Status: Non-contributing
    - Condition: Good

Figure 4.67. 1974 image of coffin burial in North Reservation Character Area (Source: Open Parks Network. "Wooden unburied coffin in cemetery, Fort Moultrie, South Carolina, 1874." http://purl.clemson.edu/F35C414E4D52C55EF88FB3C6FB0B1ABE. Located at Fort Sumter and Fort Moultrie NHP / Charles Pinckney NHS Curatorial Storage Facility).

- Patapsco Monument
  - Contribution Status: Contributing
  - Condition: Good
- Guns and carriages within Fort Moultrie
  - Contribution Status: Contributing
  - Condition: Good
- Guns along Cannon Row
  - Contribution Status: Contributing
  - Condition: Good
- "U + S" granite markers
  - Contribution Status: Contributing
  - Condition: Good
- General William Moultrie's Gravesite
  - Contribution Status: Non-contributing
  - Condition: Good
- Park identification signs
  - Contribution Status: Non-contributing
  - Condition: Good
- Regulatory signage
  - Contribution Status: Non-contributing
  - Condition: Good
- Interpretive signage
  - Contribution Status: Non-contributing
  - Condition: Good
- Traffic signage
  - Contribution Status: Non-contributing
  - Condition: Good
- Modern gates
  - Contribution Status: Non-contributing
  - Condition: Good
- Chain-link fencing at HECP Building
  - Contribution Status: Non-contributing
  - Condition: Fair
- Chain-link fencing at Construction 230
  - Contribution Status: Non-contributing
  - Condition: Good
- Flagpole by Sally Port Complex
  - Contribution Status: Non-contributing
  - Condition: Good
- Lightning rod by Powder Magazine
  - Contribution Status: Non-contributing
  - Condition: Good
- Flagpole at Visitor Center
  - Contribution Status: Non-contributing
  - Condition: Good
- "Bench by the Roadside"
  - Contribution Status: Non-contributing
  - Condition: Good
- Benches throughout site
  - Contribution Status: Non-contributing
  - Condition: Good
- Trash receptacles
  - Contribution Status: Non-contributing
  - Condition: Good
- Picnic tables
  - Contribution Status: Non-contributing
  - Condition: Good
- Bike rack
  - Contribution Status: Non-contributing
  - Condition: Good
- Security features: post-and-chain fencing
  - Contribution Status: Non-contributing
  - Condition: Good
- Security features: Bollards
  - Contribution Status: Non-contributing
  - Condition: Good
- Buoyant mine
  - Contribution Status: Non-contributing
  - Condition: Good

- HECP signal flagpole / flags
    - Contribution Status: Non-contributing
    - Condition: Good
- Wood rail fence
    - Contribution Status: Non-contributing
    - Condition: Good

Archeological Sites

Existing Condition

Fort Moultrie Character Area

The whole of the Fort Moultrie Character Area likely contains an abundance of archeological resources. While all of their precise locations have not all been identified, current known archeological sites include Osceola's Grave, Fort Moultrie No. 1, Fort Moultrie No. 2, and Fort Arbuthnot.

The first archeological project to occur at Fort Moultrie pertained to Osceola's Grave.[262] After a reported incident of vandalism, where a man said he dug up and stole Osceola's bones, NPS decided to conduct a dig to determine the nature and status of the 1838 burial of the Seminole warrior. The project successfully located the grave of a decapitated male individual, confirming that Osceola was in fact still buried at the site. It was shown that the fence and stone marker did not align with the gravesite however. The remains of an unidentified infant were also located during the project. The archeology team determined the child was buried at the same time as Osceola.

The second archeological project was completed at Fort Moultrie in the fall of 1973 (Figure 4.66). Led by Stanley South of the Institute of Archeology and Anthropology at the University of South Carolina, the work focused on locating Fort Moultrie No. 1.[263] During the survey, South and his crew uncovered timbers dating to the late eighteenth century, which South postulated were the remnants of Fort Moultrie No. 1. A subsequent survey conducted by John E. Ehrenhard and Dick Ping Hsu of the NPS Southeast Archeological Center (SEAC) disproved South's theory and instead attributed the timbers to the never-completed British occupation and planned expansion of Fort Moultrie (Fort Arbuthnot).[264] The location of the first fort remains unknown. Similarly, the remains of Fort Moultrie No. 2 have not been located. It is presumed that both iterations of the fort were located further to the south than Fort Moultrie No. 3.

North Reservation Character Area

While the 1975 restoration work of Fort Moultrie was ongoing, the archeological project led by Ehrenhard and Ping Hsu included the area north of the fort, in the space planned for the construction of the Fort Moultrie Visitor Center. In this phase of the work, the archeology crew uncovered the location of the two iterations of the hospital constructed in this location. The Visitor Center and parking area is also the site of the Fort Moultrie Cemetery, which contained the graves of at least seventeen burials relating to the "Army's post cemetery or possibly unrelated civilian burial activities."[265] The site is currently located under a planting island in the parking lot area (Figure 4.67). In 2010, work on the parking lot necessitated additional archeological work, in which more remains were uncovered.

Evaluation of Landscape Integrity

Landscape integrity refers to a cultural landscape's ability to convey its historic significance. *National Register of Historic Places Bulletin 16A* defines historic integrity as "the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's prehistoric or historic period." In *National Register Bulletin 15*, the National Register defines seven aspects of integrity to use when evaluating a historic property:

> **Location** is the place where the historic property was constructed or the place where the historic event occurred;

262. Edwin Bearss to Chief Historian, NPS, November 4, 1968, "Field Trip to Fort Moultrie and Excavation of Osceola Grave-Site." Memorandum correspondence.
263. South, "A Progress Report on the Exploratory Archeology at Fort Moultrie," 1.
264. Ehrenhard and Hsu, "Archeological Investigations at Fort Moultrie, Sullivan's Island, South Carolina (Preliminary Report)," 19.
265. National Register of Historic Places, Fort Sumter National Monument, Charleston County, South Carolina, National Register #66000101, Section 8-79.

Setting is the physical environment within and surrounding a property;

Design is the combination of elements that create the form, plan, space, structure, and style of a property;

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time; and

Association is the direct link between an important historic event or person and a historic property.

In order to retain historic integrity, a property must possess several, and usually most, of these seven aspects. Evaluating historic integrity involves first determining the historic significance of a property and then identifying the existing features that contribute to our ability to recognize and understand this significance. Character defining features are those distinctive features or qualities that make a property unique. They are the individual parts that make the whole place special and worthy of our recognition as a historic property.

Location

Location is the place where the historic property was constructed or the place where the historic event occurred. While many features dating to the period of significance have been removed, the historic resources that exist remain in their original location. While Fort Moultrie No. 1 was destroyed, the site remains the location of the Battle of Sullivan's Island. Most notable, while altered, the 1809 Fort Moultrie No. 3 Scarp Wall and Powder Magazine remain in place. Similarly, Battery Jasper and Construction 230 along with the three Reservoirs and Battery Jasper Powerhouse continue to define the eastern portion of the study area. Several areas of historic vegetation remain intact, as do circulation features dating to around 1908. Overall, the Fort Moultrie cultural landscape retains integrity of location to the period of significance.

Setting

Setting is the physical environment within and surrounding a property. Throughout the period of significance, the coastal island environment of Charleston Harbor served as the setting for Fort Moultrie and the Fort Moultrie Military Reservation. The siting of Fort Moultrie on the southwestern edge of the island has provided continual connection to the harbor and the activities that have taken place there, including the Battle of Sullivan's Island and the Bombardment of Fort Sumter to start the Civil War. In addition to the seafront setting, development on the island has occurred constantly since the colonial era. Several periods of development resulted in the study area being surrounded by and filled with a variety of civilian and military buildings. All but the most recent of these phases occurred during the period of significance. Thus, the dense residential setting surrounding the preserved military landscape is generally in keeping with historic conditions. However, one area where the integrity of setting has been compromised is the North Reservation Character Area, which is now occupied by modern additions. Additionally, the character of the site south of Fort Moultrie has been altered by the growth of maritime forest in the area, primarily since Hurricane Hugo. Despite the modern impacts to its setting, the Fort Moultrie cultural landscape retains integrity of setting to the period of significance.

Design

Design is the combination of elements that create the form, plan, space, structure, and style of a property. The general form and structure of the Fort Moultrie cultural landscape, as it developed and evolved, is discernable despite the loss of historic resources. The surviving contributing buildings and structures retain the spatial arrangement that was based on their association with the harbor. The buildings and structures themselves—the Scarp Wall, Powder Magazine, Batteries, and so on—reflect the design traditions and engineering practices of the United States military as it evolved over a century and a half. Additionally, the cultural landscape mostly retains the design of site

improvements such a specific circulation features, a water collection system, and commemorative monuments. As such, the site is an excellent example of the design of a Second Coastal Defense System fortification, as well as a twentieth-century military reservation. Despite the loss of individual features such as fence lines, cultural vegetation, a portion of the Scarp Wall, and many other buildings and structures, the design of the Fort Moultrie cultural landscape retains integrity to the period of significance.

Materials

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The Army removed much of the physical material that was present during the late period of significance after the decommissioning of the reservation. However, the remaining buildings and structures mostly retained their original materials due to the preservation and restoration efforts by the NPS in the 1960s and 1970s. These materials primarily relate to the brick used in the construction of the 1809 structures, the brick used in the 1870s reconstruction of the fort, and the concrete used to construct the Endicott Era batteries. Retained vegetation consists of the several areas of palmettos which date to at least the early 1930s. The Patapsco Monument as well as the fence around Osceola's Grave date to the period of significance. Missing original materials include the palmetto logs of the first two forts, much of the antebellum fort landscape, cultural vegetation, circulation features, and most of the early twentieth century development north of the fort. Though much of the materials dating to the historic period are missing, given the relatively late period of significance and the restoration of portions of the landscape, many historic materials remain. As such, the Fort Moultrie cultural landscape retains integrity of materials.

Workmanship

The continued presence of Fort Moultrie No. 3 and its associated structures and landscape features demonstrate the skilled craftmanship possessed by masons, laborers, enslaved workers, and engineers who constructed them. Similarly, such workmanship is evidenced by the massive Endicott Era batteries both within and outside the fort, which showcase the military engineering traditions of the era. The present use of Battery Jasper Reservoir No. 2 serves as evidence of the water harvesting traditions of the coastal sites. Although the loss of resources pertaining to much of the North Reservation Character Area diminished workmanship, the Fort Moultrie cultural landscape retains integrity to the period of significance.

Feeling

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. The period of significance for the site is 1776-1948. For the duration of the period, the site featured a military presence in keeping with advancements in warfare technology. After the fort's decommissioning in 1947, the site lost many of the visual references, sounds, and smells that accompany military bases, especially during wartime. The removal of site features to be sold for scrap after deactivation took away much of the character one would expect to find at a working military reservation. Despite these changes, the mostly preserved setting of Fort Moultrie 3 and its associated structures and landscape features retains integrity of feeling to the period of significance.

Association

Association is the direct link between an important historic event or person and a historic property. The site retains its association with several primary military engagements in American history, including the American Revolution, Civil War, Spanish-American War, WWI and WWII. The surviving cultural resources reflect this long history and continue to convey a connection to these historic periods. The site has lost assocation with some of its history as it relates to the expansion of the FMMR north of the fort site. Despite this impact, the Fort Moultrie cultural landscape retains integrity of assocation to the period of significance.

Cultural Landscape Features Table Feature Name	LCS ID	FMSS #	Date of Origin	Contributing	Non-Contributing
Natural Systems and Features					
Site Terrain (flat)			N/A	X	
The Cove / Salt Marsh			N/A	X	
Charleston Harbor			N/A	X	
Atlantic Ocean			N/A	X	
Maffit's Channel			N/A	X	
Maritime Forest			Post-1948		X
Topography					
Irregular topography (bombproofs) within Fort Moultrie			1870s	X	
Irregular topography (bombproof) at Construction 230			1943	X	
Earth Berm at Battery Jasper			1898	X	
Drainage Swale at Battery Jasper			1898	X	
Flat Parade Ground			1809	X	
Flat Terrain of Site			N/A	X	
Sand Dunes			Post-1948		X
Modern topographic changes at Visitor Center			1975		X
Land Use					
Military Land Use			1776	X	
Recreation			1800s	X	
Memorialization / Commemoration			1885	X	
Historical Tourism / Interpretation			1960		X
Cultural Traditions					
Fort Construction			1809	X	
Military Culture			1776	X	
Recreation			1800s	X	
Memorialization / Commemoration			1885	X	
Engineering			1897	X	
Historical Tourism			1960		X
Interpretation			1960		X
Buildings and Structures					
Fort Moultrie No. 3 (Scarp Wall)	000393	45992	1809	X	
1809 Powder Magazine	12144	45992	1809	X	
Traverse	090253	45992	1820	X	
Bowman's Jetty			1839	X	
Sally Port Complex	012150	45992	1872	X	
Principal Service Magazine	012147	45992	1872	X	
South Service Magazine	012145	45992	1872	X	
Southwest Service Magazine	012146	45992	1872	X	
Postern	090255	45992	1872	X	
East Service Magazine	012148	45992	1872	X	
Terreplein	090258	45992	1872	X	
Gun Position No. 1	012151	45992	1874	X	
Gun Position No. 2	012152	45992	1874	X	
Northeast Bastion Service Magazine	012149	45992	1874	X	
Battery Bingham	12153	45992	1898	X	
Battery Jasper	00392	45994	1898	X	
Battery McCorkle	12154	45992	1901	X	
Torpedo Storehouse	012161	45988	1904	X	
Battery Jasper Powerhouse	12160	45995	1909	X	
Former Steward's Quarters			1915		X
Mine Cable Junction Box			1944	X	
Cable Terminal Building			1915	X	
HECP-HDCP Building	012156	45993	1944	X	
Construction 230	012162	45997	1944	X	
Navy Building on Con. 230			1971		X
1870s Battery Reconstruction	90257	45992	1975		X
Barracks Foundation	90263	45992	1809	X	
Enlisted Men's Barracks Foundation	090256	45992	1809	X	
Position Finding Station Foundation	012155	45992	1905	X	
Visitor Center			1975		X
Bulkhead			C. 1897	X	
Riprap			Unknown	X	
Wharf Ruins			1900		X
Modern Electic Utilities Features			Unknown		X

Cultural Landscape Features Table Feature Name	LCS ID	FMSS #	Date of Origin	Contributing	Non-Contributing
Spatial Organization					
Orientation of all three iterations of Fort Moultrie to Charleston Harbor and The Cove			N/A	X	
Relationship between character areas due to the development of the FMMR			1898	X	
Open space south of Battery Jasper			1898	X	
Spatial boundary formed by maritime forest			Post-1948		X
Interpretive division of space within fort			1960		X
Cluster Arrangement					
Clustering of buildings and structures within Fort Moultrie's Scarp Wall			1809	X	
Clustering of buildings and structures at Battery Jasper's northwest corner			1898	X	
Clustering of defensive works			1809	X	
Administrative use cluster			1975		X
Vegetation					
Grass / turf throughout the site			1870s	X	
Palmettos lining Middle Street			1930s	X	
Palmettos lining north side of Battery Jasper			1930s	X	
Salt marsh vegetation community			N/A	X	
Post-1975 plantings in Visitor Center area			Post-1975		X
Natural vegetation communities in Beach and Forest Character Area / Maritime Forest			Post-1948		X
Trees along the property boundaries of the site			Post-1948		X
Circulation					
Concrete walkway along Battery Jasper			c. 1900	X	
Old Battery Service Road			c. 1900	X	
Terreplein			1872	X	
Historic brick paving at barracks area			c 1809	X	
Bluestone on Terreplein			1975		X
Interpretive walkway outside fort			1975		X
Interpretive walkway within fort			1975		X
Sullivan's Island Nature Trail			2016		X
Informal mown pathways south of the fort			1980s		X
Pedestrian circulation at Visitor Center and Parking Areas			1975		X
Entrance walkway at Sally Port Complex			1975		X
Sidewalks along Middle Street			Unknown		X
Views and Vistas					
View from elevated areas within Fort Moultrie toward Fort Sumter and harbor			1809	X	
View from Battery Jasper toward the beach and ocean			1898	X	
View from top of Visitor Center			1975	X	
View across the central portion of the fort interior			1809	X	

Cultural Landscape Features Table Feature Name	LCS ID	FMSS #	Date of Origin	Contributing	Non-Contributing
Small Scale Features					
Patapsco Monument	012164		1892-1918	X	
Patapsco Monument Fence			Unknown	X	
Osceola's Grave Monument			1969		X
Osceola's Grave Monument Fence			1885	X	
"U + S" granite markers			Unknown	X	
Flagpole at Fort Moultrie			1975		X
Flagpole at Visitors Center			1975		X
Guns and mounts within Fort Moultrie			1975		X
Guns along Cannon Row			1977		X
General William Moultrie's Gravesite Fence			2005		X
General William Moultrie's Gravesite Marker			1978		X
Flagpole at Moultrie Gravesite			2005		X
Park Identification Signs			Various		X
Regulatory Signage			Various		X
Interpretive Signage			Various		X
Traffic Signage			Various		X
Modern Gates			Unknown		X
Chain-link fencing at HECP Building			Unknown		X
Chain-link fencing at Construction 230			Unknown		X
Flagpole by Sally Port Complex			1975		X
Lightning Rod by Powder Magazine			Unknown		X
Flagpole at Visitor Center			1975		X
"Bench by the Roadside"			2008		X
Benches throughout site			Various		X
Trash receptacles			Unknown		X
Picnic Tables			Unknown		X
Bike Rack			Unknown		X
Post and Chain security barriers			Unknown		X
Wood rail fence			Unknown		X
Metal Bollards			Unknown		X
Buoyant Mine			2014		X
HECP Signal Flags			1944		X
Weather Station Box			Unknown		X
Constructed Water Features					
Battery Jasper Reservoir No. 1	12157	45994	1898	X	
Battery Jasper Reservoir No. 2	12158	45994	1898	X	
Battery Jasper Reservoir No. 3	12159	45994	1908	X	
Postern Drain			1978		X
Gutter and Drain at Parade Wall			1978		X
Battery Jasper Drainage Swale and Drain			1898	X	
Archeological Sites					
Fort Moultrie / Sullivan's Island Cemetery			1974	X	
Fort Moultrie No. 1	000076		N/A	X	
Fort Moultrie No. 2	000077		N/A	X	
Osceola's Grave	090262		1968	X	

Treatment

Introduction

The treatment recommendations for this Cultural Landscape Report (CLR) propose a preservation strategy for long-term management of the Fort Moultrie cultural landscape based on research, inventory, and analysis. The appropriate preservation approach considers the evolution of the landscape alongside significance, existing conditions, and current use. The CLR combines the site history and analysis with input from the current site managers to formulate an appropriate treatment and management philosophy.

Recommendations follow National Park Service policy, including the Director's Orders No. 28: *Cultural Resource Management Guidelines* and *the Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. These documents identify four types of treatment: preservation, rehabilitation, restoration, and reconstruction. Each treatment ranges by level of physical intervention and includes specific guidelines and standards.

Preservation is the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the on-going maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Rehabilitation is the act or process of making possible a compatible use of a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

Restoration is the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other historic periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make the property functional is appropriate within a restoration project.

Reconstruction is the act or process of depicting, by means of new construction, the form, features, and details of a non-surviving site, landscape, building, or objects for the purpose of replicating its appearance at a specific period of time in its historic location.[266]

Secretary of the Interior's Standards for Treatment

Standards for Preservation:

A property will be used as it was historically or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.

The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close

266. Charles A. Birnbaum, ed. The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. (Washington, D.C.: National Park Service, 1996, 9, 18, 48, 90, 128.)

inspection, and properly documented for future research.

Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.

Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Standards for Rehabilitation:

A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be supported by documentary and physical evidence.

Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Standards for Restoration:

A property will be used as it was historically or be given a new use that reflects the property's restoration period.

Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.

Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be

physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.

Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.

Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.

Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Designs that were never executed historically will not be constructed.

Standards for Reconstruction:

Reconstruction will be used to depict vanished or non-surviving portions of a property when sufficient documentary and physical evidence is available to allow for accurate reconstruction with minimal conjecture and when such reconstruction is essential to the public understanding of the property.

Reconstruction of a landscape, building, structure, or object in its historic location will be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.

Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.

Reconstruction will be based on the accurate duplication of historic features and elements supported by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color, and texture.

A reconstruction is clearly identified as a contemporary re-creation. Designs that were never executed historically will not be constructed.

Fort Moultrie Management Philosophy

Fort Moultrie was added to Fort Sumter National Monument in 1960 under the authority of the Historic Sites Act. Construction 230 and Battery Jasper, located to the east of Fort Moultrie, were added to the park in 1967. In March 2019, as a part of the John D. Dingell, Jr. Conservation, Management and Recreation Act, Fort Sumter National Monument was redesignated as Fort Sumter and Fort Moultrie National Historical Park.[267] The new legislation defines the purpose of the park and identifies specific items for the park to interpret. See Appendix 2 for an excerpt of the legislation.

The Fort Moultrie site was listed in the National Register of Historic Places in 1966. The nomination's accompanying documentation was completed in 1978. In 2016, the NPS issued a revised National Register nomination for Fort Sumter National Monument, which included a detailed assessment of Fort Moultrie's historic character as well as its cultural landscape.

267. Note that this report uses the name "Fort Sumter National Monument" where appropriate, such as the citation of older reports, direct quotes, and in a discussion of historical development. The acronym "FOSU" remains the same.

In 1974, the NPS drafted a Master Plan for FOSU. This document served the park's planning purposes until 1998 when the NPS produced a General Management Plan (GMP) for FOSU. An amendment to the 1998 GMP was issued in 2003 to address changes to the park's ferry operation. In 2016, the park issued the 2016 *Foundation Document for Fort Sumter National Monument*. These various documentation and planning documents have provided guidance on park management for decades and will continue to do so as the park transitions into its new status as Fort Sumter and Fort Moultrie National Historical Park.

The 1998 GMP for FOSU serves to "guide overall development, management, and use of the park in ways that will best serve visitors while preserving the values for which Fort Sumter NM was established."[268] The GMP divides the Fort Moultrie site into several management units, with the whole north portion delegated as Visitor Transition unit, the Visitor Center and Torpedo Storehouse area as Administrative / Adaptive Use, the area containing Fort Moultrie No. 3 and Battery Jasper as Preservation unit, and the maritime forest and beach area as Natural Area / Easement unit (Figure 5.1).

Several of the issues identified in the GMP have yet to be fully resolved at Fort Moultrie including: universal access, interpretation of 1776 Fort Moultrie, the restoration of Battery Jasper, viewshed preservation, and unauthorized access.[269] This CLR addresses these issues through the treatment recommendations to follow.

The GMP identifies the five primary interpretive periods the 1975 rehabilitation of the fort created, which all relate to the evolution of seacoast defense. These are: (1) Batteries of the Third Fort Moultrie (1809-1860), (2) Civil War Batteries (1861-1865, (3) Post-Civil War Batteries (1870-1898), (4) Harbor Defense Batteries (1898-1939), and (5) World War II (1941-1945).[270] Additional resources identified by the GMP include the remnants of the first and second Fort Moultrie, the interpretive artillery located along Cannon Row, the site's monuments and grave sites, the Torpedo Storage Building, archeology, and historic viewsheds.

The GMP also provides the "compelling story" for the Fort Moultrie unit:

> To resist invasion, defend our shores, and protect our nation, Fort Moultrie stood as a ready sentinel at the entrance of Charleston harbor for more than a century and a half. Once a hastily built palmetto log fort, it repelled a British fleet and galvanized the Patriots cause for independence.
>
> Its critical role in delivering the deciding shots of the opening battle of the Civil War fueled the flames of Americans most tragic conflict. Its actions to ward off submarine threats during two World Wars helped secure our Southern shores. A walk through Fort Moultrie is a walk through time, an evolutionary journey that mirrors Americas pivotal events to preserve our independence and freedom.[271]

This narrative reflects the management objectives stipulated by the GMP related to Fort Moultrie, which include:[272]

- To provide visitors the opportunity to appreciate the full range of significant historical events at Fort Sumter and Fort Moultrie in a setting that preserves a sense of the historical character in and around Charleston Harbor.
- To interpret the role of Fort Moultrie in the evolution of U.S. coastal defense from the American Revolution through World War II (1776-1947).
- To interpret the Battle of Sullivan's Island and how it affected the course of the Revolutionary War and contributed to the ultimate American victory.
- To interpret the role of Fort Moultrie in the events leading up to the Civil War from the nullification crisis (1832) through the succession crisis (1861).
- To preserve existing historic military structures (and features and artifacts)

268. National Park Service, "Fort Sumter National Monument Draft General Management Plan – Environmental Assessment" (United States Department of the Interior, National Park Service, Southeast Regional Office, 1998), 15.
269. National Park Service, 18.
270. National Park Service, 25.
271. National Park Service, 40.
272. National Park Service, 93.

both above and below ground in order to illustrate the evolution of U.S. coastal defense systems.
- To assure that the NPS has the appropriate level of direction and guidance to manage and protect Fort Moultrie, and to commemorate the events of June I 776 and the evolution of U.S. coastal defense systems.
- To expand and maintain partnerships in order to strengthen the protection of the cultural and natural resources of the park and to enhance the visitor's experience.

These guiding interpretive themes and management objectives informed the 2016 *Foundation Document for Fort Sumter National Monument*, which provides a "purpose statement" for the whole park: "Fort Sumter National Monument commemorates historical events in and around Charleston Harbor by preserving, protecting, and interpreting 171 years of coastal defense and the site where the first shots of the American Civil War were fired."[273]

The document identifies five statements of significance directly related to Fort Moultrie:

- Fort Sumter National Monument preserves the sites of both Fort Sumter and Fort Moultrie in Charleston Harbor. Together these sites preserve elements of all major periods of American seacoast defense and bear witness to a continuum of American history from the battle of Sullivan's Island in the American Revolution through U-boat surveillance operations during World War II.
- The assemblage of cannons at both Fort Sumter and Fort Moultrie comprise the most comprehensive collection of historic coastal artillery found in the United States.
- The Battle of Sullivan's Island, which took place on the site that would become Fort Moultrie, was the first decisive victory for colonial forces over the British Royal Navy during the American Revolution, postponing the capture of Charleston for four years and emboldening the patriots to continue the fight for independence.
- Fort Sumter National Monument protects the site where the first shots of the American Civil War fell on April 12, 1861, initiating one of the most critical and defining periods in the nation's history.
- Because of its strategic location in Charleston Harbor and its role as a symbol of secession, Fort Sumter became the most heavily bombarded location of the entire American Civil War, eventually being reduced to ruins.

The *Foundation Document* also recognizes Fort Moultrie, the Fort Moultrie cultural landscape, Fort Moultrie's archeological resources, Fort Moultrie's connection to Charleston, particular views and vistas, and the solemnity of site as a "fundamental resources."[274] The document denotes the site's marked gravesites and maritime forest as "other important resources."[275] The NPS manages Fort Moultrie with these resources in mind.

Lastly, the 2019 legislation that established the Fort Sumter and Fort Moultrie National Historical Park identifies specific historical themes that the park should interpret, which are as follows:

- The Battle of Sullivan's Island on June 28, 1776;
- The Siege of Charleston during 1780;
- The Civil War, including—
    - the bombardment of Fort Sumter by Confederate forces on April 12, 1861; and
    - any other events of the Civil War that are associated with Fort Sumter and Fort Moultrie;
- The development of the coastal defense system of the United States during the period from the Revolutionary War to World War II, including—
    - the Sullivan's Island Life Saving Station;
    - the lighthouse associated with the Sullivan's Island Life Saving Station; and
    - the coastal defense sites constructed during the period of fortification construction

273. National Park Service, "Fort Sumter National Monument Foundation Document" (National Park Service, Southeast Regional Office, 2016), 4.

274. National Park Service, 7.

275. National Park Service, 10.

from 1898 to 1942, known as the "Endicott Period"; and

- The lives of—
    - the free and enslaved workers who built and maintained Fort Sumter and Fort Moultrie;
    - the soldiers who defended the forts;
    - the prisoners held at the forts; and
    - captive Africans bound for slavery who, after first landing in the United States, were brought to quarantine houses in the vicinity of Fort Moultrie in the 18th century, if the Secretary determines that the quarantine houses and associated historical values are nationally significant.

The park already addresses these themes in varying degrees. Recommendations concerning improvements to interpretation of these themes are addressed in this chapter.

Changes to the cultural landscape over time reflect the different periods of management and use of the site. From the construction of Fort Moultrie No. 1 in 1776 until the decommissioning of the Fort Moultrie Military Reservation in 1947, the site was involved in most United States military conflicts, necessitating a number of upgrades and alterations. After the Civil War transformed Fort Moultrie No. 3 into an earthwork, a major reconstruction campaign in the 1870s transformed the appearance and function of the site. At this time, the United States Army changed the formerly symmetrical and ornamental interior of the fort by adding a series of gun emplacements and sod and earth covered storage magazines. These changes resulted in a utilitarian fort interior characterized by irregular topography and asymmetry. The Army added large gun batteries to the interior of the fort around 1900. The Army decommissioned the fort in 1947 because of its outdated defensive capabilities.

NPS management of the site began in 1960. Since that time, the NPS conducted two principal excavation-restoration projects aimed at interpreting the site for the public. The NPS has also introduced new features, including new walkways, battery reconstructions, parking lots, buildings, and interpretive signage. The NPS has also restored and preserved various historic features of the site, including historic fort walls and several buildings and structures.

NPS staff and outside contractors perform landscape maintenance at the national historical park. Duties include regular mowing of the sodded interior of the fort as well as the area surrounding the fort, maintenance of site furnishings, and removal of refuse and trash. Workers also conduct periodic repair projects on historic features, such as repointing the Scarp Wall and other masonry buildings and structures.

The goal of the treatment recommendations in this report is to provide a framework for NPS managers to use when making decisions about how best to protect historic resources at the site, how to provide a range of visitor experience opportunities, how to manage visitor use, and what kinds of additional facilities to develop at the site.

Treatment Period

The 2016 National Register of Historic Places Nomination establishes a broad period of significance for the Fort Moultrie landscape: 1776-1948. The period begins with the construction of the palmetto fort referred to as Fort Moultrie No. 1 and ends with the transfer of Fort Moultrie to the State of South Carolina in 1948. Because of the lengthy period of significance, numerous site features dating to different time periods have been designated as contributing resources that should be preserved and maintained. Therefore, a constricted treatment period for the Fort Moultrie cultural landscape is not applicable. Instead, this CLR bases treatment recommendations on the specific histories of individual cultural resources and the overall interpretive program established by the park.

Treatment Recommendations

Primary Treatment

The recommended treatment of the cultural landscape is rehabilitation. The site is no longer a functioning military landscape and has been repurposed as a National Historical Park. The 1998 GMP includes several zones identified by use (Figure 5.1). The Preservation Unit includes the existing military structures and other associated features. The Visitor Transition

Unit includes the Visitor Center, entrance road, parking area, and boat dock. The Visitor Orientation Unit includes the interior of the Visitor Center. The Administrative/Adaptive Use Unit includes Construction 230 and the current park headquarters in the Torpedo Storehouse. The Natural Area/Easement Unit includes the easement held by the NPS. Within the larger landscape studied in this report, treatment recommendations refer to zones that focus on retaining and reinforcing of period character, and there are zones where interventions are proposed to support the modern use of the site or in support of issues that park management wanted addressed in the CLR. Although these zones closely align with the use units identified in the 1998 GMP, a formal adoption of the rehabilitation treatment standard may be needed in a future decision document.

Rehabilitation protects the significant historic features that contribute to the integrity of the property while allowing for necessary improvements. Like preservation, rehabilitation involves identifying, retaining, and preserving character-defining features. Additionally, when the landscape's historic character is diminished because an important landscape feature is missing, rehabilitation provides strategies to accurately and faithfully return the missing feature to the landscape. Rehabilitation provides for the continued use of the property through alterations and additions that do not damage the character-defining features. Additions are sometimes necessary to facilitate a new use at a historic landscape, but the rehabilitation guidelines emphasize that new additions should only occur when there is no viable alternative.

Overall Treatment Goal

The ultimate goal of treatment is to improve the interpretation of Fort Moultrie through the effective stewardship of the site's contributing resources, both individually and collectively. Rehabilitating Fort Moultrie's landscape involves preserving the existing features that contribute to the historic significance of the site. Rehabilitation also involves introducing non-historic features that will improve the site's resiliency and public appreciation. As the period of significance encompasses over two centuries of history, opportunity exists for the development of an expanded interpretive program that includes stories not currently interpreted by the park. There is a need to improve visitor accessibility throughout the site and to control the flow of visitors. These improvements will also provide a uniform interpretive experience for visitors.

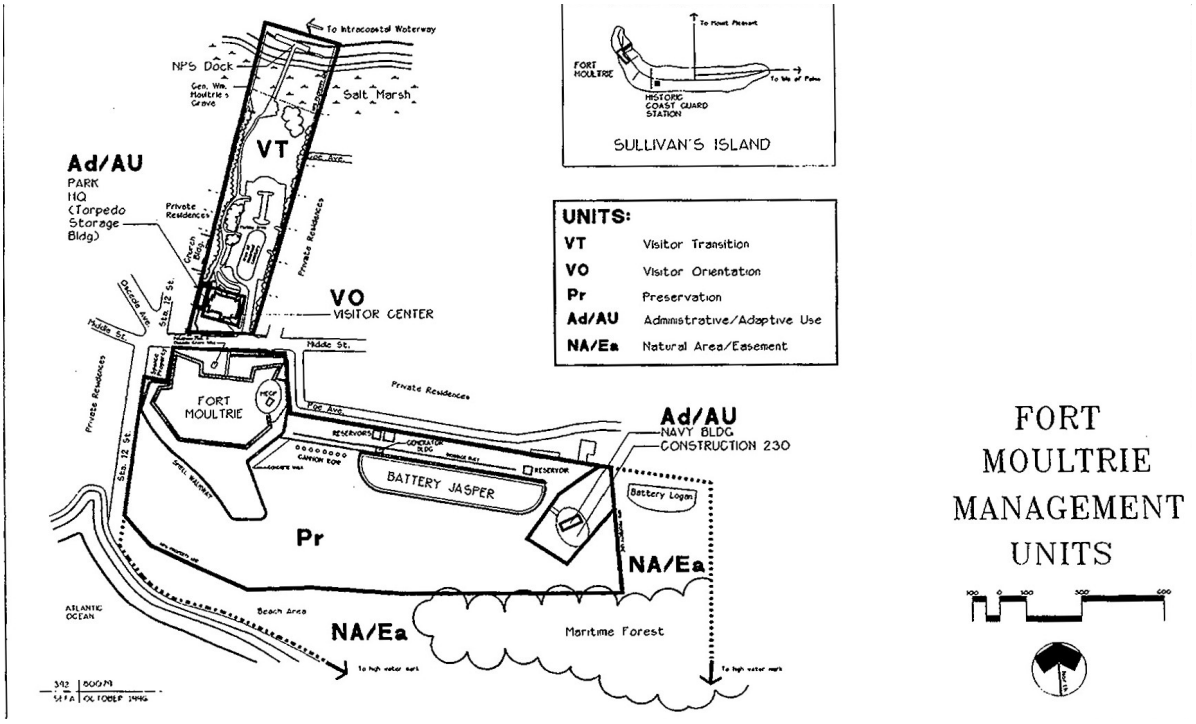


Figure 5.1. Fort Moultrie management units plan as detailed in the 1998 General Management Plan. (Source: Fort Sumter and Fort Moultrie National Historical Park).

Specific Treatment Concerns

In addition to providing treatment recommendations for overall management objectives for the site, park staff identified the two following issues as primary concerns to address:

- *Improvement of the interpretive program at Fort Moultrie*. This includes expanding upon underrepresented histories, visitor flow through the site, and interpretive signage.
- *Management of the site to address accessibility*. This includes the condition of walkway surfaces, limiting access points, unwanted desire paths, and ABA accessibility for views and walkways. The 2011 *Fort Sumter Accessibility Study* identifies a series of issues concerning accessibility at Fort Moultrie. This CLR addresses a number of the study's recommendations in terms of both impacts to historic integrity as well as interpretive programming.

As these concerns influence a variety of treatment recommendations, this chapter will mostly focus on the evaluation of impacts related to proposed site improvements regarding site accessibility and the interpretive program.

The 2016 *Foundation Document* also notes that though most of Fort Moultrie's structures are in good condition, they nevertheless "suffer from year-round corrosive conditions, salt spray, high heat, and freezing winters."[276] Additional identified threats include:

- Increased traffic, development, and additional infrastructure on Sullivan's Island and the surrounding community of Mount Pleasant could impact Fort Moultrie.
- Fort Moultrie is often overshadowed by Fort Sumter, potentially leading to lack of visitor awareness related to Fort Moultrie and its history.
- Challenges of enforcing fee collection and controlling access to the fort can lead to loss of funds and visitors entering the fort without an adequate site orientation.
- Increase in sea level rise (+1.9 to 2.4 feet by 2100) and increase in storm frequency/ intensity projected for the coast due to climate change will impact the fort infrastructure.
- Coastal sediments that are depositing near the north opening into Charleston harbor are leading to significant accretion on Sullivan's Island.
- Water infiltration of Fort Moultrie's thick masonry walls could lead to structural deterioration.
- Meeting the cyclical maintenance needs of historic structures is an increasing challenge and may result in future deterioration of Fort Moultrie.
- Increased visitation and inappropriate visitor activities such as climbing on Fort Moultrie's historic wall can damage or lead to the loss of historic fabric.
- Issues with storm water drainage inside Fort Moultrie are causing subsidence problems along the west wall of the fort.

Overall Treatment Recommendations

The following are several overall treatment recommendations that serve as the foundation for the specific treatment recommendations to follow:

- In addition to the historic buildings and structures, maintain other landscape features such as topography and spatial organization that contribute to the significance of the site.
- Use materials compatible with historic materials when repairing historic structures and buildings.
- Maintain the overall appearance of the current landscape keeping existing open space clear of woody vegetation.
- Limit park furnishings and signs to locations that do not distract from the historic landscape.
- Use interpretive signage to make the historic landscape more recognizable to visitors.
- Update walkways to accommodate universal access throughout the landscape as possible.

Please refer to Illustration 5.1-5.7 for specific locations of treatment strategies.

276. National Park Service, 16.

Chapter Organization

This CLR organizes treatment recommendations by landscape characteristic, with special emphasis given to accessibility and interpretation issues. The final treatment recommendations were developed through consultation with both FOSU and the NPS Southeast Regional Office. Alternatives that were considered alongside the recommended treatment are located at the end of this chapter for future reevaluation.

Accessibility

Park staff identified accessibly as a primary issue within the Fort Moultrie cultural landscape. Currently, portions of the landscape—and the views and resources they contain—are inaccessible to disabled persons due to the slopes and materials of walkways and the general topographical complexity of the site. The 2011 *Fort Sumter Accessibility Study* addressed many of these issues and proposed remedial recommendations. This CLR does not go into the detail that study does, especially concerning issues related to doorways, drinking fountains, fire alarms, door handles, and other such features, instead focusing on historic materials, interpretation, and ABA-compliance of walkways and interpretive opportunities. In general, much of what the *Accessibility Study* recommends, this CLR recommends as well. However, this CLR presents alternatives to certain *Accessibility Study* proposals that require a large degree of modification of the site's historic fabric. As such, this CLR attempts to filter the findings of the *Accessibility Study* through a recognition of the site's historic character, seeking to present options that strike a balance between accessibility and preservation of the site's historic character.

Planning Accessibility Modifications

The NPS provides guidance on rehabilitating historic sites for universal accessibility. Overall, the park should adhere to methods per the Architectural Barriers Act Accessibility Standards (ABAAS) and *Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services* to the greatest extent possible while not damaging historic resources. Additionally, *Preservation Brief 32: Making Historic Properties Accessible* states that the following steps be taken when planning for universal accessibility at historic sites:

1. Review the historical significance of the property and identify character-defining features;
2. Assess the property's existing and required level of accessibility; and
3. Evaluate accessibility options within a preservation context.

Concerning historic landscapes in particular, the *Brief* states:

> Full access throughout a historic landscape may not always be possible. Generally, it is easier to provide accessibility to larger, more open sites where there is a greater variety of public experiences. However, when a landscape is uniformly steep, it may only be possible to make discrete portions of a historic landscape accessible, and viewers may only be able to experience the landscape from selected vantage points along a prescribed pedestrian or vehicular access route. When defining such a route, the interpretive value of the user experience should be considered; in other words, does the route provide physical or visual access to those areas that are critical to understand the meaning of the landscape?

This guidance has informed the recommendations that follow.

Interpretation

Interpretation of the Fort Moultrie cultural landscape presents an interesting challenge to site management due to the multiple layers of tangible and intangible history reflected by the site. This history is not solely contained within the site itself but extends to both adjacent landscapes (Fort Sumter, Charleston) and distant locations (West Africa, Europe). Interpreting Fort Moultrie then becomes a balance of telling site-specific stories alongside larger contexts. The retention of a diverse collection of cultural resources presents an opportunity for interpretive programming at the site.

The 1998 General Management Plan offers the following "Compelling Story" for Fort Moultrie:

> To resist invasion, defend our shores, and protect our nation, Fort Moultrie stood as a

> ready sentinel at the entrance of Charleston harbor for more than a century and a half. Once a hastily built palmetto log fort, it repelled a British fleet and galvanized the Patriots cause for independence. Its critical role in delivering the deciding shots of the opening battle of the Civil War fueled the flames of Americans most tragic conflict. Its actions to ward off submarine threats during two World Wars helped secure our Southern shores. A walk through Fort Moultrie is a walk through time, an evolutionary journey that mirrors Americas pivotal events to preserve our independence and freedom.

The 2016 Foundation Document reiterates this narrative through the previously mentioned statements of significance as related to the park's fundamental resources. Interpretive programing at the site tells this multi-faceted story through informational panels, self-guided tours, and annual events. The following recommendations present opportunities for improving the interpretive experience within the Fort Moultrie cultural landscape.

Interpretation of Cultural Resources

Fort Moultrie contains a number of cultural resources reflective of its long history on Sullivan's Island. Since the NPS acquired the site, park staff have focused interpretation of the site on the multi-layered history reflected by the historic landscape. This report recommends park staff continue with this interpretive program, though as noted above, include more discussion of social history in conjunction with military history, especially where they intersect.

Specific cultural resource interpretation recommendations include:

- Preserve and maintain the views between Fort Moultrie and Fort Sumter by both providing access to such views as well as necessary site maintenance tasks. S*ee vegetation and viewshed management sections below*.
- Develop comprehensive interpretive program and create standardized, unified appearance for interpretive signage in the fort and landscape. *See "Interpretive Signage" section below.*
- Consider adding a permanent Fort Moultrie No. 1 exhibit south of Fort Moultrie No. 3, such as the one present in the late 1970s. This exhibit would be labor-intensive and expensive. However, the lack of interpretation of the palmetto fort at the site is a key missing element in the interpretation of the site.
- Interpret the cemetery in the Visitor Center parking lot. *See "Archeology" section below*.
- In conjunction with the interpretation of the cemetery, develop an interpretive program focused on the history of Fort Moultrie Military Reservation as it developed north of the fort, specifically related to the hospitals that existed in that space. In this way, the theme of "health" could tie together the activities of the hospital with the cemetery.
- As part of the interpretation of the North Reservation Character Area, focus interpretation on the role of women at the fort. This can be achieved through detailing the history of the hospital as well as the WAC stationed at the fort during WWII.
- As part of the interpretation of the North Reservation Character Area, in the vicinity of the Bench by the Road and picnic area, install interpretative signage concerning the African American experience of Fort Moultrie, Charleston, and the broader context that is tied to the bench's purpose.
- Provide clear signage for visitors to direct them to the grave of Colonel William Moultrie.
- Utilize open space in the HECP building to present public exhibits. These could be a mixture of permanent and rotating exhibits addressing underrepresented histories of the site. Access may be a concern however, as not all of the HECP building is universally accessible. (Universal access to the HECP will need to be evaluated).
- During open hours, leave the HECP's chain link fence open so visitors can access the bottom of the HECP building. Should security prove to be a concern, install a buzzer to alert park personnel at the Visitor Center to unlock the gate via a remote.

Circulation

Circulation features at Fort Moultrie have undergone many alterations. The present circulation system at the site is a mixture of historic and modern features that range in date from the early 1800s to the present. In addition to the accessibility, several other circulation issues presently exist at the park. These issues center on controlling visitor circulation in, out, and within the site. Currently, unauthorized access has resulted in the presence of desire paths in various site locations. The multiple access points into the site also make it difficult for park staff to quantify visitation numbers and collect fees. The following recommendations aim to allow access to historic features while protecting the site's historic landscape characteristics.

Figure 5.2. Current condition of "tour" signage (WLA Studio, 2018).

Interpretive Circulation

One treatment focus is the improvement of interpretation of Fort Moultrie; therefore, the site's interpretive program should serve as a foundation for modifications to the site. The following section identifies recommended interpretive improvements and also identifies specific physical changes to facilitate site interpretation. Therefore, the following section first identifies recommended interpretive improvements and then identifies specific physical changes to facilitate such interpretive improvements.

Presently, visitor circulation in and around Fort Moultrie guides visitors along an established but self-directed tour route. However, visitors generally wander throughout the site, not following directional signage, which is dated (Figure 5.2).[277] Further, the current route presents the history of the site in a reverse-chronological manner, resulting in a confusing sense of historical development. As noted by park staff, these issues warrant improvements to visitor circulation throughout the site.

Recommendation: Establish four separate, self-directed tour routes: (1) a route within Fort Moultrie that would provide a uniform interpretive experience based on a chronological telling of the fort's historical development, (2) a route that utilizes an updated walkway system outside of the fort to interpret the 1776 period, (3) another route focused on the Endicott period, and (4) an interpretive route in the site's North Reservation Character Area focusing on the historical development and existing cultural resources in that area. See Illustration 5.1 and 5.2 for the graphic depiction of recommended interpretive modifications.

(1) The 1809-1947 Tour Route: The tour would begin at the Visitor Center, preferably on the Visitor Center roof, which affords sweeping views of the site to the south and north. Here, staff and/or signage can orient visitors to the overall history of Fort Moultrie as it existed from 1809 to 1947, as well as existing conditions of the site and surrounding context. After orientation, visitors would enter the site through the Sally Port Complex. A combination of signage, tour pamphlet, and/or mobile phone app would provide contextual information and route wayfinding. From the Sally Port Complex, visitors would enter the fort and be directed northwest along a new formal concrete walkway toward the barracks and other pre-Civil War features (Figure 5.3). (*Note this route would be modified for disabled visitors, see Circulation Accessibility section below*). Here, signage can interpret the fort's interwar activities as represented by the barracks foundations, 1809 Powder

277. Thomas Sobol, "FOMO CLR Meeting," November 24, 2018.

Magazine, and existing parade ground. The proposed alignment for the new walkway follows an existing "desire path"(Figure 5.4). Using the existing wood staircase, visitors would then proceed around fort in a counter-clockwise direction progressing from the Civil War displays through the Endicott exhibits to WWII displays. This route thus presents a chronological developmental history of Fort Moultrie No. 3.

For disabled visitors, the official tour route stops at Battery Bingham and returns back to the Sally Port Complex along the proposed ramped walkway. See *Accessibility Improvements: Interior Interpretive Walkway* below. Others could continue to the HECP building to continue the tour, exiting the fort on the lower level of the HECP building from where they could begin the 1776 tour route.

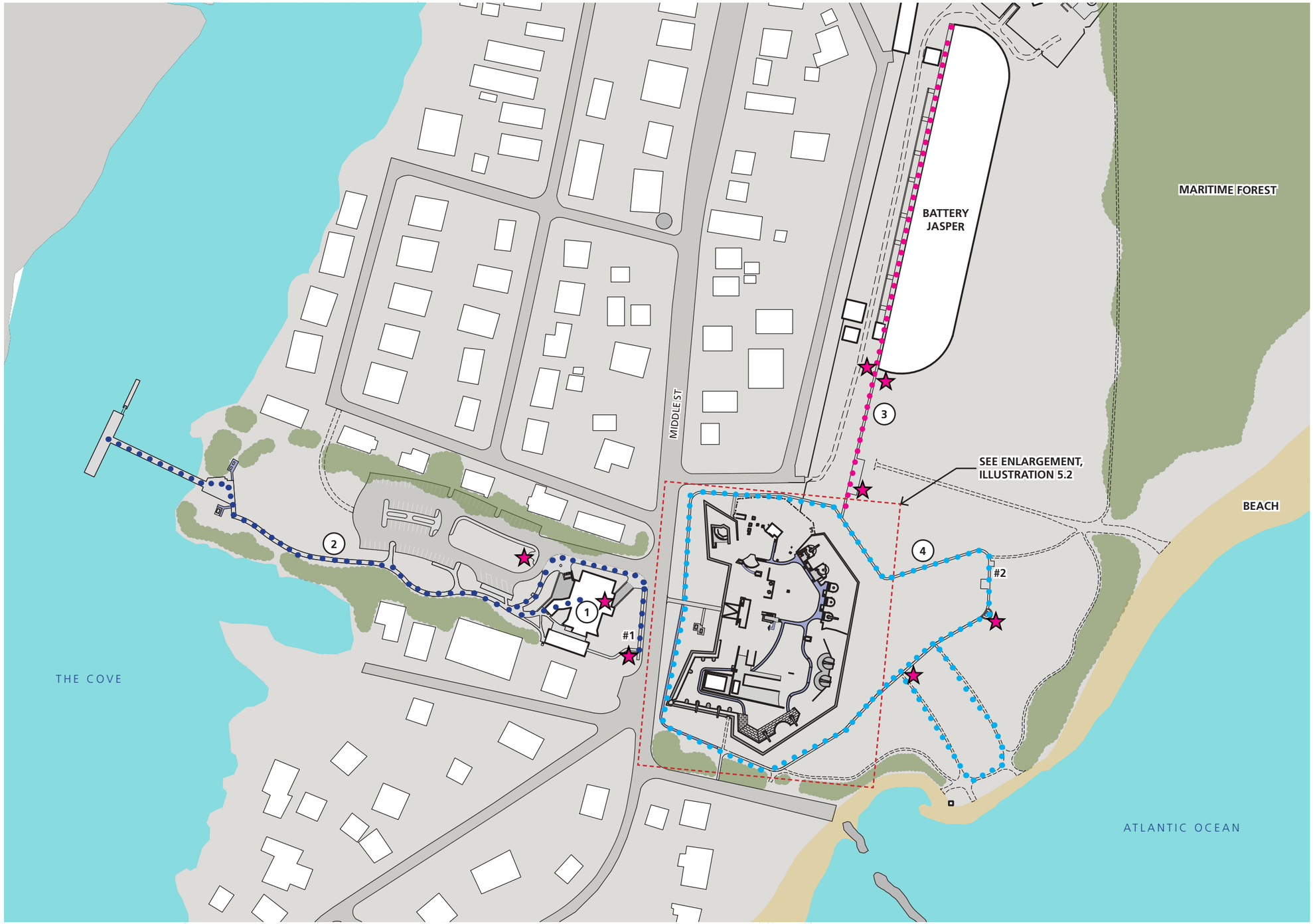
A disadvantage to this route is that the storerooms within the Sally Port Complex and gun positions in the northeast portion of the fort would fall outside of this official route. However, after the tour, the park could encourage visitors to explore the other parts of the fort that the tour did not specifically address.

(2) The 1776 Tour Route: Presently, a loop walkway facilitates visitor circulation outside of the fort (Figure 5.5). The route roughly circles the exterior of Fort Moultrie and extends south into an open area between the harbor and the fort. A small cannon exhibit interpreting Fort Moultrie No. 1 is located in the southern extent of the loop. There is opportunity to interpret the 1776 era of the landscape more fully. Additional signage containing updated information about this period may be added along the route. Following the recommendations of park staff, space out the cannons along the tour route as determined by the updated interpretive plan. With the upcoming 250th anniversary of the Battle of Fort Moultrie, a new exhibit, perhaps referencing the 1976 Palmetto fort reconstruction, can be installed in this area.

Figure 5.3. Rendering of proposed walkway connecting Sally Port Complex with early fort features. The alignment follows the existing desire path in the area. (WLA Studio, 2019).

Figure 5.4. Existing condition of desire path from Sally Port Complex to barracks area (WLA Studio, 2018).

Figure 5.5. Portion of interpretive walkway as it extends south of the fort. The small cannon display is seen at the south end of the walk (WLA Studio, 2018).



Treatment Key

- 1 Visitor Center Roof
- 2 Temporary North Reservation Tour Route
- 3 Endicott Period Tour Route
- ~~4~~ 1776 Tour Route
- North Reservation Tour Route
- 1776 Tour Route
- Endicott Period Tour Route
- Existing Wayside

Notes

1. The proposed North Reservation Character Area tour route should be based on an updated interpretive plan informed by archeological findings. As such, the location of new or relocated waysides is not shown on this plan.

2. The updated 1776 route forms a complete loop around Fort Moultrie. Update tour signage and/or relocate cannon based on input from park staff and preparations for the 250th anniversary of the American Revolution.

Credits

1. National Park Service
2. Field Work, November 2017-2018

Not To Scale

North

Illustration 5.1

Treatment - Interpretation

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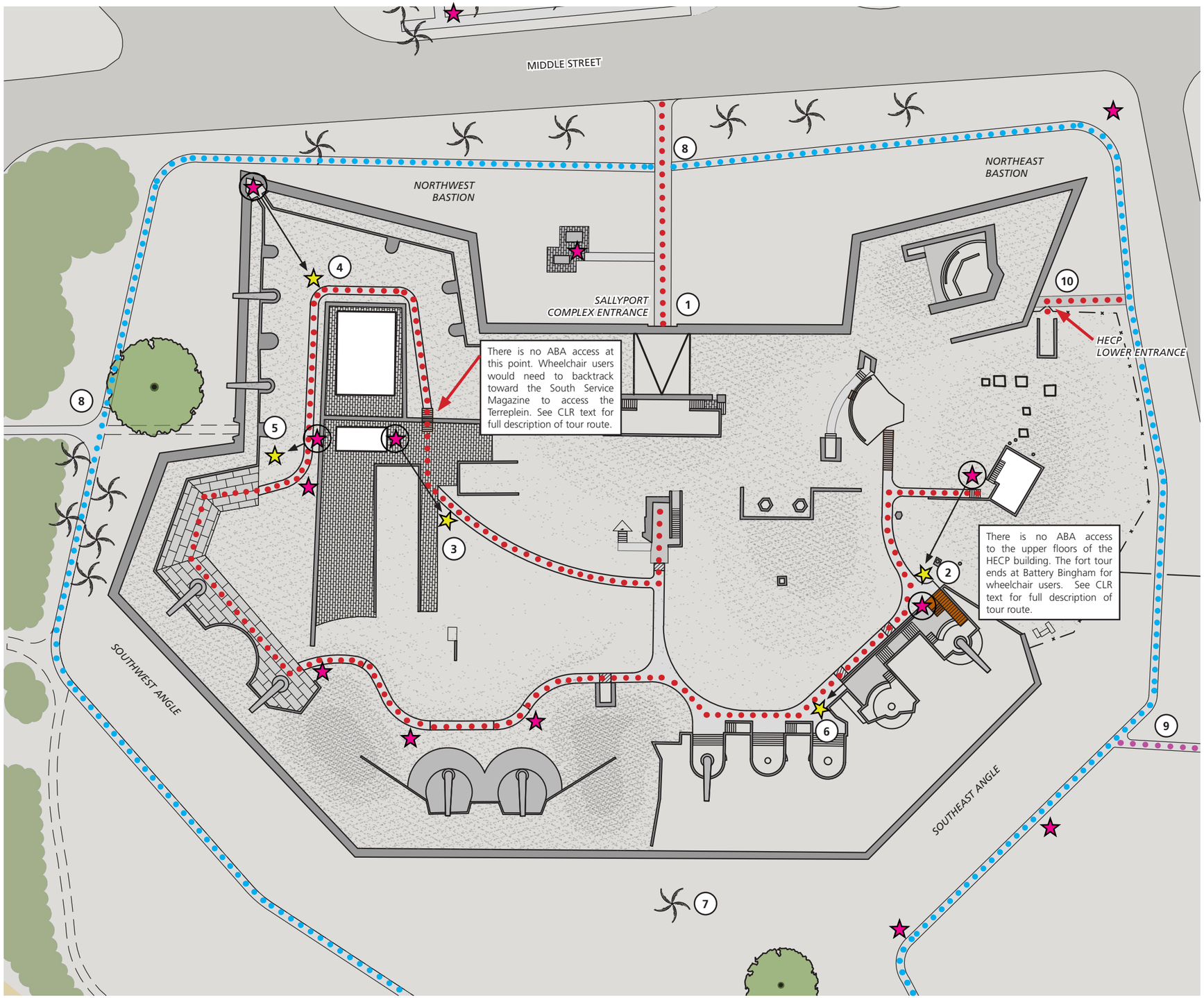

Treatment Key

- (1) Start of 1809-1947 Fort Tour
- (2) End of 1809-1947 Fort Tour
- (3) Relocate wayside to new walkway
- (4) Relocate wayside from Bastionet
- (5) Relocate wayside from parade wall
- (6) Relocate wayside from Battery Bingham
- (7) Remove tree from viewshed
- (8) Start / End of 1776 Tour Route
- (9) Start of Endicott Period Tour Route
- (10) HECP Lower Entrance
- 1809-1947 Tour Route
- 1776 Tour Route
- Endicott Period Tour Route
- Existing Wayside
- Relocated Wayside

Notes

1. Three of four proposed tour routes are shown here. The tour of the North Reservation area is shown on Illustration 5.1. (Note: Its layout will be based on an updated interpretive plan.)
2. Update all waysides throughout site to Unicode standards.
3. See CLR text for discussion of ABA accessibility along tour routes.

Credits

1. “Fort Moultrie Plan - Present State.” SERO, National Park Service. 1973. [Map]

Illustration 5.2
Treatment - Interpretation
Fort Moultrie, Enlargement

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(3) Endicott Period Tour Route: Presently, a historic walkway extends across the north side of Battery Jasper and connects to the interpretive loop walkway outside the fort (Figure 5.6). It is recommended the park maintain this walkway and add updated interpretive signage along the route based on an updated interpretive plan. The Cannon Row display is an example of a self-contained exhibit and can serve as a model for the interpretation of other fort features.

(4) North Reservation Character Area Tour Route: Currently, the area north of the fort contains resources that would benefit from improved interpretation. Specific features, sites, and histories that are under-interpreted include the Fort Moultrie cemetery, the hospital complex, WWII activities, the Torpedo Storehouse, the Bench by the Road, The Cove, and the gravesite of William Moultrie. This CLR recommends adding new interpretive waysides to interpret these resources and stories, the number and location of which depends on the development of a future interpretive plan for the area.

Circulation Accessibility

This section addresses several specific accessibility issues related to circulation features at Fort Moultrie:

- Slopes along interior interpretive walkway
- Access to the Terreplein in the northwest portion of the fort
- Access to Bastionet area
- Access to the HECP building
- Brick paving at Parade Ground
- Access to Moultrie's Gravesite and Picnic Area
- Accessibility along Mown Turf Paths
- Unauthorized Access

Interior Interpretive Walkway Slopes

Currently, several segments of the existing interpretive walkway within the fort do not meet ABA code requirements for slopes. The following proposals attempt to minimize impacts

Figure 5.6. Portion of interpretive walkway as it extends east toward Battery Jasper. Cannon Row is seen in the foreground (WLA Studio, 2018).

to historic integrity of the site balanced with the need to provide access to site features. Practical considerations such as space requirements are also considered.

Recommendation: Address accessibility issues along the interior interpretive route by (1) regrading and resurfacing the section of walkway extending from the Sally Port to a point directly east of the South Service Magazine entrance, connecting it to a new walkway and ramp that extends to Battery Bingham, (2) installing a ramp to provide universal access to Battery Bingham, (3) removing the section of brick walkway currently running in front of Batteries Bingham and McCorkle, and (4) regrading the approximately 50' section of walkway west of the South Service Magazine. *See Illustration 5.3 for graphic depiction of recommended improvements.*

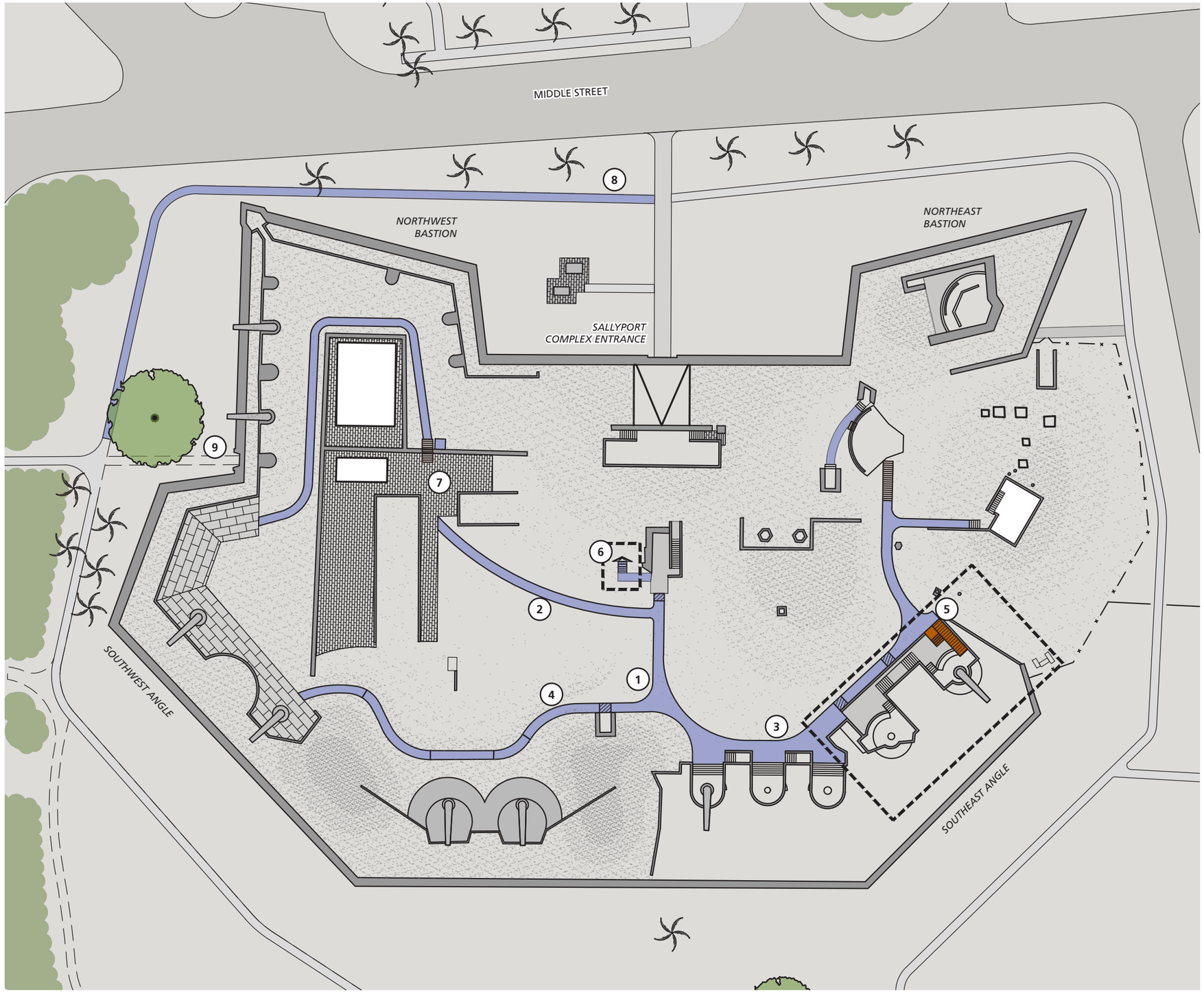
(1) This proposal offers an alternative to constructing a retaining wall as proposed by the *Accessibility Study (See Alternatives to Recommended Treatments below)*. In order to eliminate the need for a retaining wall, this proposal does not provide access to the top of the topographic rise east of the HECP building as the *Accessibility Study* does. Therefore, while posing less of an impact to the historic landscape and being ABA compliant, this proposed design does not provide full access to the site. Instead, this option strikes a balance between access to the east side of the fort and the conservation of historic character and integrity.

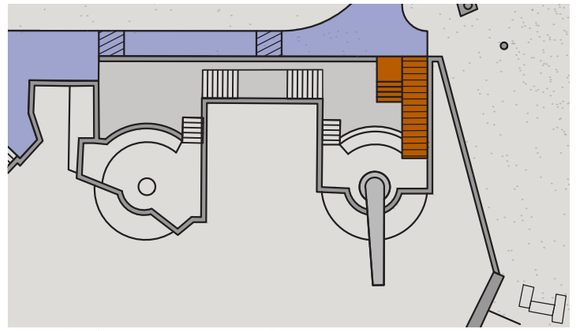
This design regrades and replaces the current walkway extending from the Sally Port to a regraded and resurfaced portion of the interpretive walkway near the South Service Magazine (Figure 5.7 - Figure 5.9). The proposed walkway rises at a 5% grade to meet the east-west running interpretive walkway. For approximately 65’ in an eastward direction, the walkway runs at a 3.8% grade, which is below what is required for handrailing, thus reducing visual impact. As the walkway extends northeast across the face of Battery McCorkle, the walkway transitions to an ABA-compliant ramp featuring two 5' landings over a total length of 65' at 8.3% slope. The path terminates at a new concrete pad beside Battery Bingham, where information concerning the WWII period and the HECP building would be provided. The existing walkway continues upslope toward the HECP building, but this section is not accessible to wheelchair users due to the existing grade, which would remain as-is. As such, there is no need to construct a platform at the Position Finding Station.

(2) Install a ramp connecting the proposed walkway with Battery Bingham, which would provide better access to view the battery’s gun position and views toward Fort Sumter and the Fort Moultrie landscape (Figure 5.10– Figure 5.11). The view from Battery Bingham’s gun position provides a clear line of sight to the harbor and Fort Sumter. The ramp would bridge the gap between the adjacent interpretive walkway and the gun platform of the battery. The ramp could be integrated into the wooden flight of stairs currently providing access to the battery, or the park can replace the wooden stairs to match the materials of the ramp. The ramp would not result in an excessive visual intrusion, as the wooden stairs already impact the historic character, and its location to the east of the current stair location would partially screen the addition.

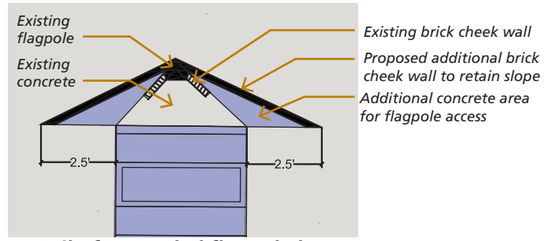
(3) As opposed to regrading and resurfacing the brick and concrete walkway running in front of Batteries McCorkle and Bingham, this proposal removes the existing walkway in order to provide space for the proposed walkway and ramp (Figure 5.12). The removal of this non-historic walkway would afford the extra room to shift the new walkway and ramp southward, away from the bombproof mound. This shift allows for the presence of a 5' wide walkway without cutting into the bombproof. Short stair sections and cuts through the railing would provide access into Batteries McCorkle and Bingham from the walkway.

(4) The section of walkway west of the South Service Magazine features a slope that





Detail of ramp at Battery Bingham



Detail of expanded flagpole base

Treatment Key

1. Improved walkway system
2. Formalize existing desire path
3. New ABA-accessible ramp section
4. Regraded ABA-compliant slope
5. Ramp and steps at Battery Bingham
6. Expanded flagpole base
7. Re-lay historic bricks where appropriate
8. New walkway outside northwest bastion
9. Remove walkway to Postern

Credits

1. "Fort Moultrie Plan - Present State." SERO, National Park Service. 1973. [Map]

Illustration 5.3
Treatment - Circulation
Fort Moultrie, Enlargement

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Figure 5.7. Rendering of proposed walkway and ramp addition as it extends from the Sally Port Complex. Note the unity in walkway materials and smoothed grade. (WLA Studio, 2018).

Figure 5.8. Rendering of proposed walkway and ramp addition as it approaches Batteries McCorkle and Bingham. Note the uniform walkway materials and simplified visual character (WLA Studio, 2018).

Figure 5.9. Rendering of proposed walkway and ramp addition as seen from the HECP platform. Note the uniform materials along the walkway, including those immediately adjacent to the two batteries. (WLA Studio, 2018).

exceeds accessibility standards (Figure 5.13). It is proposed that the section between Rodman gun 1870s exhibit and the South Service Magazine be regraded to achieve an ABA compliant slope. It is likely that this would entail cutting into the bombproof, which in turn would necessitate the addition of a short section of edging along a short section of the walkway. Site managers could use turf to hide the edging on the north side of the walkway. As the entrance into the Rodman gun 1870s exhibit is located further to the west, this improvement would not prevent access to the feature.

Access to Terreplein from Parade

Access to the Terreplein from the Parade level of the fort is not currently universally accessible due to the slope of the 50' section of walkway west of the South Service Magazine. The *Accessibility Study* recommended providing universal access to the Terreplein via a lift in the northwest portion of the fort (*see Alternatives to Recommended Treatment below*). This option was not preferred by park management due to the costs associated with installing and maintaining lifts in the fort's coastal environment as well as impacts to the historic fabric and setting. Therefore, the following recommendation allows for universal access through the improvement of slopes along the interpretive walkway.

Recommendation: This alternative recommends taking advantage of the proposed interpretive walkway improvements to provide universal access to the Terreplein (Illustration 5.3). Specifically, by regrading the 50' section of walkway east of the South Service Magazine to an appropriate slope, wheelchair users can access the Terreplein and the interpretive exhibits on the west side of the fort from the Parade area. While this does not result in the ideal interpretive experience because wheelchair users would not experience the route in chronological order, this alternative has the least physical impact on cultural resources.

Access to Bastionet area

Currently, the Bastionet area at the Northwest Bastion is accessed via a well-worn desire path across the Terreplein and is not universally accessible due to the condition of the path and the narrow opening in the brick work (Figure 5.14).

Figure 5.10. Existing conditions in the Battery Bingham area without the presence of a ramp. (WLA Studio, 2018).

Figure 5.11. Rendering of proposed walkway and ramp addition at Battery Bingham. Note the wooden handrails lining the walkway, matching the existing stairs. (WLA Studio, 2018).

Figure 5.12. Existing walkway conditions in in the vicinity of Batteries Bingham and McCorkle. Note the incongruent paving materials, which would be fixed in the proposed walkway improvements. (WLA Studio, 2018).

Figure 5.13. Existing walkway conditions in in the vicinity of the South Service Magazine. Note the slope of walkway as it bends toward the magazine. (WLA Studio, 2018).

Figure 5.14. Existing desire path leading to the Bastionet on the Terreplein (WLA Studio, 2018).

Recommendation: As changing the Bastionet itself to allow universal access is not recommended, do not install a formal walkway to access the area. Instead, install interpretive signage along the existing interpretive walkway that explains the purpose of the feature as well as the historic and modern views it affords.

Access to the HECP building

As noted above, making the HECP building universally accessible via a ramp constitutes an adverse impact to the historic character of the site. Additionally, the installation of a lift or elevator is not preferred by park management.

Recommendation: Do not provide universal access to the HECP building except on the bottom level. Provide interpretation of the HECP building beside Battery Bingham through signage.

Brick paving at Parade Ground

During the 1976 excavations of Fort Moultrie, crews uncovered areas of historic brick paving around the barracks' foundations, Traverse, and 1809 Powder Magazine (Figure 5.15). As a cultural resource, the historic bricks were kept in place, with modern bricks installed where historic bricks were missing (Figure 5.16). While this rehabilitation strategy did protect the resource, overtime, this treatment has resulted in uneven ground surface and poses a minor accessibility hazard.

Recommendation: The park should assess the safety of the area as related to trip hazards as well as material conservation. In the locations that contain such hazards, re-lay the bricks in place in order to achieve a more uniform ground surface.

Moultrie's Gravesite and Picnic Area

The existing walkway configuration provides limited access to Moultrie's Gravesite, the picnic area, and the Bench by the Road (Figure 5.17 and Figure 5.18). Improvements in this area would encourage visitor use of this zone.

Recommendation: Install new walkways and a concrete slab to facilitate access to (1) Col. Moultrie's Gravesite and (2) the picnic area and the Bench by the Road. See Illustration 5.4 for graphic representation of recommended treatments.

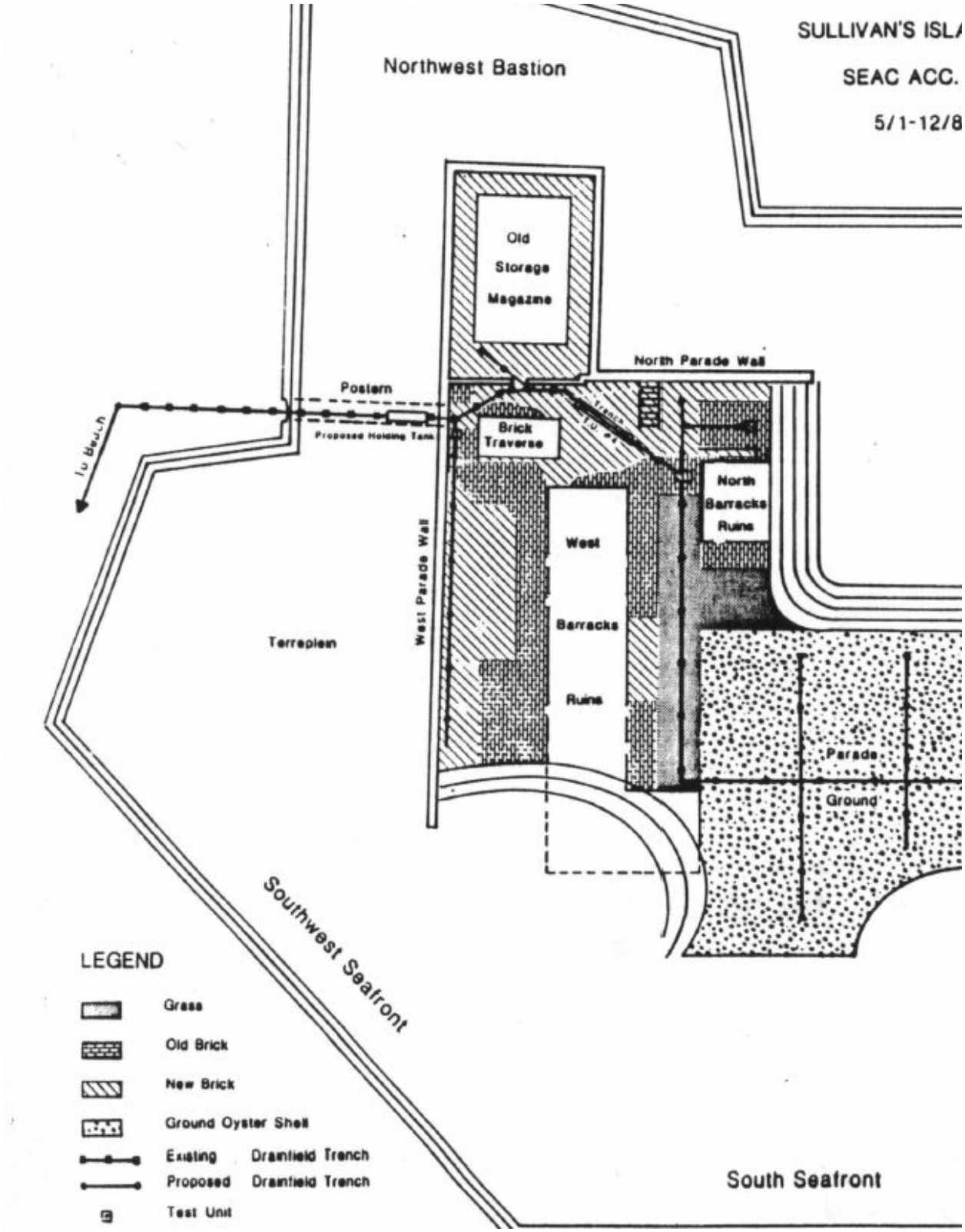

Figure 5.15. Depiction of historic brick uncovered during excavations in 1989 (Source: NPS Southeast Archeological Center, 1989).

Figure 5.16. Present condition of historic brick and modern brick in the vicinity of the barracks foundations (WLA Studio, 2018).

Figure 5.17. Present condition of picnic area. The Bench by the Road is in the foreground (WLA Studio, 2018).

Figure 5.18. Present condition of Moultrie's Gravesite. Note lack of landing area for wheelchairs (WLA Studio, 2018).

(1) Extending from the existing walkway leading from the dock to the Visitor Center, install a 4' wide concrete walkway to the gravesite and a concrete pad around the existing brick pad to accommodate wheelchairs.

(2) Install a 4'-wide and 30'-long concrete walkway to the existing picnic area. Construct an accessible concrete pad at the picnic area.

Mown Turf Paths

The southern portion of the site contains mown turf paths that provide pedestrian access to the beach and harbor (Figure 5.19). While the paths extend over flat terrain, they are not ABA compliant.

Recommendation: Make one of the paths ABA-accessible through the installation of a stabilized turf system. A stabilized turf system provides a rigid substrate for grass roots, minimizing wear and soil displacement due to pedestrian or vehicle traffic. Add signs at northern end of path indicating that the path is universally accessible.

Unauthorized Access

As the *Foundation Document* notes "[i]ncreased visitation and individuals seeking beach access have led to the development of social trails, erosion, and soil compaction."[278] At present, several signs and barriers exist that aim to curtail unauthorized foot traffic (Figure 5.20). It is recommended the park maintain these barriers and install new signage and post and chain barriers as needed. The park should also establish a new planting along the western edge of the site to control access into the southern portion of the site as discussed in the vegetation section below (Figure 5.21).

Other Circulation Improvements

Given the flat topography of the site outside of the fort's walls, walkway accessibility outside the fort is not as major an issue as it is within the fort. However, improvements to the interpretive walkway outside the fort could enhance interpretation at the site.

278. National Park Service, "Foundation Document," 20.

0′ 50′ 100′ North

Treatment Key

1. Reconfigured picnic area, with accessible concrete pad and walkway
2. Reconfigured Moultrie gravesite, with accessible concrete pad
3. Maintain access to Bench By the Road
4. Replace backless benches with ones with backs and armrests

Notes

1. Recommended updates to circulation in this area based on 2011 Accessibilty Plan for the site.
2. The area should be included in an update to the interpretive plan as it features a diverse range of cultruual and natural resources: General Moultrie's gravesite, the Bench By The Road, and the Cove.

Credits

1. National Park Service, "Fort Sumter National Monument Accessibility Study," 2011.

Illustration 5.4
Treatment - Dock Area
Fort Moultrie, Enlargement

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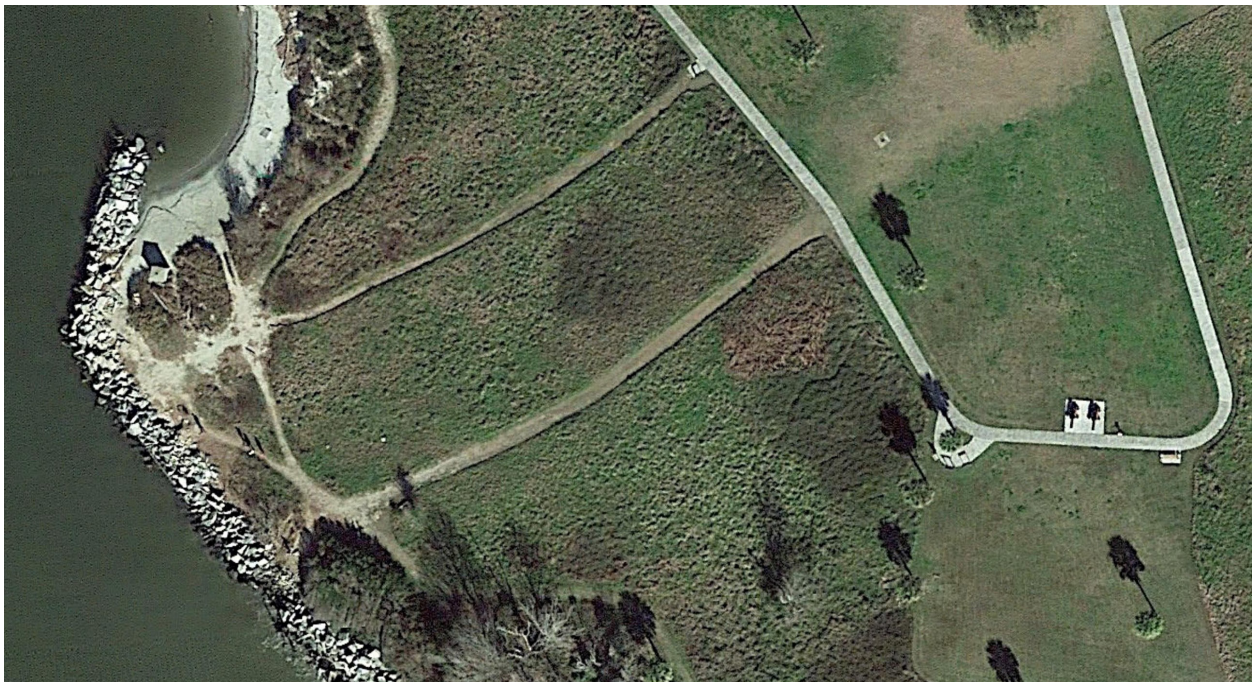


Figure 5.19. Aerial image of existing grass paths connecting fort with the beach. Concerting one of the two paths to a stabilized turf path would aid in accessibility (Google Earth, 2019).

Figure 5.20. "Keep off the grass" sign on one of Fort Moultrie's bombproofs. Various signs like this—though of differing materials—are located at different places within the fort (WLA Studio, 2017).

Figure 5.22. Postern and associated walkway on west side of the fort. Closing this entrance to regular thru traffic will help standardize visitor flow throughout the site (WLA Studio, 2018).

Figure 5.21. Photograph of one of the social trial access points from the parking area on Station 12 Street into the fort landscape (WLA Studio, 2018).

Figure 5.23. Concrete and shell walkway outside the fort (WLA Studio, 2018).

Interpretive Walkway (Outside Fort)
Beginning near the Sally Port Complex entrance, the exterior interpretive walkway loops around the outside of the fort, extending south before circling back north and terminating at the Postern on the west side of the fort. Ending the route (and providing access to the fort interior) at the postern presents a challenge to standardizing the interpretive route.

Recommendation: This report recommends (1) adding two sections of walkway on the west side of the site in order to produce a complete loop path (Illustration 5.3) and (2) closing the Postern to regular thru traffic.

(1) Extend the western portion of the interpretive walkway north toward Middle Street approximately 130' and then east 250' to form a complete loop around the fort.

(2) The Postern presents a challenge to standardizing visitor circulation within the site (Figure 5.22). Closing the Postern to thru traffic diverts visitors who park along Station 12 Street to the Sally Port Complex, which then becomes the primary entrance and exit for the fort. In doing so, park staff can better assess visitation numbers, collect fees, and provide an established interpretive experience.

Circulation Materials

The following recommendations pertain to the conservation of historic circulation materials, as well as the addition and/or resurfacing of modern walkways at the site.

Inside Fort Moultrie:

- Establish a standardized concrete walkway detail for the proposed modern interpretive route within the fort to replace the existing paving. The new concrete can be similar to the shell and sand design used in walkways outside the fort (Figure 5.23).
- Remove modern brick walkway adjacent to batteries McCorkle and Bingham and near the Sally Port Complex as part of the proposed ramp design (Figure 5.12).
- Maintain bluestone pavers on west side of fort Terreplein.
- Maintain the brick ground treatment in the barracks and 1809 Powder Magazine area. Address trip hazards through relaying of bricks in place (Figure 5.16).

Outside Fort Moultrie:

- Preserve historic roads and walkways around Battery Jasper and match the visual characteristics of historic concrete walkways when replacement is necessary.
- Do not restore missing circulation features from past periods.
- Maintain mown pathways through the meadow for pedestrian access. Do not pave these paths. Install stabilized mown turf system along one of the mown paths leading to the beach and harbor.
- Maintain current concrete walkway material surrounding Fort Moultrie.
- Maintain current concrete walkway in the Visitor Center area.
- Maintain brick entrance walkway on northside of Sally Port Complex.

Buildings and Structures

Throughout Fort Moultrie's history, a wide variety of buildings and structures stood within its cultural landscape. From the palmetto fort to the high-tech HECP building, most of these buildings or structures pertained to military use. Though not themselves armored, many other buildings existed within the cultural landscape that supported the fort's military use, such as the succession of hospital buildings, residences, and various workspaces. Due to the ravages of weather, war, and redevelopment, Fort Moultrie's historic landscape retains very few buildings and structures that once were part of the reservation. Still, Fort Moultrie's surviving buildings and structures continue to reflect several periods of the site's historical development. The following treatment tasks address methods for improving the site's ability to convey the landscape setting during the period of significance.

General Recommendations for Buildings and Structures

Historic Structure Reports and Preservation Plans
A general recommendation for the site's contributing buildings and structures at the site is to develop a historic structure report or

Figure 5.24. Base of Fort Moultrie No. 3 Scarp Wall. Note the biological growth on the bricks and the missing mortar (WLA Studio, 2018).

Figure 5.25. View of Battery Jasper looking south (WLA Studio, 2018).

preservation plan for each resource. Preservation plans establish the protocols for monitoring and maintenance of a historic building or structure and provide guidance for preserving the resource's historic and structural integrity. Preservation plans can be generated for less significant site features, whereas updated historic structure reports may be produced for more significant resources, such as Fort Moultrie or Battery Jasper.

Materials and Maintenance
All maintenance of historic resources should be conducted in accordance with *Secretary of the Interior Standards*, including the use of non-abrasive cleaning methods and the gentlest means possible. Specific maintenance guidance is contained within a number of NPS-issued Preservation Briefs. The goal of all maintenance is to safeguard the site from damage and to make the site's history legible to the public. Historic materials should be retained and managed for their preservation. Should replacement, repair, or modification of historic materials be required, follow the Standards for appropriate treatments.

Currently, a number of Fort Moultrie's buildings and structures await funding for repairs, some more extensive and expensive than others. Prioritize these projects, elevating those with the most immediate threat of damage and those with significant roles in the interpretive program.

Treatment recommendations for specific buildings and structures

Fort Moultrie No. 3 (Scarp Wall)
The NPS last assessed the condition of the Scarp Wall in 2017, determining the wall was in good condition (Figure 5.24). The assessment identified "structural deterioration" as the primary impact to structural integrity, with weather and flooding constituting secondary impacts. Workers last repointed the exterior Scarp Wall in 1999. The maintenance of the fort over the last half century by the NPS has ensured its structural integrity. It is recommended the park:

- Continue with its current maintenance and monitoring program in keeping with *Secretary of the Interior Standards*, particularly related to Preservation Briefs 1, 2, and 6.
- Develop an updated Historic Structures Report for the fort walls to replace the documents produced in the 1960s and 1970s.
- Keep the walls clear of vegetation and biological growth.

Battery Jasper
The NPS last assessed the condition of Battery Jasper in 2017, determining the structure in poor condition (Figure 5.25). The assessment identified severe "structural deterioration" as the primary impact to structural integrity, with biological degradation (mold), animal/pest infestation, inappropriate or inadequate Preservation/ Rehabilitation, and weather constituting secondary impacts. Specific concerns include major problems with water penetration, spalling of concrete, and structural deterioration. The park is currently awaiting the allocation of funding for three projects to address these issues.

It is recommended the park:

- Continue with its current maintenance and monitoring program in keeping with *Secretary of the Interior Standards*, particularly related to Preservation Briefs 6, 10, 15, 31, and 39.
- Develop an updated Historic Structures Report for Battery Jasper to replace older documents.
- Keep the exterior walls clear of vegetation.
- Complete the three important maintenance projects currently awaiting funding:
    - Repair Storm Drainage System at Battery Jasper and Construction 230 (39683 Southeast FOSU, $101,200.00)
    - Complete Restoration Position No.1, Battery Jasper/Authentic Interpretation (22633 Southeast FOSU, $147,840.00)
    - Restore Battery Jasper Gun Position No. 1 for Authentic Interpretation (96127 Southeast FOSU, $180,000.00)

Figure 5.26. View of fort interior showing the two different mow standards with slopes generally left to grow taller than flat areas (WLA Studio, 2018).

Vegetation

While functioning as a military installation, the Army kept site vegetation to a minimum. Even when the Army installed ornamental plants throughout the reservation in the early twentieth century, such plantings were not extensive. Since decommissioning, a maritime forest has developed south and east of the fort. The park allows the forest to grow, while maintaining a meadow area between the forest and the manicured turf that surrounds the fort and the Visitor Center area.

General Recommendations

- Maintain existing vegetation management and maintenance routines (detailed below).
- Do not restore historic ornamental plantings that were present in the early twentieth century, as they are not in keeping with the sparsely vegetated character that predominated during the site's military history.
- Do not allow woody vegetation to grow on or too closely to historic buildings or structures.
- Manage vegetation to preserve historic views (detailed below).

This report identified vegetation management zones for the portion of the site south of Middle Street. The following section details the current management within these zones and provides recommendations for treatment. See Illustration 5.5 for boundaries and extents of vegetation management zones.

Zone 1: Fort Interior

Vegetation Goal

The goal for vegetation within the interior of the fort is to generally reflect historic conditions as well as provide a visually open setting for visitors through maintaining a manicured lawn and the absence of woody vegetation.

Current Maintenance

Currently, vegetation within the fort is managed through regular mowing by a contractor. Two different mowing standards apply to the area, with the bombproof mounds treated differently from the rest of the turf in the interior (Figure 5.26). The majority of the turf grass in the fort interior is maintained year-round at 2"-3" in height.

The bombproof mounds and fort slopes are lightly manicured to discourage climbing by visitors. Their

standard treatment is to keep vegetative growth below 8" in height. This height is maintained on a continuous basis. Plants on the mounds are controlled to keep them off buildings and structures. Once a year, in September, workers trim vegetative growth on mounds to a height of 2"-3" to control the spread of woody species and briars.

Recommended Maintenance:
This CLR recommends maintaining the current mowing standard for the fort interior. Ensure the regular, uniform, and consistent application of the standard.

Zone 2: Historic Core

Vegetation Goal
The goal for vegetation within the Historic Core zone is to generally reflect historic conditions and provide a visually open setting for visitors through manicured lawn and targeted tree pruning.

Current Maintenance:
Currently, vegetation in the Historic Core zone is comprised of mown turf and scattered sabal palmettos and live oaks (Figure 5.27). The turf is maintained through regular mowing to 2"-3" in height. Once per year the sabal palms are trimmed to remove dead fronds and seed spathes from the crown of the tree. The live oaks are pruned once a year to remove dead or damaged limbs. Workers mow the top of Battery Jasper to a height of 8" once per year (September).

Recommended Maintenance:
This CLR recommends maintaining the current mowing standard for the Historic Core area. Ensure the regular, uniform, and consistent application of the standard.

Maintain sabal palmettos along Middle Street and replace in kind when necessary (Figure 5.28). Where loss has occurred or where loss is likely due to age or condition, underplant existing trees with younger plants of the same species. Palms with a height of 10' are preferred for new plantings.

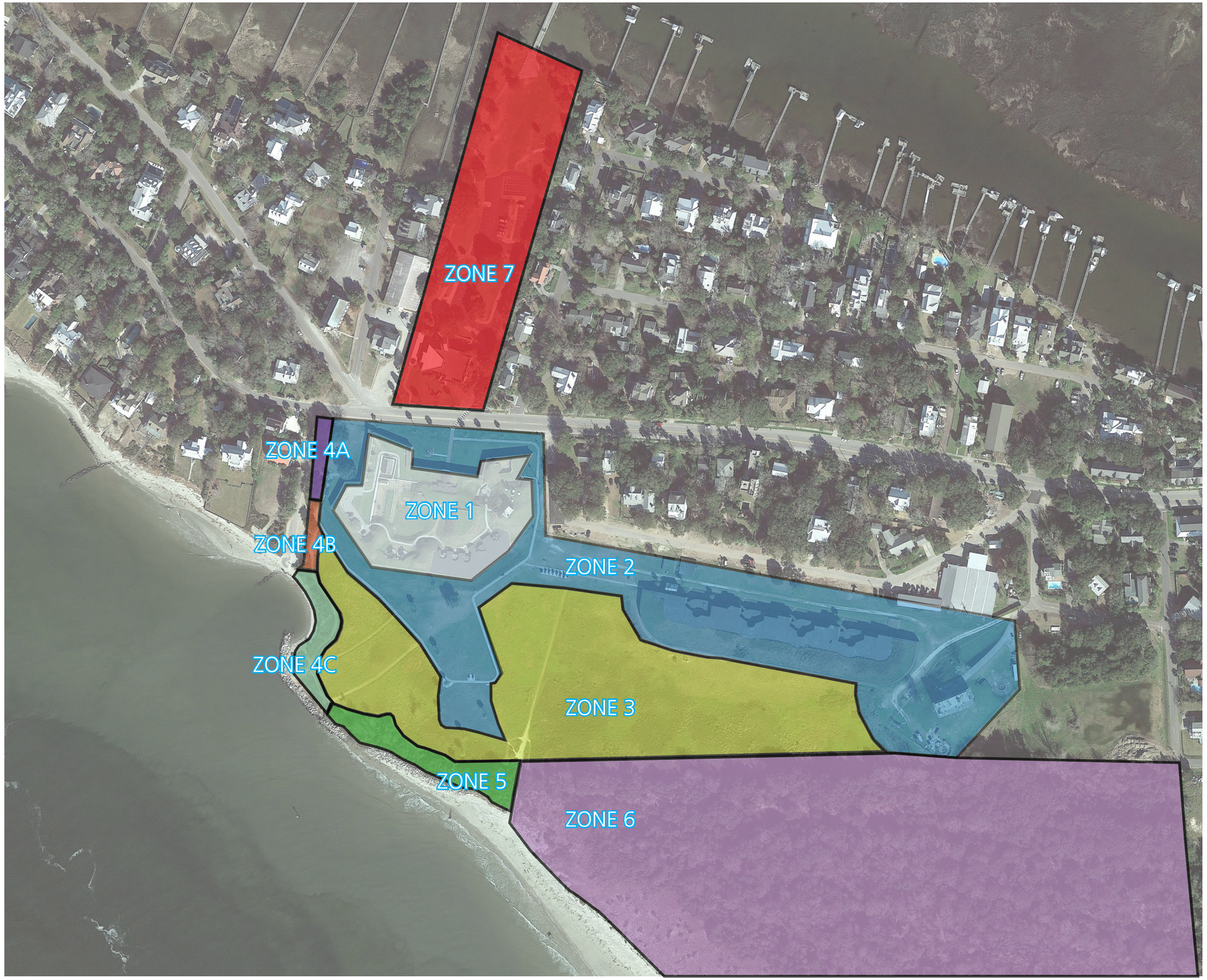
This CLR recommends the removal of two sabal palmettos from the area (Figure 5.29, Illustration 5.2). Located along sightlines from Fort Moultrie towards the harbor, the palms interfere with this historic view. Replacement trees should be planted in the eastern portion of Zone 3.

Maintain other existing trees in the area through yearly pruning. While this report does not recommend removing the live oaks in order to help reestablish views in the area, do not replace live oaks should they become damaged or destroyed.

Zone 3: Meadow

Vegetation Goal
The goal for vegetation within the Meadow Area is to allow for the continued presence of the meadow between the managed scrub and

Figure 5.27. View of vegetation management zone 2, showing a well-maintained landscape that is mostly open in character (WLA Studio, 2018).



Vegetation Management Zones

Vegetation Zone 1

Vegetation Zone 1 contains the area within Fort Moultrie No. 3. Two management standards apply to the area, with some turf maintained at a low height and sloped areas allowed to grow taller.

Vegetation Zone 2

Vegetation Zone 2 contains the area surrounding the fort and other military installations. The area features scattered trees and a turf maintained at a low height year round.

Vegetation Zone 3

Vegetation Zone 3 contains the area managed as a costal meadow. Its management is less intensive, with only periodic mowing to keep woody species from establishing.

Vegetation Zone 4

Vegetation Zone 4 contains the southwestern edge of the property. Currently featuring a mixture of vegetation at various heights, this report recommends a more purposeful management for the area. Three subzones divide the space into different plant communites as described in the report text.

Vegetation Zone 5

Vegetation Zone 5 contains an area of maturing maritime forest that is currently not managed. Its horizontal growth is contained through boundary mowing.

Vegetation Zone 6

Vegetation Zone 6 contains a large area of maritime forest held in conservation easement outside of NPS jurisdiction.

Vegetation Zone 7

Vegetation Zone 7 contains the area developed by the NPS in the 1970s. Vegetation in the area is a mixture of maturing trees, maintained turf, ornamental planting beds, and large shrub borders.

Notes

1. Management boundaries are based on existing vegetation conditions and current management practices.
2. While similar, these vegetation management zones differ from identified veiwshed management zones.

Credits

1. Google Earth.

Illustration 5.5
Vegetation Management Zones

Fort Sumter and Fort Moultrie National Historical Park
Cultural Landscape Report
August 2019

Figure 5.28. Historic palmettos lining Middle Street (WLA Studio, 2018).

Figure 5.29. The two palmettos identified for removal are located immediately south of the fort. This photograph taken from Battery Bingham shows how they obscure the view towards the harbor (WLA Studio, 2018).

forest plant communities of Zones 4 and 5 and the more manicured lawn to the north in Zone 2. The meadow should support biodiversity and ecological objectives as well as provide visual interest through seasonal blooming events.

Current Maintenance:
The park has managed the area as a meadow since 2012 (Figure 5.30 - Figure 5.31). The current performance standard for the field calls for the 50% of the field to be mowed one time per year to a height of 8". This action is taken in consultation with the COR to identify which portions of the meadow are mowed. Additionally, young woody species in the meadow are identified and removed once per year throughout the entire area.

Recommended Maintenance:
This CLR recommends maintaining a meadow in the area. The park should consult with specialists to develop a meadow management plan. The plan will serve as a guide for maintenance activities and goals NPS has for meadow performance and function (i.e. biodiversity, pollinator support, invasive species control, height, aesthetics, viewshed preservation, etc.). The plan can identify desired and undesired species present in the meadow and develop a plan to meet the desired performance and function standards.

Recommended goals for meadow the include:

- Preventing the establishment of woody species within the meadow.
- Preserving the open space between Fort Moultrie, Battery Jasper, and Battery Logan.
- Preserving the viewshed in the area through management of meadow height.
- Increasing ecological function of meadow.
- Increasing public enjoyment of meadow.

The meadow management plan should address specific maintenance and management tasks including:

- Identification of pernicious weeds.
- Identification of desired species.
- Vegetation height monitoring.
- Disallowing unwanted plants to reseed through a revised mowing schedule and broadcast seeding of desired meadow species.

It is recommended the park develop a multi-year program that:

- Identifies desired and undesired plant species.
- Establishes a schedule for removal of unwanted flora.
- A list of recommended plant species to support or introduce include:
    - *Panicum anceps*, SC Ecotype (Beaked Panicgrass, SC Ecotype)
    - *Schizachyrium scoparium*, 'Camper' (Little Bluestem, 'Camper')
    - *Elymus virginicus*, PA Ecotype (Virginia Wildrye, PA Ecotype)
    - *Sorghastrum nutans*, NC Ecotype (Indiangrass, NC Ecotype)
    - *Tridens flavus* (Purpletop)
    - *Chamaecrista fasciculata*, FL Ecotype (Partridge Pea, FL Ecotype)
    - *Eragrostis hirsuta*, VA Ecotype (Bigtop Lovegrass, VA Ecotype)
    - *Lespedeza virginica*, VA Ecotype (Slender Lespedeza, VA Ecotype)
    - *Rudbeckia hirta*, Coastal Plain NC Ecotype (Blackeyed Susan, Coastal Plain NC Ecotype)
    - *Coreopsis lanceolata* (Lanceleaf Coreopsis)
    - *Eryngium yuccifolium*, SC Ecotype (Rattlesnake Master, SC Ecotype)
    - *Parthenium integrifolium*, NC Ecotype (Wild Quinine, NC Ecotype)
    - *Baptisia albescens*, SC Ecotype (Spiked Wild Indigo, SC Ecotype)
    - *Chamaecrista nictitans*, NC Ecotype (Sensitive Pea, NC Ecotype)
    - *Silphium asteriscus var. angustatum*, SC Ecotype (Starry Rosinweed, SC Ecotype)
    - *Helianthus angustifolius*, Coastal Plain NC Ecotype (Swamp (Narrowleaf) Sunflower, Coastal Plain NC Ecotype)
    - *Vernonia acaulis*, SC Ecotype (Stemless Ironweed, SC Ecotype)

Figure 5.30. View of the meadow looking north towards Fort Moultrie. Note the contrast between the meadow and the more manicured lawn. (WLA Studio, 2018).

Figure 5.31. Elevated view of the extent of the meadow south of Battery Jasper. Note the mown areas, which contain the meadow's horizontal spread. (WLA Studio, 2018).

Zone 4: Maritime Shrub Thicket and Forest

Vegetation Goal
The goal for vegetation within Zone 4 is to establish a low-growing maritime shrub thicket that transitions to coastal live oak-dominant forest. The zone should be managed to preserve / reestablish views towards the harbor. This area will also serve as a barrier to pedestrian access from the adjacent roadway. The area should also support biodiversity and provide ecological services.

Current Maintenance:
The space between the parking area on Station 12 Street and the Fort Moultrie landscape contains a mixed-species assemblage and is not currently maintained on a regular basis. Presently, the area is classified as Wax-myrtle-Carolina Laurel Cherry-Toothache-tree Shrubland, which contains abundant *Morella cerifera* (wax myrtle), *Prunus caroliniana* (Carolina laurelcherry), *Celtis laevigata* (sugarberry), *Ilex vomitoria* (yaupon), and *Sabal palmetto* (cabbage palmetto).[279] The southern portion of the zone is shorter in height but is transitioning to a taller plant community (Figure 5.32). At the north end of the zone, large oaks stand within a mown lawn (Figure 5.33). The middle portion of the zone features a developed shrubland and several informal pedestrian access points (Figure 5.34).

Recommended Maintenance:
For ease in management, this CLR divides Zone 4 into three sections: Zones 4A, 4B, and 4C (Illustration 5.5). Overall, this report recommends the establishment of maritime shrub thicket with a transition (south to north) to a forest plant community (Figure 5.35). This reconfigured buffer will aid in reducing cut-through pedestrian traffic and will preserve views to the harbor from the site. The removal of vegetation should only be performed after a plant inventory documents the area. Some of the plants may remain in place if they are suitable to the creation of the proposed planting. In general, Zone 4A can feature taller plants, whereas Zone 4B should be managed for low height species.

279. McManamay R et al. "Vegetation mapping at Fort Sumter National Monument," (Natural Resource Data Series. NPS/SECN/NRDS—2012/320. National Park Service. Fort Collins, Colorado, 2012), 142.

Zone 4A

Zone 4A can serve as the upland live oak forest portion of the proposed designed plant community. Zone 4A currently features several mature canopy trees. These trees provide a valuable ecologic purpose as well as shade for visitors. This CLR recommends keeping these trees and pruning them as needed for visitor safety and tree health. Replace trees in kind should they become severely damaged, though the exact location of the trees need not be replicated. Ensure trees are at least 30' from the exterior of the fort. The mown turf ground cover should be maintained using the standard for Zone 2 (2"-3" in height). A mixed planting of *Ilex vomitoria* (yaupon), *Morella cerifera* (wax myrtle), *Serenoa repens* (saw palmetto), and *Callicarpa americana* (American beautyberry) can serve as a buffer on the west edge of the property.

Zone 4B

Zone 4B can serve as the maritime shrub thicket in the proposed designed plant community. Currently, this portion of Zone 4 features a mixture of low shrubs, maturing tees, climbing vines, and grasses classified as Wax-myrtle-Carolina Laurel Cherry-Toothache-tree Shrubland. The maturing trees impact views toward Fort Sumter and the harbor. It is recommended that workers remove plants that impede views in this section after a thorough inventory. Should the inventory document any rare or critical habitat plant in the zone, retain such plants and incorporate them into the proposed design. In general plants in Zone 4B should be maintained at a low height (no more than 4' tall).

Plants to be encouraged in this area include limited amounts of *Ilex vomitoria* (yaupon), *Serenoa repens* (saw palmetto), *Morella cerifera* (wax myrtle), and *Callicarpa americana* (American beautyberry) intermixed with coastal grasses such as *Uniola paniculate* (sea oats), *Andropogon glomeratus* (bushy bluestem), and *Panicum amarum* (bitter panicgrass).

Zone 4C

Zone 4C represents the area that should be managed to maintain the lowest height in Zone 4. By referencing a Sea-oats Temperate Herbaceous Alliance, the replanting of this

Figure 5.32. Lower height vegetation grows in the southernmost portion of Vegetation Zone 4. (WLA Studio, 2017).

Figure 5.33. Maturing live oak trees over a mown lawn in the norther portion of Vegetation Zone 4. (WLA Studio, 2017).

Figure 5.34. Shrubby buffer along west side of the cultural landscape in the middle portion of Vegetation Zone 4. (WLA Studio, 2017).

area can fulfill both ecological and viewshed management goals. A Sea-oats Temperate Herbaceous Alliance is dominated by *Uniola paniculate* (sea oats), with *Hydrocotyle bonariensis* (largeleaf pennywort), *Croton punctatus* (gulf croton), *Spartina patens* (saltmeadow cordgrass), *Oenethera humifusa* (seabeach evening primrose), *Andropogon glomeratus* (bushy bluestem), and *Panicum amarum* (bitter panicgrass) present in abundance.[280] Some of these species may be present in the areas already and should be managed for their continued presence. The area should be mostly cleared of woody species with allowances for habitat or sources of food for wildlife.

Zone 5: Managed Maritime Forest

Vegetation Goal

The goal for vegetation within the managed maritime forest is to maintain a healthy ecological habitat while allowing for views to the harbor.

Current Maintenance:

Zone 5 features a narrow strip of maturing maritime forest along the southern boundary of the site (Figure 5.36 - Figure 5.37). The area was classified in 2012 as Wax-myrtle-Carolina Laurel Cherry-Toothache-tree Shrubland. While the composition and vertical growth within Zone 5 are not currently managed, its horizontal spread is contained through regular maintenance of a mown turf path that skirts the forest's north, east, and west sides.

It has been generally understood that the area is covered by the scenic easement that extends across the southeast portion of the Fort Moultrie cultural landscape. Additionally, the Town of Sullivan's Island enforces a ban on tree removal within the maritime forest, though its jurisdiction ends at the NPS boundary of the site. Research reveals that this area is in fact owned in fee simple by the NPS, and as such, the park can manage this area as it deems best.

The path that edges the forest is maintained at a 6"-8" mowing height, with a minimum of 3' to maximum 6' path width. Trees along the edge are maintained at 8' above the ground.

280. McManamay R et al. "Vegetation mapping at Fort Sumter National Monument," (Natural Resource Data Series. NPS/SECN/NRDS—2012/320. National Park Service. Fort Collins, Colorado, 2012), 146.

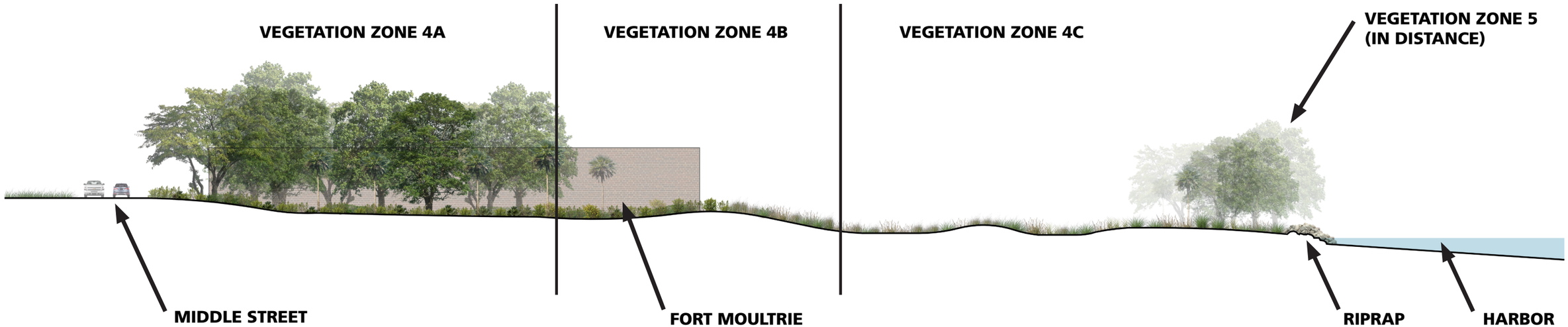


Figure 5.35. Section elevation of designed plant community for Zone 4 (WLA Studio, 2019).

Figure 5.36. Maturing forest in Vegetation Zone 5, shown here at a distance to illustrate extent and density. (WLA Studio, 2017).

Figure 5.37. Ground-level photograph of Vegetation Zone 5 vegetation. Note how the density of vegetation disallows views towards the harbor. (WLA Studio, 2017).

Recommended Maintenance:
As a maturing forest already exists in this zone, this CLR does not recommend complete removal and replacement of vegetation in Zone 5. However, this area should be managed to transition to an open form live-oak dominant forest with an herbaceous-dominant understory. "Open" refers to a forest dominated by live oak trees with an "open, grassy understory," as described by the USDA Forest Service.[281] This classification of maritime forest is naturally maintained by a regular frequency of fire, ranging from 2 to 26 years. Such an environment existed in coastal areas prior to modern fire suppression. At Fort Moultrie, this environment would be managed through mowing and trimming instead of fire. The removal of a shrub-dominant understory, replacing the ground cover with costal grasses and other herbaceous species, and the selective removal of trees and tree limbs would allow the maritime forest to grow as before but would help to reestablish an open visual connection from Fort Moultrie landscape to the harbor and Fort Sumter.

The removal of vegetation should only be performed after a plant inventory documents the area. Some of the plants may remain in place if they are suitable to the creation of the proposed planting. Like for Zones 3 and 4, it is recommended the park commission a landscape management document to address this area before any planting or plant removal take place.

Plants to be encouraged in this area include:

- *Quercus virginiana* (live oak)
- *Quercus hemisphaerica* (Darlington oak)
- *Persea borbonia (*redbay)
- *Toxicodendron radicans* (eastern poison ivy)
- *Vitis rotundifolia* (muscadine)
- *Smilax* (greenbrier) spp.,
- *Parthenocissus quinquefolia* (Virginia creeper)
- *Bignonia capreolata* (crossvine),
- *Berchemia scandens* (Alabama supplejack),
- *Ampelopsis arborea* (peppervine),
- *Gelsemium sempervirens* (evening trumpetflower)
- *Mitchella repens* (partridgeberry)
- *Asplenium platyneuron var. platyneuron* (ebony spleenwort),
- *Chasmanthium laxum* (slender woodoats)
- *Piptochaetium avenaceum* (blackseed speargrass),
- *Galium pilosum* (hairy bedstraw)
- *Dichanthelium commutatum* (variable panicgrass)
- *Elephantopus nudatus* (smooth elephantsfoot)
- *Passiflora lutea* (yellow passionflower)

Plants to be discouraged from widespread distribution include:

- *Juniperus virginiana var. silicicola* (southern redcedar)
- *Ilex opaca var. opaca* (American holly)
- *Ilex vomitoria* (yaupon)
- *Morella cerifera* (wax myrtle)
- *Sabal minor* (dwarf palmetto)
- *Callicarpa americana* (American beautyberry)

Zone 6: Unmanaged Maritime Forest

This area is covered by a scenic easement, disallowing NPS maintenance and management of Zone 6.

Zone 7: North Reservation

Vegetation Goal
The vegetation goal for Zone 7 is for plantings to support the area's role as the welcome center for the park through well-maintained turf, planting beds, shrubs, and shade trees.

Current Maintenance:
Contractors conduct maintenance within Zone 7 on a regular basis. The turf within Zone 7 is maintained at a 2"-3" mowing height (Figure 5.38). The shrubs in the area are maintained to height of 6' with no more than 6" encroachment over the walking surface. Where no walkways exist, shrubs are maintained to minimize sprawl and provide a clean, orderly appearance. All unwanted vines and trees growing in the shrubs are removed regularly. During the late-winter each year, workers perform heavy trimming of shrubs and grasses. This action is completed in consultation with the COR. The flower beds are maintained to be free of weeds

281. Cecil Frost, "Rapid Assessment Reference Condition Model – Maritime Forest," (LANDFIRE project, USDA-NRCS, 2005), 5.

Figure 5.38. Photograph of west side of Vegetation Zone 7. Note the mown turf, well-maintained trees, and dense shrub border (WLA Studio, 2018).

with root suckers regularly removed during the growing season. The beds are mulched with natural color wood mulch. The planting beds also feature large shrubs and small trees. Overall, the plantings at the Visitor Center feature a variety of native coastal species.

Recommended Maintenance:
This CLR proposes the park maintain its current standards in Zone 7. This report offers several suggestions to enhance existing conditions:

- Consider rehabilitating the open lawn area north of Visitor Center with a stabilized turf system to better handle overflow parking, reduce compaction, and to improve storm water infiltration should these issues constitute a continued problem.
- Maintain the native coastal plant species within the planting areas surrounding the Visitor Center and Torpedo Storehouse. Replace plantings with other native species should condition require.
- Install native butterfly milkweed (*Asclepias tuberosa*) in ornamental planting beds to support the eastern population of Monarchs, which migrate through the site.
- Retain existing vegetation buffers in northern portion of the site.

Views and Vistas

Views to and from Fort Moultrie's cultural landscape serve as fundamental cultural resources (Illustration 5.6). This report has identified an area within the cultural landscape as a Viewshed Management Area. The park's management of this area should prioritize the retention or reestablishment of key view corridors, while making views accessible to the visiting public. Like the section on vegetation management, this report divides the identified Viewshed Management Area into zones (Illustration 5.7). These zones either contain important viewpoints, impede views, or facilitate views.

Viewshed Equality

Park staff expressed a concern about viewshed equality at the site, especially related to views towards Fort Sumter but also within the site and north from the site towards the Cove. Currently, no view from Fort Moultrie to Fort Sumter is available to wheelchair users inside of the fort, as the Scarp Wall blocks this view. Outside the fort, from ground level this view is blocked by vegetation on the southern edge of the site. Lastly, the location where such views are possible—the Visitor Center's roof—is not universally accessible at this time. As the view to Fort Sumter is of great significance, effort actions should be taken to make this view available to all visitors. Additionally, the view from the top of the Visitor Center provides the only

opportunity for a "big picture" understanding of the historical development of Fort Moultrie's cultural landscape.

The use of lifts to achieve view equality was ruled out due to costs, upkeep, and impact to historic character within the fort. However, the addition of a lift and/or elevator has not been ruled out for universal access to the Visitor Center roof. Several recommendations for offering these views are discussed below:

Recommendation: Utilize a combination of viewpoints to provide accessible views towards the harbor and the Fort Moultrie cultural landscape, in particular those from (1) Battery Bingham and (2) the Visitor Center. Manage vegetation to facilitate views as previously discussed.

(1) As previously discussed in the Circulation section, construct a ramp at Battery Bingham to provide views towards Fort Sumter and the immediate Fort Moultrie landscape (Figure 5.5 and Figure 5.11). The view from Battery Bingham's gun position provides a clear line of sight to the harbor and Fort Sumter.

(2) The flat roof of the Visitor Center serves as an important location for telling the story of Fort Moultrie's historical development (Figure 5.39). The roof is accessed via a flight of stairs integrated into the building, meaning that it is currently inaccessible to wheelchair users. While not a historic view, the position provides a sweeping panorama of the fort and its relation to the harbor, as well as the Cove to the building's north and the development of Sullivan's Island in general. It is recommended that the park commission a study addressing universal access to the roof via a mechanical lift, elevator, ramped walkway, or other alternative.

Viewshed Management

The following section outlines the five identified View Zones for viewshed management purposes. The boundaries of the zones are based on current landscape management practices, existing cultural and natural resources, and vantage points throughout the site. Rather than isolated zones, these areas act in concert with one another to frame or obscure views, and as such, the management of one zone may benefit the views to or from an adjacent zone.

View Zone 1

View Zone 1 lies within Fort Moultrie No. 3. Within this zone, three primary viewpoints offer visitors views towards Fort Sumter and Charleston Harbor out across a mostly open landscape. The three viewpoints are: from the Civil War exhibit on the Terreplein, from Battery Bingham, and from the HECP building (Figure 5.40 - Figure 5.43).

Access to these viewpoints is a present concern for park management. As such, as described in detail earlier in the section, this CLR offers the following recommendations:

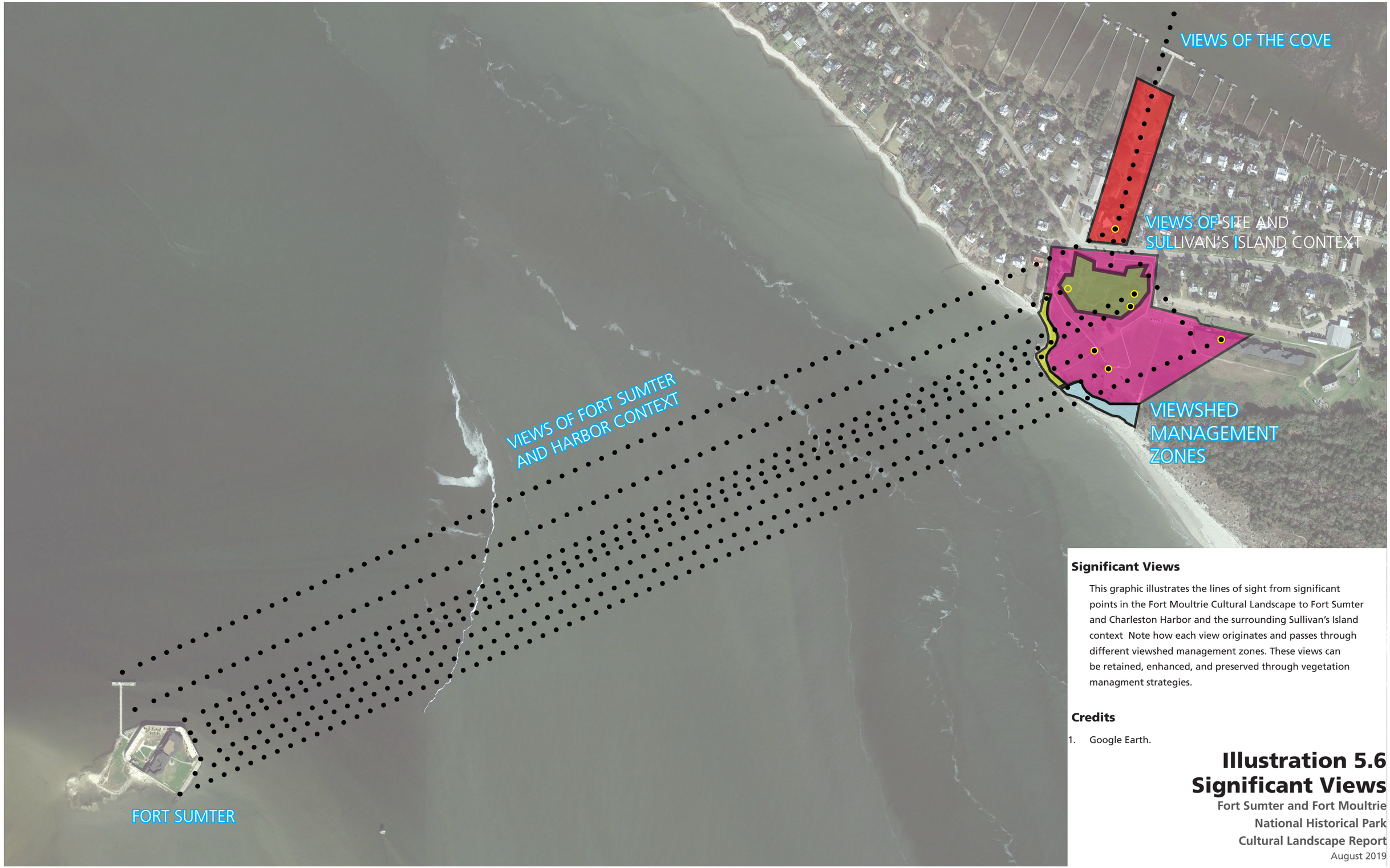
- Install a ramp-bridge for universal access to Battery Bingham's gun position which will supply elevated views across the southern portion of the landscape and the harbor beyond to wheelchair users.
- Manage vegetation in zones 2 and 3 to allow views from fort interior.
- Maintain access to HECP platform.

View Zone 2

View Zone 2 encompasses a large area south and east of the fort to include views from Battery Jasper, the interpretive walkway, Cannon Row, and the mown paths. The view from Battery Jasper is elevated, facilitating sweeping views of the landscape and into the harbor beyond. The other viewpoints are located at ground level, which presents challenges for universal access due to the height of vegetation in View Zones 3 and 4. The views from the landscape back towards the fort are generally open (Figure 5.44).

It is recommended the park follow this CLR's recommended treatment for vegetation throughout View Zone 2. The recommendations were drafted to place emphasis on viewshed protection. Specific additional recommendations include:

- Widening mown paths through meadow to aid in opening views towards the harbor (Figure 5.45).
- Adding a removable step stool to aid in views from ground level at key viewpoints along the interpretive walkway, such as near the existing cannon display.



Significant Views

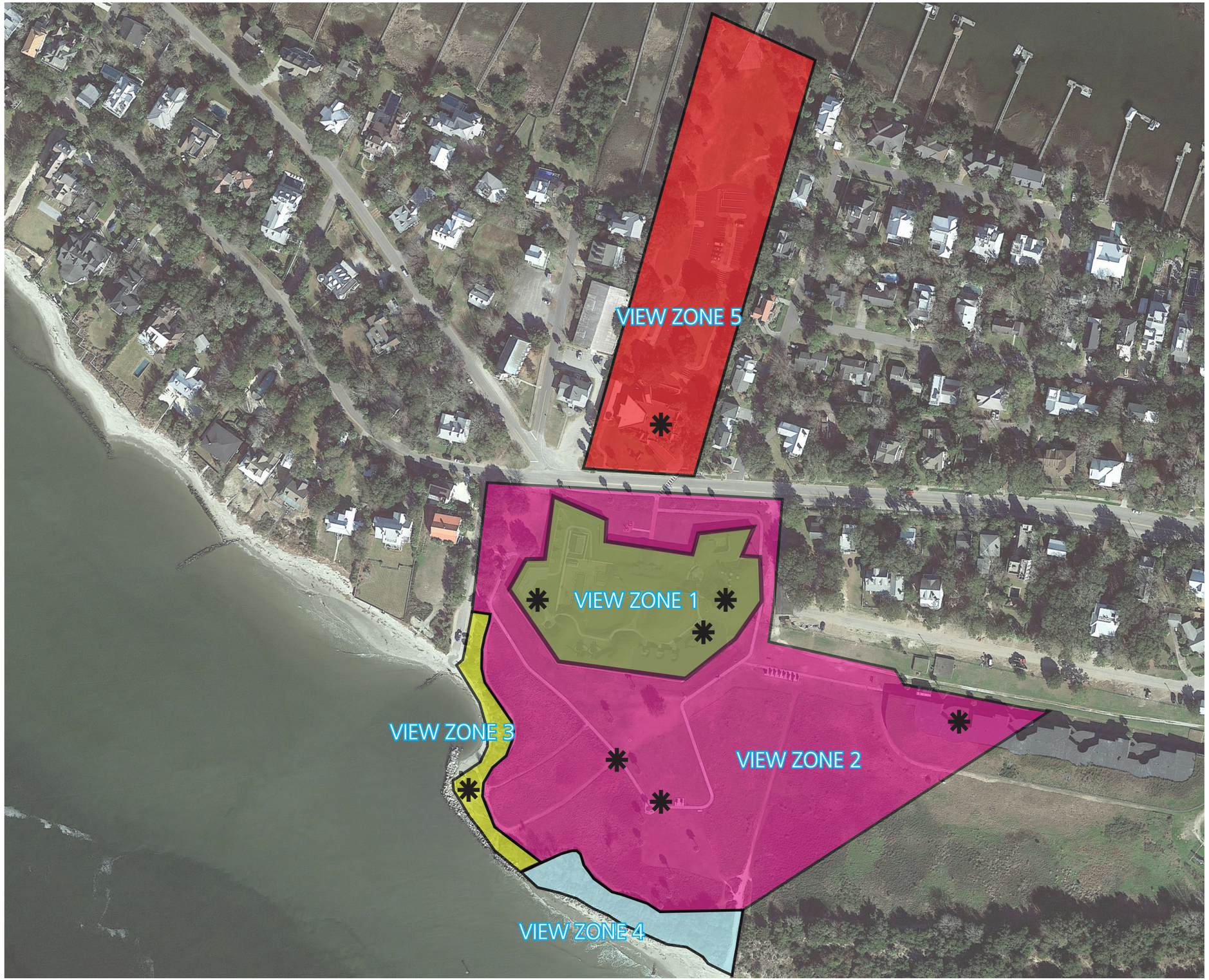
This graphic illustrates the lines of sight from significant points in the Fort Moultrie Cultural Landscape to Fort Sumter and Charleston Harbor and the surrounding Sullivan's Island context Note how each view originates and passes through different viewshed management zones. These views can be retained, enhanced, and preserved through vegetation managment strategies.

Credits

1. Google Earth.

Illustration 5.6
Significant Views

Fort Sumter and Fort Moultrie
National Historical Park
Cultural Landscape Report
August 2019



View Zones and Viewpoints

View Zone 1

View Zone 1 contains the area inside Fort Moultrie No. 3. In addition as serving as a point of visual interest itself, the fort features several vantage points for important views.

- From the HECP building
- From the Terreplein
- From Battery Bingham

View Zone 2

View Zone 2 contains the area surrounding Fort Moultrie No. 3, extending east towards Battery Jasper and south towards towards the harbor. The open character of this zone provides expansive views across the landscape. Key viewpoints include:

- From the interpretive walkway
- From Battery Jasper
- From the mown grass paths

View Zone 3

View Zone 3 contains the area along the southwestern edge of the site. The area contains a mixture of vegetation that both block and facilitate views towards the harbor. Important viewpoints include:

- View to harbor and Fort Sumter from beach

View Zone 4

View Zone 4 contains an area along the southern edge of the site. No views derive from the area but the dense vegetation results in blocking views of the harbor from other view zones.

View Zone 5

View Zone 5 contains the North Reservation Character Area. The visitor center roof serves as an important, though not historic, viewpoint.

- View to Fort Moultrie, Fort Sumter, Charleston Harbor, the Cove, and Sullivan's Island context

Notes

1. While similar, these viewshed management zones differ from identified vegetation management zones.

Credits

1. Google Earth.

Illustration 5.7 Viewshed Management Zones

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Figure 5.39. Photograph of Fort Moultrie cultural landscape taken from the visitor center roof (WLA Studio, 2018).

Figure 5.40. View southwest from the Civil War era display on the Terreplein. Note the vegetation impact on the view (WLA Studio, 2018).

Figure 5.41. View south from Battery Bingham gun position. Note the vegetation impact on the view (WLA Studio, 2018).

Figure 5.42. View south from the HECP platform, overlooking the interior of the fort, large open field, and the harbor in the background. (WLA Studio, 2018).

Figure 5.43. View west across the interior of the fort, which shows the Stella Maris church, Visitor Center, and Sullivan's Island context (WLA Studio, 2018).

Figure 5.44. View northwest from the interpretive walkway outside of the fort. Note the open views maintained through vegetation management (WLA Studio, 2018).

Figure 5.45. View north from the end of one of the grass paths. Widening these paths would aid in framing views to and from the area (WLA Studio, 2018).

Figure 5.46. View from the beach out into the harbor. Charleston is located on the right side of the image and Fort Sumter on the left (WLA Studio, 2018).

View Zone 3
View Zone 3 only contains one key viewpoint (located at the beach), but its impact on the viewshed as a whole is significant (Figure 5.46). The majority of views toward Fort Sumter extend through this area, including views from Zone 1 and Zone 2. The proposed vegetation management for this area would aid in reestablishing views from both zones, which has been impacted by the growth of vegetation along the southern edge of the property (Figure 5.40).

The proposed management entails the establishment of a transitional designed plant community that references native plant communities of the southeastern coast. The planting is designed to limit the height of vegetation in View Zone 3. Specific recommendations for viewshed management in this zone are as follows:

- Remove all vegetation that does not contribute to establishment of proposed designed plant community or critical habitat, including trees. For every tree removed, we recommend planting a replacement north of the maritime forest protected by scenic easement (far east portion of landscape).
- Ensure access to viewpoint at beach.
- Maintain open terminus of mown pathways.

View Zone 4
View Zone 4 does not feature any identified viewpoints, but like View Zone 3, the area has large bearing on the quality of views from the northern portion of the Fort Moultrie cultural landscape. Currently, the zone features a maturing maritime forest with a thick understory (Figure 5.37). The dense vegetation limits views to the harbor. Though the character of this portion of the landscape is not in keeping with historic conditions, its complete restoration is not recommended. Instead, this report recommends a managed transition to an open live oak dominant forest with herbaceous dominant understory.

Viewshed management recommendations for View Zone 4 include:

- The selective removal of trees, particularly nonnative tree species.
- The removal of the forest understory, replacing it with recommended plants.
- The continued construction of the horizontal spread of the forest through regular mowing of the grass path along its border.

View Zone 5
View Zone 5 contains a critical vantage point—the top of the Visitor Center. The building's roof offers near 360-degree views of the fort landscape and surrounding context (Figure 5.39). Importantly, this location offers one of the best opportunities to provide accessible views toward Fort Sumter. Further, as recommended, this location can serve as the first stop on an updated interpretive tour route.

- Maintain open vista toward cove on the north end of the site through tree pruning.
- Develop a solution for providing universal access to Visitor Center roof.
- Manage vegetation in zones south of Visitor Center to allow uninterrupted views to Fort Moultrie landscape and harbor.

Other Viewshed Management Issues
Additional viewshed management issues pertain to adjacent properties. This report recommends the commission of a study to identify and address threats to historic views outside of NPS managed lands. As the *Foundation Document* notes several outside threats have the potential to impact the site, including:

- Offshore energy development (wind, oil, gas) could potentially affect historic sight lines and views associated with this defensive position.
- Increased traffic on Middle Street, private development on Sullivan's Island, and additional infrastructure on the island could affect the surrounding cultural landscape of Fort Moultrie.
- Increased pressure to develop land outside the park boundary but within the existing scenic easement. This could have a significant impact on the cultural landscape.[282]

282. National Park Service, 20.

Figure 5.47. Fort Moultrie flagpole adjacent to the Sally Port entrance. This report recommends expanding the pad surrounding the base of the flagpole for easier access (WLA Studio, 2018).

Small-Scale Features

Many of the small-scale features at Fort Moultrie pertain to NPS management of the site, with signage, benches, and interpretive exhibits spread across the landscape. Other small-scale features are historic and require additional consideration concerning their management. Recommendations pertaining to these features are discussed below.

Flagpole

Park staff have expressed dissatisfaction with the current location of the flagpole (Figure 5.47). Aside from the difficulty in attending to it, the flagpole is not in a historic location. That said, over the fort's historical development, the flagpole was located in various locations and has been replaced several times. As the fort interior has been significantly modified over that time, a restoration of the flagpole to any historic location is unfeasible without significant modifications. Concerning its reflection of historic conditions, though not in the correct position, the flagpole's orientation is in keeping with historic conditions.

Recommendation: As the relocation of the flagpole to another location would pose an adverse impact to the historic condition of the fort, do not move the flagpole. However, to address access to the flagpole by park staff, it is recommended that the park enlarge the current pad at the base of the flagpole (Illustration 5.3). This action would entail cutting into the bombproof and constructing a larger retailing wall on the north side of the flagpole.

Signage

Fort Moultrie contains a number of signs that address site regulations, wayfinding, and interpretation. Park interpretive signage dates to various periods of NPS ownership, resulting in an incongruent interpretive experience. Site regulation and wayfinding signage is similarly unstandardized. Improvement to park signage would help the public better navigate Fort Moultrie's historic cultural landscape.

According to Director's Order #52C: Park Signs, the development of a standardized signage system,

which includes park and facility identification signage, visitor information signs, wayside exhibits, and pathfinder signs, should offer clear, concise and consistent communications to park visitors while not intruding on natural and historic settings; maximize the public's convenience and safety; strengthen the NPS public identity and perception as one organization; and be appropriate in appearance, size, and material to a wide range of park environments. For detailed information on the development of a comprehensive signage system, the park should contact Harpers Ferry Center. Harpers Ferry Center assists parks with the planning, design, development, and production of media products.

Site Regulation Signs

Presently, several site regulation information panels of differing manufacture and information are located at access points into the site. One style of sign is posted in two locations: one at a pedestrian access point on the western property boundary and one on the east side of the fort by the wooden fence (Figure 5.48). Two other identical signs are located at the access points into the fort: at the Sally Port Complex and outside the western Postern (Figure 5.49). Another information panel is located in the Visitor Center parking lot. All three vary in appearance and information.

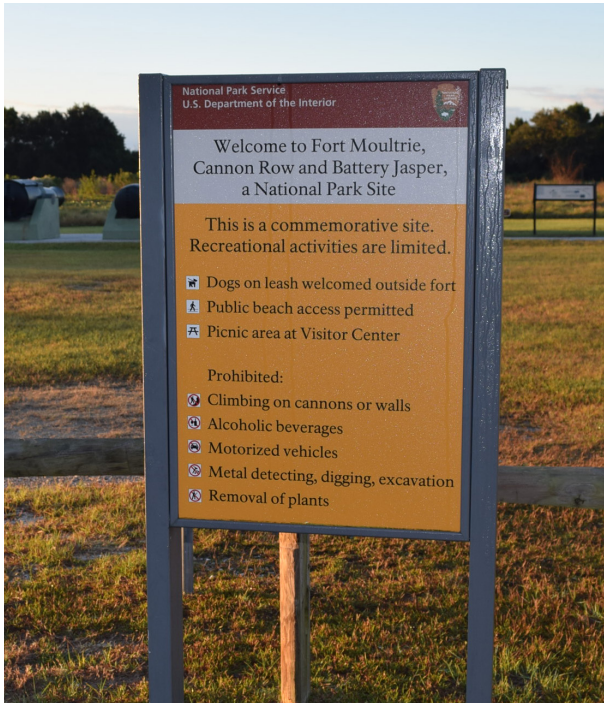

Figure 5.48. Site regulation sign located at the wooden fence on the east side of the fort. Note the difference in appearance to the sign in Figure 5.49 (WLA Studio, 2018).

Recommendation: It is recommended the park standardize site regulation signs. Should the park elect to close the access points on the west side of the property, regulatory signage can be minimized.

Interpretive Signage

Park staff have noted the interpretive and wayfinding signage inconsistencies at the site. Specifically, existing signage dates to different periods, resulting in a lack of interpretive uniformity. Currently, 25 interpretive waysides are distributed throughout the site, with a number of small building-mounted identification panels. In general, the locations of existing waysides within and outside the fort do not need updating except in a few locations.

Recommendation: The park should install new interpretive signage within the landscape that is uniform in design, reflective of current understanding of historical development, and comprehensive. An update to the long-range interpretive plan would provide guidance for

Figure 5.49. Site regulation sign located within the Sally Port Complex. Note the difference in appearance to the sign in Figure 5.48 (WLA Studio, 2018).

this action. Following the interpretive themes identified in the 2019 enabling legislation and the other historic contexts identified in this report, in addition to highlighting the role of the fort in US military conflicts, interpretive signage should also include a discussion of various social histories reflected by the landscape, including, but not limited to: (1) the role of enslaved people in the construction and defense of the fort as well the enslaved Africans held in quarantine houses in the vicinity of Fort Moultrie, (2) the role of women at Fort Moultrie Military Reservation during WWII, (3) the history of the hospitals, healthcare, and burial on site, (4) the use of the fort as a park-like strolling ground in the mid-nineteenth century, and (5) the history of Seminole internment at the site. The majority of new signage should be located in the North Reservation Character Area. The precise location of new waysides should be based on the updated long-range interpretive plan.

This report recommends the relocation of existing waysides in the following locations: (1) the Traverse, (2) the Bastionet, (3) the Parade wall, (4) Battery Bingham, and (5) the HECP building. Illustration 5.2 shows the location of existing waysides and approximate recommended locations within the fort. These modifications align with the recommended upgrade to pedestrian circulation.

(1) The wayside at the traverse should be removed. Its replacement should be installed at the end of the proposed paved path connecting the barracks area with the Sally Port Complex. This updated sign can provide an accessible overview of the fort as it existed prior to the Civil War.

(2) To aid in accessibility, the small wayside at the Bastionet should be removed. Its replacement should be located at the bend in the interpretive walkway closest to the area. The replacement wayside should contain information about the Bastionet as well as the views it afforded to the surrounding landscape.

(3) Two waysides are located along the top of the parade wall at the Terreplein. One displays information on pre-Civil War Defense of the fort. This wayside should be relocated to the west side of the walkway and closer to the gun positions. The other sign, which displays information about the barracks, can be incorporated into the sign proposed for the parade / barracks area discussed above.

(4) The wayside interpreting Batteries McCorkle and Bingham is currently located next to the flight of stairs leading to Battery Bingham. This report recommends moving this wayside to an area between the two batteries. This relocation not only situates the interpretation earlier along the proposed tour route but makes room for the relocation of another wayside (5).

(5) To aid in interpretive equality, it is recommended the interpretive wayside on the HECP building and WWII activities be moved off the bombproof and next to the proposed ramp to Battery Bingham. This would allow those who cannot access the second and third floors of the HECP building to get an understanding of this final period of harbor defense along the established tour route.

Wayfinding

Wayfinding is a key component of any historic site, especially one that relying upon self-guided tours. The site contains a variety of wayfinding signs, including directional signage in the parking lot and self-guided tour signs within the fort (Figure 5.2).

Recommendation: In conjunction with updating the interpretive program at the site, it is recommended that the park assess and replace any outdated or inaccurate wayfinding signage on site.

Benches

Currently, the site contains a number of backless and armrest-less benches, which are not ABA compliant. The *Accessibility Study* recommended the replacement of these benches throughout the site. Several benches are located along the interpretive trail outside the fort, several at the Visitor Center, and a 100% recycled, weather-resistant version is currently located at the dock (Figure 5.50).

Recommendation: Replace backless benches with benches featuring backs and armrests that are ABA-compliant and meet NPS standards for site furnishings and sustainability.

Cannons

Park staff have noted issues related to the two replica 18-pounders along the walkway south of the fort (Figure 5.51). They are currently inoperable due to deterioration and their grouping is undesirable. A third unused 18-pounder cannon presently sits unused at the maintenance garage.

Recommendation: It is recommended the park spread out the cannons along the walk. A replica gun carriage would be needed for the third unused cannon. This action can be conducted in conjunction with improvements to the interpretive program as it relates to the 250th anniversary of the Revolutionary War in 2026.

Figure 5.50. Modern bench at dock area that does not feature armrests (WLA Studio, 2018).

Osceola's Gravesite and the *Patapsco* Monument

The Osceola Gravesite is enclosed by a decorative iron fence and is marked by a modern replacement marble slab (Figure 5.52). At some point in the 2000s, the fence was restored with the original type of finial replaced on the fence. The current LCS entry does not reflect this more recent condition change.

The *Patapsco* Monument also marks a gravesite and is similarly enclosed by an iron fence. The monument and the fence are in good condition.

Recommendation: This report recommends the continued maintenance of the two monuments using best practices related to iron fence care. Additionally, update LCS to reflect current condition of fence.

Figure 5.51. Cannon display along interpretive walkway outside fort (WLA Studio, 2017).

Archeology

Since the 1960s, professional archeologists have investigated the historic landscape of Fort Moultrie either through directed projects or compliance work (Figure 5.53 - Figure 5.54). While these studies have produced a number of intriguing findings, significant questions remain, including the exact locations of the first two iterations of Fort Moultrie. It is therefore recommended that the park place priority on strengthen partnerships with SEAC and local universities to establish robust archeology program at the site. The first step in this process is to produce an Archeological Overview and Assessment (AOA), which is a planning document that defines and assesses both known and potential archeological sites.

Figure 5.52. Osceola and *Patapsco* gravesites and associated monuments, fencing, circulation features, and interpretive signage (WLA Studio, 2017).

Figure 5.53. Areas of archeological investigation during Ehrenhard and Hsu's 1974 project at Fort Moultrie (National Park Service, Southeast Archeological Center, 1974).

Future archeological projects should focus on the identification of the following:

Fort Moultrie Cemetery and Hospital Complex

Discovered during the pre-development of the Visitor Center area, a small cemetery currently lies beneath the Visitor Center parking lot (Figure 5.37). In the 1970s, archeologists found seventeen coffins belonging to children and adults, with potentially more graves remaining to be found. Given this location, only one archeological project has addressed the site. It is recommended that the park initiate a new investigation of this area, which will not only provide information about the burial site but also about the hospital complex that developed in various iterations since the early 1800s. These themes are currently under-interpreted at the site. Once the limits of the cemetery are better understood through archeological investigation, the parking lot could be reconfigured to avoid parking areas above gravesites as possible.

Sites of Fort Moultrie No. 1 and 2

Archeological investigations have not successfully identified the locations of Fort Moultrie No. 1 or No. 2 within the site. Identifying these sites in the landscape would significantly increase our understanding of the site as well as benefit the park's interpretive program. Researchers can build upon past investigations and target their work to new locations. As the 250th anniversary of the American Revolution is approaching, being able to accurately interpret this period in the landscape is important.

Civil War Features

An opportunity to research the Civil War occupation of the site remains. While several archeological projects have found a number of Civil War period artifacts and features, the site's prominence during the conflict calls for additional investigations.

American Indian Features

Given the high-water table, it is likely that archeological projects focused on pre-1670 American Indian land use of the site will prove difficult. However, such a project could generate important information about the first people to have occupied Sullivan's Island should conditions allow. Information gleaned from this project could tie into an interpretive program focused on the internment of the Seminole at the site, producing an extended discussion of American Indian life in the Southeast.

Figure 5.54. Photograph of partially excavated coffin during Ehrenhard and Hsu's 1974 project at Fort Moultrie (National Park Service, Southeast Archeological Center, 1974).

Ecological Health and Resiliency to Natural Hazards

The myriad of cultural resources within historic landscapes "are fixed in place or derive much of their significance from the place within which they were created. Many are non-living, and all are unique. As a result, the capacity of cultural resources to adapt to changing environments is limited."[283] Fort Moultrie derives much of its historical significance from its location on Sullivan's Island. This location increases Fort Moultrie's exposure to potential damage from coastal storms and sea level rise (+1.9 to 2.4 feet by 2100).

The site's natural features are at risk with increased storm events and the rise of surrounding waters. The salt marsh on the north end of the site and the maritime forest on the south end of the site

283. National Park Service, "Cultural Resources and Climate Change," (n.p., 2016), accessed December 9, 2016, https://www.nps.gov/subjects/climatechange/upload/06-CCRP-Cultural-Resource-Brief-FEB-2016.pdf.

constitute ecologically significant aspects of the cultural landscape. While never a prominent feature of the Fort Moultrie Military Reservation, the ecological character of the site warrants stewardship. Specifically, the *Foundation Document* states that "[b]alancing the maintenance of the cultural landscape with the needs of natural communities can result in improved species habitat and biodiversity on Sullivan's Island."[284]

An increased frequency of storms threatens the physiographic structure of the coastal maritime forest and associated dunes at the site, which are a critical habitat for threatened species. Another example of the risk to the natural features of the site is the delicate nature of the salt marsh ecosystem. The health of salt marshes is a balancing act and requires the ebb and flow of tidal waters. If saltwater inundates low-lying areas such as marshlands, which can occur as sea levels increase, the health of the salt marshes will be compromised. The biodiversity of the salt marsh will diminish putting not only the marshlands themselves at risk but also endangering wading birds that depend upon the health of these ecosystems for food. With increased sea levels, this and other ecological chains are threatened. In terms of wildlife, the *Foundation Document* notes that the site is located along the migration route of eastern monarch butterflies. However, this population has suffered a "drastic decline over the last 10 years."[285]

Even the slightest variation in temperature and moisture can affect the health of cultural vegetation. As stated in the Director's Policy Memorandum 14- 02, "NPS cultural resource management must keep in mind that (1) cultural resources are primary sources of data regarding human interactions with climate change; and (2) changing climates affect the preservation and maintenance of cultural resources."[286]

According to NPS documents, negative impacts to buildings and structures related to extreme temperature and drought include deterioration, conflagration, and desiccation.[287] A loss of resource integrity may occur over time from conditions related to climate change and its impacts. Typically, documentation is one of the first mitigation techniques undertaken in response to deterioration. This document, which includes narrative, photographs, drawings, and recommendations, fulfils this first step in the mitigation process. As the temperature and moisture levels change, park managers may consider alternate materials that tolerate the heat and additional moisture forecast by climate projections. The use of native materials will increase the chances of adaptability to changing environmental conditions. As the NPS releases new Preservation Briefs that address how to increase resiliency to environmental threats or provides adaptation options, the park should follow Best Practices outlined in these documents and develop park-specific reports that address the protection of Fort Moultrie's cultural and natural resources.

Alternatives to Recommended Treatments

The following are alternatives to the recommended treatments outline in this chapter. They are included here for future consideration.

Alternative to "Interior Interpretive Walkway Slopes" Recommendation

As proposed by the *Accessibility Study*, (1) install concrete ramp from sally port, wrapping around Principal Service Magazine bombproof, toward the HECP building, (2) construct a landing atop the Position Finding Station Foundation, (3) level and repave walkway along face of Battery McCorkle, and (4) regrade an approximately 50' section of walkway east of the South Service Magazine.[288]

(1) The *Accessibility Study* proposes installing a 180' long ramp extending from near the Sally Port to a level area directly east of the HECP building. The proposal requires cutting into the base of the bombproof covering the Principal Service Magazine on its west, south, and east sides. A retaining wall would be required in the

284. National Park Service, "Foundation Document," 20.
285. National Park Service, 20.
286. John B. Jarvis to All National Park Service Employees, memorandum, 10 February 2014, Climate Change and Stewardship of Cultural Resources, Policy Memorandum 14-02, https://www.nps.gov/policy/PolMemos/PM-14-02.htm.
287. Marcy Rockman, "An NPS Framework for Addressing Climate Change with Cultural Resources," The George Wright Forum 32, no. 1 (2015), accessed December 9, 2016, http://www.georgewright.org/321rockman.pdf.
288. National Park Service, "Fort Sumter Accessibility Study" (National Park Service, 2011), 12.

location of the cut. A masonry footer would be installed on the outer edge of the new walkway, and both sides would feature a handrail. The purpose of the ramp is to allow wheelchair users to access the upper levels of the fort's interior which are currently inaccessible due to the slope of the existing walkway. While at an acceptable grade for wheelchair users, as proposed, it does not appear the ramp meets ABA requirements, because it does not contain any intermittent landing sections as required, which requires a landing section every 2.5' in vertical-elevation gain or every 30' in horizontal length depending upon the grade of slope. If the grade of the ramp is 8.33% (1:12), a landing is required every 30' feet.

This design adversely impacts the historic character of the fort landscape. While the introduction of any modern feature into a historic landscape constitutes an impact, this proposal has a significant visual impact. While it appears the bombproof in this location was modified during the 1976 rehabilitation of the fort, adding a large retaining wall at the base of the mound is incongruent with historic conditions. Therefore, the combination of infrastructure required to implement this recommendation—retaining walls, handrails, grading—would be a significant impact to the historic setting.

(2) The *Accessibility Study* proposes that the park construct a platform at the Position Finding Station Foundation to provide views toward Fort Sumter and the resources at the Northeast Bastion. Visually, the impact to the historic character of the fort would be minimal, as the platform would be placed above most fort features, out of direct sight of visitors along the interpretive route (though the lift system would be a visual intrusion). However, as proposed, the plan constitutes a large impact to the site's historic fabric. A disadvantage of the location aside from the damage to historic fabric is its disassociation with the proposed interpretive program, specifically the link between Forts Moultrie and Sumter during the Civil War. This is a current issue at the site, with the visual connection between the two forts in the Civil War era section of the fort inaccessible to wheelchair users.

(3) The *Accessibility Study* proposes to level and repave the existing walkway spanning northeast-southwest in front of Battery McCorkle in brick, maintaining its current alignment and extent. This action does not result in any added impact to the historic landscape, though this walkway does not reflect historic conditions.

(4) The *Accessibility Study* proposes to regrade approximately 50' of walkway west of the South Service Magazine entrance. The study does not indicate what actions would be required to regrade this section, such as the addition of any retaining walls or cutting into the fill.

Alternative to "Access to Terreplein from Parade" Recommendation

The *Accessibility Study* recommends the park install a mechanical wheelchair lift in the vicinity of the brick traverse.[289] The lift should be installed to the east of the existing flight of stairs that provide access to the Terreplein. The addition of this lift allows for the completion of the proposed tour route in proper order. The *Accessibility Study* also recommends the installation of a brick paved landing on the Terreplein to accommodate entry and exit of the lift.

Alternative to "Access to Bastionet" Recommendation

289. *Preservation Brief 32* guidance on lifts states: Platform lifts and inclined stair lifts, both of which accommodate only one person, can be used to overcome changes of elevation ranging from three to 10 feet (.9 m-3 m) in height. However, many states have restrictions on the use of wheelchair lifts, so all applicable codes should be reviewed carefully before installing one. Inclined stair lifts, which carry a wheelchair on a platform up a flight of stairs, may be employed selectively. They tend to be visually intrusive, although they are relatively reversible. Platform lifts can be used when there is inadequate space for a ramp. However, such lifts should be installed in unobtrusive locations and under cover to minimize maintenance if at all possible. A similar, but more expensive platform lift has a retracting railing that lowers into the ground, minimizing the visual effect to historic properties. Mechanical lifts have drawbacks at historic properties with high public visitation because their capacity is limited, they sometimes cannot be operated independently, and they require frequent maintenance.

Following the recommendations of the *Accessibility Study*, provide access to Bastionet area at the Northwest Bastion of the fort via a paved walkway in the location of the existing desire path, with a small landing pad at the end of the walkway just outside the Bastionet entry. As noted by the *Accessibility Study*, due to material constraints, the park cannot provide universal access into the area, but through interpretive signage immediately outside the entrance into the Bastionet, the purpose of the construction can be better articulated to the public.

Alternative to "Viewshed Equality" Recommendation

Alternative One: Construct a mechanical lift and wooden stoop near gun position #13. Presently, this area is devoid of any developed interpretive exhibits, such as the adjacent Rodman gun 1870s exhibit and Civil War gun displays. Additionally, this location currently offers the clearest view toward Fort Sumter on that side of the fort. Lastly, the view towards Fort Sumter in this location is key to interpreting the Civil War history of the fort. Therefore, install a low-profile platform lift to accommodate wheelchair users in accessing this important view. Also provide a short wooden stoop offer improved visibility for others to look out over the harbor. While the lift constitutes an impact to the historic character of the site, the removable lift and associated stoop would be less impactful to historic materials than the construction of a ramp or the construction of the platform atop the Position Finding Station. The exact location of the lift would depend on the type/model of lift as well as any material considerations concerning use of the wall to support the lift. A specific study to address installation is recommended.

Alternative Two*:* Construct a ramp at gun position #13. The ramp would need to be approximately 40' long in order to meet slope ABA requirements. This would take the ramp along the inner Scarp Wall, stretching from gun positions #9 to #13. As such, the ramp and railing would result in a significant visual intrusion on the historic scene.

Alternative to "Flagpole" Recommendation

Alternative One: Move flagpole near Civil War period position. A photograph from 1860 clearly shows the flagpole located along the Terreplein on the south side of the fort's interior. This location is now obscured by the South Service Magazine and bombproof, making an accurate relocation impractical. Therefore, move the flagpole to a position near the South Service Magazine to approximate the location of the flagpole during the Civil War period. The most feasible location would be on the west side of the bombproof, between the sodded mound and the Rodman gun 1870s exhibit in the approximate location of the interpretive wayside. The location would likely entail cutting into the base of the bombproof to accommodate the base of the flagpole.

Alternative Two: Move flagpole to early twentieth century position. A photograph taken around 1900 shows Fort Moultrie's flagpole in the Northeast Bastion of the fort. Its precise location is unknown, but it appears to be in the vicinity of Gun Position No. 2 and the Northeast Service Magazine bombproof. To address the concerns of park staff, move the flagpole to either (1) the top of the Northeast Service Magazine bombproof or (2) on the concrete pad at Gun Position No. 2.

(1) Top of bombproof location. Placement of the flagpole in this location appears to most closely represent early twentieth century conditions. Park staff could access this location via a stabilized turf path extending up slope from Gun Position No. 2.

(2) Gun Position No. 2 location. This location would provide the easiest access for park staff but would constitute a visual intrusion on the historic resource. The location would be approximate to where the flagpole existed in the early twentieth century.

Further Study

The 2016 *Foundation Document* recommended the production of a number of planning and inventory documents, including the following:

- Visitor use study.
- Hydrological assessment / geotechnical survey of storm water drainage at Fort Moultrie.
- Alternative transportation study.
- Ethnographic overview and assessment.
- Special history study of World War I and

World War II time periods at Fort Sumter and Fort Moultrie.
- Complete archeological overview and assessment of Fort Moultrie and the surrounding cultural landscape.
- Continue monitoring weather parameters (precipitation, temperature, storm events, sea level rise).
- Update long-range interpretive plan.
- Update historic structure report for Fort Moultrie.
- Visitor use management plan.
- Update the historic structure report for Endicott era batteries and structures.

Additional studies recommended by this report include:

- Preservation Maintenance Plan. Develop preservation maintenance plan for entire site.
- Environmental Adaptation Plan. With rising sea levels, historic coastal resources are particularly sensitive to the effects of environmental changes. In order to properly plan and prepare for possible damage to Fort Moultrie and other features at the site, develop an Environmental Adaptation Plan.
- A monitoring program to assess the impacts of climate change on historic materials, vegetation, and visitation.
- Update Interpretation Plan. Address the updated (proposed) route, interpretive signage, and readying the fort for the 250th anniversary of the American Revolution.

Landscape Feature	Treatment Recommendation	Supports Historic Character	Supports Modern Use
Interpretation			
Interpretation Signage	Develop standardized, unified appearance for interpretive signage in the fort and landscape.		X
Interpretive Program	Expand interpretive program to include the development of the North Reservation Character Area specifically related to the reservation's hospitals, role of women, and mortuary practices that occurred in that space.		X
Interpretive Program	Interpret the African American history throughout military use of the site.		X
Exhibits	Utilize open space in the HECP building to present public exhibits.		X
Tour Routes	Establish four separate, self-directed tour routes.		X
Buildings and Structures			
All buildings and structures	Develop a historic structure report or preservation plan for each building or structural resource.	X	
All buildings and structures	Continue with current maintenance and monitoring programs, revise as needed.	X	
Scarp Wall	Develop an updated Historic Structure Report for Fort Moultrie No. 3's Scarp Walls to replace the documents produced in the 1960 and 1970s.	X	
All buildings and structures	Keep vegetation clear of buildings and structures.	X	
Battery Jasper	Develop an updated Historic Structure Report for Battery Jasper to replace older documents.	X	
Spatial Organization			
Open Space	Maintain the overall appearance of the current landscape keeping existing open space clear of woody vegetation.	X	
Vegetation			
Designed vegetation community	Replant area along west side of landscape below Middle Street to create a transitional plant community managed for height and biological diversity reflective of native conditions.		X
Current management	Maintain current vegetation management and maintenance routines for the following areas: inside Fort Moultrie, around Visitor Center, around Fort Moultrie and Battery Jasper.	X	
Unwanted flora	Do not allow woody vegetation to grow on or too closely to historic buildings or structures.		X
Views	Manage vegetation to preserve historic views.		X

Chart 5.1. Treatment Recommendations

Landscape Feature	Treatment Recommendation	Supports Historic Character	Supports Modern Use
Maturing forest at beach	Selectively thin area of maturing forest directly south of the meadow area, removing unwanted vegetation and replanting desirable flora to increase native habitat and offer views to the harbor.		X
Meadow	Establish a meadow management plan to guide maintenance practices. Maintain current standard in the interim.		X
Historic Trees	Maintain presence and health of existing historic palms along Middle Street, and replace in kind if needed.	X	
Middle Street Palms	Remove two palms directly south of the fort. Replant replacements on the east side of the landscape, out of viewshed area.	X	
Visitor Center Vegetation	Consider rehabilitating the open lawn area north of Visitor Center with a stabilized turf system to better handle overflow parking, reduce compaction, and to improve storm water infiltration should these issues constitute a continued problem.		X
Visitor Center Vegetation	Maintain the native coastal plant species within the planting areas surrounding the Visitor Center and Torpedo Storehouse. Replace plantings with other native species should condition require.		X
Visitor Center Vegetation	Install native butterfly milkweed (*Asclepias tuberosa*) in ornamental planting beds to support the eastern population of Monarchs, which migrate through the site.		X
Circulation			
Walkway Accessibility	Update walkways to accommodate wheelchair use throughout the landscape as possible.		X
Walkway inside Fort Moultrie	Regrade and resurface section of walkway extending from Sally Port to a point directly east of the South Service Magazine entrance, connecting it to a new walkway and ramp that extends to Battery Bingham.		X
Ramp	Install a ramp to provide universal access to Battery Bingham.		X
Walkway in front of Batteries	Remove section of brick walkway currently running in front of Batteries Bingham and McCorkle.		X
Walkway adjacent to South Service Magazine	Regrade the approximately 50' section of walkway west of the South Service Magazine.		X
Bricks at barracks	Maintain the brick ground treatment in the barracks and 1809 Powder Magazine area. Address trip hazards through relaying of bricks in place.	X	
Gen. Moultrie's Grave access	Construct new walkway and pad to provide universal access to General Moultrie's gravesite.		X

Landscape Feature	Treatment Recommendation	Supports Historic Character	Supports Modern Use
Picnic area access	Construct new walkway and pad to provide universal access to picnic area.		X
Grass path	Maintain mown pathways through the meadow for pedestrian access. Do not pave these paths.		X
Grass path	Make one of the paths ABA-accessible through the installation of a stabilized turf system.		X
Unauthorized Access	Maintain signage and barriers to deter unauthorized access and creation of desire paths.		X
Walkway west of Fort	Construct new walkway sections outside the west side of the fort.		X
Postern	Close Postern to thru traffic.		X
Bluestone Pavers	Maintain bluestone pavers on west side of fort Terreplein.	X	
Circulation adjacent to Battery Jasper	Preserve historic roads and walkways around Battery Jasper and match the visual characteristics of historic concrete walkways when replacement is necessary.	X	
Interpretive Walkway outside fort	Maintain current concrete walkway material surrounding Fort Moultrie.		X
Walkway at visitor center	Maintain current concrete walkway in the visitor center area.		X
Entrance walkway	Maintain brick entrance walkway on northside of Sally Port Complex.		X
Walkway materials	Establish a standardized concrete walkway detail for the proposed modern interpretive route within the fort to replace the existing paving.		X
Views and Vistas			
Historic Views	Preserve and maintain the views between Fort Moultrie and Fort Sumter by both providing access to such views as well as necessary site maintenance tasks such as vegetation management.	X	X
View from visitor center roof	Commission a study addressing universal access to the roof via a mechanical lift, elevator, ramped walkway, or other alternative.		X
Grass paths	Widen mown paths through meadow to aid in opening views toward the harbor.		X
Step Stool	Add a removable step stool to aid in views from ground level at key viewpoints along the interpretive walkway outside of the fort.		X
Small Scale Features			
Signs and Furnishings	Limit park furnishings and signs to locations that do not distract from the historic landscape.	X	
Interpretation Signage	Develop standardized, unified appearance for interpretive signage in the fort and landscape.		X
Interpretation Signage	Update existing signage with new information and underrepresented histories.		X

Landscape Feature	Treatment Recommendation	Supports Historic Character	Supports Modern Use
Wayside: Traverse	Relocate to proposed path between Sally Port and Barracks Foundations.		X
Wayside: Bastionet	Relocate to interpretive walkway.		X
Wayside: Parade Wall	Relocate to Scarp Wall.		X
Wayside: Battery Bingham	Relocate to Battery McCorkle.		X
Wayside: HECP Building	Relocate to Battery Bingham.		X
Wayfinding Signage	Assess and replace any outdated or inaccurate wayfinding signage on site.		X
Site Regulation Signage	Standardize site regulation signs throughout landscape.		X
Cannon: replica 18-pounders	Spread out the cannons along the walk. A replica gun carriage would be needed for the third unused cannon. This action can be conducted in conjunction with improvements to the interpretive program as it relates to the 250th anniversary of the Revolutionary War in 2026.		X
Benches	Replace backless benches with benches featuring backs and armrests.		X
Patapsco Monument	Continue maintenance of monument using best practices related to stone and iron fence care.	X	
Osceola's Gravesite Monument and Fence	Continue maintenance of monument using best practices related to stone and iron fence care.	X	
Flagpole	Enlarge the current pad at the base of the flagpole. This action would entail cutting into the bombproof and constructing a larger retailing wall on the north side of the flagpole.		X
Archeological Sites			
Whole Site	Produce an Archeological Overview and Assessment (AOA) to guide investigations of site.	X	
Fort Moultrie Cemetery and Hospital Complex	Initiate a new investigation of this area, which will not only provide information about the burial site but also about the hospital complex that developed in various iterations since the early 1800s.	X	
Sites of Fort Moultrie No. 1 and 2	Initiate a new investigation to definitively locate the sites of the earlier forts.	X	
Civil War archeology	Initiate an investigation of Civil War era Fort Moultrie landscape.	X	
American Indian sites	Initiate a new investigation of pre-European occupation of the site.	X	
Ecological Health and Resiliency to Natural Hazards			
Cultural and natural resources	Develop park-specific reports that address the protection of Fort Moultrie's cultural and natural resources from the effects of climate change and biodiversity loss.	X	

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Appendix A – Historic Maps

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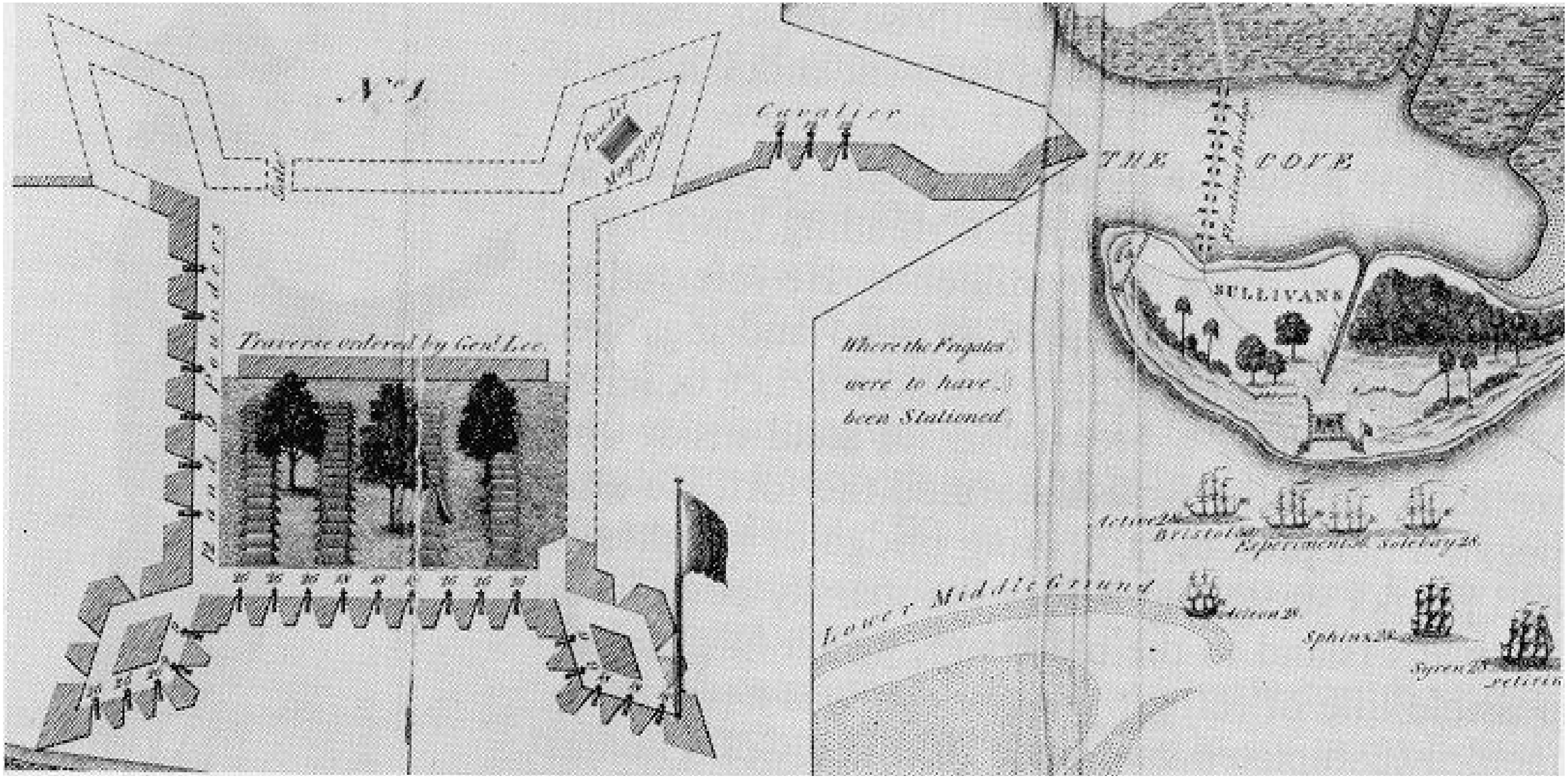
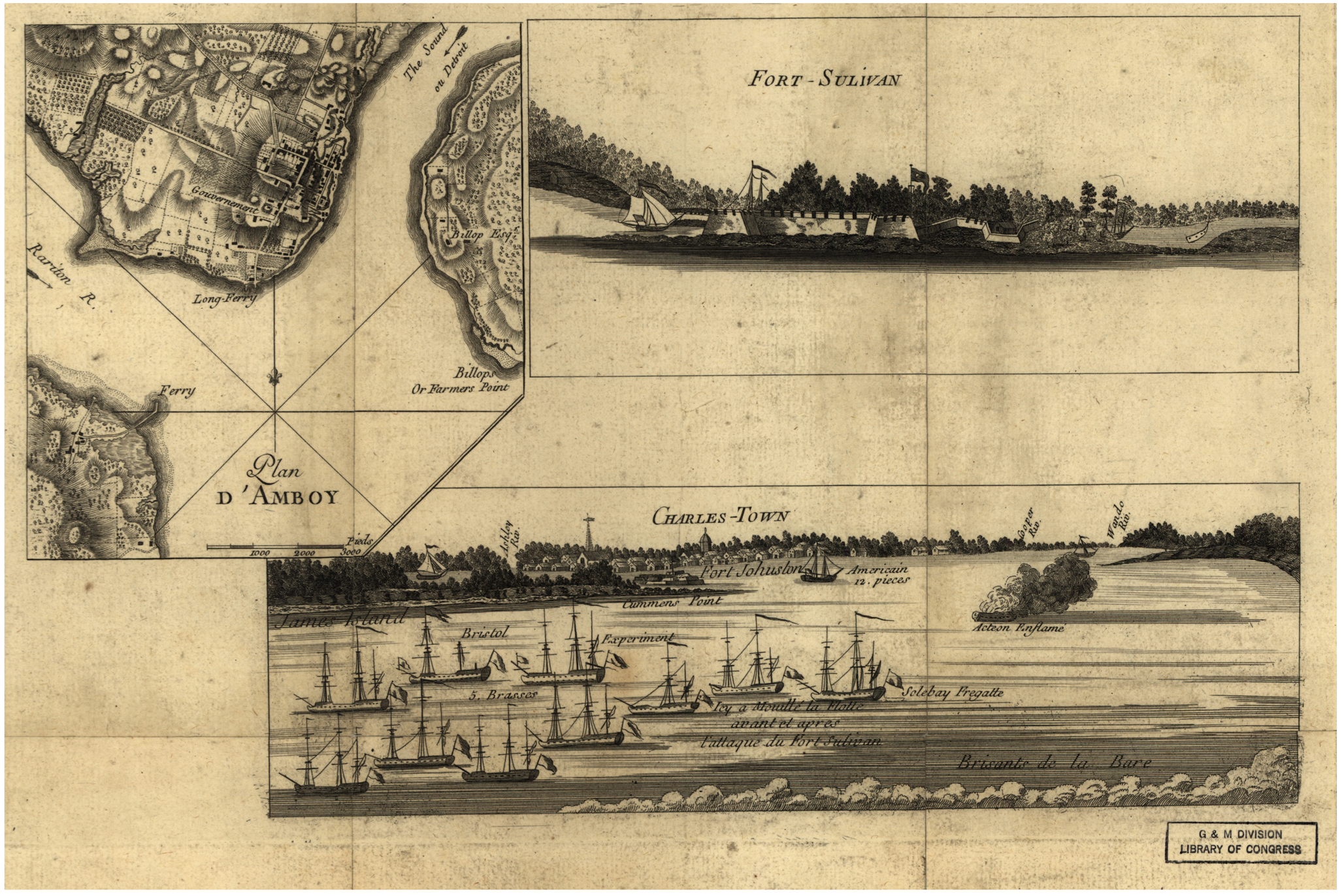


A-1 (1776)

Fort Moultrie

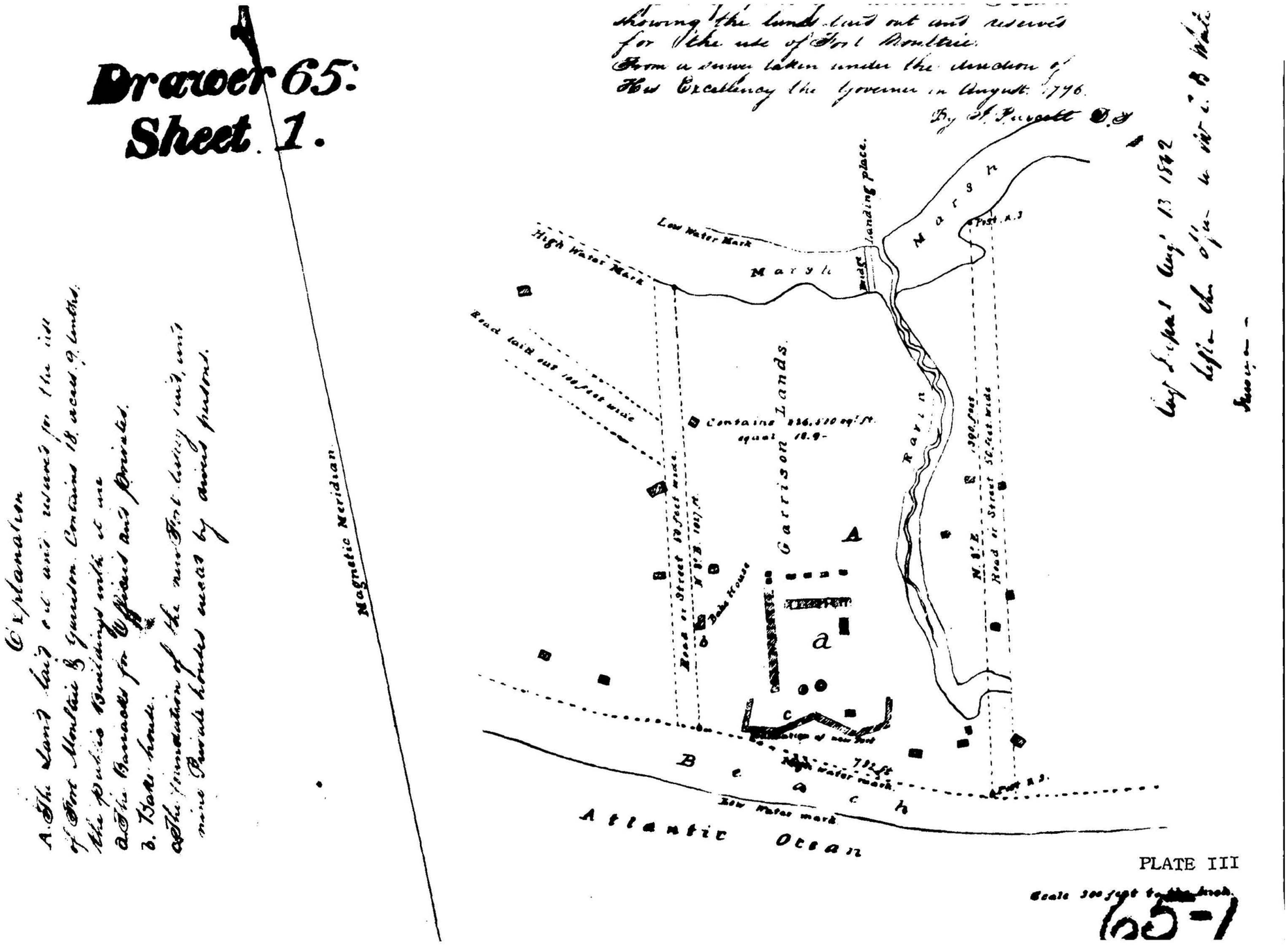
Fort Sumter National Monument
Cultural Landscape Report
March 2019



A-2 (1776)

Fort Moultrie

Fort Sumter National Monument
Cultural Landscape Report
March 2019



A-3 (1796)

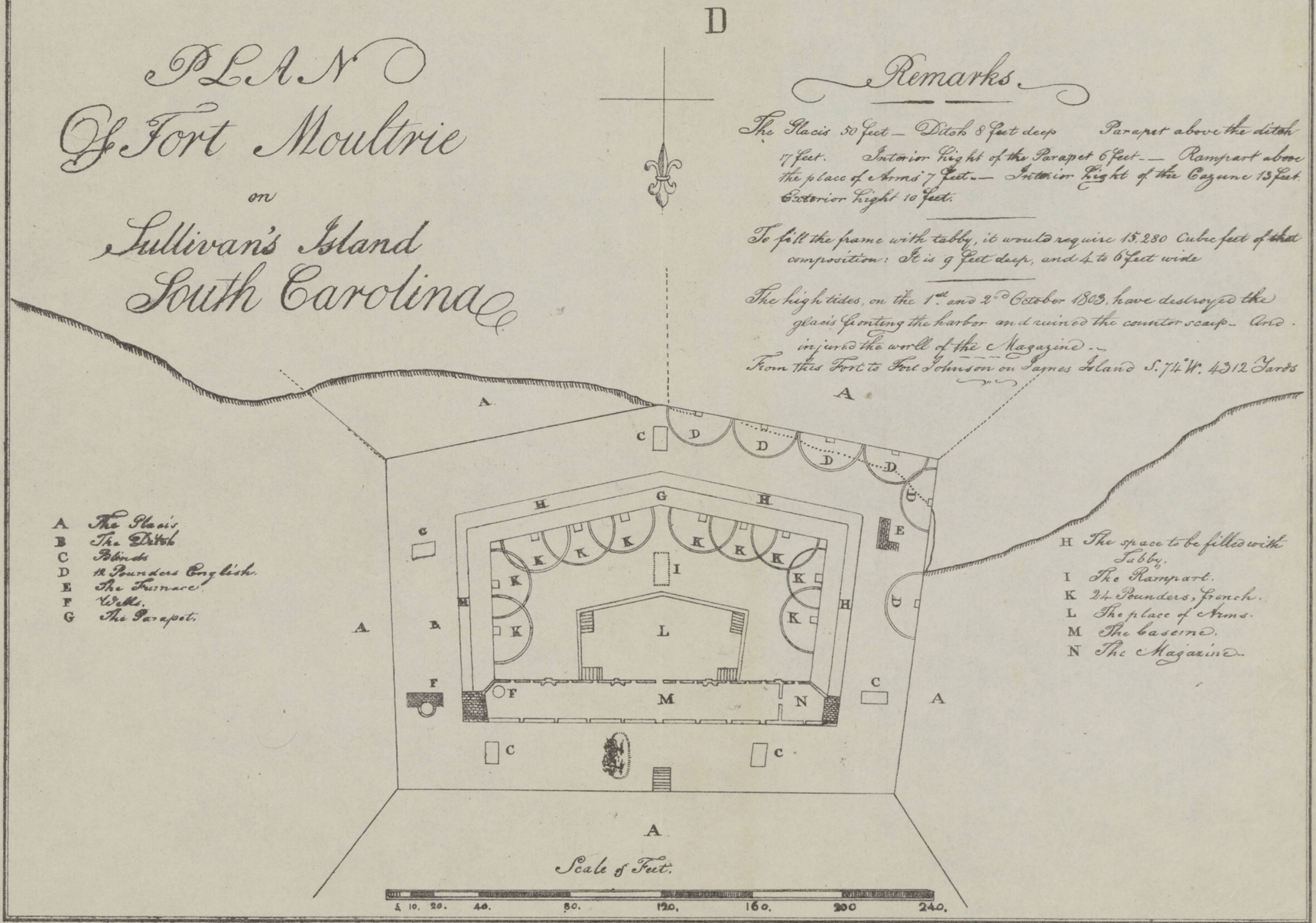
Fort Moultrie

Fort Sumter National Monument

Cultural Landscape Report

March 2019

PLAN
Of Fort Moultrie
on
Sullivan's Island
South Carolina



Remarks.

The Glacis 50 feet — Ditch 8 feet deep Parapet above the ditch 17 feet. Interior Height of the Parapet 6 feet — Rampart above the place of Arms 7 feet — Interior Height of the Cazune 13 feet. Exterior Height 10 feet.

To fill the frame with tabby, it would require 15.280 Cubic feet of that composition: It is 9 feet deep, and 4 to 6 feet wide

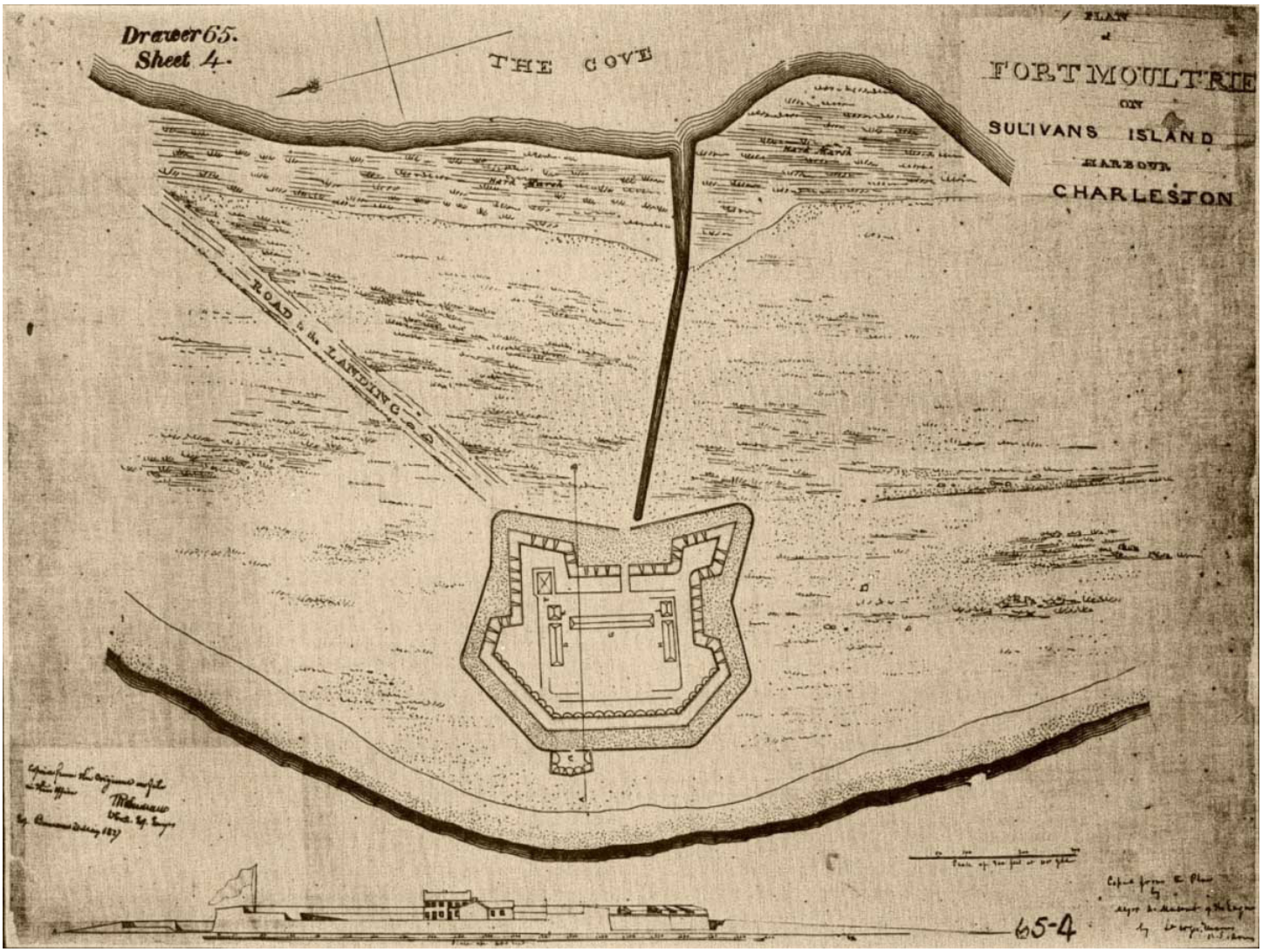
The high tides, on the 1st and 2d October 1803, have destroyed the glacis fronting the harbor and ruined the counter scarp — And injured the wall of the Magazine —

From this Fort to Fort Johnson on Haynes Island S. 74° W. 4312 Yards

Furnished by the War Department to the City Council of Charleston S.C.

Map-3
1808(R)
1

SoCar
Map 3
1808 (R)
1



A-5 (1809)

Fort Moultrie

Fort Sumter National Monument

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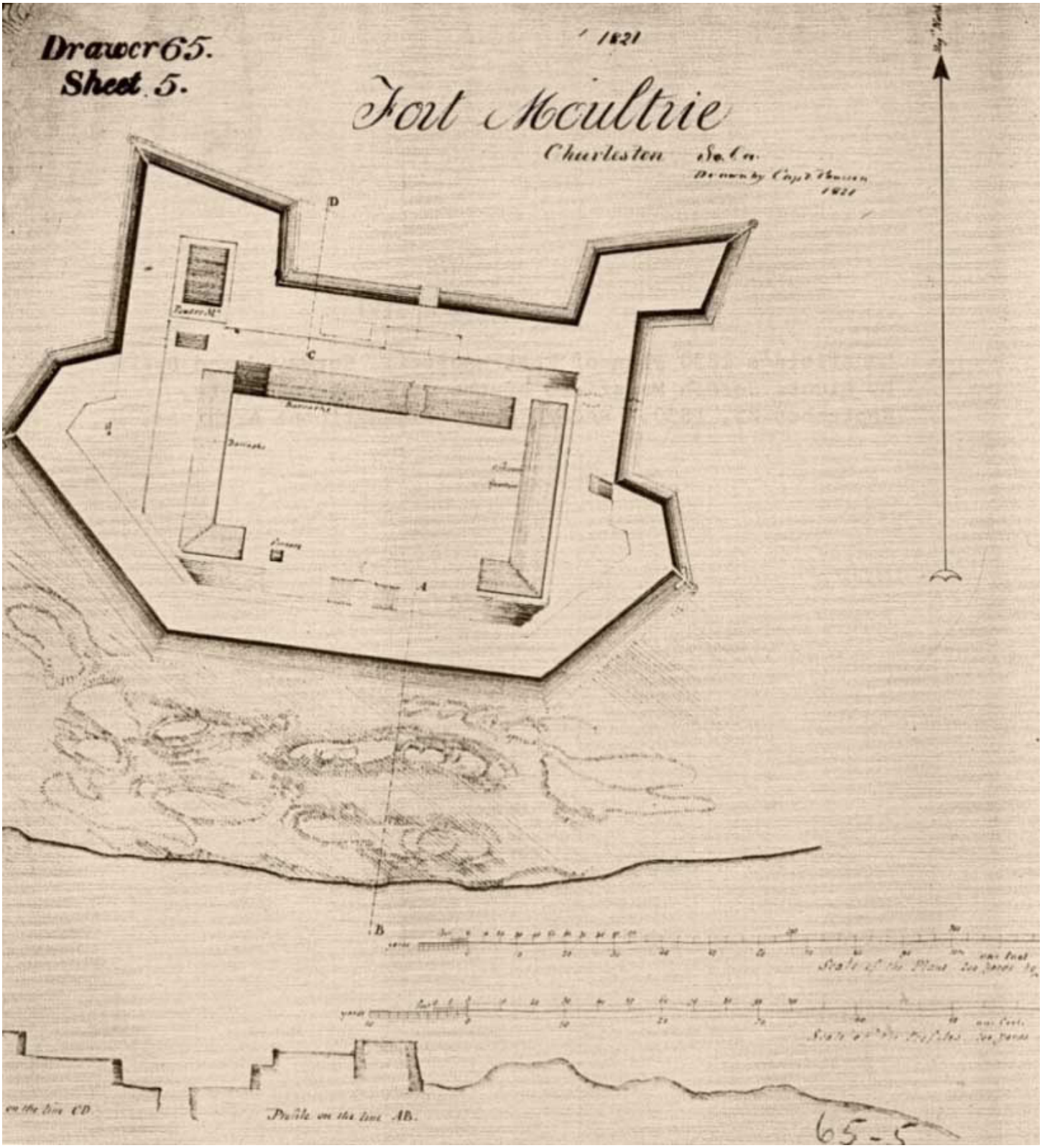

A-6 (1821)

Fort Moultrie

Fort Sumter National Monument

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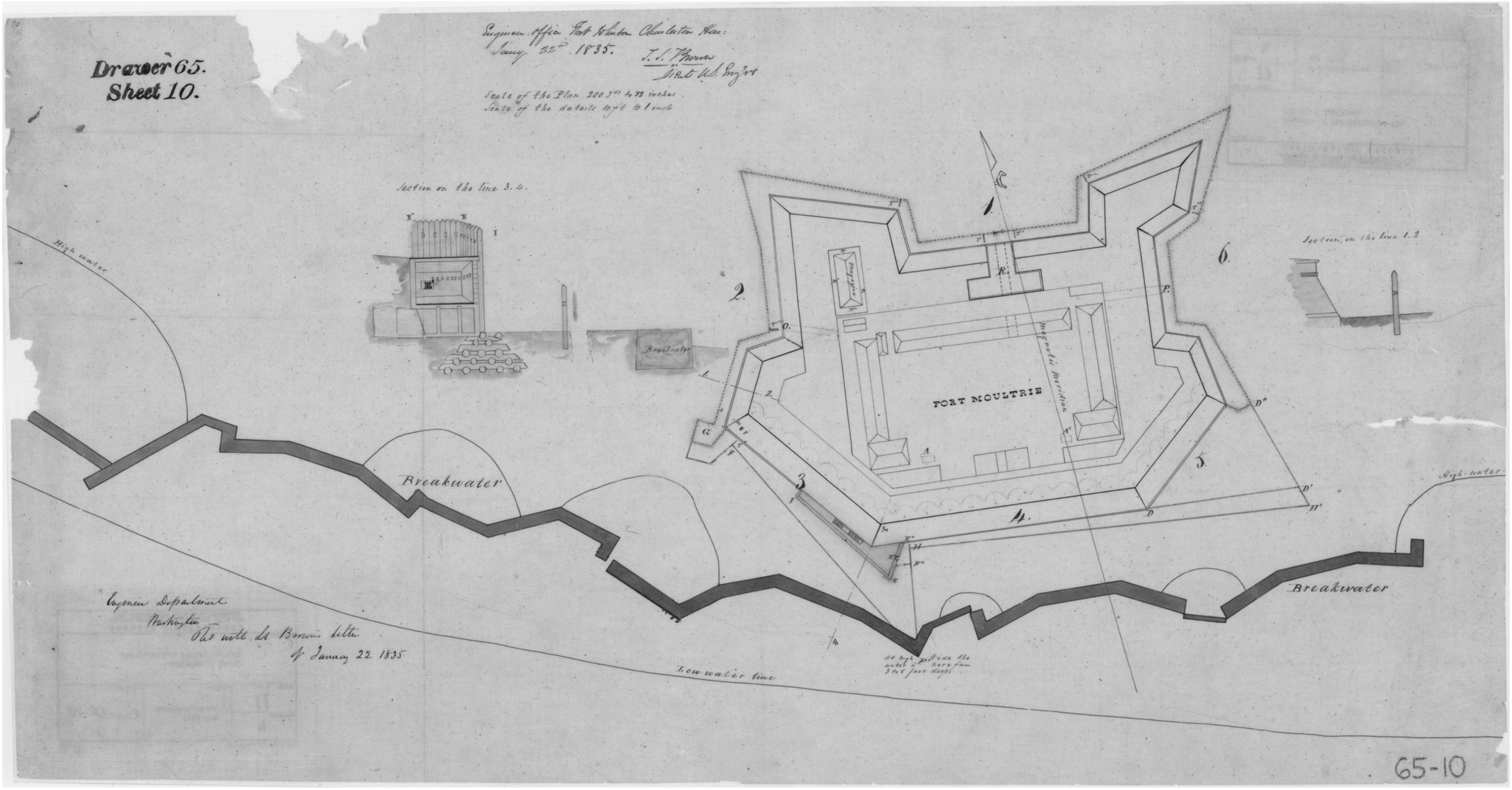


A-7 (1835)

Fort Moultrie

Fort Sumter National Monument

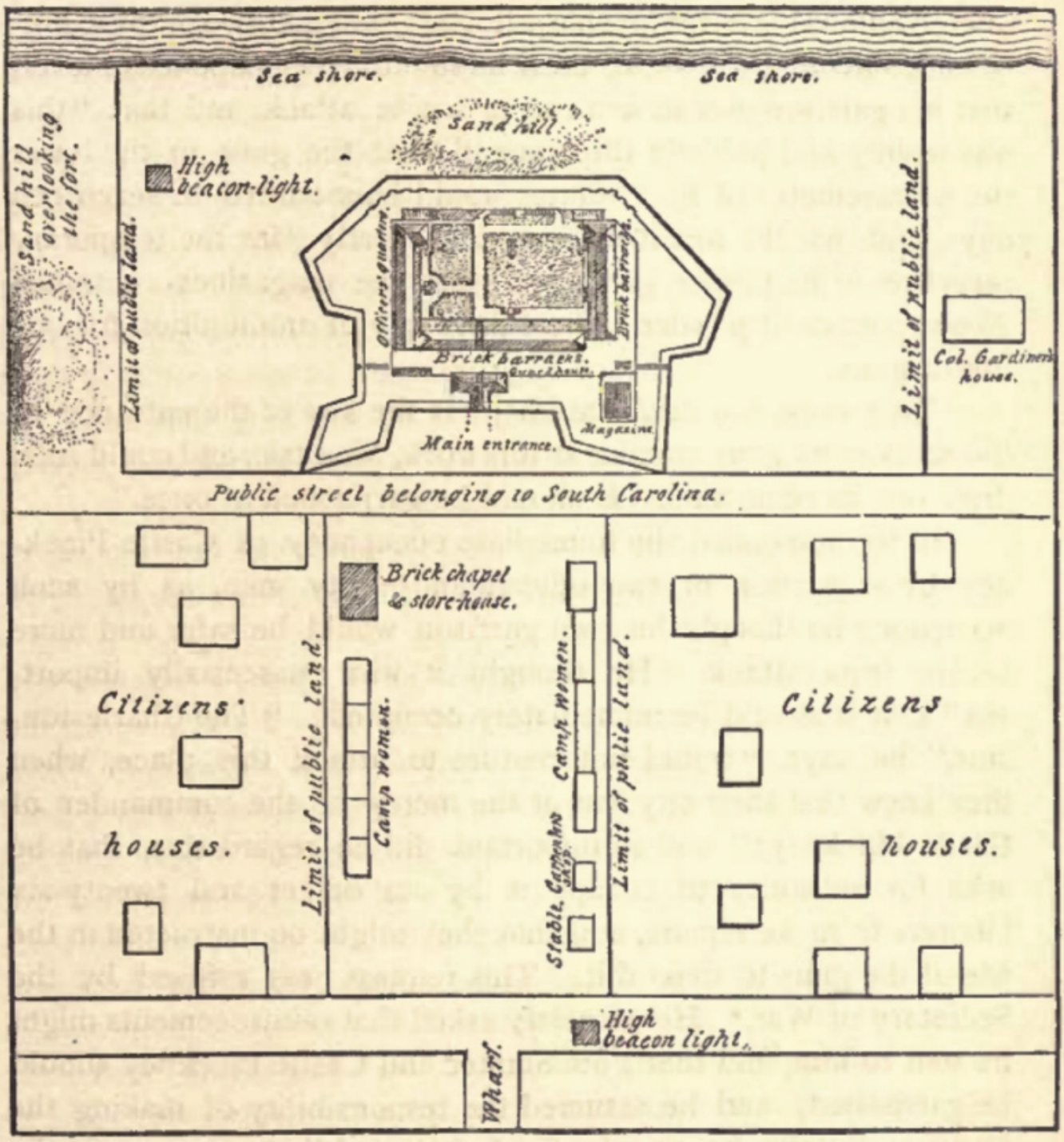
Cultural Landscape Report

March 2019

A-8 (1849)

Fort Moultrie

Fort Sumter National Monument
Cultural Landscape Report
March 2019



SECTIONAL VIEW OF FORT MOULTRIE.

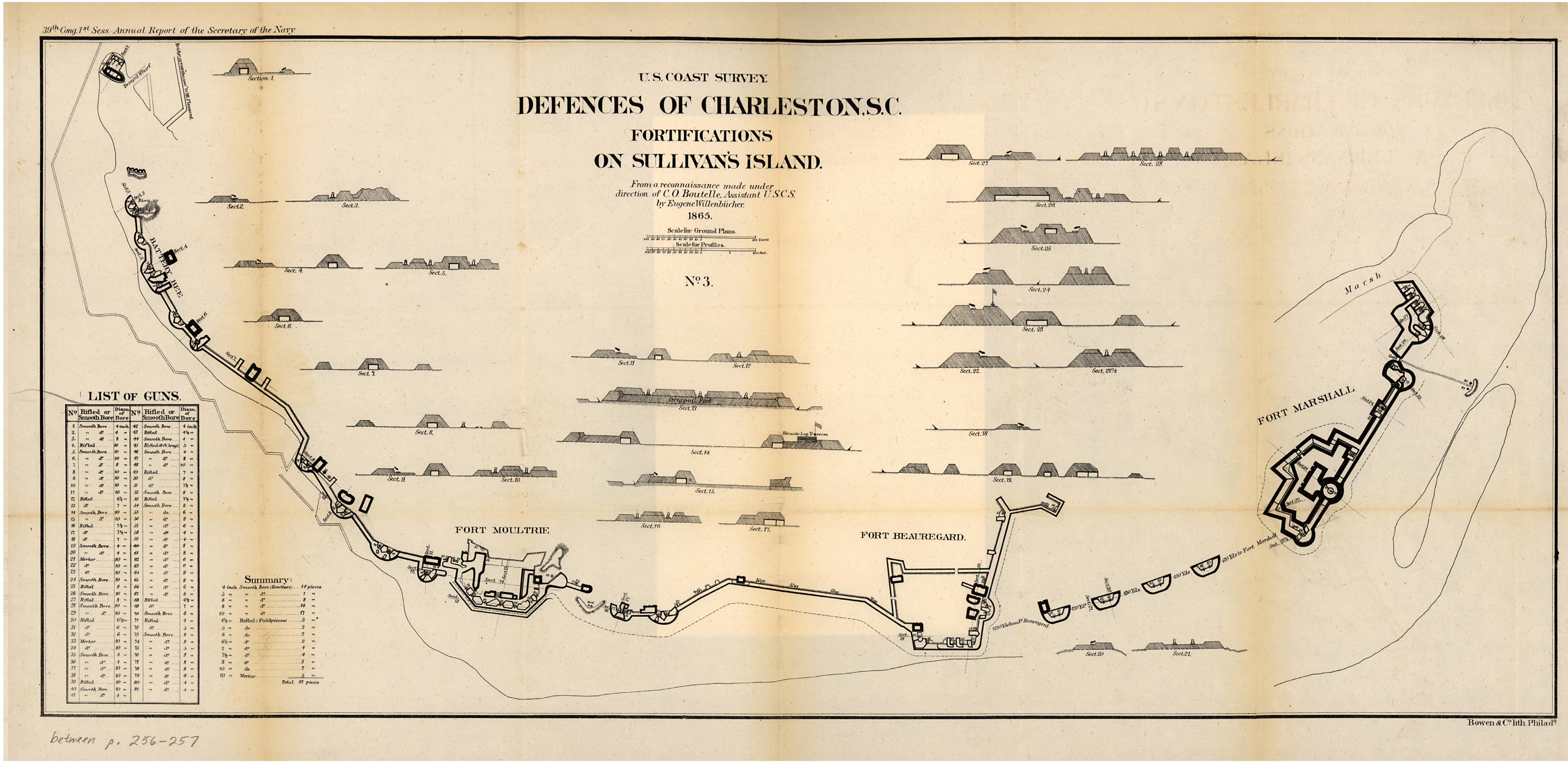
A-9 (1860)

Fort Moultrie

Fort Sumter National Monument

Cultural Landscape Report

March 2019



LIST OF GUNS.

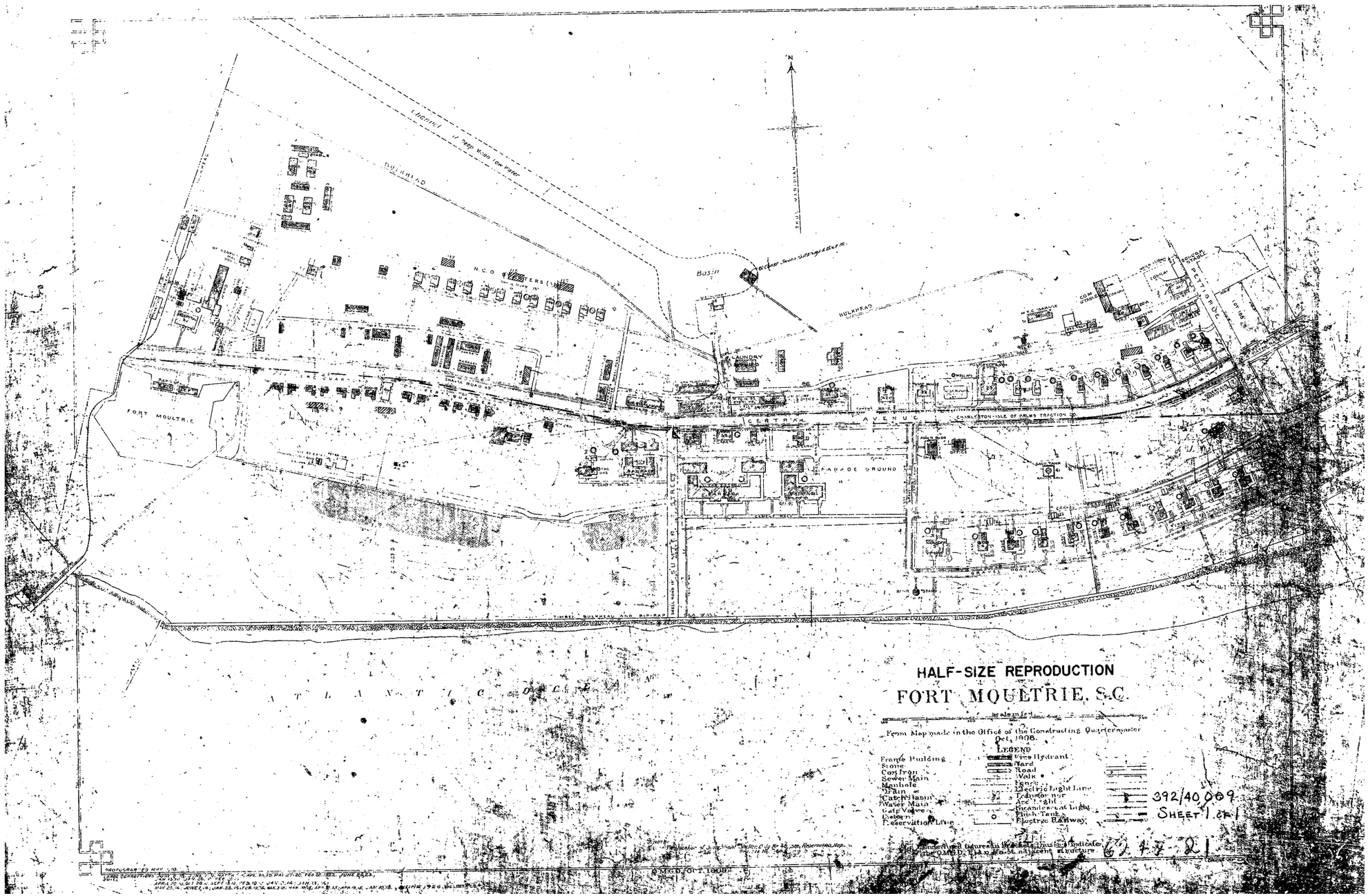
No.	Rifled or Smooth Bore	Diam. of Bore	No.	Rifled or Smooth Bore	Diam. of Bore
1.	Smooth Bore	4 inch	42	Smooth Bore	4 inch
2.	" d°	4 "	43	Rifled	4½ "
3.	" d°	8 "	44	Smooth Bore	4 "
4.	Rifled	10 "	45	Rifled (6 ft. long)	5 "
5.	Smooth Bore	10 "	46	Smooth Bore	4 "
6.	" d°	10 "	47	" d°	8 "
7.	" d°	8 "	48	" d°	10 "
8.	" d°	10 "	49	Rifled	7 "
9.	" d°	10 "	50	d°	8 "
10.	" d°	10 "	51	d°	7½ "
11	" d°	10 "	52	Smooth Bore	8 "
12.	Rifled	6½ "	53	Rifled	7½ "
13	d°	7 "	54	Smooth Bore	8 "
14	Smooth Bore	10 "	55	" do.	6 "
15	" d°	10 "	56	" d°	8 "
16	Rifled	7½ "	57	" d°	6 "
17	d°	7½ "	58	" d°	4 "
18	d°	7 "	59	" d°	4 "
19	Smooth Bore	4 "	60	" d°	8 "
20	" d°	4 "	61	" d°	8 "
21	Mortar	10 "	62	" d°	6 "
22	d°	10 "	63	" d°	6 "
23	d°	10 "	64	" d°	8 "
24	Smooth Bore	10 "	65	" d°	8 "
25	Rifled	8 "	66	" d°	6 "
26	Smooth Bore	10 "	67	" d°	6 "
27	Rifled	8 "	68	Rifled	4½ "
28	Smooth Bore	10 "	69	d°	7 "
29	" d°	10 "	70	Smooth Bore	6 "
30	Rifled	6½ "	71	Rifled	4 "
31	d°	6 "	72	d°	5 "
32	d°	6 "	73	Smooth Bore	8 "
33	Mortar	10 "	74	" d°	8 "
34	d°	10 "	75	" d°	5 "
35	Smooth Bore	4 "	76	" d°	8 "
36	" d°	4 "	77	" d°	8 "
37	" d°	10 "	78	" d°	8 "
38	" d°	10 "	79	" d°	6 "
39	Rifled	10 "	80	" d°	4 "
40	Smooth Bore	10 "	81	" d°	4 "
41	" d°	4 "			

Summary:

4 inch	Smooth Bore (Howitzer)	14 pieces
5 "	" d°	1 "
6 "	" d°	8 "
8 "	" d°	14 "
10 "	" d°	17 "
4½ "	Rifled (Fieldpieces)	3 "
5 "	do	2 "
6 "	do	2 "
6½ "	d°	2 "
7 "	d°	4 "
7½ "	d°	4 "
8 "	d°	3 "
10 "	do	2 "
10 "	Mortar	5 "
	Total	81 pieces

A-10 (1865)

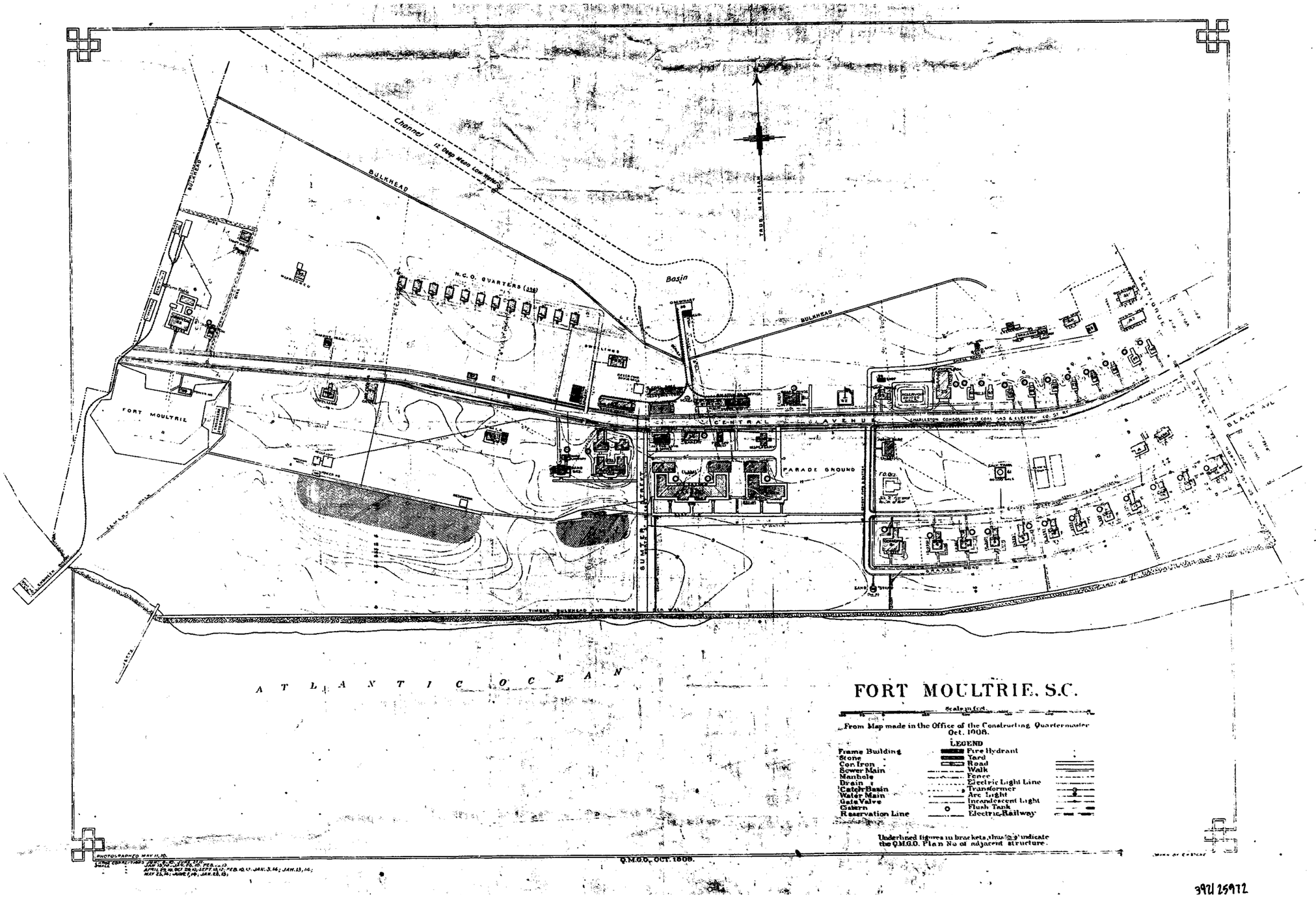
Fort Moultrie



A-11 (1908)

Fort Moultrie

Fort Sumter National Monument
Cultural Landscape Report
March 2019



A-12 (1915)

Fort Moultrie

Fort Sumter National Monument

Cultural Landscape Report

March 2019

EDITION OF APR. 23, 1915.
REVISIONS: DEC. 7, 1915, MAR 14, 1916.
NOV. 8, 1916; FEB. 1, 1921.

SERIAL NUMBER 124

CONFIDENTIAL.

CHARLESTON HARBOR, S.C.

FORT MOULTRIE-D1.

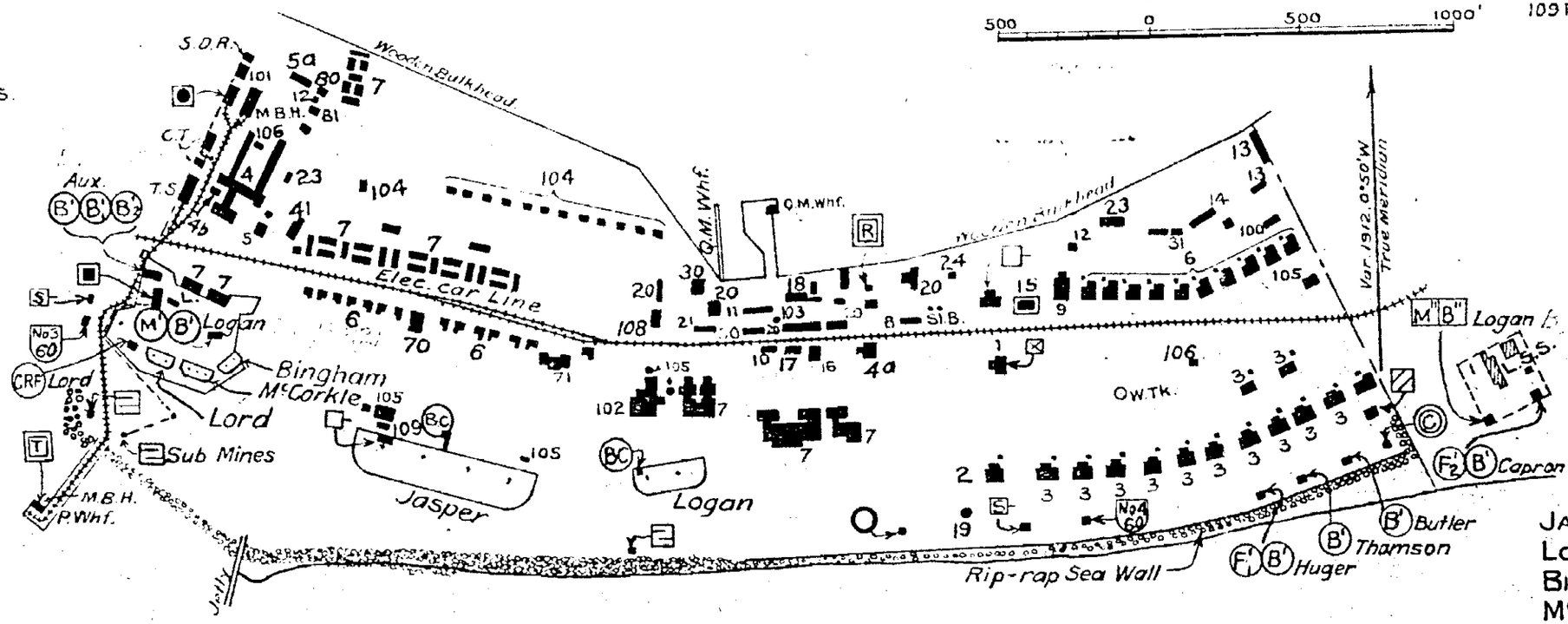
SULLIVAN'S ISLAND, S.C.

WESTERN PORTION.

500 0 500 1000'

LEGEND.

1 ADMINISTRATION BLDG.
2 COMMANDING OFFICER'S QRS.
3 OFFICERS QUARTERS.
3a BACH. OFFICERS QRS.
4 HOSPITAL.
4a DISPENSARY.
4b DEAD HOUSE.
5 HOSPITAL STEWARD'S QRS.
6 N.C. OFFICERS QRS.
7 BARRACKS.
8 GUARD HOUSE.
9 POST EXCHANGE.
10 ENGR. OFFICE (ARTY.)
11 COAL SHED.
12 OIL HOUSE.
13 STABLE.
14 WORK SHOP.
15 RESERVOIR.
16 FIRE HOUSE.
17 BAKE HOUSE.
18 LAUNDRY.
19 BAND STAND.
20 Q.M. STOREHOUSE.
21 COM. STOREHOUSE.
22
23 GARAGE (Q.M.).
24 WOOD SAW (ELEC.)
30 ORD. STOREHOUSE.
31 ORD. WORK SHOP.
41 ENGR. STOREHOUSE.
70 CHURCH.
71 SERVICE CLUB.
72
100 WAGON SHED.
101 OLD BAKE HOUSE.
102 BAND BARRACKS.
104 MARRIED ENLISTED MEN.
105 CISTERNS.
106 FOWL HOUSE.
107 OUT HOUSE.
5a NURSES QUARTERS.
103 SCALES.
108 WAR GAME HOUSE.
109 POWERHOUSE (ABANDOND)



BATTERIES.

JASPER.....4-10" DIS.
LOGAN.....1-6" "
BINGHAM....
McCORKLE.
LORD.....2-3" P.

LEGEND

1 ADMINISTRATION BUILDING
2 COMMANDING OFFICERS QRS.
3 OFFICERS QUARTERS
3a BACHELOR OFFICERS QRS.
4 HOSPITAL
4a VETERINARIAN HOSPITAL
5 NURSES QUARTERS
6 N.C.O. QUARTERS
7 BARRACKS
7a BAND BARRACKS
7b M.P. BARRACKS
7c HOSPITAL BARRACKS
8 GUARD HOUSE
9 POST EXCHANGE
9a PX. SERVICE STATION
9b PX. BEER PARLOR
10 MASTER GUNNER
11 CIVILIAN PERSONNEL
12 POST OFFICE
13 OFFICERS GARAGE
13a N.C.O. GARAGE
13b HOSPITAL GARAGE
14 ELEV. WATER TANK
15 POST ENGINEER
16 RESERVOIR
17 PUMP HOUSE
18 WAREHOUSE
19 SERVANTS QRS.
20 STABLES
21 SHED
22 LOADING RAMP
23 TEAMSTER QRS.
24 ORDNANCE SHOP
25 QM. GAS STATION
26 DISPATCHERS OFFICE
27 GREASE RACK
28 QM. GARAGE
29 WASH RACK
30 TRUCK GREASE
31 LATRINE
31a LATRINE & WAREHOUSE
32 POST ENGINEER WHSE.
33 STORAGE
34 MECH. & BLACKSMITH SHOP
35 ELECTRICAL SHOP
36 PROVOST MARSHAL
37 POST FIRE HOUSE
38 POST BAKERY
39 AGENT FINANCE OFFICE
40 BAND STAND
41 FLAG STAFF
42 QMC. OFFICE
43 QMC. WAREHOUSE
44 SCALE HOUSE
45 ORDNANCE OFFICE
46 STORE HOUSE
47 PAINT WAREHOUSE
48 PRISON OFFICE
49 TOOL SHED

RE-DRAWN 20 NOV. 1945

SERIAL NUMBER [redacted]

CONFIDENTIAL.

CHARLESTON HARBOR, S.C.

FORT MOULTRIE-DI

SULLIVANS ISLAND, S.C.

WESTERN PORTION

1943 - 1°.00'W
1912 0°.50'W
Var. True Meridian.

BTR'Y LORD
BTR'Y McCORKLE
BTR'Y 2A
BTR'Y LOGAN
BINGHAM
SL AMTB 2A
CONST-230
SCR 582
SCR 296
1-50 Pr. To Butler
1-150 Pr.
1-76 Pr.
1-50 Pr.
1-31 Pr.
1-50 Pr.
50 Pr. To Fort Sumter
1-50 Pr. To Morris Id.
W.Tk.

ATLANTIC OCEAN

SCALE 1" = 600'
500 0 500 1000 1500

72 CADDY HOUSE
73 KINDERGARDEN
74 JASPER HALL (OFFICERS C.)
75 CHAPEL
76 RECREATION HALL
78 POST THEATER
79 POST LIBRARY
80 RED CROSS QTRS.
81 CIVILIAN QTRS.
82 COAST GUARD DOCK
83 RED CROSS BLDG.
100 RADIO STATION
102 PAINT SHOP
103 QM. WAREHOUSE (SHOE REPAI
104 Q.M. SEWING ROOM
105 POST LAUNDRY
107 Q.M. DOCK
108 REGIMENTAL HEADQUARTERS
109 SUPPLY OFFICE
110 FINANCE
111 REFRIGERATOR PLANT
112 CHEMICAL WAR BLDG.
113 COAL STORAGE
114 ORDNANCE MACH. SHOP
115 HOSPITAL SUPPLIES
116 HOSPITAL LINEN SUPPLIES
117 ARTILLERY ENGR. OFFICE
118 ENGINEER WAREHOUSE
700 N.C.O. CLUB.
701 RECREATION BLDG.

BATTERIES

LORD 2-3" RFC
2A { 2-90 MM (Fixed
2-90 MM (Mobile
JASPER
LOGAN
McCORKLE
BINGHAM
CONST. 230
← CARRIAGE ONLY.

A-14 (1945)

Fort Moultrie

Fort Sumter National Monument
Cultural Landscape Report
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A-15 (1957)

Fort Moultrie

Fort Sumter National Monument

Cultural Landscape Report

March 2019

Appendix B – Legislation

S. 47: John D. Dingell, Jr. Conservation, Management, and Recreation Act

SEC. 2203. Fort Sumter and Fort Moultrie National Historical Park.

(a) Definitions. — In this section:

> (1) MAP. —The term "map" means the map entitled "Boundary Map, Fort Sumter and Fort Moultrie National Historical Park", numbered 392/80,088, and dated August 2009.
>
> (2) PARK. —The term "Park" means the Fort Sumter and Fort Moultrie National Historical Park established by subsection (b).
>
> (3) STATE. —The term "State" means the State of South Carolina.
>
> (4) SULLIVAN'S ISLAND LIFE SAVING STATION HISTORIC DISTRICT.—The term "Sullivan's Island Life Saving Station Historic District" means the Charleston Lighthouse, the boathouse, garage, bunker/sighting station, signal tower, and any associated land and improvements to the land that are located between Sullivan's Island Life Saving Station and the mean low water mark.

(b) Establishment.—There is established the Fort Sumter and Fort Moultrie National Historical Park in the State as a single unit of the National Park System to preserve, maintain, and interpret the nationally significant historical values and cultural resources associated with Fort Sumter National Monument, Fort Moultrie National Monument, and the Sullivan's Island Life Saving Station Historic District.

(c) Boundary. —The boundary of the Park shall be as generally depicted on the map.

(d) Availability of map. —The map shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(e) Administration. —

> (1) IN GENERAL. —The Secretary, acting through the Director of the National Park Service, shall administer the Park in accordance with this section and the laws generally applicable to units of the National Park System, including—
>
> > (A) section 100101(a), chapter 1003, and sections 100751(a), 100752, 100753, and 102101 of title 54, United States Code; and
> >
> > (B) chapter 3201 of title 54, United States Code.

(2) INTERPRETATION OF HISTORICAL EVENTS. —The Secretary shall provide for the interpretation of historical events and activities that occurred in the vicinity of Fort Sumter and Fort Moultrie, including—

(A) the Battle of Sullivan's Island on June 28, 1776;

(B) the Siege of Charleston during 1780;

(C) the Civil War, including—

(i) the bombardment of Fort Sumter by Confederate forces on April 12, 1861; and

(ii) any other events of the Civil War that are associated with Fort Sumter and Fort Moultrie;

(D) the development of the coastal defense system of the United States during the period from the Revolutionary War to World War II, including—

(i) the Sullivan's Island Life Saving Station;

(ii) the lighthouse associated with the Sullivan's Island Life Saving Station; and

(iii) the coastal defense sites constructed during the period of fortification construction from 1898 to 1942, known as the "Endicott Period"; and

(E) the lives of—

(i) the free and enslaved workers who built and maintained Fort Sumter and Fort Moultrie;

(ii) the soldiers who defended the forts;

(iii) the prisoners held at the forts; and

(iv) captive Africans bound for slavery who, after first landing in the United States, were brought to quarantine houses in the vicinity of Fort Moultrie in the 18th century, if the Secretary determines that the quarantine houses and associated historical values are nationally significant.

(f) Cooperative agreements. —The Secretary may enter into cooperative agreements with public and private entities and individuals to carry out this section.

(g) Repeal of existing law.—Section 2 of the Joint Resolution entitled "Joint Resolution to establish the Fort Sumter National Monument in the State of South Carolina", approved April 28, 1948 (16 U.S.C. 450ee–1), is repealed.

Bibliography

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Fort Sumter and Fort Moultrie National Historical Park

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