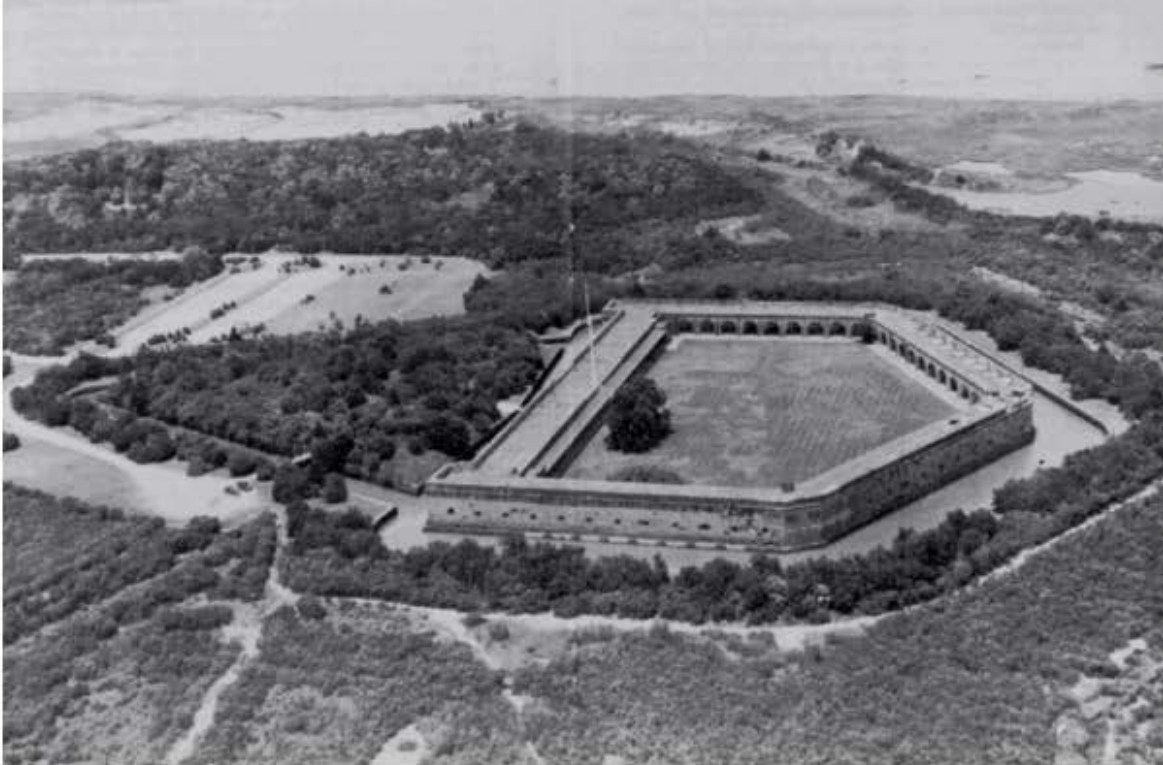

National Park Service
Cultural Landscapes Inventory
2012



Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

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Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI), a comprehensive inventory of all cultural landscapes in the national park system, is one of the most ambitious initiatives of the National Park Service (NPS) Park Cultural Landscapes Program. The CLI is an evaluated inventory of all landscapes having historical significance that are listed on or eligible for listing on the National Register of Historic Places, or are otherwise managed as cultural resources through a public planning process and in which the NPS has or plans to acquire any legal interest. The CLI identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into a national database. In addition, for landscapes that are not currently listed on the National Register and/or do not have adequate documentation, concurrence is required from the State Historic Preservation Officer or the Keeper of the National Register.

The CLI, like the List of Classified Structures, assists the NPS in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two GPRA goals are associated with the CLI: bringing certified cultural landscapes into good condition (Goal 1a7) and increasing the number of CLI records that have complete, accurate, and reliable information (Goal 1b2B).

Scope of the CLI

The information contained within the CLI is gathered from existing secondary sources found in park libraries and archives and at NPS regional offices and centers, as well as through on-site reconnaissance of the existing landscape. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the site's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit. Unlike cultural landscape reports, the CLI does not provide management recommendations or

treatment guidelines for the cultural landscape.

Inventory Unit Description:

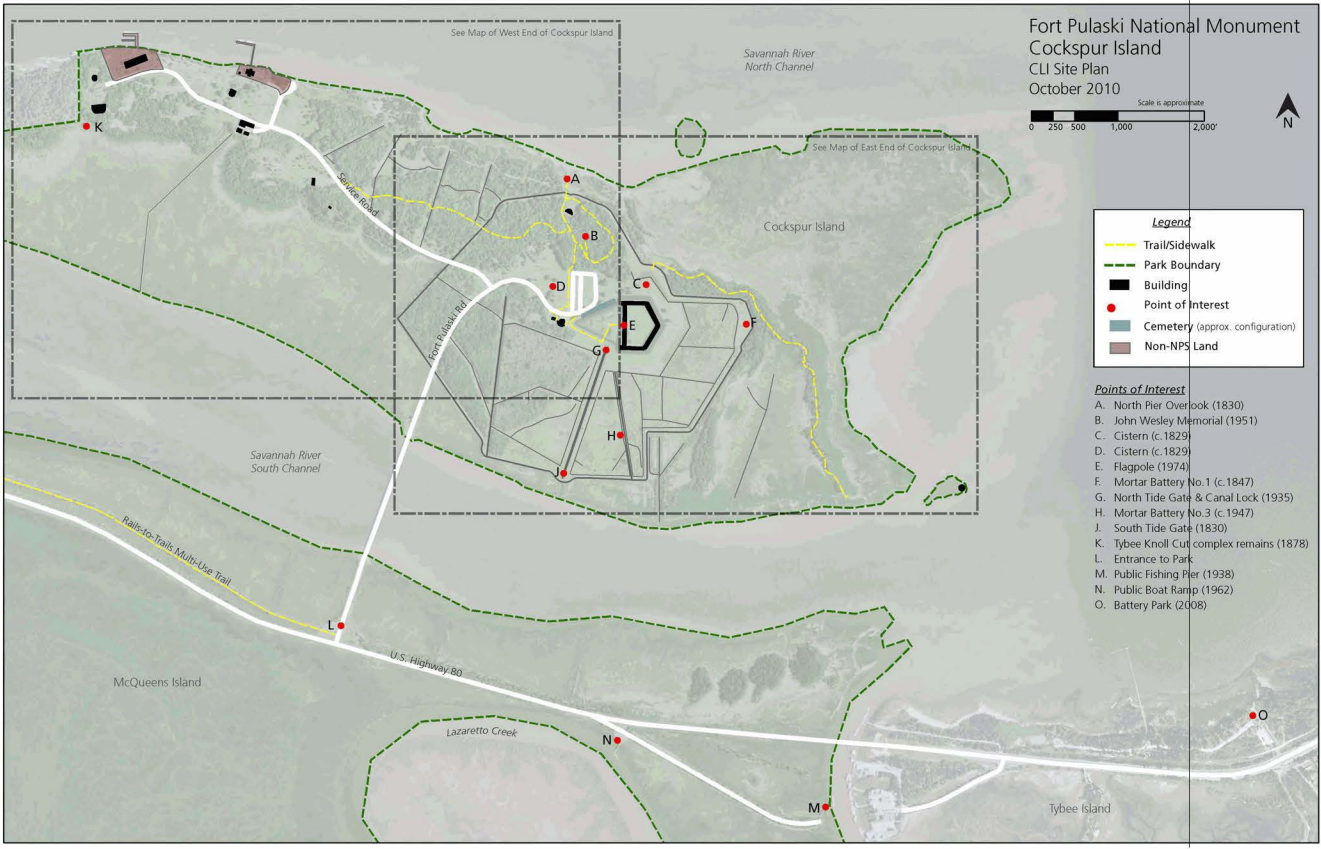
Fort Pulaski National Monument is located at the mouth of the Savannah River on Cockspur Island, McQueen's Island, Daymark Island and the tiny islet upon which Cockspur Island Lighthouse is built. The 609 acre Historic Landscape associated with Fort Pulaski encompasses all of Cockspur Island and islet. The land is low-lying, no higher than ten feet above sea level, with much of the acreage being flooded by seasonal tides. Fort Pulaski provides the visitor with dramatic and unique views of the Atlantic Ocean, Savannah River and surrounding marshland. Distinctive features within the site include, but are not limited to, the fort itself, the dike system surrounding it, the Cockspur Island Lighthouse, remains of the North Pier and Workmen's Village and Battery Horace Hambright.

The primary period of significance, as recommended through the findings of this CLI is 1829 - 1900, which includes the building of the fort; its use during the Civil War including the Union siege of Fort Pulaski with rifled cannons, the first time such a weapon was used; the construction and use of Cockspur Island Lighthouse; and later use of the island as a quarantine station and Spanish-American War fortification. A secondary period of significance of 1933 – 1942 accounts for the New Deal (CCC & WPA) improvements on the island, as well as its World War II features.

The historic condition of the site is a low-lying island, containing a masonry fort and associated buildings, structures and features. From the time the island was used as a military site, the land was cleared of vegetation, providing views to the ocean, river and marshes. The landscape partially retains its open character and historic integrity, though much of the western portion of the island, as well as spoil deposits to the east, are covered in a succession of maritime forest. The dike system maintains its integrity to a lesser degree, though plans to refurbish these dikes may provide an improvement.

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

Site Plan



Fort Pulaski.

Fort Pulaski National Monument Landscape

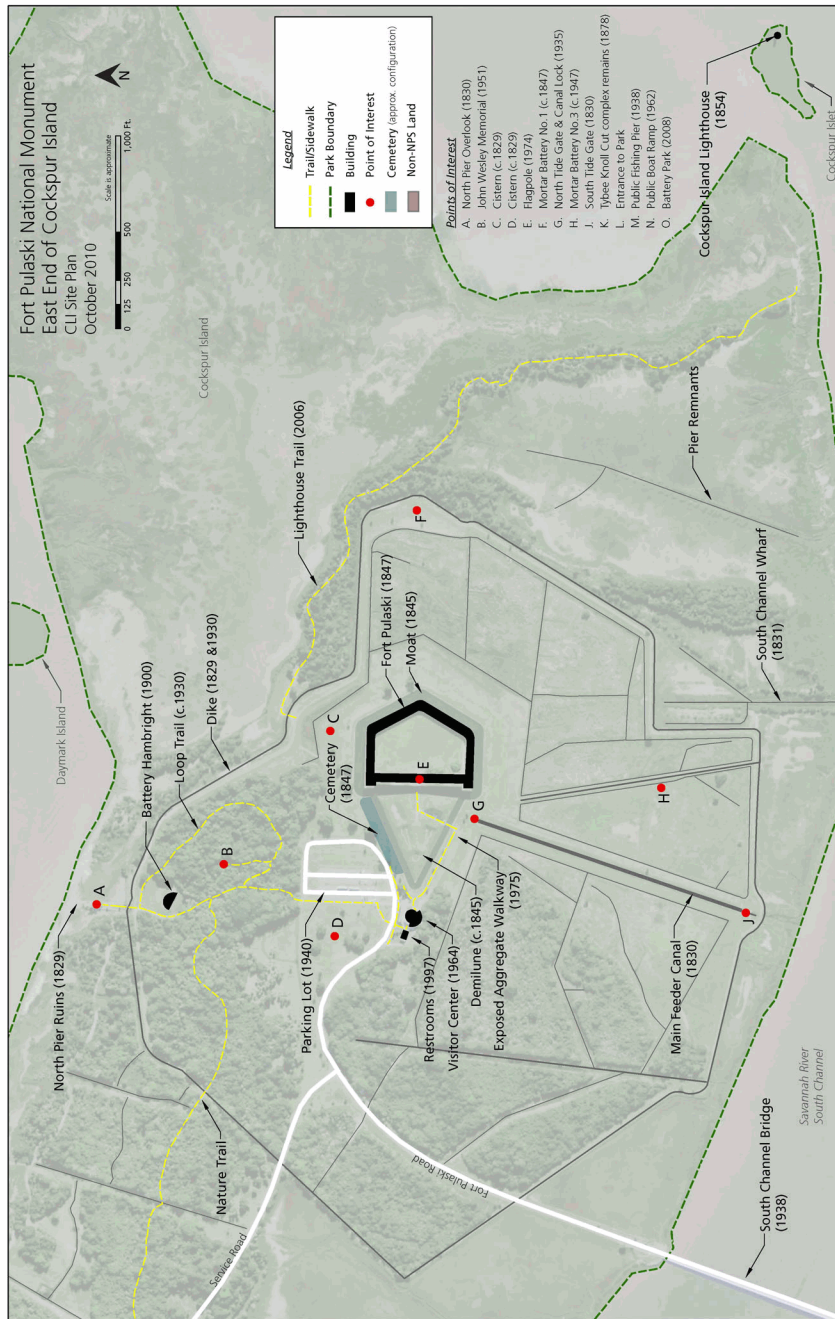
Fort Pulaski National Monument



Fort Pulaski - West End.

Fort Pulaski National Monument Landscape

Fort Pulaski National Monument



Fort Pulaski - East End.

Property Level and CLI Numbers

Inventory Unit Name:	Fort Pulaski National Monument Landscape
Property Level:	Landscape
CLI Identification Number:	550055
Parent Landscape:	550055

Park Information

Park Name and Alpha Code:	Fort Pulaski National Monument -FOPU
Park Organization Code:	5420
Park Administrative Unit:	Fort Pulaski National Monument

CLI Hierarchy Description

Fort Pulaski National Monument is situated at the mouth of the Savannah River and encompasses Cockspur Island and Islet, Daymark Island and much of McQueen's Island. Out of the roughly 5516 acres of NPS land, the majority are comprised of tidal marsh while 609 acres are classified as the Fort Pulaski Historic Landscape. This historic landscape encompasses all of Cockspur Island and Islet with historic features including the Fort, the dike and drainage system, the workmen's village site, cisterns, Cockspur Island Lighthouse, Battery Horace Hambricht, North Pier, South Channel Bridge, World War II Bunkers I & II, Charles Howard Sellmer Grave, Lieutenant Robert Rowan Gravestone, Residence, Oil House and other remnants from the Tybee Knoll Cut Range Lighthouse complex, Garage and John Wesley Memorial, remnant landscape features at the Quarantine Station site.

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

The CLI was completed in 2012. All documentation was obtained from the 1997 CLI, and the Cultural Landscape Report from 2010. Staff from the Southeast Regional Office Cultural Landscapes Team prepared and entered the data into the CLI. Park contacts are Randy Wester, Superintendent, Gloria Lee, Chief of Interpretation and Resource Management, and Laura Rich Acosta, Facility Manager.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	09/26/2012
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/24/2012

National Register Concurrence Narrative:

Signed by Karen Anderson-Cordova.

Concurrence Graphic Information:



United States Department of the Interior

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., SW.
Atlanta, Georgia 30303



IN REPLY REFER TO:
H22 (SERO-CRD)

31 July 2012

Dr. Karen F. Anderson-Cordova
Program Manager
Environmental Review and Preservation Planning
Historic Preservation Division
GA DNR
254 Washington Street SW
Ground Floor, Atlanta, GA 30334

Dear Ms. Anderson-Cordova:

Enclosed please find a copy of the Cultural Landscape Inventory (CLI) for Fort Pulaski, located in Chatham County, Georgia.

The CLI is an evaluated list of landscape properties in the National Park System considered eligible for the National Register of Historic Places or that contribute to an existing historic property. In order for CLI data to become certified, National Park Service regulations require concurrence from the SHPO on the eligibility of these properties. We are requesting your review of the Fort Pulaski CLI and ask that you sign and return the enclosed concurrence form.

Fort Pulaski was administratively listed in the National Register in 1966, and additional documentation was prepared in 1972 and accepted in 1976. All of Cockspur Island is listed on the National Register; however, only the structures and dike system are adequately documented. Further documentation is needed in the existing nomination to address archeology, as well as land use, spatial organization, topography, vegetation and views. Each of these characteristics contributes to the significance of the historic property, particularly in terms of feeling and setting.

Letter to SHPO page 1

With concurrence from your office, the findings become certified in the CLI database. Your concurrence also gives us justification to submit proper additional documentation to you at a future date that addresses the items mentioned above. If you have any questions about these documents, please contact David Hasty, CLI Coordinator, Southeast Region (SER), at (404) 507-5780 or by e-mail at david_hasty@nps.gov. The concurrence form can be returned by fax at (404) 562-3202, or mailed to the address above.

We greatly appreciate your office's assistance with the project.

Sincerely,

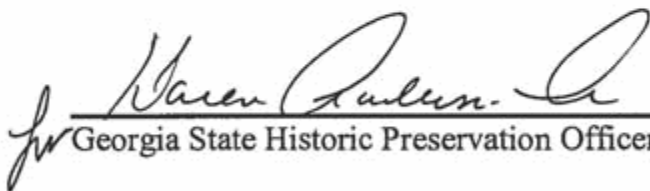


Dan Scheidt
Chief, Cultural Resource Division
Southeast Region

Enclosures

Letter to SHPO page 2

We have reviewed the submitted documentation that identifies cultural landscape features at Fort Pulaski National Monument, located in Chatham County, Georgia. We concur with the findings of the Cultural Landscape Inventory, and understand that these features have the potential to contribute to the existing National Register of Historic Places nomination for Fort Pulaski.



for Georgia State Historic Preservation Officer

9/24/12
Date

Signature from SHPO



United States Department of the Interior

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., S.W.
Atlanta, Georgia 30303



H22(SERO-CRD)

31 July 2012

Memorandum

To: Superintendent, Fort Pulaski National Monument

From: Chief, Cultural Resources Division, Southeast Region

Subject: Fort Pulaski Cultural Landscapes Inventory

We are pleased to transmit to you the Fort Pulaski Cultural Landscapes Inventory (CLI). The CLI is an evaluated list of landscape properties in the National Park System eligible for listing in the National Register of Historic Places (NR) or that contribute to an existing historic property. This CLI was produced by Cultural Resources Division (CRD) staff, primarily using data provided by a Cultural Landscape Report (CLR) written by CRD Historical Landscape Architect, Susan Hitchcock.

In order for the CLI to be certified and counted, the Georgia State Historic Preservation Office (SHPO) needs to concur on the eligibility of the identified contributing cultural landscape features to the existing nomination. Fort Pulaski was administratively listed in the National Register in 1966, and additional documentation was prepared in 1972 and accepted in 1976. All of Cockspur Island is listed on the National Register; however, only the structures and dike system are adequately documented. Further documentation is needed in the existing nomination to address archeology, as well as land use, spatial organization, topography, vegetation and views. Each of these characteristics contributes to the significance of the historic property, particularly in terms of feeling and setting. This is addressed more fully in the CLI. David Hasty, CLI Coordinator for the Southeast Region, will send a request to the Georgia SHPO for concurrence on the CLI findings.

Approval by the park superintendent is also needed for certification. If the findings of the CLI are agreed upon – especially regarding condition assessment and management category – please sign the attached approval form and return it to our office to the attention of David Hasty, via mail, e-mail (david_hasty@nps.gov), or fax (404.562.3202). However, if you have comments or changes to any part of the CLI, please send those to David Hasty instead. We will incorporate them into the inventory, and send the updated version back to you for further review and signature.

Enclosures

Memo to Superintendent

**CULTURAL LANDSCAPE INVENTORY
CONDITION ASSESSMENT CONCURRENCE SHEET**

Park Information

Park: Fort Pulaski National Monument
Name: Fort Pulaski National Monument
Location: Georgia
County: Chatham
CLI#: 550055

Cultural Landscape Condition Information

Landscape Condition:

Good _____

Fair X

Poor _____

Management Category:

Must be preserved X

Should be preserved _____

May be preserved _____

May be released, altered or destroyed _____

Park Concurrence

Concur X

Do Not Concur _____

 Ronald W. Walters Superintendent 9.26.12
Signature Title Date

Signature from Superintendent

Geographic Information & Location Map

Inventory Unit Boundary Description:

The preliminary boundaries for the Fort Pulaski historic landscape include all of Cockspur Island and the islet harboring the Cockspur Island Lighthouse. This corresponds with the existing National Register boundaries, and does not include the remaining 4584 acres of Fort Pulaski National Monument property found on McQueen's Island or tiny Daymark Island in the North Channel.

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

State and County:

State: GA

County: Chatham County

Size (Acres): 609.00

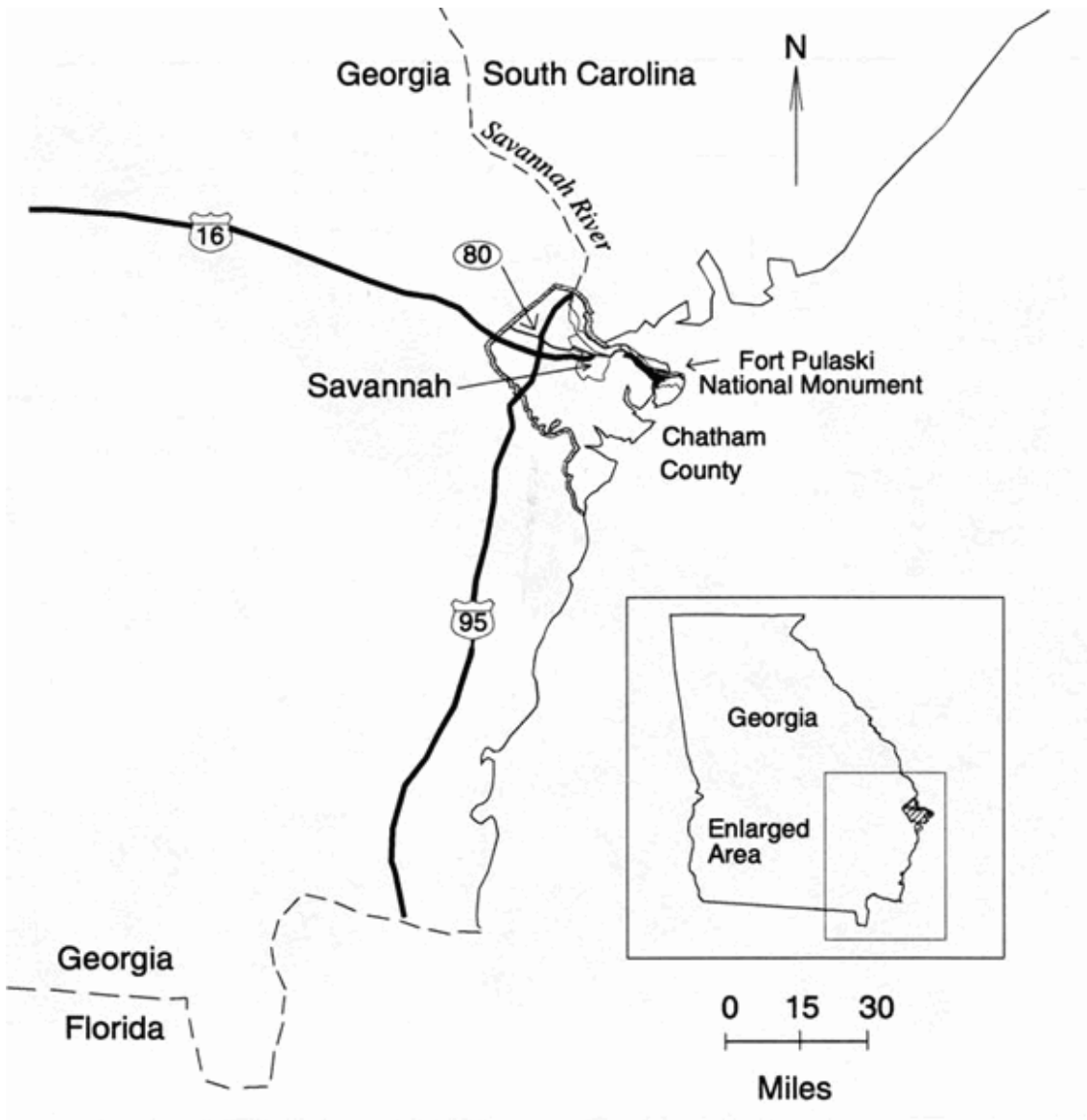
Boundary UTMS:

Source:	GPS-Differentially Corrected
Boundary Source Narrative:	All points produced by on-screen digitizing in ArcMap.
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	511,327
UTM Northing:	3,544,102
Boundary Datum Other:	1
Source:	GPS-Differentially Corrected
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	511,569
UTM Northing:	3,543,820
Boundary Datum Other:	2
Source:	GPS-Differentially Corrected
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	511,445
UTM Northing:	3,542,941
Boundary Datum Other:	3
Source:	GPS-Differentially Corrected

Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	510,397
UTM Northing:	3,542,775
Boundary Datum Other:	4
Source:	GPS-Differentially Corrected
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	509,603
UTM Northing:	3,543,072
Boundary Datum Other:	5
Source:	GPS-Differentially Corrected
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	507,959
UTM Northing:	3,543,853
Boundary Datum Other:	6
Source:	GPS-Differentially Corrected
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	508,087
UTM Northing:	3,544,020

Boundary Datum Other:	7
Source:	GPS-Differentially Corrected
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	508,700
UTM Northing:	3,544,316
Boundary Datum Other:	8
Source:	GPS-Differentially Corrected
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	17
UTM Easting:	510,342
UTM Northing:	3,543,991
Boundary Datum Other:	9

Location Map:



Fort Pulaski Location Map

Regional Context:

Type of Context: Cultural

Description:

Cockspur Island holds a strategic location at the mouth of the Savannah River. Since colonial times people have recognized that fact, and the island has been home to continuous military and governmental presence. The English, the State of Georgia, the Confederate States and the United States have all had representation on Cockspur Island. In earlier years, when ships navigated shallower waters, the South Channel was the center of military development; Fort Greene and Fort George were both on the south shore, defending the access to Savannah and implementing quarantine restrictions. Civil War confrontations at Fort Pulaski took place on the South Channel as well. When ships began to draw deeper water, the larger North Channel became the focus of attention and today the U.S. Coast Guard still occupies a place on the north shore of the island.

Type of Context: Physiographic

Description:

Fort Pulaski is located on Cockspur Island between the North and South Channels of the Savannah River. With the Atlantic Ocean to the east and an elevation not rising far above eight feet, the island is prone to flooding from storms. Vegetation is semi-tropical with its species composition determined by elevation: the low, undisturbed land is covered with salt marsh affording views to the horizon; the relatively higher lands, built up primarily by dredging deposits, are covered with coastal hardwood hammocks, a dense and enveloping ecosystem.

Type of Context: Political

Description:

As a site of continuous military operation by several different governments, Cockspur Island has proved itself as a natural defensive position. After the construction of Fort Screven, the Fort fell into disuse and on October 15, 1924 President Calvin Coolidge established Fort Pulaski as a national monument. The site was transferred from the Quartermaster Department of the Army to the National Park Service through President Franklin D. Roosevelt's Executive Order 6166 in 1933.

The Fort Pulaski National Monument is located on Cockspur Island along U.S. Highway 80 between Savannah and Tybee Island. The park lies within the first Congressional District of Georgia.

Management Unit: N/A

Tract Numbers: 01-101, 01-102, 01-103, 01-104, 01-105, 01-106, 01-107,
01-108, 01-109, 01-110, 01-111, 01-112

GIS File Name: FOPU_CLI_UTMS, FOPU_NR_UTMS

GIS File Description:

Management Information

General Management Information

Management Category: Must be Preserved and Maintained

Management Category Date: 08/01/2011

Agreements, Legal Interest, and Access

Management Agreement:

Type of Agreement: Interagency Agreement

Expiration Date: NA

Management Agreement Explanatory Narrative:

US Coast Guard - Administrative Use of Property for Station

Type of Agreement: Memorandum Of Agreement

Expiration Date: NA

Management Agreement Explanatory Narrative:

State of Georgia - Concurrent Jurisdiction; Department of Interior - Law Enforcement Services

Type of Agreement: Memorandum of Understanding

Expiration Date: NA

Management Agreement Explanatory Narrative:

Chatham County Mosquito Control; City of Tybee Island - Equipment Use; Chatham County - Law Enforcement; US Coast Guard - Navigational Tower; Georgia Power

Type of Agreement: Other Agreement

Other Agreement: GA SHPO - 106 Compliance Programmatic Agreement

Expiration Date: UK

Type of Agreement: Special Use Permit

Expiration Date: NA

Management Agreement Explanatory Narrative:

Savannah Pilots Association - Dormitory & Dock; Chatham County - McQueen's Island Nature/Bicycle Trail, Fishing Pier, Boat Ramp; Georgia Power - Power Line McQueen's Island; NOAA - Tide Gauge Pilot's Dock; USDA; USGS - Water Monitoring Wells (2), US Army Corps of Engineers - Water Monitoring Wells (4), South Carolina Department of Health & Environmental Control - Water Monitoring Well (1)

NPS Legal Interest:

Type of Interest: Fee Simple

Type of Interest: Fee Simple Reservation

Explanatory Narrative:

Period Tenancy - Bar Pilots Association - .5 ac

Type of Interest: Less than Fee Simple

Explanatory Narrative:

Development Easement for Georgia DOT

Type of Interest: None - Other Federal Agency Owned

Other Agency or Organization: US Coast Guard

Explanatory Narrative:

Interagency agreement, 1.85 ac.

Public Access:

Type of Access: Unrestricted

Adjacent Lands Information

Do Adjacent Lands Contribute? Yes

Adjacent Lands Description:

Vast salt marshes interspersed by rivers and tidal estuaries make up the landscape that surrounds Cockspur Island. The areas of McQueens Island and Tybee Island which lie alongside the historic landscape are owned and maintained by the National Park Service and the natural state of the area is preserved, enhancing the overall setting of this historic property. Though it is relatively unchanged, physical intrusions such as U.S. Highway 80 and the South Channel Bridge have spoiled views of the island and water. The Savannah River which surrounds Cockspur Island has evolved as a transportation route. River traffic operates off the north shore where the river has been dredged. The river continues to operate as a natural transportation route and as such modern ships pass within view of the Fort Pulaski National Monument daily.

National Register Information

Existing National Register Status

National Register Landscape Documentation:

Entered Inadequately Documented

National Register Explanatory Narrative:

Fort Pulaski was administratively listed in the National Register in 1966 with the passage of the National Historic Preservation Act. A nomination for the park was prepared in 1974 by park historian, Edward Trout, and accepted in 1975. The property is given an approximate acreage of 260. The period of significance is defined as "19th Century," with 1829-47, 1861-72, and 1890s called out as specific dates. A brief statement of significance outlines the importance of the fort, and a list of seven significant structures is provided. This list includes the Fort itself; the Workman's Village and outlying cisterns; the North Pier; Cockspur Island Lighthouse; Battery Horace Hambricht; a c. 1896 Residence; and John Wesley Memorial.

The nomination is in need of an update. The size of the property should be increased to 609 acres in order to include all of Cockspur Island and the islet upon which Cockspur Island Lighthouse is built. Since the time that this nomination was written, the format of the National Register period of significance field has changed, and checking off a particular century is no longer adequate; the 19th century period of significance should be refined to the dates of 1829-1900. A secondary period of significance of 1933-1943 should be added in order to account for the extensive amount of work done at the property by the CCC and WPA during the New Deal program, as well as World War II.

The list of contributing features needs to be expanded, with the cisterns each listed separately, as well the addition of the two brick foundation ruins located by cisterns no. 1 and 4. The moat, demilune, dikes, canal lock, feeder canal would all benefit from separate listing. They are currently mentioned only briefly in the overall Fort Pulaski structure entry. With the addition of the 1933-1943 period of significance, other resources, such as the World War II bunkers, South Channel Bridge, entrance road, parking area and trail system could be added. One item on the current list of contributing features should be deleted. The John Wesley Memorial was built in 1950, which post-dates the present -- and the proposed -- period of significance.

The Statement of Significance would benefit from a revision that addresses archeology, land use, spatial organization, topography, vegetation, and views, and how all of these characteristics contribute to the significance of the property, particularly in terms of feeling, association, and setting.

Finally, the geographical data should be updated with the boundary UTM points, provided in this inventory, that more accurately circumscribe the property.

Existing NRIS Information:

Name in National Register:	Fort Pulaski National Monument
NRIS Number:	66000064
Primary Certification:	Listed In The National Register
Primary Certification Date:	10/15/1966
Other Certifications and Date:	Additional Documentation - 4/26/1976

National Register Eligibility

National Register Concurrence:	Eligible -- SHPO Consensus Determination
Contributing/Individual:	Individual
National Register Classification:	District
Significance Level:	National
Significance Criteria:	A - Associated with events significant to broad patterns of our history
Significance Criteria:	B - Associated with lives of persons significant in our past
Significance Criteria:	C - Embodies distinctive construction, work of master, or high artistic values
Significance Criteria:	D - Has yielded, or is likely to yield, information important to prehistory or history

Period of Significance:

Time Period:	AD 1829 - 1895
Historic Context Theme:	Shaping the Political Landscape
Subtheme:	Political and Military Affairs 1783-1860
Facet:	The Army And Navy
Other Facet:	None
Time Period:	AD 1829 - 1895
Historic Context Theme:	Shaping the Political Landscape
Subtheme:	The Civil War
Facet:	Battles In The North And South
Time Period:	AD 1829 - 1895
Historic Context Theme:	Expanding Science and Technology
Subtheme:	Technology (Engineering and Invention)
Facet:	Military (Fortifications, Weapons, And War Vehicles)
Time Period:	AD 1933 - 1942
Historic Context Theme:	Shaping the Political Landscape
Subtheme:	Political and Military Affairs 1865-1939
Facet:	The Great Depression And The New Deal, 1929-1941
Time Period:	AD 1933 - 1942
Historic Context Theme:	Shaping the Political Landscape
Subtheme:	World War II
Facet:	The Home Front

Area of Significance:

Area of Significance Category:	Military
Area of Significance Subcategory:	None
Area of Significance Category:	Architecture
Area of Significance Category:	Engineering

Statement of Significance:

Cockspur Island and Islet are a 609-acre portion of Fort Pulaski National Monument, located at the mouth of the Savannah River in Chatham County, Georgia. The low-lying property provides dramatic views of the ocean and surrounding land and holds a strategic defensive position that has been the site of military fortifications since the 18th century. Cockspur Island is dominated by the massive Fort Pulaski and surrounding dike and ditch system, with the associated construction village site and North Pier nearby. These features gain historical significance for being home to the first military assignment of Robert E. Lee (Criterion B); as an impressive engineering and architectural marvel that was seemingly impregnable at the time (Criterion C); and as the site of a Civil War siege by Union troops that ultimately proved that impregnability to be false, with the use of the newly patented rifled cannon (Criterion A). The island holds archeological potential (Criterion D) for related features – including earlier forts, the construction village, and South Pier – whose above-ground presence has not survived. Other extant significant features at the property include the Quarantine Attendant's Quarters, Battery Horace Hambricht, two World War II bunkers, and numerous trails and roadways. Cockspur Islet is home to Cockspur Island Lighthouse, which survived the Battle of Fort Pulaski intact, and is a notable example of 19th century architecture (Criteria A & C).

The primary period of significance runs from 1829 when the construction of Fort Pulaski began, to 1900 when Battery Horace Hambricht was constructed in response to the Spanish-American War. A secondary period of significance of 1933-1943 encompasses the New Deal Era improvements as well as the batteries that were built in response to World War II.

Little documentation exists about Cockspur Island during the prehistoric era. While there is evidence of human occupation on the Georgia Sea Islands during the Archaic, Woodland and Mississippian Periods, there is no conclusive archeological proof that Cockspur Island was occupied or used during this time. During the Colonia Era, John Wesley, primary founder of the Methodist movement first set foot on American soil on Cockspur Island in 1736. Two forts were built on the island during the 18th century as well: Fort George in 1761 and, built on the same location, Fort Greene in 1794-95. A hurricane washed away the fort in 1804.

Construction began on Fort Pulaski in 1829 as a part of the seacoast defensive effort known as the Third System. Robert E. Lee came to Cockspur Island on his first military assignment after graduating from West Point. His responsibilities included surveying the island and supervising excavation for the fort and the surrounding dike and ditch system. Workers lived in a construction village on the north end of the island and supplies were brought in via large piers to the north and the south. Fort Pulaski was an impressive engineering and architectural accomplishment when it was completed in 1847. Even the North and South Piers and construction village were notable for their dimensions and design. The 7 to 11 feet thick and 32 feet high outer walls of Fort Pulaski were considered impregnable. 25,000,000 bricks were used in the fort's construction. A moat surrounded the fort and a dike and ditch system kept the foundation dry.

As the fort's construction proceeded, Cockspur Island Lighthouse was built on the islet immediately off the southeast corner of Cockspur Island. Completed between 1837 and 1839, Cockspur Island Lighthouse started as a daymark and was then illuminated in 1849.

In January, 1861, Georgia Volunteer Militia took possession of the ungarrisoned Fort Pulaski. Federal troops, including Robert E. Lee, subsequently came to the fort and outfitted it with heavy guns from nearby Tybee Island. Union forces attacked Fort Pulaski on April 10, 1862, when Confederate troops refused to surrender. From a vantage point on the south channel of the Savannah River, Union forces fired a new weapon – the rifled cannon – toward the fort. At two and a half miles away, the cannon fire did not cause the Confederates much concern, but it quickly became apparent that rifled cannon increased the distance from which one could fire accurately on a target. By the second day, holes as large as eight feet were opening up on the fort's outer wall. Projectiles from the rifled cannon were coming dangerously close to the magazine at the opposite end of the fort. With this action, masonry fortifications were rendered obsolete. The Confederates surrendered Fort Pulaski to the Union.

After the Civil War, Fort Pulaski continued to be used as a prison for Confederates and Union troop deserters, and periodic repairs were made to the fort and other features on the island. By the 1880s the island was largely uninhabited, and a hurricane washed away the construction village, destroyed the Cockspur Island lightkeeper's house, and damaged the dike and ditch system. Soon thereafter, however, more construction began on the island and by 1900 several new features appeared in the landscape. As part of the Endicott program of coastal defense, the fort's demilune was refurbished, and Battery Horace Hambright was constructed on the north side of the island. A quarantine station was also built northwest of the fort.

Cockspur Island experienced another period of development during the New Deal era of the 1930s. Through the Public Works Administration (PWA) and Civilian Conservation Corps (CCC) a number of tasks were completed on the island. They removed vegetation from the fort's walls and parade ground, partially excavated the main drainage ditch, improved drainage and mosquito control, built five miles of trails on the island, and rebuilt the dike systems. In 1937, they constructed a bridge across the South Channel and built roadways connecting it to the fort and west side of the island where they also built a maintenance area. Most of these improvements and circulation features remain in place today and together comprise a significant example of New Deal development. This work came to a close by 1941, but by 1943, the US Navy built two II bunkers in response to World War II. These bunkers remain today and are significant for their military association.

Cockspur Island is a historically significant property for its military, engineering and architectural associations. It encompasses features significant to a wide range of historical contexts, primarily the Civil War, but also the Spanish American War, the New Deal era, and World War II. Vegetation succession has compromised integrity of setting and feeling, and the loss of most features from the construction village compromises integrity of association. But overall integrity of this historic district remains high for location, design, materials, workmanship, and association.

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type: Designed
Historic Site

Current and Historic Use/Function:

Primary Historic Function:	Battery (Defense)
Primary Current Use:	Coast Guard Facility
Other Use/Function	Other Type of Use or Function
Battle Site	Historic
Commerce/Trade-Other	Both Current And Historic
Grave/Burial	Historic
Military Facility (Post)	Historic
Monument (Marker, Plaque)	Both Current And Historic
Outdoor Sculpture (Statuary)	Current
Picnic Shelter	Current
Visitor Contact (Visitor Center)	Current

Current and Historic Names:

Name	Type of Name
Fort Pulaski National Monument	Current
Peeper Island, Cockspur Island, Fort George, Fort Greene, Fort Pulaski	Historic

Ethnographic Study Conducted: No Survey Conducted

Chronology:

Year	Event	Annotation
AD 1736	Colonized	John Wesley, founder of the Methodist Church lands on American soil at Cockspur Island on 6 February 1736.
AD 1758	Developed	William De Brahm and Henry Yonge are commissioned by King George to survey Cockspur Island.
AD 1761	Colonized	The small British battery, Fort George, is built on the south shore of Cockspur Island

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

AD 1768	Built	A pilot house is established by William Lyford
AD 1774	Destroyed	The pilot house is burned down in a slave revolt.
AD 1776	Abandoned	Fort George is abandoned as the Revolutionary War begins.
AD 1794 - 1795	Altered	America builds Fort Greene on Cockspur Island.
AD 1804	Destroyed	A hurricane floods the island, completely destroys the fort and kills half the soldiers.
AD 1829 - 1847	Built	The construction of the Fort Pulaski as designed by Simon Bernard is complete.
AD 1830	Planned	A survey of the entire island, with positions of proposed and existing structures, is completed by Lieutenant Robert E. Lee.
AD 1839	Built	A lighthouse is built on an islet along the southeast shore of Cockspur Island.
AD 1846 - 1851	Built	During this time the system of dikes is completed.
AD 1854	Destroyed	Cockspur Island Lighthouse is destroyed by a hurricane.
AD 1856	Built	Cockspur Island Lighthouse is built on the foundation of the destroyed lighthouse.
AD 1862	Military Operation	On April 10 & 11, in the midst of the Civil War, Fort Pulaski is witness to the first use of rifled guns, a technological improvement that is able to breach the fort's thick masonry walls. Union soldiers take control and quickly repair the damage.

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

AD 1869 - 1876	Restored	Troops stationed at Fort Pulaski begin a project to remodel the demilune, construct a network of heavy gun emplacements and underground magazines, connected by tunnels. Other repairs are made to the drawbridge, wharf, sea walls, roads and the original construction village buildings.
AD 1881	Destroyed	A severe hurricane washes away the construction village, destroying the Cockspur Island lightkeeper's house and damaging the dike and ditch system.
AD 1889 - 1890	Built	The city of Savannah begins construction of a permanent quarantine station. This includes wharves, a hospital, store houses, and a residence for the Quarantine Officer. The station is located on a portion of the northwest end of Cockspur Island on lease from the War Department.
AD 1890	Built	An additional mound is built on the demilunes southeast corner. This houses the controls for electric mines placed in the north channel of the Savannah River.
AD 1893	Built	A fumigating plant and disinfecting plant are built on the northwest side of the quarantine station in response to a cholera outbreak in Europe. A new residence is also constructed at this time.
AD 1893 - 1906	Built	A house for the Cockspur Island Lighthouse keeper is constructed on the fort terreplein.
AD 1900	Built	Battery Horace Hambright, located on Cockspur Island's north shore is completed.
AD 1909	Abandoned	The Cockspur Island Lighthouse is decommissioned due to the overwhelming use of the North Channel of the Savannah River.
AD 1917	Maintained	War Department funding allows for the clearing of vegetation that will give visitors unobstructed views of the forts structure.
AD 1924	Established	President Calvin Coolidge establishes Fort Pulaski as a national monument by proclamation on October 15, 1924.
AD 1925	Damaged	In June a lightning strike causes a fire that destroys part of the southwestern gorge and the caretaker's house on the terreplein.

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

AD 1933 - 1941	Preserved	New Deal programs launched by President Franklin D. Roosevelt are implemented at Fort Pulaski. The CWA, CCC and PWA all contribute to the effort of restoring the fort and its surroundings.
AD 1935	Land Transfer	The State of Georgia donates 297.39 acres, including the east end of Cockspur Island.
AD 1937	Established	The War Department transfers administration to the Department of the Interior in August.
AD 1938	Built	The Public Works Administration finishes the construction of the South Channel Bridge, which connects Cockspur Island with McQueens Island and the mainland.
AD 1942 - 1946	Established	In March of 1942 Cockspur Island is turned over to the Navy for the duration of WWII. It will remain closed to the public for 5 years.
AD 1947	Damaged	The area is hit by a hurricane, which breaches part of the dike system, damages roofs of park residences and uproots shrubbery.
AD 1949	Planned	The NPS prepares a Developed Area Plan that proposes the removal of buildings from the Navy occupation.
AD 1952	Demolished	The park demolishes or sells thirty-six buildings at the western end of Cockspur Island, retaining eight for park purposes.
AD 1954	Land Transfer	The quarantine station property is formally transferred to the National Park Service.
AD 1958	Preserved	Repairs to the fort and demilune are completed as a result of Mission 66.
AD 1960	Land Transfer	The Cockspur Island Lighthouse is transferred from the U.S. Coast Guard to the National Park Service.
AD 1964	Built	In 1964 the Fort Pulaski Visitor Center is completed and opened to the public.
AD 1965	Developed	A picnic area at the west end of Cockspur Island is developed in June.

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

AD 1970	Restored	The vegetation that occupies the area around the Fort is removed to allow Fort Pulaski to return to a more historically accurate state.
AD 1973	Demolished	The buildings occupied by the Bar Pilots are demolished and new buildings are built in the same location.
AD 1985	Built	A prefabricated restroom is added to the picnic area.
AD 1987	Maintained	Extensive repairs are completed on the South Channel Bridge.
AD 1992	Built	The Savannah/Tybee Railroad Historic Scenic Trail is completed on the north shore of McQueens Island along U.S. Highway 80.
AD 1994 - 1995	Altered	The lobby of the Visitor Center is partitioned to create an auditorium.

Physical History:

Early History of Cockspur Island and Fort Pulaski

There is sparse documentation about the human occupation and use at Cockspur Island during the prehistoric era. There is no direct evidence placing people in the area of coastal Georgia before 10,500 B.C. This Paleo-Indian Period (10,500 to 8,000 B.C.) is characterized mainly through the identification of various stone tools, with the most emphasis placed on the different types of projectile points. These Paleo-Indian people lived a highly mobile existence, moving from place to place in search of food, water, and sources of rock to make their tools. Cockspur Island would have been entirely landlocked during Paleo-Indian times, but archeological surveys in nearby locales have yielded no evidence of habitation during this period.

Although there were few initial changes between the Paleo-Indian Period and the Archaic Period (8,000 to 1,000 B.C.), by the end of the period, Archaic people were building mounds, conducting long-distance trade, practicing small-scale farming, and creating ceramic and stone vessels for cooking and storage. The presence of shell middens on and around the Georgia Sea Islands indicates areas where late Archaic people were living and threw their trash. Although investigations of shell mounds on the north shore of McQueens Island did not yield any artifacts, the probability of finding Late Archaic sites at Fort Pulaski is much greater than that of any previous period.

The Woodland Period (1,000 B.C. to A.D. 1150) is generally thought to be a time when many of the innovations of the Late Archaic were refined or expanded. Mound building increased, groups began to settle down in specific areas, more durable pottery was made, and dependence on farmed foods rose. Projectile point size decreased, and by the Late Woodland, people were using bow and arrow to hunt. There is a good possibility that there are Woodland Period sites within Fort Pulaski National Monument, but no archeological testing has been performed.

During the Mississippian Period (A.D. 1150 to European Contact), Native American culture reached a new level of complexity in the southeastern United States. Large mounds were built in many places, acting as a central location around which increasing populations could settle. Most sites related to this time were located along large river drainages such as the Savannah River, and many sites such as Irene, Oemler, and Walthour were located in the general vicinity of Cockspur Island. There is a good possibility that similar materials could be found within the monument boundaries if archeological investigations were carried out (www.cr.nps.gov/seac/pulaski/0-introduction/index.htm).

The Euchee Indians lived on Tybee Island, just east of Cockspur Island, when Spain colonized the Georgia coast in the early 1500s (Meador, 3). Priests often accompanied these early explorers to convert American Indians to the Catholic faith. This task was initially attempted by Jesuit missionaries, but after numerous setbacks and massacres, the Jesuits abandoned their missions.

The Spaniards felt that it was of prime importance to control the Indians, as many of them were friendly with the French. Beginning in the 1580s, Spanish friars of the Franciscan Order were

more successful in establishing missions on the Georgia coast, and assimilation of coastal indigenous chiefdoms into greater Spanish Florida occurred. The northernmost mission in 1660 was Mission Santa Catalina de Guale, about thirty miles south of Cockspur Island. The Franciscan missions flourished until around 1670, when the settlement of Carolina led to increasing conflict between the British and Spanish and their respective Indian allies. A series of mission raids by English-allied Indians pushed the Spanish farther and farther south. By 1686, the Spanish governor Cabrera ordered all missions north of Amelia Island to be removed (Torres, 16).

On January 30, 1733, six British ships ferrying General James Oglethorpe and a group of settlers sailed up the Savannah River, past Cockspur Island, anchoring at Yamacraw Bluff, where they established Savannah. One of Oglethorpe's passengers on a later voyage in 1736 was John Wesley, founder of American Methodism. The party stopped at Cockspur Island, then called Peeper Island. According to Wesley's journal:

We cast anchor near Tybee Island, which gave us a specimen of America. The pines, palms, and cedars running in rows along the shore, made an exceeding beautiful prospect, especially to us who did not expect to see the bloom of spring in the depth of winter. The clearness of the sky, the setting sun, the smoothness of the water, conspired to recommend this new world and prevent our regretting the loss of our native country (Lattimore, 1).

Wesley did not remain on the island but instead continued upstream to the town of Savannah. He remained in Savannah until December 1737, serving as the rector of Christ Church.

In 1754, King George commissioned William De Brahm and Henry Yonge as joint surveyors-general for the Georgia colony. They surveyed Cockspur Island in 1758 when Charleston planter Jonathan Bryan purchased 150 acres. At that time, a twenty-acre tract on the eastern portion of the island was reserved for public use (Prentice, 49).

Fearing attack by the Spanish from Saint Augustine, Colonial leaders wanted King George to construct a fort on Cockspur Island to protect the growing port of Savannah. Construction of Fort George on the eastern end of Cockspur Island began in 1761 under the direction of William De Brahm. The fort, a small wooden palisade with a blockhouse in the center, provided some protection for the Savannah harbor, but, more frequently, activities related to customs and quarantine enforcement.

In 1768, a pilot house was established by William Lyford approximately eighty yards northwest of Fort George (Groh, 153). By 1771, the fort was in poor condition and was abandoned in 1776 at the beginning of the Revolutionary War. The pilot house was burned by slaves in 1774.

During the Revolutionary War, the British established a safe haven on Cockspur Island, and Savannah loyalists, including the Royal Governor of Georgia, James Wright, fled to the island for protection. Wright brought the great seal of the Province with him, and Cockspur Island was temporarily made the capitol of the colony. When the British returned in 1778 to reoccupy Savannah, Cockspur Island was deserted (Lattimore, 2).

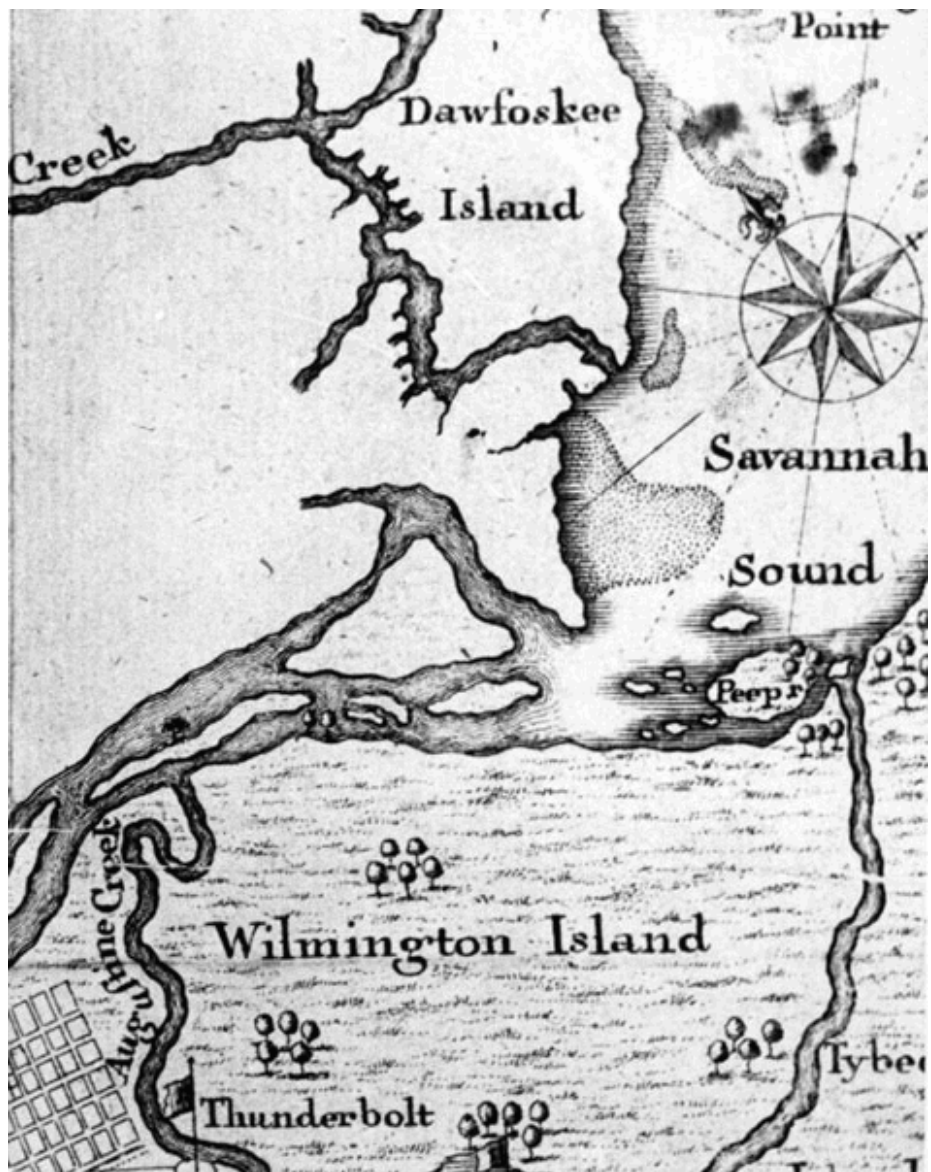


Figure 5. Detail of Peeper Island. Hargrett Rare Book Room, University of Georgia

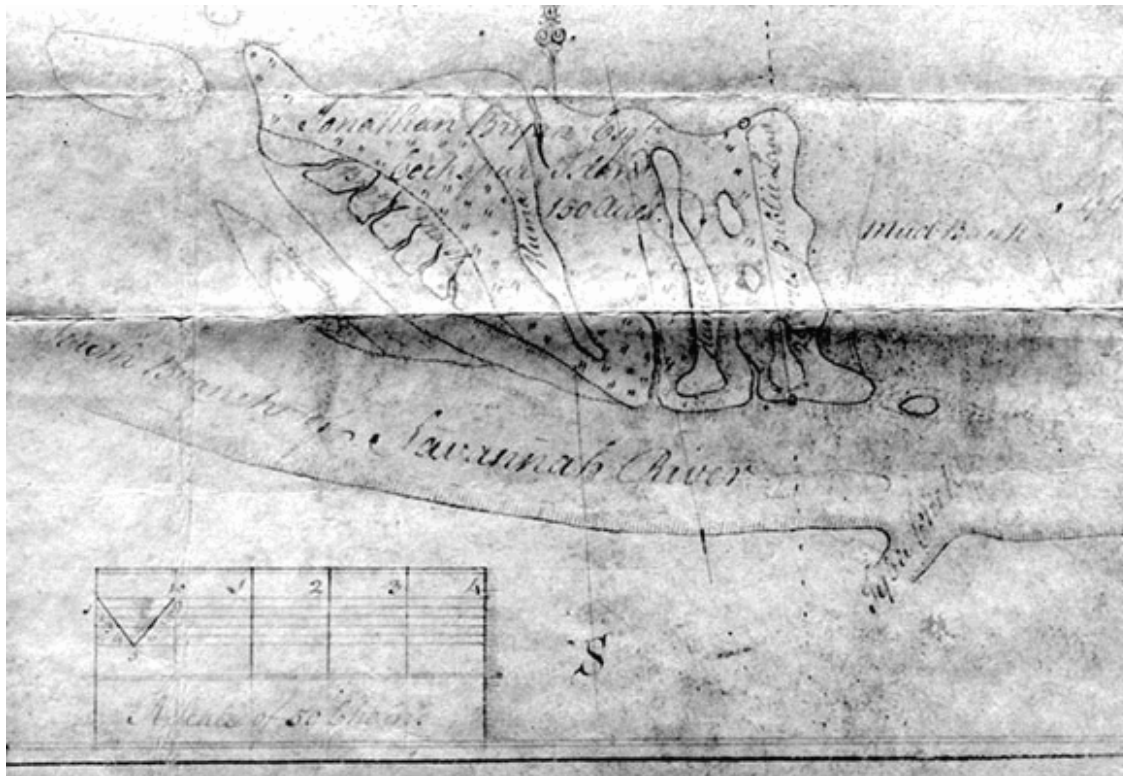


Figure 6. 1758 de Brahm and Yonge map of Cockspur Island. National Archives

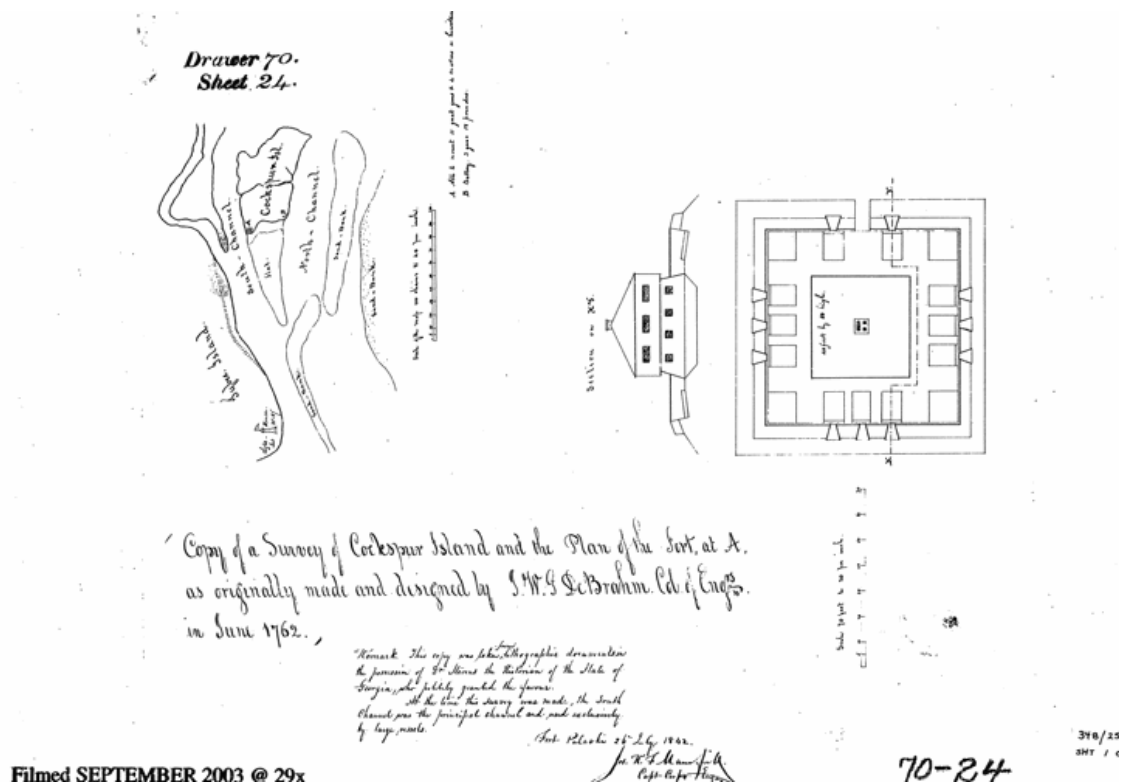


Figure 7. 1842 Mansfield map from de Brahm survey. National Archives

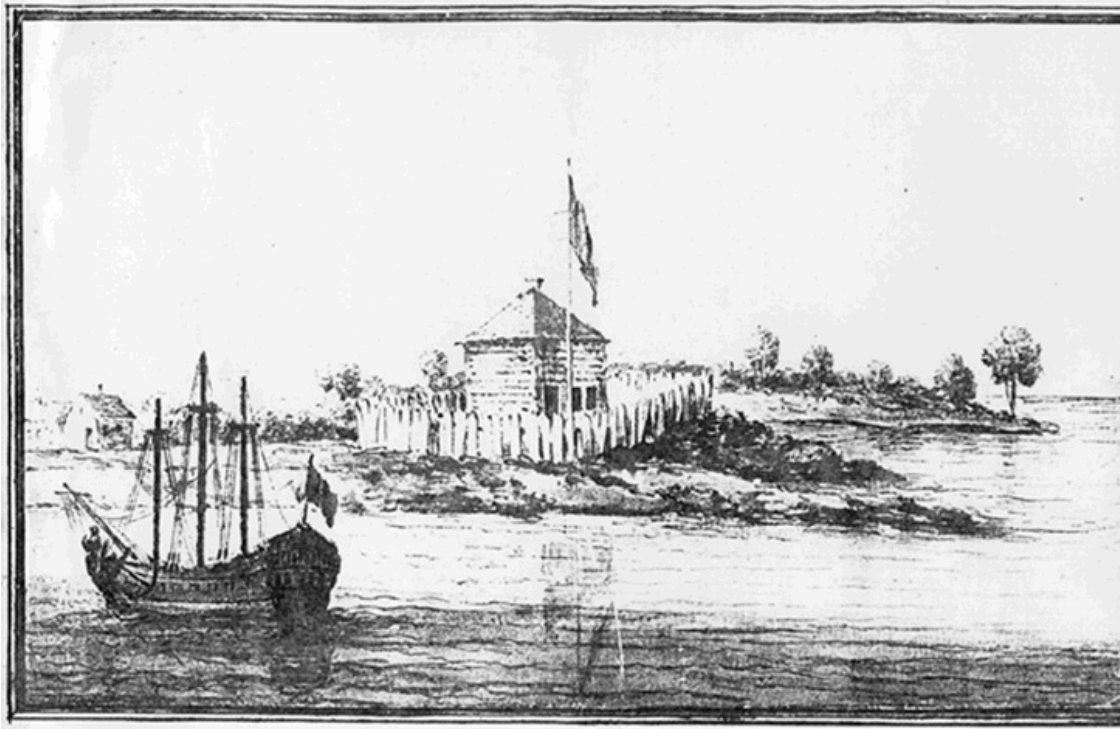


Figure 8. 1764 sketch of Fort George. Fort Pulaski National Monument archives

Early American Period (1777-1815)

With their independence won, the new nation focused its attention on securing the coastal borders. In 1794, Congress authorized the construction of what would later be known as the “First American System of Fortifications.” As a result, the Secretary of War ordered new efficiently designed forts to be built to protect major U.S. coastal cities. These forts were impermanent wooden structures that consisted of batteries, magazines, and either barracks or two-story blockhouses containing small cannon on the upper story. Under the First System, Cockspur Island acquired a new fort to protect Savannah. The six-gun-battery fort, named Fort Greene after Revolutionary War hero Nathanael Greene, was constructed between 1794 and 1795. Although earlier reports claimed that Fort Greene was constructed on or near the site of Fort George, an 1842 letter states that the fort was located on the site of the north wharf (Prentice, 52).

As with Fort George, this fort served mostly as quarantine control, particularly in response to the yellow fever epidemic raging in the West Indies at the time. Sixty five officers and men inhabited the island in 1800. Reports indicate that rations were unwholesome and sometimes unavailable; suggesting that little or nothing was done at the fort in the way of farming. In 1804, a hurricane swept through the area flooding the entire island and completely destroying the fort. Half of the soldiers perished in the storm and the survivors were swept six miles inland to Wilmington Island. It was not until after the War of 1812 that the fort would be rebuilt (Beck: 7).

The Third System and the Building of Fort Pulaski (1815-1861)

The British siege of Washington, D.C. during the War of 1812 quickly brought home the fact that America's first two coastal defenses were ineffectual. At the urging of President Madison, Congress commissioned French military engineer, Simon Bernard, to design and install the Third System of Defense (Young, 1938: 5). Bernard proposed that a line of seacoast forts be built, including one at the mouth of the Savannah River. It was not until 1821, however, that a defense survey of Cockspur Island would be undertaken (Young, 1938: 11). Actual construction of the fort did not begin until December of 1828 (Young, 1938: 16).

In the following year, a young Lieutenant Robert E. Lee came to Cockspur Island for his first military assignment. His official title was Acting Assistant Commissary of Subsistence under the direction of Major Samuel Babcock. Babcock was in failing health, though, and Lieutenant Lee took on more and more responsibilities as time went by. One of his first tasks in January of 1830 was to survey the island. The result of this effort was a drawing titled "Sketch exhibiting the actual state of Cockspur Island and the operations for Jan. 1830" (See Figure 10) which details the high water lines, positions of the existing and proposed dikes, sluices, and embankments, as well as all existing and proposed structures, including military housing, boat houses, boarding houses and stable. He would also be engaged in the supervision of the excavations for the foundation of the fort that winter. Lee returned to his home in Virginia for the summer of 1830 and came back to Cockspur Island the following November to a disheartening scene. The dike system he helped to near completion that previous spring was destroyed in an autumn storm. His efforts to repair the damage were largely undone by another storm that December and repairs had to be made again.

On December 18, the ailing Major Babcock was replaced by First Lieutenant Joseph K.F. Mansfield who instructed Lee to conduct another survey of the island including the additions made by Major Babcock. Mansfield was not certain that the island's soil would support such a large structure and, during this same period of time, began testing the soil for bearing capacity. By February, through Lee's survey and Mansfield's soil observations, it was concluded that the plan for the fort would indeed need to be changed. Lee's next task was to supervise the new excavation of the foundation for the fort. Lee's stay at Cockspur Island ended on April 21, 1831 when he was ordered to return to Virginia (Young, 1970: 4)

Lieutenant Mansfield continued on at Fort Pulaski after Lee's departure. One of the next tasks he accomplished was the construction of the south pier. Mansfield's opinion, was that the north pier was poorly constructed and not worth repairing. In addition, the South Channel was the more prominent shipping route at the time. Thus, in late spring of 1831, the south pier was built, along with a lime house, blacksmith's shop, and carpenter's shop. To transport materials to the site of the fort, Mansfield had a shallow temporary canal built from the south pier to the construction site. The workers could float supplies on lighters down the canal and around the perimeter of the fort foundation (Young, 1938: 61)

Fort Pulaski required a support village near the North Pier of more than twenty buildings to accommodate all the construction workers. The village was located on a mud flat inside the

dike about 100 to 200 yards northwest of the demilune. There are records listing quarters for the commanding officer, other officers, mechanics, and laborers. A boat house, boatman's house, custom house, boarding house, storm house, and stable provided additional support.

It is fortunate that much of the Cockspur Island cultural landscape was recorded in early photographs. Although most of this work was done between the years of 1862 and 1865, it still provides valuable documentation of subjects, like the workmen's village, that were built two or three decades earlier. Matthew Brady was perhaps the most famous Civil War photographer and, although he rarely ventured far from his Washington gallery, his immense staff covered battles throughout the country. Timothy O'Sullivan worked for Brady, and many of the portrait photographs shot at Fort Pulaski are attributed to him. The structural photographs of the fort itself were mostly done by Lieutenant P. Haas, who was possibly a member of the engineer corps (Fleetwood: 1).

Photographs of the workmen's village reveal that the structures were mostly of wood frame construction and raised as much as five feet above ground on masonry posts. Eight cisterns located adjacent to the quarters provided drinking water for the village. A masonry beacon rising thirty feet above the dike at the north channel wharf dominated the village landscape (Beck: 8).

In 1836, Mansfield began construction of a breakwater and seawall around the northeast perimeter of the island. The purpose of this was to protect the temporary quarters in that area. It is likely that these quarters were separate from the village to the northwest of the fort (Young, 1938: 124). Also during this time, a narrow gauge railway was constructed from the south pier to the fort. Mules were used to haul brick down the track. A permanent dike system was finally begun at this time as well (Young, 1938: 134).

At the end of 1837, a permanent head of cut granite was constructed on the north pier. Up to this point, the pier had been in a state of disrepair, and supplies came in on the more active South Channel (Young, 1938: 139). Construction on the North Channel wharf continued through the spring of 1839 (Young, 1938: 144). The North Channel wharf would later become the more active docking point on the island as that channel became the more prominent shipping lane.

Construction activities continued on the island well into the 1840s. A mention is made of a small break in the dike being repaired during June of 1840 (Young, 1938: 159). During the spring of 1842, two permanent sluices were constructed through the northwest and southeast dikes and an advanced sluice was constructed at the southern terminus of the feeding canal in order to change the water in the moat (Young, 1938: 213). A severe nor'easter struck the island on October 6, 1842 while Mansfield was there with an overseer and just a few other people. In his journal, Mansfield wrote that it was the worst storm he had witnessed there in eleven years, with the tides sweeping over all but one of the dikes and breaching them in several areas (Young, 1938: 209). Immediately after the gale, Mansfield sent for fifteen black workers from Savannah to work on rebuilding the dike and ditch system. By December the system was repaired (Young, 1938: 215).

In April of 1843 Mansfield made plans to excavate the main feeder ditch that would carry water to the moat. The dirt from this was to be placed west of the canal to form a road from the fort to the south pier (Young, 1938: 226). This road would end up reaching the South Channel at a point roughly 600 feet west of the existing south wharf. Mansfield made plans to abandon the already ruinous extant wharf and build a new one at the terminus of the road (Young, 1938: 230). Plans for 1843 included commencement of the moat & feeder canal construction, strengthening of the island's dikes, ditches and breakwaters and the repair of the permanent wharf on the North Channel (Young, 1938: 239). On July 1, 1845, the sluice on the main feeder canal was opened to let water into the moats (Young, 1938: 280). This was also Mansfield's last day at the fort; in failing health, he returned to Connecticut (Young, 1938: 298). The dike system circling the fort was completed from 1846 to 1851 to the plans made by Lieutenant Alexander, Mansfield's replacement (Young, 1938: 302).

Named after Revolutionary War hero, Polish Count Casimir Pulaski, the fort was an impressive accomplishment for its time. The masonry walls, thought to be invincible, were seven to eleven feet thick and thirty two feet high (Beck: 5). A moat, seven feet deep and thirty five feet wide, surrounded the fort and was crossed over by two ramparts (Vandiver: 66). A feeder canal stretching 2500 feet connected the moat to the South Channel. To keep the land around the fort dry, the surrounding dike rose six feet above the adjacent marshes at a circumference of nearly two miles. Three tidal gates helped to control water depth and were connected to the feeder canal, with another dike system connecting to the workmen's village. A causeway, paralleling the feeder canal, connected the fort to the South Channel and Pier. Another causeway connected the fort to the North Pier (Beck: 5). Twenty five million bricks were used in the fort and the cost of construction was estimated at over one million dollars (Master Plan – FOPU: 42). The bricks came from as close as Savannah and as far away as Baltimore; the granite came from New York State and the sandstone from the Connecticut River Valley; large quantities of lumber, lime, lead and iron were also used (Chapman, et. al.: 14).

Also constructed during this time (c. 1839) was the Cockspur Island Lighthouse on an islet just off the southeast shore of Cockspur Island. As early as 1826, a recommendation was made to Congress to establish a beacon at the mouth of the Savannah River. By 1839, this beacon was constructed and, in 1849, it was outfitted with lamps and reflectors. In particular, the Bar Pilots – a group of navigators who have guided ships through the North and South Channels since colonial times and are stationed at Cockspur Island to this day – felt the lighthouse was necessary for their profession. It appears that the structure was destroyed by a hurricane in the following decade and rebuilt in 1856 (Collins: 6)

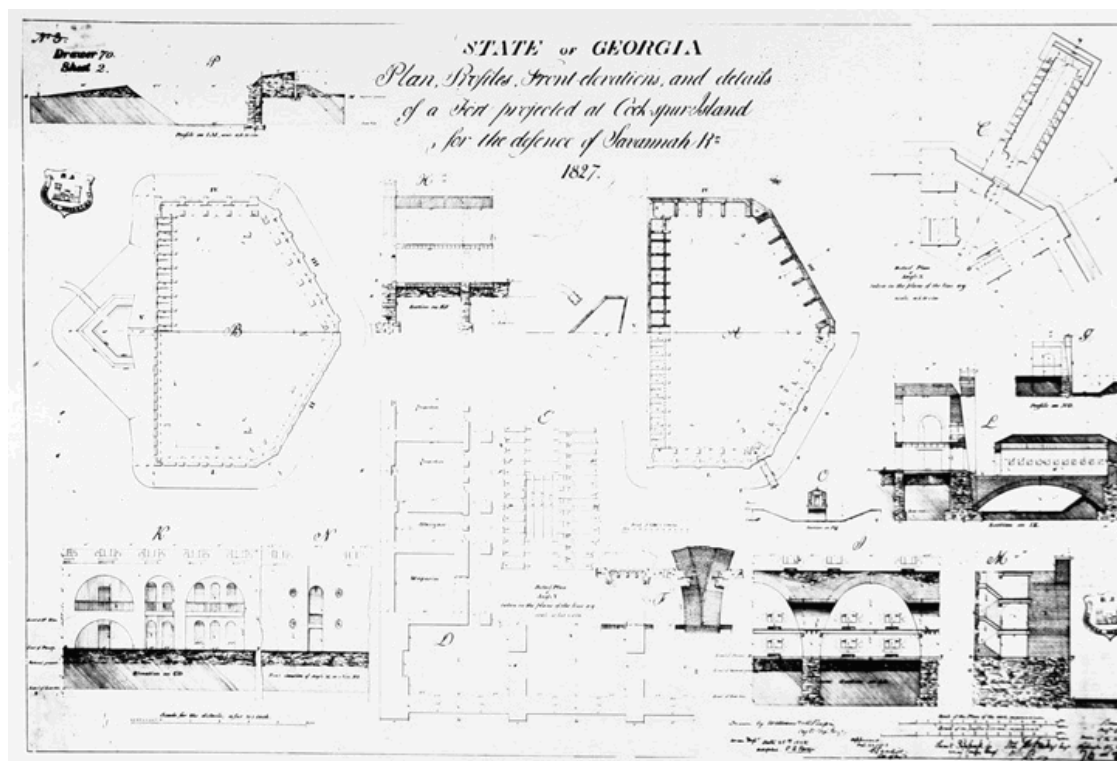


Figure 9. 1827 plan of Fort Pulaski. National Archives

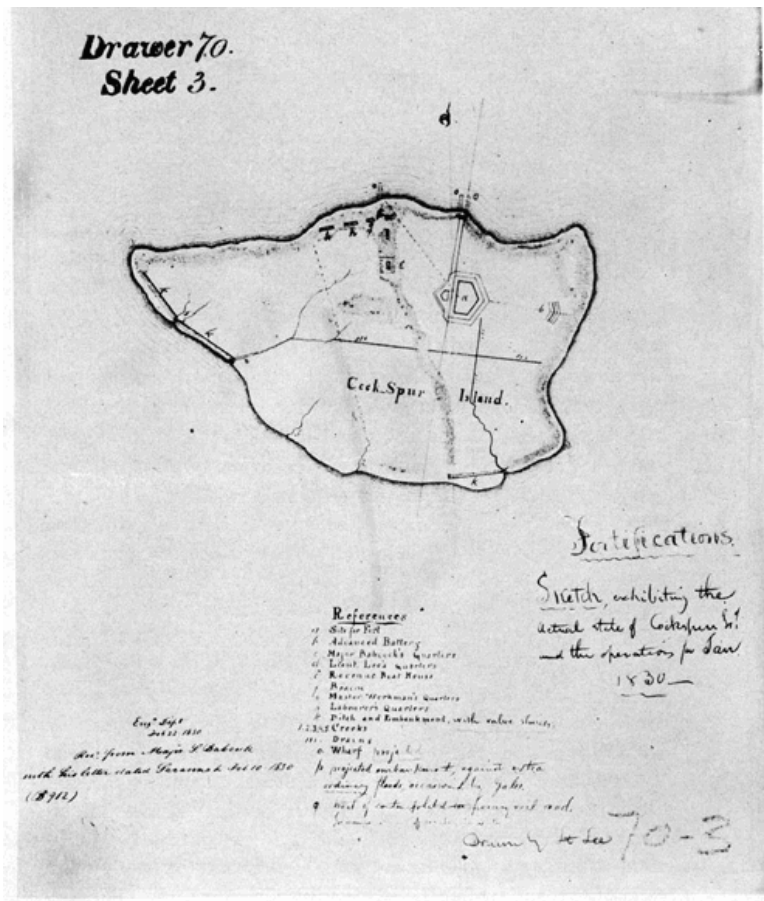


Figure 10. Map of Cockspur Island drawn by Lieutenant Robert E. Lee in 1830. National Archives



Figure 11. Robert E. Lee, 1831. National Archives

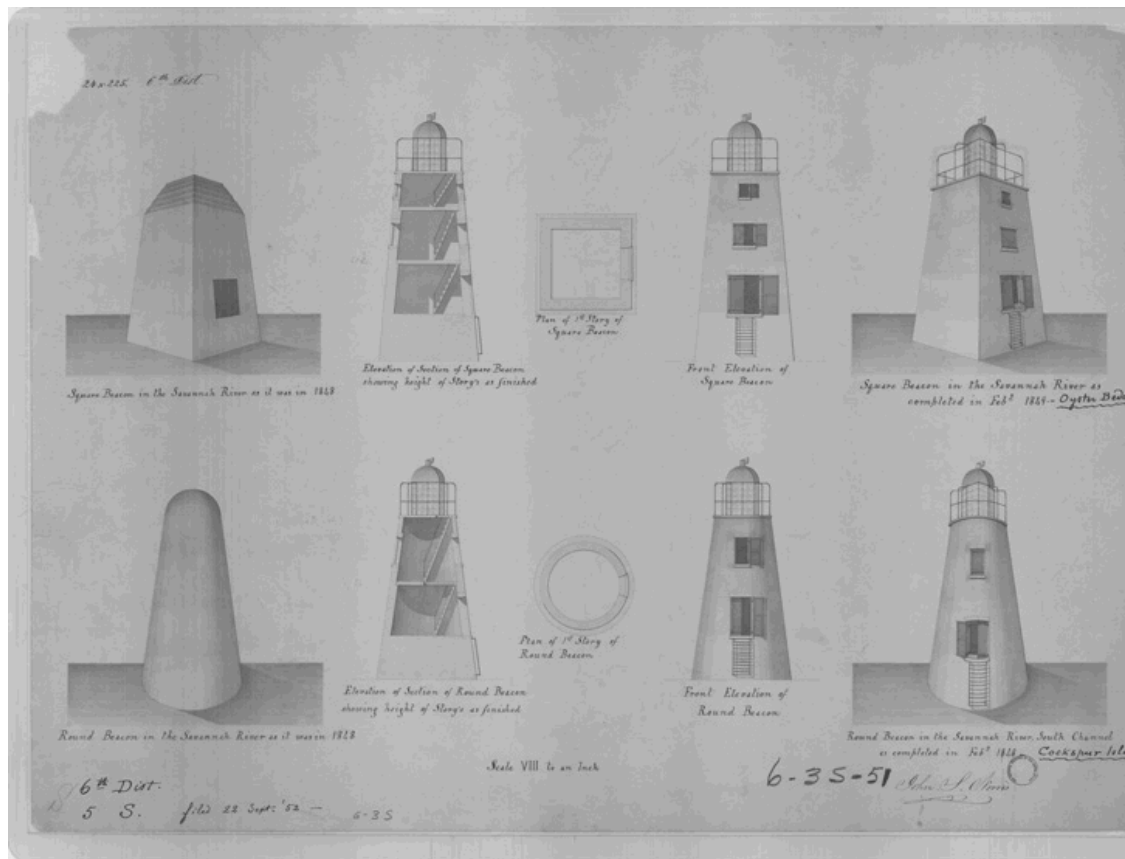


Figure 12. Drawing of Cockspur Island Lighthouse, 1848. National Archives

The Civil War (1861-1865)

In November 1860, Abraham Lincoln was narrowly elected to the presidency of the United States. A month later, South Carolina seceded from the Union. Georgians, taken with the idea of secession, were outraged when U.S. Army Major Robert Anderson reinforced Union forces stationed at Fort Sumter in Charleston harbor without notification to South Carolina. Georgia decided to defend its own maritime port of entry. Thus, on January 2, 1861, Governor Joseph E. Brown ordered the Georgia Volunteer Militia to take possession of the still ungarrisoned Fort Pulaski. Over the next few months, Confederate troops and slaves from nearby plantations worked to prepare the fort against Federal attack. In November 1861, Robert E. Lee returned to Fort Pulaski as a brigadier general and military advisor to Confederate President Jefferson Davis. In command of forces in South Carolina, Georgia, and Florida, Lee's strategy of defense involved relocating seacoast island forces to the mainland. As a result, a battery of artillery at Tybee Island was dismantled and its heavy guns were moved to Fort Pulaski (Meador, 8; Lattimore, 12-20).

Union forces quickly occupied undefended Tybee Island and established a permanent garrison in December 1861. In January and February 1862, Federal troops constructed various batteries

around the perimeter of Fort Pulaski, the most significant of which were eleven batteries along the north shore of Tybee Island. Since Cockspur's neighboring islands were beyond the range of traditional smoothbore cannon, Confederate troops were not overly concerned by the northern advances.

On the morning of April 10, 1862, Union artillery attacked Fort Pulaski after Colonel Charles H. Olmstead, the fort's commander, refused a formal demand to surrender. The Confederates were unaware that the Union troops had a new weapon—the rifled gun—in their arsenal. The inside of the barrel of the gun was spiraled or rifled in a manner that would make the mortar spin, travel further, and meet its target with more accuracy and deeper penetration. Projectiles from the rifled guns honeycombed the southeast wall of the fort by the end of the first day. Surprisingly, the Cockspur Island Lighthouse, located directly between these two forces, was unscathed. By the second day, holes were opening up in the wall, with one being over eight feet in width. Projectiles from the rifled guns were passing through and coming dangerously close to the magazine at the far side of the fort, which held 40,000 pounds of black powder. Realizing the futility of his situation, Olmstead surrendered on April 11 at 2 p.m (Lattimore, 34-35).

Fort Pulaski's role in the Civil War did not end with the surrender of the Confederates to the Union forces after the bombardment. By the end of the summer, Union forces had repaired the damaged walls of the fort. With control of Fort Pulaski in Federal hands, the port of Savannah was effectively strangled, damaging the economy of the Confederacy and contributing to the Union's victory. On a broader scale, the success of the rifled canon, combined with other technological advances, helped to make masonry forts like Fort Pulaski obsolete.

With the surrender of Fort Pulaski, Major General David Hunter, known as "Lincoln's Abolitionist General," issued two orders within a few days. General Orders 7 freed the local slaves. General Orders 11 freed the slaves in South Carolina, Georgia and Florida. As a result, many freed slaves fled to Fort Pulaski from throughout coastal Georgia. Hunter quickly recruited them into the Federal Army, but General Orders 11 was rescinded by President Lincoln. Later, on January 1, 1863, Lincoln issued his Emancipation Proclamation. Many ex-slaves formed the core of the 1st, 2nd, and 3rd South Carolina Volunteers. These soldiers comprised some of the earliest African-American units to serve in the Union Army (Meador, 10).

For the duration of the war, Fort Pulaski was also host to a rather cruel game of retaliation between the North and the South. Confederate General Samuel Jones moved 55 Union prisoners of war into one of the most heavily bombarded areas of Charleston. Federal General J. G. Foster retaliated by putting 600 Confederate prisoners of war from Fort Delaware into a similar situation on Morris Island, just outside of Charleston. These 600 men eventually came to be known as "The Immortal 600."

Jones later moved his prisoners out of Charleston, into Florence and Columbia. Foster responded by moving 549 of the original 600 Confederate prisoners to Fort Pulaski in October 1864. Unfortunately, Fort Pulaski was not able to respond to such an influx and was without sufficient food, clothing, or shelter. 197 of the prisoners were sent to Hilton Head to relieve

overcrowding, but the harsh winter and starvation rationing imposed by Foster took a toll. Foster was not physically at the fort while the prisoners were there, but was the area commander and dictated the rationing policy. Following the surrender of Savannah to General Sherman, Federal forces in the South were reorganized, and Pulaski's prisoners were put back on full rations. This timely action saved many of their lives. In March 1865, the remaining prisoners were returned to Fort Delaware (Lattimore, 38-40).



Figure 13. Image of breach following the battle, 1863. FOPU Archives



Figure 14. Image of parade, 1863. FOPU Archives



Figure 15. African Americans at Fort Pulaski, 1863. FOPU Archives

The Post Civil War Period (1866-1880)

Fort Pulaski continued to serve as a prison for former Confederate officials and Union troop deserters after the Civil War. An effort to strengthen and modernize the fort began in 1869 when troops stationed at Fort Pulaski began a project to remodel the demilune, constructing a network of heavy gun emplacements and underground magazines, connected by tunnels. Other repairs were made to the drawbridge, wharf, sea walls, roads, and the original construction village buildings. Construction ended in 1872, the same year that the Army Corps of Engineers drew plans for a new fort on Tybee Island. On October 8, 1873, the last Army units stationed at Fort Pulaski were withdrawn, and the fort officially closed on October 25. The work of remodeling the demilune by the Corps of Engineers continued in intervals from 1872 to 1876. By 1880, Fort Pulaski stood vacant, except for a caretaker, and was set aside as a military reservation for potential military use.

Fort Pulaski Military Reservation (1881-1923)

Cockspur Island was largely uninhabited during the 1880s, during which time the Army Corps of Engineers maintained Fort Pulaski. A lighthouse keeper for Tybee Knoll Cut Range Lighthouse, another keeper for the Cockspur Island Lighthouse, and the fort's caretaker,

comprised the total island population. A severe hurricane in 1881 washed away the construction village, destroyed the Cockspur Island lightkeeper's house, and damaged the dike and ditch system (Meador: 14). A house for the Cockspur Island Lighthouse keeper was constructed on the fort terreplein between 1893 and 1906 (HABS: 12). The lighthouse keeper also served as caretaker of the fort, but only to prevent vandalism, and for many years no funds were appropriated for fort repair and upkeep.

The strategic importance of Cockspur Island was rediscovered during the Endicott program of coastal defense, funded by Congress in 1890. The demilune acquired an additional mound over its southeast corner, which housed controls for electric mines placed in the North Channel. During the Spanish-American War, additional harbor protection was needed for Savannah. In 1900, Battery Horace Hambright on Cockspur Island's north shore was completed. Neither the mines nor Battery Hambright ever saw combat action. No further improvements were planned for Fort Pulaski, funds going instead to construct Fort Screven on Tybee Island.

A 1913 fort inspection revealed that the fort was without a caretaker, and a full-time custodian was found. J. Harry McLendon held the position from 1914-16, with the only benefit being the occupancy of the house atop the terreplein. The condition of the fort and grounds remained poor (Meador: 16).

A Cockspur Island Lighthouse inspector recommended that the light be discontinued after the hurricane of 1881 caused a twenty-three-foot storm surge, partially submerging the structure and destroying the light keeper's house. Other storms in 1893 and 1894 further damaged the lighthouse, but it remained in operation until June 1909. At that time, the Secretary of the Pilots Association in Savannah informed the head of the Sixth Lighthouse District of the U.S. Lighthouse Service in Charleston that deepwater vessels were using the more deeply dredged North Channel. The shallow, narrower South Channel came to be used only for travel to Cockspur Island, leading to the decommissioning of the lighthouse (Meador: 7).

With the construction of Fort Screven in 1897, Cockspur Island's military use was in decline. Another use was about to take its place, however. In 1889, the War Department issued a revocable license to the City of Savannah to establish a quarantine station on land northwest of the fort. An early quarantine station was located at Lazaretto Creek on Tybee Island but was later moved to Fort Jackson before moving back to Tybee Island in 1870. Apparently the destructive hurricane of 1881 did significant damage to the quarantine station on Tybee, and new buildings had to be erected. By this time, however, dredging of the river's main shipping channel had deposited so much fill that the sound between Cockspur and Tybee was rapidly becoming inaccessible to ocean-going vessels, and the city chose a new site on Long Island in 1888 for construction of four wharves and tramways to handle discharge of ballast by ships in quarantine.

By 1889, the City of Savannah had established a permanent quarantine station at the northwestern end of Cockspur Island. By the end of 1890, wharves, hospital, store houses, and a residence for the Quarantine Officer had been constructed on top of dredge deposit. The station appears to have been operational in January 1891. With immigration at an all-time high in

the United States in the 1890s, reports of a cholera outbreak across central Europe produced near panic in America. The cholera scare prompted city officials to construct a fumigating and disinfecting plant on the northwest side of the quarantine station in 1893, as well as a new residence (Jones: 11-12).

As a better understanding of the true nature of infectious disease became more prevalent, Savannah and many other local governments realized that turning over quarantine operations to the Federal Government was in their best interest. In April 1899, Savannah negotiated an agreement with the U.S. Marine Hospital Service, administered by the Treasury Department, to take possession of the city's quarantine station on Cockspur Island.

The U.S. Marine Hospital Service reorganized in 1901 as the U. S. Public Health and Marine Hospital Service. By 1903, there were nine buildings at the quarantine station at the west end of Cockspur Island. The quarantine station expanded in 1911 to 130 acres. New construction occurred between 1911 and 1918, when decontamination facilities for returning soldiers and prisoners of war were built. The end of World War I in November 1918 left the new facilities mostly unused. By the late 1920s, there were approximately twenty buildings at the quarantine station, but advances in the treatment of contagious diseases and greatly-reduced immigration were rendering the station obsolete.

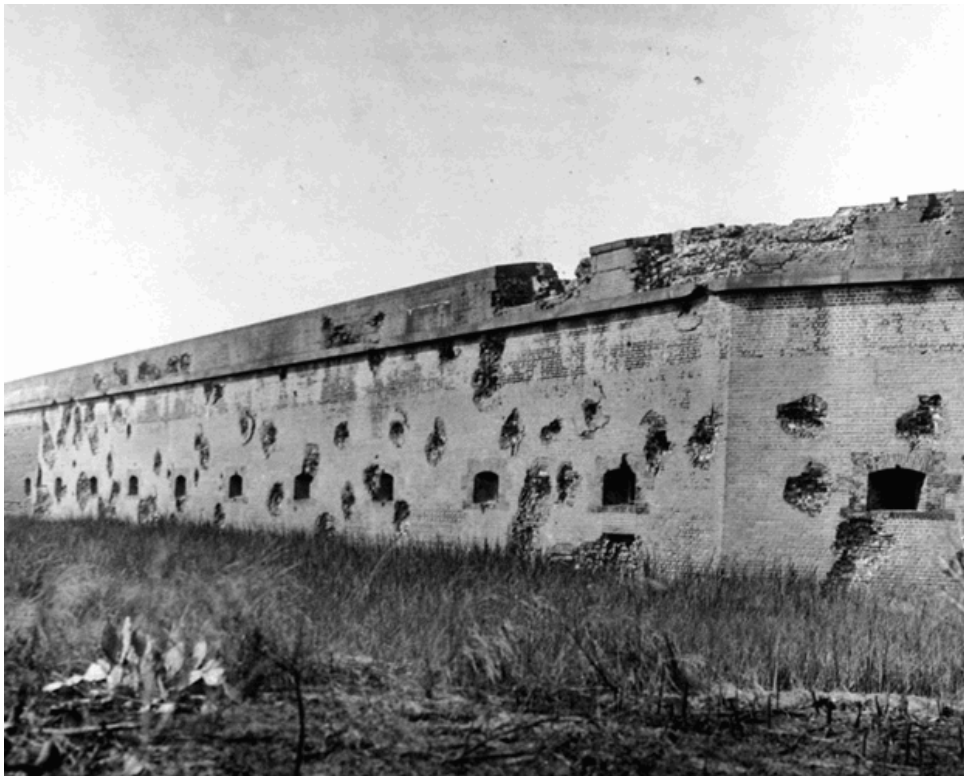


Figure 16. Fort Pulaski, c. 1900. FOPU Archives



Figure 17. Lightkeeper's house on terreplein. FOPU Archives

Fort Pulaski National Monument War Department Administration (1924-1932)

The last resident caretaker of Fort Pulaski was Mrs. E. J. Bergman, who lived on Cockspur Island from 1916 to 1921. In 1915, the War Department selected the fort as a potential National Monument under the Antiquities Act of 1906, but World War I postponed further efforts to preserve the site.

In December 1917, Colonel John Millis, the District Engineer of the Army Corps of Engineers in Savannah, and Thomas Purse, Secretary of the Savannah Board of Trade, obtained limited War Department funding for interior work and vegetation clearance to allow visitors, arriving by boat, a better view of the structure. The process uncovered the gravestone of Lieutenant Robert Rowan, who died in 1800, and that of a baby who died in 1872, along with numerous Civil War artifacts (Colonel John Millis, Corps of Engineers to Chief of Engineers, January 26, 1918, National Archives, RG 77, Box 1; Thomas Purse, Savannah Board of Trade to Henry Sanderson, February 5, 1918; National Archives, RG 77, Box 1).

President Calvin Coolidge established Fort Pulaski as a national monument by proclamation on October 15, 1924. The site included the entire twenty-acre area “comprising the site of the old fortifications which are clearly defined by ditches and embankments” In January 1925, Army Corps of Engineers Major Dan I. Sultan inspected the fort and estimated that \$6,930 was needed to preserve the twenty-acre tract comprising the fort and its dike system and make it accessible to visitors. The fort’s condition worsened after a lightning strike in June 1925 caused a fire that destroyed part of the southwestern gorge and the caretaker’s house on the terreplein (Dan Sultan, District Engineer to Chief of Engineers, April 8, 1925, National Archives, RG 77, Box 1; HABS, 15).

Supervision of the site was transferred from the Army Corps to the Quartermaster Department of the Army in August 1925, placing Fort Pulaski National Monument under the Quartermaster at Fort Screven. In January 1926, Georgia Congressman Charles G. Edwards introduced legislation to transfer the fort to the City of Savannah as a national military memorial in honor of Revolutionary War hero Count Casimir Pulaski. The War Department opposed the bill, arguing that Fort Pulaski did not qualify as a national military park. Although this bill failed, Edwards continued to seek funding for repairs and preservation, without success. Fort Pulaski’s neglect continued until 1933 when President Franklin D. Roosevelt’s Executive Order 6166 transferred all federally managed historic sites, monuments, and battlefields to the National Park Service (NPS).

National Park Service Development Era (1933-1956)

President Franklin D. Roosevelt’s New Deal programs launched several new federal agencies and programs that put thousands of unemployed men and women to work in the midst of the Great Depression. In particular, the Civil Works Administration (CWA), the Civilian Conservation Corps (CCC), and the Public Works Administration (PWA) funded projects to revitalize the country’s natural and cultural resources, and the NPS greatly benefited from these programs. Consequently, Fort Pulaski was able to achieve many of its development goals from 1933 until the beginning of the country’s entry into World War II in 1941.

From December 1933 to late April 1934, the CWA program funded the earliest work at Fort Pulaski National Monument— a general clean-up of Cockspur Island in preparation for the incoming CCC enrollees and PWA projects. Specific tasks included removing dense vegetation from the parade ground and fort walls, completing a general engineering survey, and partially excavating the main drainage ditch (Annual Narrative, 1936, FPNM archives).

In May 1934, the NPS was authorized to establish CCC Camp 460 on the northwest shore of Cockspur Island directly east of the U. S. Public Health Service Quarantine Station. Extra buildings at the quarantine station provided quarters for enrollees, but some buildings were moved or demolished to accommodate the camp (Annual Narrative, 1934, FPNM archives).

Projects initially undertaken by the CCC involved drainage, landscaping, and mosquito control. The enrollees cleared 100 acres of forest, constructed 2,500 cubic yards of drainage, and built 5 miles of trails through the wooded areas of the island. Major projects included the rebuilding of the dike system to prevent flooding and the excavation of the moat surrounding the fort. In

December 1935, salt water from the Savannah River filled the moat for the first time in 60 years. (Meador, 26)

By June 1936, camp enrollees had filled the swampy areas of the parade ground, built trails in wooded areas of the island using oyster shells, constructed several miles of truck roads, and rebuilt tidal gates. Total CCC expenditures from 1934 to 1936 totaled \$99,000. (Annual Narrative, 1936)

Meanwhile, the PWA had been working on fort restoration since September 1934. The CCC and the PWA combined forces to excavate the fort's terreplein, repairing the lead roof and installing three water-storage tanks. Other PWA work accomplished during 1935 included restoring the officers' quarters and barracks rooms in the fort gorge, repairing the gorge walk and piazza, and rebuilding the wooden casemate fronts. The fort's northwest stairway was rebuilt and brickwork throughout the fort and the scarp wall of the demilune was repointed. By December 1935, an administrative office, a museum room, and separate restrooms for "white" and "colored" visitors had been completed in the fort's newly restored interior. Finally, the reconstruction of the fort's drawbridges from original plans occurred in June 1936. Program costs for the two-year period were \$93,876. (Meador, 28)

In addition to the fort restoration, the PWA accomplished another major effort on Cockspur Island—the building of the South Channel Bridge, which began in 1937. The NPS had already acquired nearly 278 acres of marshland on McQueens Island in 1935 for a bridge approach. Built at a cost of \$101,106, the composite wood and concrete bridge opened to the public in May 1938.

By the end of 1938, a significant portion of the camp's funds and labor was transferred to the CCC camp at Robert Fechner Park southeast of Savannah. These cutbacks foreshadowed the eventual closing of the camp, which occurred in 1941. A year later the CCC program was terminated, as the U. S. geared up for World War II. (Meador, 27)

Separate from the New Deal work completed at the park was the necessary park service planning. NPS planning for the long-term development of the Park resulted in the 1939 Master Plan, a major focus of which was the further development of the entrance road to the Park. The plan also included the development of a parking area north of the fort's demilune, completion of pedestrian circulation paths, and paving the secondary road leading to the former quarantine station on the west end of the island. With the closing of the CCC camp after the United States' entry into World War II in December 1941, the Park began to revise the 1939 Master Plan, which assumed the use of CCC labor.

By 1942, a new Master Plan was prepared which proposed an additional parking area near the demilune drawbridge, an overlook at the old North Channel Pier, and reconstructing the hot shot furnace inside the fort. The plan also proposed the construction of new buildings on Cockspur Island's west end to accommodate park staff, a utility group, and firefighting needs. Although a pump house and firehouse were built right away, park development was put on hold until after the war.

In 1935, the State of Georgia donated 297.39 acres, including the east end of Cockspur Island and portions of the abandoned right-of-way of the Central of Georgia Railroad on McQueens Island. In 1936, Congress authorized a western boundary expansion to the U.S. Public Health Service Quarantine Station and also authorized the Secretary of the Interior to accept donated land on McQueens and Tybee Islands. This legislation permitted the construction of the South Channel Bridge and created a special reservation along the north shore of the island for the deposit of dredging materials by the Army Corps of Engineers. In 1939, the State of Georgia deeded 5,000 acres of marshland on McQueens Island to the Park, increasing its acreage to 5,623 acres.

Although the Public Health Service initiated \$75,000 of improvements to the quarantine station at the west end of the island, it was closed in March 1937. This action prompted Superintendent Ralston Lattimore to begin lobbying for NPS acquisition of the abandoned station, noting its usefulness for Park operations. The War Department transferred administration to the Department of the Interior in August 1937. (Jones, 17)

In 1940, the Savannah Bar Pilots moved their operations to the west end of Cockspur Island, occupying a dormitory and two small buildings. This arrangement was through a special use permit that was renewed annually. (Meador, 64)

On November 1, 1941, the Department of the Interior issued a special use permit to the Secretary of the Navy to establish Section Base #20 at Cockspur Island. This location was chosen because of its deep water access and docking facilities, the presence of the quarantine station and CCC buildings, and its proximity to a nearby highway. With the United States' entry into World War II in December, the Secretary of the Interior notified the NPS in March 1942 that Cockspur Island would be turned over to the Navy for the duration of the war. The following day, Fort Pulaski was closed to the public and remained closed for five years. (Jones, 17; Meador, 57)

The Navy cordoned off Fort Pulaski itself, finding the western end of the island best suited to its needs. Park Superintendent James Holland quickly arranged for the transfer of museum materials, park files, and various tools and equipment to the storage facilities at Ocmulgee National Monument in Macon. Holland also insisted that a maintenance worker remain at Fort Pulaski as caretaker for the duration of the Navy's occupation of Cockspur Island. (Meador, 58)

The decommissioning of the section base occurred in September 1944, but the Navy and then the Coast Guard continued to use the facilities as a receiving/discharge station until June 1946.



Figure 18. Moat excavation by CCC workers. Fort Pulaski National Monument archives



Figure 19. South Channel Bridge, 1938. Fort Pulaski National Monument archives

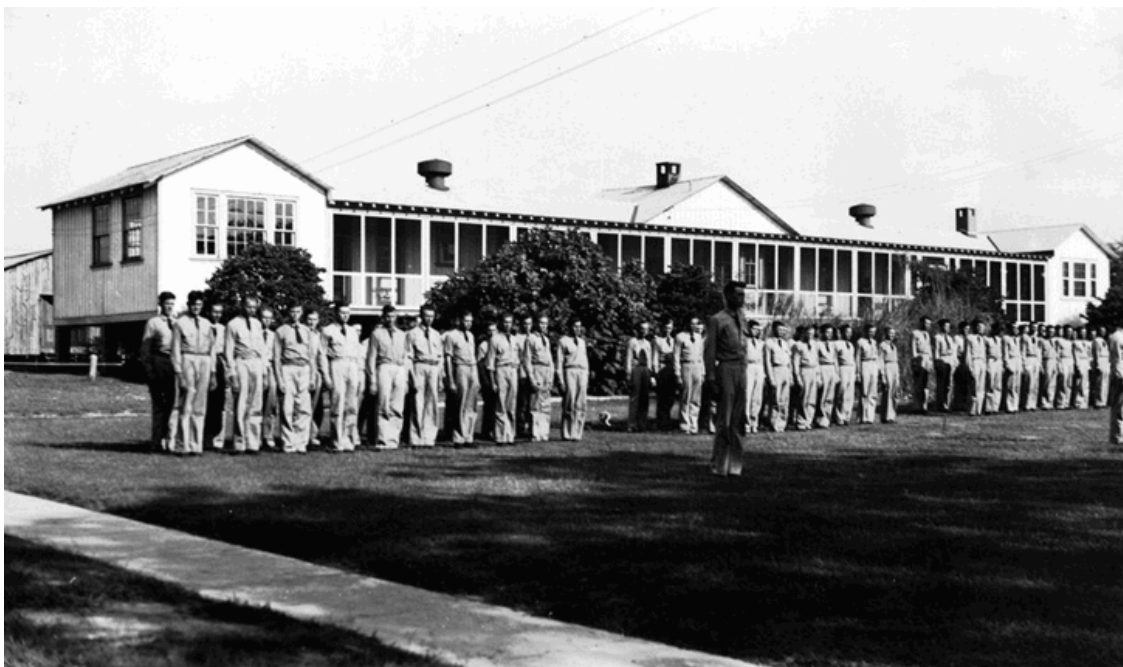


Figure 20. CCC at Fort Pulaski, 1938. Fort Pulaski National Monument archives

Mission 66 Era (1956-1966)

Like many national parks, Fort Pulaski National Monument was suffering from years of

neglect. To address these problems service-wide, the NPS created the Mission 66 program in 1956. Mission 66 was a ten-year park development program aimed at upgrading the poor conditions in the parks and meeting the demands of the postwar era. The Mission 66 program would result in the construction of countless roads and trail systems and thousands of residential, maintenance, and administrative facilities (Allaback, 2).

The program included a new building type that centralized basic visitor services. The “visitor center” became the most significant architectural expression of national park development in this period and subsequently became the centerpiece of park planning all over the country. The use of the word “center” indicated the planners’ desire to centralize park interpretive presentations, park administrative offices, restrooms, and other services (Allaback, 24). Although the original Mission 66 Prospectus for Fort Pulaski did not include the construction of a visitor center, the Park determined the need for a separate facility for visitor accommodations in 1959 and amended the Mission 66 Prospectus to include a visitor center. The Park wanted to present the fort as a period exhibit without modern intrusions and felt that a separate visitor center would help accomplish that aim.

The visitor center was designed by the NPS Eastern Office of Design and Construction (EODC) in Philadelphia. According to Henry Levy of Levy and Kiley, Eero Saarinen’s Kresge Chapel (1955) at the Massachusetts Institute of Technology was the inspiration for the building’s circular plan, base arches, rusticated brick, and surrounding gravel moat. The height of the building was kept low to prevent a visual intrusion upon the fort. The visitor center opened to the public on October 25, 1964, at a final cost of \$139,320.

Another Mission 66 project focused on fort and demilune repairs. The repointing and relining of all gorge casemates, repairing rifle loopholes on the gorge wall and sally port opening, the waterproofing of the broken parapet and gorge wall, repairing brickwork and stonework in gun positions, and fixing stones and stucco along the underground passageways occurred in 1958.

Other Mission 66 projects included improvements to the dike system, repairs to Battery Hambright and the South Channel Bridge, and road and parking area improvements. The development of the picnic area at the west end of Cockspur Island took place in June 1965. The final Mission 66 project was a series of signs and markers posted along U.S. Highway 80. (Meador, 31-32) Mission 66 improvements generated new concerns in visitor services, resource management, and security. The 1965 Master Plan outlined such concerns as vegetation management, vandalism control, and the repair of historic structures, utilities, signs, and markers. A fee collection station operated on a seasonal basis was proposed at the entrance to the Park to help with congestion caused by visitors going to the visitor center to pay the entrance fee. (Meador, 52)

The Cockspur Island Lighthouse was not part of Fort Pulaski National Monument when the NPS acquired the site in 1933. At that time it was still employed as a daymark by the U.S. Lighthouse Service, which merged with the U.S. Coast Guard in 1939. By 1949, the Coast Guard had determined that the light was no longer of navigational use and had no objection to its transfer to the NPS. However, because the small lighthouse islet had never been under the

jurisdiction of the Secretary of War, new legislation was needed to incorporate the light within the Park.

In January 1956, the Coast Guard notified NPS Director Conrad Wirth of the disposition of the Cockspur Island Lighthouse. Even with a presidential proclamation in 1958, government bureaucracy hampered the transfer of the lighthouse to the NPS, and the final transfer did not occur until 1960 (Meador, 63).



Figure 21. Fort Pulaski visitor center. Jack E. Boucher/NPS



Figure 22. Parapet before repairs in 1958. NPS image

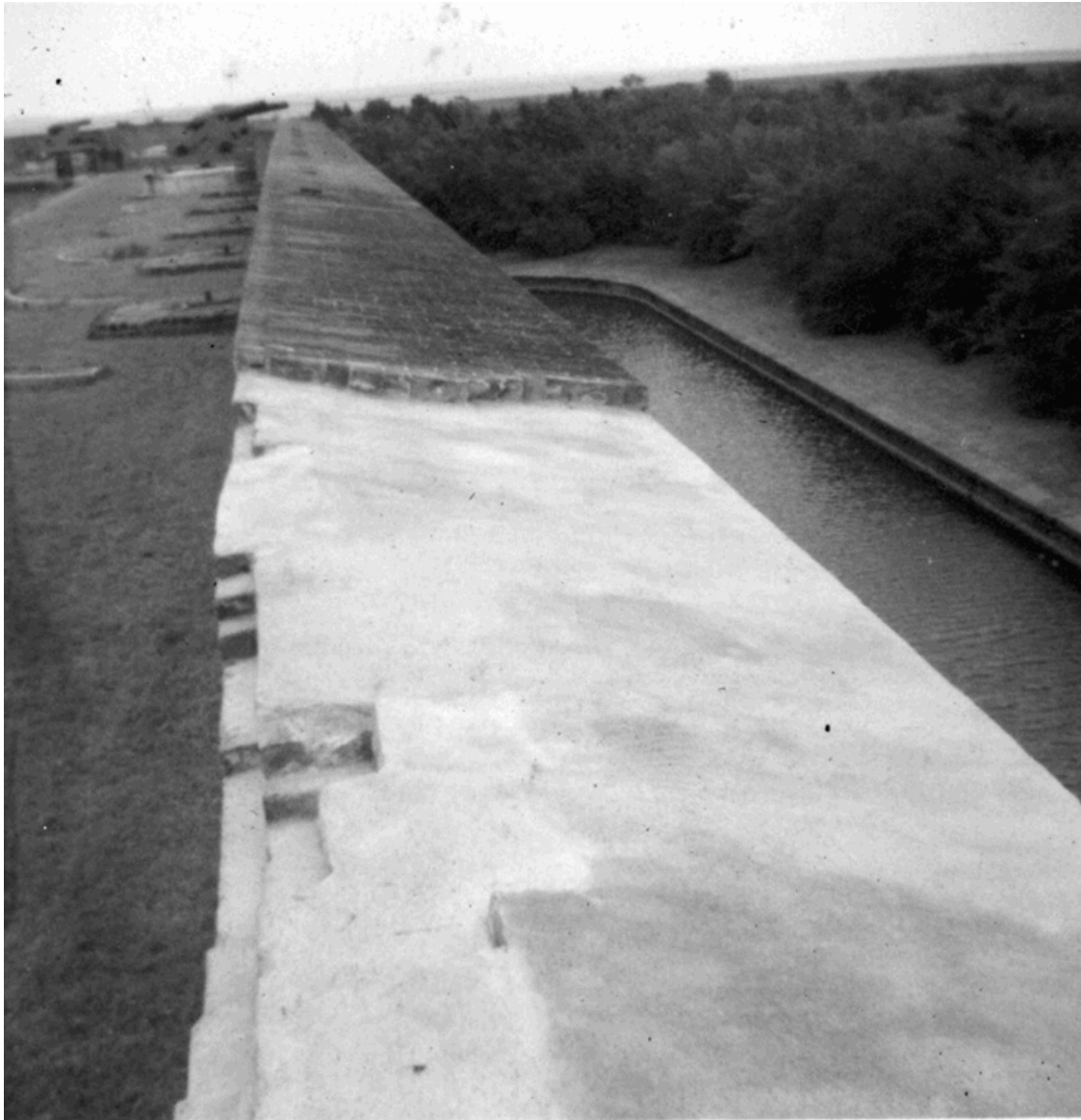


Figure 23. Parapet after repairs in 1958. NPS image



Figure 24. Cockspur Island Lighthouse, 1950's. Fort Pulaski National Monument archives

Post Mission 66 Era (1966-Present)

Following enactment of the National Environmental Policy Act (NEPA) in January 1970, a new Master Plan was drafted that reflected a new emphasis on the protection of natural and cultural resources. As such, writing management documents and preparing an interpretive prospectus were priorities. The plan also called for vegetation removal around the fort, additional employee residences, expanding the picnic facilities, acquiring adjacent land, and working with the Army Corps of Engineers to resolve issues related to dredging practices, as well as shore erosion on Cockspur Island (Fort Pulaski National Monument Master Plan, 13-23).

In addition to vegetation removal around the fort, several construction projects occurred in the 1970s. The maintenance facilities were expanded, a handicap ramp was added to the east entrance of the visitor center, a replica of the historic flagpole was erected, and signs were replaced throughout the Park.

By the 1970s, the buildings occupied by the Bar Pilots had deteriorated to the point that the 1971 Master Plan recommended that the Bar pilots build new NPS-approved quarters and a

dock. In 1973, the NPS issued a twenty-year special use permit that paved the way for this new construction. The old buildings were demolished, and the Bar Pilots built a new dormitory and dock at the same location (Superintendent's Annual Narrative, 1973).

A number of basic maintenance and general upkeep concerns took priority in the last part of the 20th century. During the 1980s, the aging South Channel Bridge required extensive repairs, culminating in 1987 when a \$40,000 contract was awarded to repair bridge expansion joints and spalls and to paint the structure. A prefabricated restroom building was added to the picnic area in 1985. An important interior modification occurred in 1985 when a prefabricated "Bally" building for museum and archival storage was installed in one of the fort's casemates. Plumbing fixtures in all restrooms were replaced in 1989.

In 1983, the U. S. Coast Guard opened a Search and Rescue Station at the west end of Cockspur Island under an interagency agreement (Superintendent's Annual Narrative, 1983-1989). The construction of a pole shed to house the Park boat, tractor, and truck occurred in 1993. In 1994, an interagency agreement between the NPS and the Army Corps of Engineers allowed Fort Pulaski's historic dike system to be returned to its original height and configuration. This work was completed in 1997. Between 1994 and 1995, the Park resurfaced the visitor center roof and partitioned off a section of the lobby to create an auditorium for showing films about the fort's history. The installation of handicapped-accessible restrooms at the east entrance to the visitor center occurred in 1997 and a handicapped-accessible ramp at the west entrance was constructed in 1999. Also in 1999, a Federal Highway project replaced all damaged parts of the South Channel Bridge and resurfaced the asphalt decking. The Savannah Bar Pilots' special use permit was renewed in 1993 and again in 1998 (Superintendent's Annual Narrative, 1993-1999).

In 2001, the fee collection station was completely remodeled. Metal roofs were added to the gas house, garage building, and pole shed in 2003 and 2005. In 2004, a picnic shelter was added to the picnic area and a metal roof was added to the restroom building. In 2006, handicap ramps were constructed inside the fort and four Volunteers-in-Parks Program (VIP) pads were added. In 2007, the Cockspur Island Lighthouse was relit. Since 2007, historic preservation students from the Savannah College of Art and Design (SCAD) tuck-pointed deteriorated mortar joints throughout the fort and the Cockspur Island Lighthouse. Based on research and a recent Office of Inspector General report, the legality of continuing to authorize a special use permit to the Savannah Bar Pilots for a dock and dormitory is now subject to question. In April 2009, the congressman representing the Savannah and Tybee Island area requested NPS assistance in drafting legislation to authorize Fort Pulaski to issue a non-competitive lease to the Bar Pilots in order to continue the longstanding relationship (Superintendent's Annual Narrative, 2001-2005).

In 1998, the NPS Southeast Regional Office (SERO) and park management began FOPU's first General Management Plan (GMP), designed to address long-range resource management and visitor services needs, as well as park development goals. The project was put on hold when NPS planning staff were diverted to the Cumberland Island National Seashore wilderness designation controversy. The GMP process resumed in 2003 but was suspended again in 2005

when Superintendent John Breen retired. In 2006, the GMP process resumed, and a preferred alternative has been chosen that focuses on the April 1862 period of significance in terms of both the landscape and interpretive programs.

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

Assessment of Integrity

The effort to determine a landscape's significance according to National Register criteria focuses on seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. The persistence of these qualities as they apply to the landscape determines whether the landscape retains enough of its important features to convey its historically significant appearance or associations.

Location: the place where the historic event occurred.

Fort Pulaski National Monument retains a high level of integrity of location. It is the location of the Battle of Fort Pulaski. The location of a property, complemented by its setting, is particularly important in recapturing the sense of historic events. The location of Fort Pulaski within the original diked area between the North and South Channels of the Savannah River is a character-defining feature.

It is possible that the realignment of the entrance road in the 1960s may have covered or disturbed a portion of the cemetery area, compromising integrity of location.

Archeological integrity has been affected by the placement of dredge spoil on the north shore of Cockspur Island, which has buried the locations of some of the construction village buildings under several feet of unrelated fill. Comparing a digitized version of Mansfield's 1831 map with Global Positioning System (GPS) locations of the cisterns and square brickworks showed that the Mansfield map was very accurate. Using Mansfield's map, SEAC crews tried to locate the blacksmith shop and bakehouse. The area of the blacksmith shop had been covered by a section of the dike system constructed in the 1930s. Large amounts of fill covered the supposed site of the bakehouse.

The location of the lightkeeper's house, which burned in 1925, was disturbed when the terreplein was restored in the 1930s.

Setting: the physical environment of a historic property.

The setting of Fort Pulaski has changed considerably since 1862 when the island was devoid of trees and shrubs. In a mild coastal climate such as Cockspur Island's, plants grow, mature, and die at an accelerated rate. The opportunistic encroachment of native plants and the spread of exotic species are all factors that have diminished integrity of setting, obscuring the dominance of the fort as it existed in a landscape devoid of trees and shrubs in 1862. The open character of the landscape at the time of the April 1862 battle is a character-defining feature.

A comparison of Civil War images with 1992 HABS images taken from the same viewpoint of the fort terreplein demonstrates how much the setting has changed. Civil War images show an open landscape devoid of vegetation. 1992 images show mature vegetation blocking the historic views that were so important to the defense of the fort.

The loss of the construction village in the 1881 hurricane further compromised integrity of setting. The cisterns and a portion of the North Channel Pier remain as the only above-ground resources associated with the construction village.

The configuration of the historic dike and ditch system remains a key feature of the setting of Fort Pulaski.

Three mortar batteries were present at the time of the battle. The remains of Mortar Battery No. 1, located due east of the fort, are partially obscured by erosion. The remains of Mortar Battery No. 2, the northern most of the batteries located south of the fort, are belowground resources. The remains of Mortar Battery No. 3, the southern most of the two batteries located south of the fort, are visible as a small rise in the soil.

The setting of the quarantine station begun in 1889 does not survive. Remnants of the spatial organization that once connected the buildings in the complex remain, but with only the Quarantine Attendant's Quarters surviving, integrity of setting has been lost.

Design: the combination of elements that create the form, plan, space, structure, and style of a property.

The design of Fort Pulaski retains a high level of integrity. Although Fort Pulaski suffered from neglect prior to 1933, restoration work done by the CCC and PWA in the 1930s and Mission 66 in the 1960s has preserved its design. The design of Fort Pulaski is the cornerstone of the Cockspur Island cultural landscape.

The design of the dike and ditch system retains a high level of integrity. The repair and reconstruction of the dike and ditch system was one of the primary accomplishments of the CCC in the 1930s. Archeological excavations carried out in 1997 demonstrated that the basic shape of the original dike has been maintained since its construction in the 1830s. Natural erosion, however, continuously causes a reduction in the height of the dike and an accompanying increase in the width of each repair or reconstruction episode. The repair and reconstruction of the eroded historic dike system in 1997 to 4.05 Mean High Water (MHW) restored its historic elevation. The restored elevation of the historic dike system is a character-defining feature of the Cockspur Island cultural landscape.

The Cockspur Island Lighthouse is threatened. Erosion, caused by the ongoing dredging of the Savannah River, has significantly decreased the structure's protective land mass and accelerated structural deterioration.

Several cisterns associated with the Construction Village are the only surviving intact above-ground resources for this important feature of the cultural landscape. They have been filled in due to safety issues. The integrity of the cisterns varies from good to severely compromised. For example, the bakehouse cistern was covered with dredge spoil from the North Channel of the Savannah River. The

upper portion of the cistern has been uncovered, leaving the apertures and side walls visible.

Historic roadways connected Fort Pulaski with both the North Channel of the Savannah River and the South Channel of the Savannah River at the time of the April 1862 battle. The historic alignment of the roadway from the North Channel Pier was incorporated into the loop trail constructed by the CCC in 1938 that terminates in the parking area. It originally extended through the parking area to the fort entrance at the demilune drawbridge, but this section was changed many times and finally taken out in 1977.

The roadway reconstructed by the CCC in the 1930s, whose trace can still be seen west of the main feeder canal, may not have been in use at the time of the battle, as it was partially cut away in 1845 to provide sufficient fill for the parade ground. A roadway angling east of the feeder canal in 1863 photographs appears to link the South Channel Pier and the fort. This roadway has not survived.

All of the CCC trails, including the loop trail out to the North Pier, were designed in 1934 by Ralph S. Ellifrit, a young landscape architect who eventually became the City Planner for Houston, Texas. Although neglected after WWII, these trails were restored by Ralston Lattimore during his tenure as Superintendent. They retain a high level of integrity.

Battery Hambright retains a high level of design integrity. It is a good example of defense emplacements built at the end of the nineteenth century. It replaced, in concept, the masonry fortification represented by Fort Pulaski. Restoration work carried out in 1960 and again in 1995-96 has preserved the concrete, steel, and earthen Spanish-American War battery.

The Quarantine Attendant's Quarters is the only historic structure remaining from the quarantine station established by the City of Savannah on Cockspur Island in 1889 and operated by the U.S. Public Health Service after 1899. Although the exterior was significantly altered in recent years, the building remains essentially a product of the remodeling and rehabilitation of the structure by the Navy during WWII. Very few features of the original building can now be identified. The rehabilitation of the exterior in 2002 and 2003 somewhat diminished the building's integrity of design and left it with an appearance that is historically confused. The present configuration of the exterior stairways never existed, nor were the porch banisters ever present after the Navy's remodeling introduced the French doors. Finally, recent installation of lattice at the basement level introduced a feature that was never present historically.

The John Wesley Memorial retains a high level of design integrity.

The design integrity of the old North Channel Pier was somewhat compromised when the deteriorated end, jutting out into the water, was stabilized in the 1960s using granite curbing relocated from the gun racks on the fort terreplein. The direction of these units has been alternated, creating a serpentine effect unlike that of the original pier materials. Changes have also occurred to the Overlook. The brick and flagstone platforms have been removed from both benches that were placed when the Overlook was completed in 1964. It is unknown when these changes occurred. Cabbage palms that were part of

the original Overlook design remain.

The South Channel Bridge, entrance road, and parking area retain a high level of design integrity. The alignment of the entrance road was altered when the visitor center was constructed in 1964, but the spatial footprint was not compromised. Other than the restoration of the fort, the construction of the South Channel Bridge is the most significant PWA project completed at Cockspur Island.

The 1964 visitor center retains a high level of design integrity. The addition of handicapped ramps in 1977 and 1999 and a detached rest room building in 1997 did not significantly change the spatial organization of the Mission 66 design. The orientation of two of the benches from the Mission 66 seating area design, however, was changed to accommodate entrance into the restrooms.

Materials: the physical elements that were used to construct the features of the landscape.

Construction materials associated with the landscape features at Cockspur Island include wood, brick, concrete, steel, iron, shell, and tabby.

Fort Pulaski retains a high level of material integrity. An effort has been made over the years to replace materials in kind, especially the Savannah Grey brick at both the fort and the ditch and dike system. Total replacement in kind was necessary for many of the structures of the ditch and dike system, as well as the drawbridges, in the 1930s. In some cases, more modern tide gates were used to control the flow of water. The Park presently uses three flapper valves and one shut off valve.

Battery Horace Hambricht retains a high level of material integrity. The concrete and steel construction added a new level of durability, especially against weapons that could shoot further with more accuracy than ever before.

Even within the maintenance complex and the picnic area, material integrity has been maintained when buildings were rehabilitated or constructed. Decorative brick trash can receptacles have been constructed in public areas and dumpsters have been screened with wooden enclosures. Four of the original six grills remain in the picnic area.

In 2006, a lime mortar workshop was held at Fort Pulaski to help educate NPS personnel about the importance of using historically correct mortars.

Alterations to the Quarantine Attendant's Quarters over the years have diminished material integrity. In the 1990s, plastic lattice at the basement level was installed over new plywood walls. In 2003, windows in Room 107 were replaced with vinyl windows.

The South Channel Bridge retains a high level of material integrity. This composite wood and concrete bridge was completed in 1938. Extensive repair work occurred in the 1990s.

The loss of the roof has severely compromised material integrity of the Tybee Knoll Cut Lighthouse oil

storage shed.

Workmanship: the qualities of the ways in which landscape features have been fashioned and constructed for both functional and decorative purposes.

Fort Pulaski retains a high level of workmanship. The finest joinery and masonry techniques were used in its construction from 1829-1847. Highly skilled and experienced craftsmen from the PWA accomplished the restoration work done in the 1930s. A crew from the Historic Preservation Training Center completed repair work done in the 1980s. The workmanship of the maintenance crew under the direction of Chief of Maintenance Mike Hosti is of a very high standard.

The ditch and dike system retains a high level of workmanship. The brick revetment of the moat and main feeder canal walls and of the tide gates are excellent examples of nineteenth-century workmanship. The repair and reconstruction project carried out by the CCC in the 1930s was supervised by highly trained architects and landscape architects who maintained a high standard of workmanship. The Army Corps of Engineers completed the restoration work done in the 1990s.

The Cockspur Island Lighthouse retains a high level of workmanship. Extensive repairs since the lighthouse was transferred to the NPS in 1959 have been carried out by trained professionals.

The addition of nonhistoric materials to the Quarantine Attendant's Quarters lowered integrity of workmanship.

The South Channel Bridge was one of the most significant construction projects carried out on Cockspur Island during the 1930s. It epitomizes the craftsmanship of the work undertaken by the PWA, and its integrity has been maintained.

The John Wesley Memorial retains a high level of workmanship. It was designed by architect Edward Jones of Albany, Georgia.

The loss of the Tybee Knoll Cut Lighthouse oil storage shed roof compromised integrity of workmanship.

Feeling: a property's expression of the aesthetic or historic sense of a particular period of time.

Overall, integrity of feeling has been diminished by the loss of the open character of the landscape surrounding Fort Pulaski, which is critical to understanding the sight lines of the battle and the siege and reduction of Fort Pulaski as a coastal fortification.

The presence of the restored dike and ditch system contributes to the atmosphere of the historic era.

The loss of the construction village and historic circulation patterns has lowered integrity of feeling.

Fort Pulaski National Monument Landscape

Fort Pulaski National Monument

The extensive exterior changes to the Quarantine Attendant's Quarters compromised integrity of feeling.

A decrease of the structure's protective land mass lowered integrity of feeling for the Cockspur Island Lighthouse.

Association: the direct link between an important historic event or person and a historic property.

Overall, integrity of association remains high. The restoration of Fort Pulaski in the 1930s and subsequent repair work has maintained the link between the battle of April 1862 and the property today. There is also a link in public memory to Robert E. Lee, who began the system of dikes and ditches surrounding the fort and completed an important survey of the island in 1831, and to John Wesley, the founder of Methodism, who landed on Cockspur Island in 1736.

The historic configuration of the ditch and dike system and the Cockspur Island Lighthouse also contribute to integrity of association, since both of these features were present at the time of the battle. Erosion problems, however, threaten the lighthouse.

Integrity of association has been lowered by the loss of the construction village.

As the only remaining structure of the quarantine station, the Quarantine Attendant's Quarters has lost integrity of association.

As the only remaining structure of the Tybee Knoll Cut Lighthouse complex, the oil storage shed has lost integrity of association.

Summary

The cultural landscape of the Cockspur Island Historic District is dominated by Fort Pulaski and the surrounding historic dike and ditch system. The integrity of these two landscape features remains high for location, design, materials, workmanship, and association.

Vegetation succession has compromised integrity of setting and feeling.

The integrity of historic circulation patterns is somewhat intact. The historic alignment of the roadway from the North Channel Pier to the demilune has been preserved as part of the loop trail constructed in the 1930s. The integrity of the original roadway from the South Channel Pier to the demilune has been compromised, but its trace can still be detected within the dike system.

Erosion, caused by the ongoing dredging of the Savannah River, threatens the Cockspur Island Lighthouse.

Archeological resources in the construction village have been compromised by spoil deposits on the north shore of the island and repair work to the dike system by the CCC in the 1930s.

Aspects of Integrity:	Location
	Design
	Materials
	Workmanship
	Feeling
	Setting
	Association

Landscape Characteristic:

Natural Systems and Features

Cockspur Island was primarily salt marsh before human intervention. It also probably supported some coastal hammock forest or woodland. As part of the building of Fort Pulaski, the island was modified by the installation of drainage canals and a dike system, and later, by the deposition of dredge material. During the Civil War period, vegetation was removed to enhance visibility and kept in early successional stages. Since the late 1800s, portions of the island have reverted to maritime forest. Currently, the upland portions of Cockspur (approximately 260 acres) support a mosaic of maritime forest, maritime shrub communities, maintained grasslands, and successional spoil deposit areas. The island also includes over 340 acres of tidal shrubland and tidal herbaceous marsh. The vast salt marshes, rivers and tidal estuaries surrounding Cockspur Island are formed in conjunction with barrier island development, and have delicate ecological characteristics including essential life support systems for shrimp, oysters, clams, mussels, and the usual variety of fish found in southern coastal estuaries.

Man-made spoil deposits comprised nearly of pure sand have been placed along the north central and southwestern portion of Cockspur Island over the past 15-17 years, resulting in young successional communities. Currently, the existing vegetation consists of widely scattered trees with large areas of exposed open sand, sparsely inhabited by a number of herbaceous species and vines. Coastal red cedar, sugarberry, cabbage palm, chinaberry, and white mulberry (*Morus alba*) are the principal trees found in this habitat. Along the north central area (east of the Bar Pilots House) the canopy is pure coastal red cedar. Shrubs scattered in these areas include wax myrtle, groundsel tree, yaupon, winged sumac, and lantana (*Lantana camara*), along with a diverse herbaceous layer.

Cockspur Island is home to a number of non-native species that tend to be invasive to natural communities. A 1998 plant inventory identified eighteen such exotics, including sweet acacia, camphor tree (*Cinnamomum camphora*), lantana, Chinese privet (*Ligustrum sinense*), Japanese honeysuckle (*Lonicera japonica*), chinaberry (*Melia azedarach*), and Chinese tallow tree (*Sapium sebiferum*).

The salt marshes and upland areas of Cockspur Island support many species of wildlife. Large populations of both resident and migrant birds are present. Mammals are abundant and include marsh rabbit, raccoons, opossums, mink, otter, and deer. There are many species of reptiles, of which the eastern diamondback rattlesnake is poisonous. The tidal waters surrounding the fort contain a great variety of fish typical of southern coastal estuaries. The following federally listed or state listed rare, threatened, or endangered species have been documented at Fort Pulaski: American oystercatcher, bald eagle, gull-billed tern, loggerhead sea turtle, West Indian manatee, peregrine falcon, piping plover, swallow-tailed kite, Wilson's plover, and wood stork.

All the soils identified within Fort Pulaski National Monument are dominated by sandy soils of the Capers series and the Tidal Marsh, Salty category. These soils occur in very poorly drained tidal marshes that have a clayey underlying layer. A third soil type on Cockspur Island, Made Land, is primarily the result of dredging and filling.

The Capers series soils consist of very poorly drained soils of the tidal marsh flats. The soils are flooded when tides are higher than normal.

Tidal Marsh, Salty series soils are covered daily by normal high tides and support indigenous salt-tolerant grasses. Within the estuaries, many tidal streams of varying size often dissect the marshland. Soils may be redistributed and/or relocated by strong tidal currents and shifting stream channels. Some areas are very unstable and do not support the weight of large animals.

Made Land consists of built-up areas that were formerly marshland. Generally, dredged materials from the coastal streams were added to low lying areas. This occurred mainly along the Savannah River shipping channel. On Cockspur Island, some of the dredged materials are confined by dikes.

Topography

Topography

Cockspur Island is an alluvial island located at the entrance to the Savannah River. The deep mud underpinning the island proved challenging in constructing Fort Pulaski, whose original plans had to be revised due to the topography of Cockspur Island. The dike and ditch system was begun in 1830, under the direction of Lieutenant Robert E. Lee, newly graduated from the United States Military Academy. Dikes were built around the driest portions of the island, and ditches were cut from the south shore of Cockspur Island. Tide gates installed in the ditches controlled the flow of water to the center of the island and eventually to the moat that surrounds the fort.

Mansfield's plan of the sluiceway through the northwest and southeast dikes as actually executed in May 1844 showed an elevation of 12 feet for the dikes. The sluice at the foot of the glacis (northeast front) showed an elevation of 12 feet 3 inches. High water spring tide was noted as 9 feet 9 inches. High water gust tide was noted as 12 feet 6 inches.

Alexander's 1845 Dike Modification Plan showed two different configurations for the four

sections of dikes that were to be modified. One configuration altered the sections to a triangle shape with a suggested base dimension of 25 feet and an elevation of 11 feet 6 inches. Another configuration maintained the original trapezoid shape with a base dimension of 25 feet and an elevation of 13 feet. Totten approved the plan on December 19, 1848, with the notation “approve height of 13 feet, also thickness.”

During restoration of the dike and ditch system in the 1930s, a CCC progress report argued for returning the dikes to an elevation of twelve feet, reasoning that a height of ten feet was not sufficient to keep back an excessive tide in an area where a nine-foot tide was not uncommon. By September 1935, it had been determined that the dike elevation should be increased to 12, with a top width of 10 and a 4:1 slope. A 1940 Summary Report indicated that the dike restoration project rebuilt five miles of dikes with a base dimension of 35 feet and an elevation of 6 feet above the marsh.

NPS plans and reports show that an elevation of 12 MLW was used for the dikes after 1935. In 1936, landscape architect John C. Le Bey reported that “the entire dyke system has been practically completed. It was brought to the finish grade elevation 12.0 with a width of 6 feet for the top of the dykes. The slopes were given a final grade of 3 to 1.”

In a 1963 report, Superintendent Ralston Lattimore stated that “about forty (40) acres of land immediately surrounding Fort Pulaski lie behind twelve (12) foot dikes, which were designed to hold back all but storm tides. Were it not for the dikes, the parking area and many other sections of the Fort enclosure would be under water at the monthly spring and neap tides.” He further explained that the Army Corps of Engineers dumped spoil on the north shore of Cockspur Island in 1939 and 1943, spreading thousands of cubic yards of sand over the marshes, filling ditches 10-14 and creating large areas of fresh water swamp. He also stated that ditches 2 and 9 had become filled with silt long before WWII and had to be re-excavated in 1948 but had filled in again by 1950. He also pointed out that between 1929, the last time mean low tide had been corrected, and 1963, sea level at Fort Pulaski had risen more than six inches.

Lattimore summed up the results of the Mission 66 work:

In the four years of work, we have dried up most of the wet areas of the island, have materially cut down the areas for mosquito breeding, and have brought this unpleasant feature under control. From time to time canals in the salt marsh, outside of the diked areas, will have to be re-excavated. For the maintenance job, we hope to have the assistance of the Chatham County Mosquito Control Commission. From time to time also we shall have to repair erosion damage to the tide gates on the north shore of Cockspur.

From 1994 to 1996, the Army Corps of Engineers developed the plans and specifications to repair and reconstruct the eroded historic dike system by raising the height of the dike to 4.05 Mean High Water (MHW), which coincided with the top of the adjacent and adjoining park entrance road. Prior to the repair work, the elevation of the dike varied from 2 feet to 5 feet

along its entire perimeter. The top width was increased to 10 feet to accommodate construction and maintenance equipment. The dike was raised in areas that were below 4.05 MHW.

Several factors might explain why several CCC reports stated that the restored elevation of the original dikes was twelve feet, when the dike elevations in 1994 were much lower in some areas:

- Dredging that occurred from 1939 to 1943 resulted in the accumulation of thousands of cubic yards of sand over the marshes.
- A report that outlined the amount of work needed to restore the eroded dikes damaged by the 1947 hurricane stated that portions of the dike had been completely washed away and many of the ditches needed cleaning and were clogged with marsh grass. In 1951, Ralston Lattimore noted that part of the dike was left unrepaired on the exposed east side of Cockspur Island and that without its dikes, the area surrounding Fort Pulaski would be inundated with each high tide. He further noted in 1954: "Due to the nature of Cockspur Island the dikes are constantly subsiding. How fast we do not know, but a constant and continuous maintenance and observation are required. I am already on record on this point. ... The Engineers who speak in terms of 'if and when it is necessary to rebuild the dikes' obviously expect to wait until the dikes completely waste away before showing any further interest in them."
- An increase in sea level on Cockspur Island lowered the elevation of the dikes.

Spatial Organization

The spatial organization of the Fort Pulaski National Monument Landscape is dominated by the fort and its location on Cockspur Island. The historic two-mile dike and ditch system encircles the fort and extends to the South Channel of the Savannah River. North of the fort, the dike passes between the old North Pier and Battery Hambright. It crosses the nature trail and the service road, then turns south again and crosses the main entrance road. The main ditch or feeder canal runs north to south from the moat to the South Channel of the Savannah River. Two 36-inch tide gates positioned across the ditch control the flow of water into the moat.

Fort Pulaski is encircled by a wide moat, with two drawbridges, and a rear fortification known as a demilune. The outer drawbridge crosses the demilune moat. The demilune is a flat, triangular-shaped outwork constructed west of the main ditch or moat, consisting of two ramparts forming a salient angle. The interior wall of the moat serves as the exterior wall of the demilune. The demilune functions as a physical barrier to the fort entry, where another drawbridge restricts entry to the sally port. Outside the demilune moat, the glacis contains two marked graves which are in the vicinity of the unmarked Confederate Cemetery.

Three mortar batteries were constructed at the same time that Fort Pulaski was built. Two are located south of the fort and east of the Main Feeder Canal. One is located east of the fort.

The 1964 visitor center is located due west of the fort. North of the visitor center and fort is the CCC-era parking lot constructed from 1938-1940 and paved in 1942.

The foundations of the approximately twenty-five buildings in the Construction Village, which once stood south of the North Channel Pier and northwest of the fort's demilune, remain as a subsurface archeological resource. Seven cisterns survive above-ground.

Just east of a cluster of cisterns is the location of Battery Hambright, completed in 1900 as part of the Endicott Seacoast Defense System. Immediately to the north of the battery are the remains of the North Channel Pier. Several of the original posts remain in the water. The granite outlined section of the pier jutting out into the marsh is still visible and accessible. Dredge spoil deposits now separate the pier from the Savannah River. The area has been converted into an overlook, where visitors may sit and view the river and passing ships.

A pathway leads south from Battery Hambright, looping back to the John Wesley Memorial, commemorating the landing of John Wesley in 1736. From the memorial, the pathway leads west through the maritime forest to the picnic area, located across the spur road in an area shaded by pines.

The maintenance area is a cluster of three buildings located west of the picnic shelter, consisting of the maintenance building, gas house, and pole shed. Northwest of the maintenance area and across the service road is the site of the old quarantine station. The only above-ground structure remaining is the Quarantine Attendant's Quarters, now Park Headquarters. Remnants of a walkway, planting beds, and a cabbage palm allée remain from the 1940s.

Two WWII bunkers are located behind a cyclone fence that crosses the western portion of the spur road. One bunker is located north of the service road and is presently used as a black powder magazine. The other bunker is located to the south of the service road and is presently used as a small arms magazine.

A pathway extends south from the western edge of the bunkers to the site of the Tybee Knoll Cut Range Lighthouse complex. The only extant structure is the brick oil storage shed. Only the chimney foundation of the keeper's house survives. The site is not open to the public and is overgrown.

The 1980s Bar Pilots Association complex is sited just northeast of Park Headquarters. Further west along the north shore is the Coast Guard complex. This is a modern complex surrounded by a six-foot-high cyclone fence. The grounds consist mainly of a parking lot, turf, a few scattered cabbage palms, pampas grass, cedars, live oaks, and small gas tanks. A Leave No Trace camping site is located in an open field northeast of the picnic area. There are no structures associated with this location.

The CCC workman's camp was built on the northwestern portion of Cockspur Island, adjacent to the quarantine station, to provide housing for approximately 100 laborers. There are no structures remaining from this camp.

Four Volunteers-in-Parks Program (VIP) pads were constructed in 2006 west of Park Headquarters, across the service road from their present location.

Foundations of a pier and dock built in the 1930s by the CCC are found at or very near the location as the previous South Pier, destroyed by a hurricane in 1854. The South Channel Bridge connects the islands of Cockspur and McQueens.

Cockspur Island Lighthouse is located on an islet off the southeastern tip of Cockspur Island.

Land Use

Current land uses within the Cockspur Island Historic District include recreation, interpretation, administration, maintenance, law enforcement, and burial.

Cockspur Island holds a strategic location at the mouth of the Savannah River. Since colonial times, the island has been home to continuous military and governmental installations. Today, both the U. S. Coast Guard and the Savannah Bar Pilots have installations at the west end of Cockspur Island. The establishment of Fort Pulaski National Monument occurred in 1924.

Vegetation

During the Civil War, the area within the original diked section of Cockspur Island had been cleared of vegetation, resulting in a landscape devoid of trees and shrubs. Historic photographs show the view from the southwest and northwest bastions of the fort. The view west from these vantage points is clear to the horizon. The only vegetation appears to be low grasses and sedges. All the roadways and structures of the Construction Village are clearly visible from the fort. The views to the south and east are similarly open, however, the vegetation in this direction, since it was beyond the dike system, was most likely salt marsh, not dry land. Low vegetation would have been an asset to the fort, as defending the Savannah River would be easier with views unobstructed by a tree canopy. Conversely, trees on Tybee Island concealed Union batteries.

In 1900, vegetation was starting to grow up around the exterior of the fort and demilune. By 1925, vegetation covered the demilune and fort interior and clogged up the moat. Much of the vegetation was cleared by the CCC in the 1930s during restoration of the fort. Park maps from this time also show a wooded area north of the entrance road and the parking area.

After WWII, the landscape of Cockspur Island saw significant changes. A 1954 aerial photograph shows vegetation succession taking over the former grasslands, converting them to forest and shrub thickets. The demilune was covered with a mature yaupon holly canopy, as was the perimeter of the moat. Grasslands south of the fort had succeeded to woody shrubs, and the area to the north and west of the fort, open in the Civil War-era photographs, had succeeded into a maritime forest. These changes were also documented in park maps of this period.

Such a dramatic change in vegetation may be attributed to a lack of fire control and a gradual accretion of spoil deposits. During the nineteenth-century construction and occupation of Fort

Pulaski, the island vegetation was likely maintained by burning. Elimination of burning would naturally allow drier areas of the island to revert back to forest. Adding more dry land in the form of spoil deposits would accelerate the process.

The 1965 Master Plan stated that the outer slope of the glacis was covered by a dense thicket of vegetation that cut off all views of the fort. Superintendent Ralston Lattimore commented in 1965 that foliage had grown so high and was so dense around the fort that the structure was completely hidden.

By the 1980s, most of the vegetation encircling the fort had been removed. An aerial photograph from 1985 shows the vegetation immediately surrounding the fort removed and managed as grassland. There is still a mature canopy to the north and west of the fort, as well as cedar trees on spoil deposits to the east of the fort and within the dike system south of the fort.

Archeological Sites

The search for archeological remains on Cockspur Island has been a relatively recent occurrence. Beginning in the early 1990's a more thorough investigation of the island had been conducted in a piece-meal form than ever before.

In July of 1990 the Interagency Archeological Services Division (now a part of the Southeast Archeological Center, SEAC) began investigations on Tybee Island in search of Battery Halleck. The supposed location on "Spanish Hammock" is an overgrown sand spit located on private property. With the permission of the property owner the investigation found a series of earthen depressions that closely resembled period descriptions of Union mortar batteries. In September of 1990 the investigations continued with a more intensive program. Through topographic mapping, visual inspection and the excavation of 11 one-meter test units in three areas of the landform archeologists were able to extrapolate extensive human activity in the area some time prior to the mid-twentieth century. Though no diagnostic Civil War period artifacts were found, the overall evidence lead to the conclusion that the site is Battery Halleck (Anderson, 1)

In October 1994, the Southeast Archeological Center conducted a non-invasive remote sensing survey to search for the graves of the Confederate prisoners of war interred at Fort Pulaski. The most probable location for the cemetery based on historic records is north of the demilune and moat near the visitor parking area. The results of the survey were inconclusive. None of the anomalies recorded and subsequently excavated revealed evidence of the graves (Groh, 68, 78).

During repairs to the northern portion of the main ditch for mosquito control by Chatham County's maintenance staff in 1995, a Civil War refuse area was exposed. A team from SEAC examined the exposed refuse area, which was interpreted as a dump used by Union forces while making repairs to the fort in 1862. This interpretation was based on the location of the refuse area and the presence of complete bottles rather than bottle fragments. The presence of whole Civil War bottles helped rule out the possibility that the refuse area was the result of

CCC activities from the 1930s because complete bottles recovered at that time were typically placed in curation at Fort Pulaski (Groh, 78).

In 1997, SEAC conducted a survey of the dikes prior to rehabilitation to determine the original size, shape, and methods employed during construction of the dike in the 1830s. Two locations were chosen based on historic documentation that indicated they may not have been repaired over the years. Clearly visible in all profiles, however, was a thin layer of oyster shell, which was most likely added to the top of the original dike during the CCC reconstruction. The soil used in the original construction and the original ground surface were found below this layer of oyster shell. The second location also showed evidence of repairs made by Fort Pulaski maintenance crews in the past fifty years (Groh, 121-22).

Extensive excavations of the cemetery occurred again in 1999, leading to the complete delineation of its boundaries. 37 separate burials were identified. Of these, 19-21 lie in the general area of the documented Confederate section. Based on archival research and the 1999 excavations, it is felt that most of the Union troops who died during the Civil War were exhumed, and their cemetery plots were reused by civilians and post-Civil War military personnel (www.cr.nps.gov/seac/pulaski/2-civil_war/index-2.htm). In addition to the 37 burials, 5 areas of disturbance were identified. These disturbances probably had an impact on surrounding burials.

In 1999, 80 shovel tests in the assumed vicinity of Fort George, Fort Greene, and the Lyford Pilot House failed to yield any positive proof of their location. Historic documentation indicates that the search for these particular sites should focus on the mud flats at the southeastern end of Cockspur Island for Fort George and the area around the North Channel Pier for Fort Greene. It seems unlikely that enough remains of the Lyford Pilot House to warrant further archeological investigation (Prentice 49-51).

In 1999, limited archeological investigations were conducted in the vicinity of the brickwork thought to be associated with the residence occupied by the ordnance sergeant in the 1880s. This area was labeled as an oven on a 1936 CCC map. Artifacts observed during the excavation seem to corroborate that a building was located here, but additional archeological investigations will be needed to confirm these findings (Prentice, 24).

Character-defining Features:

Feature:	Fort Greene site
Feature Identification Number:	150475
Type of Feature Contribution:	Contributing
Feature:	Confederate Graves
Feature Identification Number:	150477
Type of Feature Contribution:	Contributing

Feature: Fort George site

Feature Identification Number: 150479

Type of Feature Contribution: Contributing

Feature: Original Dyke System

Feature Identification Number: 150481

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:

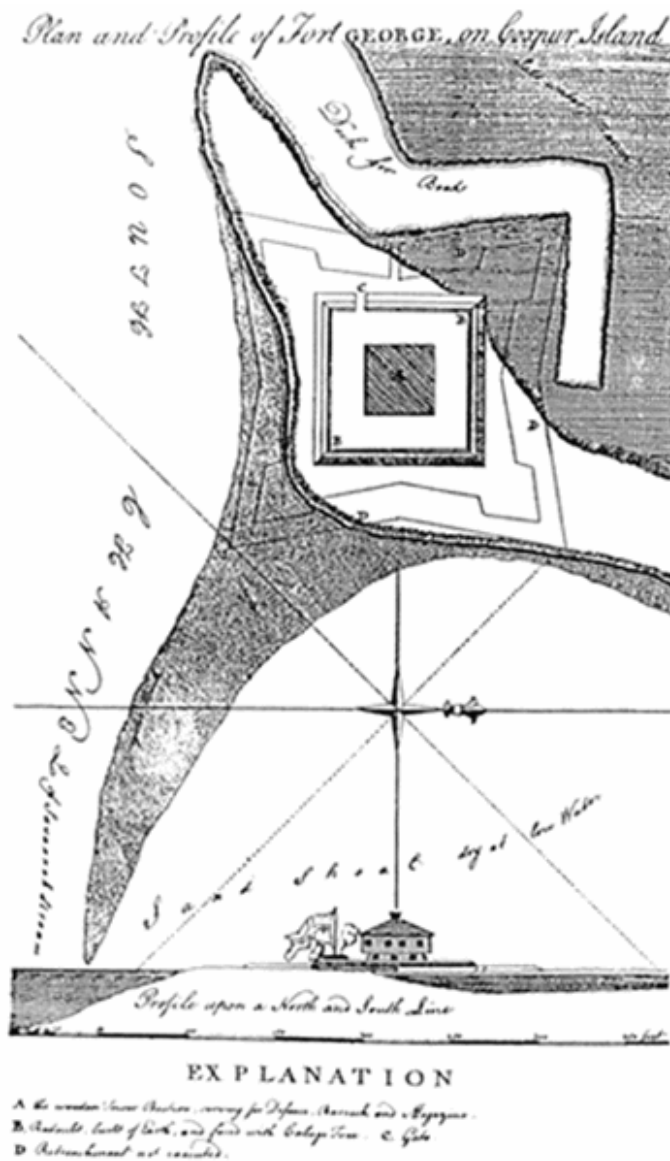


Figure 25. Map and elevation of Fort George.

Buildings and Structures

Fort and Demilune

The fort as completed in 1847 had five sides and required approximately 25 million brick. Most of the brick were Savannah Greys manufactured at Henry McAlpin's Hermitage Plantation outside of Savannah. The harder rose-red colored bricks used in the embrasures, arches, and walls facing the parade ground were purchased from Baltimore, Maryland and Alexandria, Virginia. Brown sandstone and granite quarried from New York and Connecticut were used on the exterior walls and below the casemate gun emplacements.

The fort was sited such that two sides guard the South Channel of the Savannah River and two guard the North Channel. The rear section, known as the gorge because it contains the sally port, faces west. Seven-and-one-half-foot-thick walls stand twenty-five feet above the water-filled moat. The fort was designed for two tiers of guns, one mounted in casemates and the other en barbette.

Located west of the main work, the demilune is a flat, triangular-shaped outwork. The interior wall of the moat serves as the exterior wall of the demilune and is revetted with brick masonry. The demilune functions as a physical barrier to the entry of the fort and provides additional space for gun emplacements.

The entrance to Fort Pulaski was well-protected by the moat, two drawbridges, the demilune, and the sally port, which offers several additional defenses. As the drawbridge rises, a strong wooden grill (portcullis) drops through a slot in the granite lintel overhead. The heart-pine doors are studded with iron bolts to make it difficult to chop through them with axes. In times of great danger, the inner doors could also be shut and barred.

The terreplein atop the walls was supported by sixty-seven arched casemates that served as housing for officers and enlisted men, as well as storage for powder and ammunition. The terreplein was lined with lead and covered with sod to collect rainwater for the fort's internal water system. Civil War-era photographs show an observation tower and brick and earthen mounds on the terreplein, which may have been used to shield soldiers from enemy fire.

On April 11 and 12, 1862, after thirty hours of nearly continuous bombardment by Federal forces with the new rifled cannon, the southeast wall of Fort Pulaski was breached and Confederate troops surrendered. By the end of the summer, troops of the 48th New York Volunteers had repaired the damaged southeast corner of the fort. During this repair, the embrasures of three casemates were closed and protective traverses begun by the Confederates completed.

Between 1862 and 1865, Union soldiers constructed a number of wooden and brick structures on the demilune. Although the exact nature of these buildings is unknown, it is probable that at least one of them served as a kitchen.

After the Civil War, Fort Pulaski had limited military value. The Army Corps of Engineers altered the demilune during the years 1872-1876. Four underground powder magazines, passageways and emplacements for heavy guns were constructed on the existing ground surface. Then several feet of soil was added to reinforce the underground fortifications.

The next modification to the main work occurred after hurricanes in 1881 and 1893 destroyed the Cockspur Island light keeper's house. Congress allocated \$4,000 to build the Cockspur Island Lighthouse keeper a one-and-one-half-story frame house on top of the west wall of the terreplein. In 1925, fire destroyed the structure and damaged the fort casemates beneath.

An Army Corps report dated 1892 described the condition of the fort:

All of the doors of the gun casemates are rotten; some are in place, and others have fallen down.

The casemates in the southern half of the gorge are designed for quarters. They are serviceable but in a filthy condition. The casemates in the northern half of the same front are used for storage. They are not in good order; doors and window shutters are decayed and broken.

The magazines in the Northwest and southwest angles of the fort are dry, although badly ventilated.

The large excavation in rear of a portion of the north front, near the gorge, made in 1876 while preparing for the construction of concrete piers required in modifying the work, contains stagnant water covered with a fungoid growth which emits a repulsive and unwholesome odor.

Grass and weeds overrun the parade and other parts of the fort.

The Sally port drawbridge and the bridge across the ditch of the demilune are serviceable, and the inner gates of the Sally port are in good condition. The hoisting apparatus of the drawbridge is out of order. ...

The masonry of the main work is in fair condition, except that the brick parapet is broken in several places on the channel fronts as a result of the bombardment of 1862.

The cistern in the parade is in good condition, but water in the various casemate cisterns is brackish.

The demilune is in fair condition with regard to the masonry work, terreplein, slopes, passages, and magazines, but all the doors at the entrances of the covered passages are rotten and broken down.

There are Six wooden front pintle platforms and one wooden center pintle platform for 15-inch Rodman guns in the demilune. They were laid in April 1874 and are all rotten and unserviceable.

In 1895, the demilune acquired an additional mound over an underground room in the southeast corner, which housed controls for electric mines in the North Channel of the Savannah River.

A 1913 inspection reported that the fort was without a caretaker, and steps were taken to secure a full-time custodian and obtain a modest amount of funding for repair work. Colonel Dan C. Kingman of the Army Corps made the following plea:

Fort Pulaski is a fine specimen of a brick fort . . . The wet ditch is filled with mud and grown up with weeds, the drawbridge is gone, and the gates are in such condition as would hardly exclude anyone who cared to enter it. I think that all these forts should be maintained.

Repairs and restoration to the fort did not take place until 1934. Crews repointed all brickwork throughout the fort and repaired the lead roof. The casemates were restored to their Civil War use. The casemates located south of the sally port, damaged by the 1925 fire, were not restored to their original use but were rehabilitated to accommodate visitor services. Also receiving restoration work were the circular stair tower railings, the northwest bastion stair tower, and the two drawbridges.

In the 1930s, crews restored the demilune parade and constructed a new oval walk from the sally port drawbridge to the demilune drawbridge.

As part of the Mission 66 program, the Park rebuilt the portcullis of the main work, replaced a considerable amount of decking of both moat bridges, and performed extensive repairs and waterproofing to the brickwork.

In 1960, the interior brickwork and stonework of the demilune was repaired and repointed. Additions included a brick stairway leading out of the pintle gun pit to the shoulder of the earthwork, where a new brick walk led to a second stairway leading down to the southside gun pit. The stairways and walk formed an important link in a circle tour of the demilune. Sections of the earthworks were repaired and reshaped.

The demilune drawbridge was replaced in 1886, reconstructed in the 1930s, and repaired in the 1950s and in 1975.

The Fort is listed as a contributing structure in good condition in the LCS.

Mortar Batteries

Three mortar batteries were constructed with sandbags and timber outside the fort. Two were located south of the fort and one was located east of the fort. A water battery was located near

the North Channel just west of the construction village. An 1892 report described the water battery:

The water battery contains two wooden front pintle platforms for 8-inch or 10-inch Rodman guns; they are unserviceable from decay. This work is overflowed at high tide, its sea wall is badly shattered and broken. The battery is not presumed to form a part of the modified project.

The remains of Mortar Battery No. 1, located due east of the fort, are obscured by erosion and vegetative growth. The remains of Mortar Battery No. 2, the northernmost of the batteries located south of the fort, are no longer visible above-ground. The remains of Mortar Battery No. 3, the southernmost of the batteries located south of the fort, are barely visible as a small rise in elevation bordering the southern dike in the southeast portion of the site.

The mortar batteries are not listed in the LCS, and are in fair to poor condition.

Construction Village

Work began on the Construction Village in 1829, under the direction of Lieutenant Robert E. Lee. The 1830 map drawn by Lee shows the location of quarters for Babcock and Lee, workmen's quarters, the North Channel beacon, and the revenue boathouse.

The Construction Village buildings were clustered south of the North Channel Pier and northwest of the demilune. These structures were located on Mansfield's 1831 map and Alexander's 1843 map. In 1842, Mansfield sent plan and elevation drawings of the structures located on Cockspur Island to Washington. A historic base map drawn in 1942 depicting conditions in 1862 identifies most of the structures. A Historic American Buildings Survey (HABS) map redrawn as a composite from several historic maps, including the 1842 map and inventory of all structures on the island, identifies the remaining buildings.

Historic photographs of the Construction Village show structures mainly of frame construction and raised as much as five feet above ground on masonry posts. Eight cisterns provided drinking water for the village. A masonry beacon rising thirty feet above the dike at the North Channel Wharf dominated the landscape.

Other 1863 photographs document some of the other structures at a closer scale, including the Superintending Engineer's Quarters, which was used as the hospital, and the rear of another frame building, referred to as the Pelican House. An 1871 drawing shows the Superintending Engineer's Quarters as little changed.

In 1842, fire destroyed the largest of the temporary quarters, located to the west of the fort. Also in 1842, a violent nor'easter destroyed the boathouse, which was replaced in 1844. In 1847, the workshops and some of the laborers' quarters immediately northwest of the fort were taken down. The carpenter's shop on the north shore was destroyed by the 1854 hurricane but was rebuilt in 1857.

From 1869 through 1872, the Army Corps of Engineers undertook repairs and renovation to the Construction Village buildings. The 1881 hurricane that inundated Cockspur Island destroyed the remaining Construction Village buildings.

Currently, scattered remnants of brick and stone foundations and seven circular brick cisterns are the only above-ground resources remaining from the Construction Village. An eighth cistern is buried beneath the northern outer dike reconstructed by the CCC in the 1930s. The cisterns average 10 feet in diameter and 4 feet in height and are constructed of Baltimore Rose bricks with brownstone and/or granite covers. The cisterns have been filled with sand for safety reasons, and are listed in the LCS as contributing features in good to fair condition.

Cockspur Island Lighthouse Complex

The three-story brick conical structure, located southeast of Cockspur Island, was constructed in 1839 but was not outfitted with lights until 1848, when noted New York architect John Norris was contracted to “repair alter and put up Lanterns and Lights on Cockspur Island ... and to erect a suitable Keeper’s House.” The lighthouse was reconstructed in 1856 following a hurricane in 1854.

The lighthouse was reactivated after the Civil War, and in 1868, it was reported that a “substantial boat landing has been erected; piles cased with yellow metal; tower whitewashed; station in good condition.” In 1876, the tower was fitted with storm doors for the lantern, and the stairs and landing repaired.

Repairs to the lightkeeper’s house, constructed in 1848, were necessary following the 1854 gale, and it was suggested that a brick foundation and a small frame kitchen be added. In 1876, it was reported that the house was “decayed to the point that repairs are inadvisable.” In 1880, the house was struck by lightening and was reported to be almost uninhabitable. It perished in the 1881 hurricane that devastated Cockspur Island.

The U. S. Lighthouse Service extinguished the light of the Cockspur Island Lighthouse on June 1, 1909, but the tower continued to serve as a navigational aid. The United States Coast Guard discontinued service in 1949.

After the lighthouse property was transferred to the National Park Service in 1959, the structure underwent extensive repairs to the brick. In 1980, repairs were made to the iron hand rails and to the exterior brickwork. In 1990, the wood door and window frames were replaced and the exterior of the tower was painted white. The lantern was replaced in 2000, and the lighthouse beacon was relit in 2007 as an interpretive aid. The lighthouse is listed as a contributing resource in good condition in the LCS.

North Channel Pier and Dock

Construction of the North Channel Pier and Dock occurred in 1830 at a site chosen by Major

Babcock. It was a mole composed of two walls constructed of huge granite blocks between which was an earth fill. The mole was 120 feet long, and, at its outer extremity, there was a 30-foot-wide wooden pier constructed on piles where sailing vessels would discharge their cargo. Small boats would tie up to iron rings embedded in the granite blocks.

Upon his arrival on Cockspur Island in 1831, Lieutenant Mansfield decided that the North Channel Wharf was in such bad condition that it should be abandoned. At the end of 1837, a granite pier head was constructed at the end of the north wharf. Up to this point, the pier had been in a state of disrepair, and supplies came in on the more active South Channel. Construction of the North Channel Wharf continued through the spring of 1839. A severe storm that struck coastal Georgia in 1854 destroyed the wharf. The pier was stabilized in 1963.

The pier, as it stands today, extends northward from the north shore of Cockspur Island approximately 120 feet. It measures 20 feet wide and approximately 4 feet high.

The sidewall and headwalls are formed by large granite blocks stacked two courses high. The joints between the granite blocks are filled with brick and mortar. Mooring rings and spikes are spaced along the capstones of the sidewalls. Soil fills the central area.

The granite outlined section of the pier jutting out into the marsh is still visible and accessible. The deteriorated end of the pier, jutting out toward the water, has been stabilized using granite curbing relocated from the gun racks on the terreplein of the fort. On the terreplein, these arched curbing units would have formed semi-circles around the guns. On the North Pier, the direction of these units has been alternated, creating a serpentine effect unlike that of the original pier materials. The North Pier ruin is listed as a contributing resource in good condition in the LCS, although with the incongruous granite curbing used at the end of the pier, this condition could be reassessed.

South Channel Pier and Dock

These wharves were built by Mansfield in 1831 at the southern terminus of the transport canal, when he abandoned Babcock's wharf site on the North Channel. They were repaired and enlarged in 1841. By 1843, Mansfield wanted to build a new small wharf on the South Channel at the terminus of the 1842 roadway because the old temporary construction pier was rotten. The 1854 gale destroyed the wharf. Army Corps reports indicate that the wharf was rebuilt around 1870 but had almost disappeared by 1892.

The CCC constructed a loading dock at or near the same location as the previous pier. A ferry service from the west bank of Lazaretto Creek to the dock moved personnel and freight to and from Cockspur Island. The ferry service operated from 1934 to 1938.

The basal remnants of paired wooden posts that probably date from the wharf built by the CCC in the 1930s are visible. The South Channel Pier and Dock no longer retain integrity and are not listed in the LCS.

South Channel Bridge

A composite wood and concrete bridge constructed in 1938 spanned a distance of 1,280 feet across the South Channel of the Savannah River. In 1965, decayed diagonal bracing was replaced. Repairs to deteriorated abutments (1997) and guardrails (1999) and replacement of damaged cross-braces, asphalt decking, expansion joints, and the north bridge approach (1999) occurred in the 1990s.

The South Channel Bridge is not listed in the LCS or shadow LCS. Based on the findings of this CLI, the bridge should be listed as a contributing resource, and in good to fair condition.

Cemetery Markers

Two grave sites are marked within the cemetery. The first is that of Lieutenant Robert Rowan, an officer stationed at Fort Greene, who died in 1800. The grave site is most likely a reburial since the glaciis on which the grave is located was part of the fort construction from 1829-1847. The marker for Rowan's grave can be seen in a historic photograph, which also shows the memorial cannon that marked the Civil War period cemetery.

The second grave marker is that of Charles Howard Sellmer, an infant son of Lieutenant Charles Sellmer, who was stationed at Fort Pulaski in 1872.

Both grave markers are listed in in the LCS, but as ineligible resources that can be managed as cultural resources.

In 2012, an Immortal 600 granite marker was installed, along with a brick cemetery perimeter wall. Plans are also underway for a walkway around the monument.

Battery Horace Hambright

A concrete and steel Spanish-American War battery completed in 1900 along the north shore of Cockspur Island. The soil upon which it was built proved to be inadequate to properly support its weight, resulting in significant settlement. A 1902 letter stated that "the following additional work will have to be done, to comply with the conditions of your letter, in regard to the rapid-fire battery at Fort Pulaski, Ga., which is on a poor foundation and has settled so that the rooms do not have positive drainage, although they now remain dry owing to a hole cut through the floor to the sand underneath." By 1906, it was reported that "it has settled considerably, causing several very bad cracks; that the magazines are quite damp and that the battery will require a pretty thorough overhauling before it can be put in commission."

A 1913 inspection reported that the entire platform for the right gun had separated from the interior wall causing it to sink several feet and sand covered the floor of the magazine. The side walls and steps were also cracking and breaking down. By 1915, it was reported that the emplacement was practically a "ruin."

Cleaning and painting of the concrete and steel occurred in 1960. Park staff waterproofed the concrete structure and applied anti-rust paint to the exposed steel. Stairways were constructed from gunpits to permit continuous circulation without climbing onto the earthworks. It was repaired and repainted in 1976. In 1995, vegetation was removed, the surface cleaned, cracks sealed with caulk and mortar as appropriate, damaged areas rebuilt, nonhistoric metal removed to prevent spalling, and boardwalks rebuilt. In 1996, eroded soil was replaced on the northern slope.

The battery is listed in the LCS in good condition.

Quarantine Station

Quarantine Officers' Quarters: one-story frame building constructed in 1891, it stood just east and north of the Quarantine Attendant's Quarters and was always used for the officer in charge. It was demolished in 1960.

Quarantine Attendant's Quarters: one-story frame structure with hipped roof and two dormers built for the pharmacist and hospital attendants. The structure underwent a major remodeling by the Navy in 1942. This is the present Park Headquarters building. It is listed in the LCS in good condition.

Tybee Knoll Cut Range Lighthouse Complex

A wooden lighthouse with an attached tower was constructed in 1878 off the easterly end of Long Island along the northern side of the South Channel of the Savannah River. A single story frame building with a central tower and boathouse were added by 1882, a wharf in 1888, and a brick oil storage shed in 1893. The light was extinguished in 1909.

The lighthouse, keeper's house, boat house, and wharf were razed by the Park in the 1970s for reasons of visitor safety. The oil storage shed, being brick, was not burned.

The Tybee Knoll Cut Range Lighthouse oil storage shed is without a viable roof and is not easily accessible. The location of the lightkeeper's house and attached light tower is marked by loose piles of brick, intact brick footers, and other structural debris scattered in a wooded area southwest of the larger WWII bunker. The oil storage shed is unofficially listed in the LCS on the 'shadow' list.

WWII Bunkers

Two bunkers were built in 1943 by the U. S. Navy at the west end of Cockspur Island. The bunker located south of the service road has a trapezoidal north face spanning roughly 130 feet. The bunker is constructed of concrete with all outer surfaces except the north face covered in dirt and turf. Originally, the north face held four glass block windows, which have been replaced with solid concrete. A smaller bunker of similar construction is located north of the service road. The WWII bunkers are not mentioned in the National Register nomination, but are located on the LCS 'shadow' database. With the proposed secondary period of

significance, they should be considered contributing resources.

John Wesley Memorial

The installation of the memorial, designed by the Albany architect Edward Jones, occurred in 1951. The memorial is a 15-foot-high square brick column with a limestone base, a brick shaft in Flemish bond, and a limestone cap surmounted by a limestone cross, all set on a square of slate tiles. Turf grass is maintained around the memorial. The memorial, erected by the Georgia Society, Colonial Dames of America, marks the general area of Wesley's first service on American soil.

The memorial is listed as a contributing resource in the National Register nomination, but post-dates the 1975 and CLI-proposed periods of significance and should be considered ineligible, but managed as a cultural resource.

Maintenance Area

A metal building, which included a truck shed, truck repair shop, and tool storage room, was constructed in 1935. The oil house and gas pump were moved from the South Channel boat landing to the maintenance area at this time. A one-story frame utility building had been added by 1940.

In 1960, a cinder block gas and oil storage house was constructed, replacing the oil house and gas pump. A rehabilitation and expansion of the utility building occurred in 1973. An equipment pole shed to house the park boat, tractor, and truck was constructed in 1993. Metal roofs were added to the gas house, garage building, and pole shed in 2003 and 2005. Further documentation is needed to determine the eligibility of these resources.

Entrance Station

A visitor contact station was constructed in the 1930s. Its removal occurred in 1945. The Park constructed a temporary fee collection station in 1968. The present fee collection station was acquired in the 1980s and expanded in 2001. The entrance station is not considered a contributing resource.

Visitor Center

A one-story circular structure constructed in 1964 of reinforced concrete and brick. Its height was kept low to minimize visual intrusions upon the fort. Handicapped ramps were added in 1977 and 1999. Between 1994 and 1995, the Park resurfaced the roof and added an auditorium by partitioning off a portion of the lobby. A detached restroom building was constructed in 1997. The visitor center is not considered a contributing resource, although future evaluation of this Mission 66-era building would be advisable.

Picnic Area

A Mission 66 project that occurred in 1965 included twenty picnic tables placed in an area southwest of the service road to the west end of the island. A restroom facility was added in

1985. In 1988, the Park modified the picnic area for handicap accessibility by constructing two elongated tables with oversized concrete slabs and added an accessible drinking fountain, designated parking area, and unobstructed pathways to the restroom. A picnic shelter was added in 2004. As with the visitor center, this is a Mission 66 project, and though modified, could still be evaluated for historical significance.

Savannah Bar Pilots Complex

The Savannah Bar Pilots complex consists of a dormitory building and a large fixed dock that extends out into the North Channel of the Savannah River to moor and fuel the harbor pilot's boats. The contributing status of this complex has not been determined.

U. S. Coast Guard Complex

The Coast Guard complex consists of two structures. A residence hall, which is a two-story structure, resembling a motor inn, with exposed hallways along the perimeter of both floors. The other structure is a meeting room. The contributing status of this complex has not been determined.

CCC Camp

The remains of the CCC Camp are located directly east of the driveway from the service road to the Savannah Bar Pilots House parking lot. This is primarily an open expanse of grass. A scattering of shell and patches of old concrete foundations are the only remains of a complex of structures and walkways once occupied by CCC workers in the 1930s. It no longer retains integrity.

Character-defining Features:

Feature: Fort Pulaski

Feature Identification Number: 150393

Type of Feature Contribution: Contributing

IDLCS Number: 368

LCS Structure Name: Fort Pulaski

LCS Structure Number: HS-01

Feature: Demilune

Feature Identification Number: 150397

Type of Feature Contribution: Contributing

IDLCS Number: 90084

LCS Structure Name: Demilune

LCS Structure Number: HS-08

Feature: Mortar Battery No. 1

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

Feature Identification Number:	150453
Type of Feature Contribution:	Contributing
Feature:	Mortar Battery No. 2
Feature Identification Number:	155057
Type of Feature Contribution:	Contributing
Feature:	Mortar Battery No. 3
Feature Identification Number:	155055
Type of Feature Contribution:	Contributing
Feature:	Cistern No. 1
Feature Identification Number:	150391
Type of Feature Contribution:	Contributing
IDLCS Number:	90094
LCS Structure Name:	Cistern No. 1
LCS Structure Number:	HS-2A4
Feature:	Brick Foundation Ruin at Cistern No. 1
Feature Identification Number:	150407
Type of Feature Contribution:	Contributing
IDLCS Number:	90093
LCS Structure Name:	Brick Foundation Ruin at Cistern No. 1
LCS Structure Number:	HS-2A5
Feature:	Cistern No. 2
Feature Identification Number:	150387
Type of Feature Contribution:	Contributing
IDLCS Number:	90091
LCS Structure Name:	Cistern No. 2
LCS Structure Number:	HS-2A6
Feature:	Cistern No. 3
Feature Identification Number:	150401
Type of Feature Contribution:	Contributing

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

IDLCS Number:	90092
LCS Structure Name:	Cistern No. 3
LCS Structure Number:	HS-2A7
Feature:	Cistern No. 4
Feature Identification Number:	150395
Type of Feature Contribution:	Contributing
IDLCS Number:	90095
LCS Structure Name:	Cistern No. 4
LCS Structure Number:	HS-2A2
Feature:	Brick Foundation Ruin at Cistern No. 4
Feature Identification Number:	150405
Type of Feature Contribution:	Contributing
IDLCS Number:	90096
LCS Structure Name:	Brick Foundation Ruin at Cistern No. 4
LCS Structure Number:	HS-2A3
Feature:	Cistern No. 5 (ruin)
Feature Identification Number:	150415
Type of Feature Contribution:	Contributing
IDLCS Number:	12167
LCS Structure Name:	Cistern No. 5 (Ruin)
LCS Structure Number:	HS-2A1
Feature:	Cistern No. 6
Feature Identification Number:	150385
Type of Feature Contribution:	Contributing
IDLCS Number:	100716
LCS Structure Name:	Cistern No. 6
LCS Structure Number:	HS2B3
Feature:	Cistern No. 7
Feature Identification Number:	150383

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

Type of Feature Contribution: Contributing

IDLCS Number: 100717

LCS Structure Name: Cistern No. 7

LCS Structure Number: HS2B4

Feature: Cockspur Island Lighthouse

Feature Identification Number: 150403

Type of Feature Contribution: Contributing

IDLCS Number: 12170

LCS Structure Name: Cockspur Island Lighthouse

LCS Structure Number: HS-04

Feature: North Pier Ruin

Feature Identification Number: 150417

Type of Feature Contribution: Contributing

IDLCS Number: 12169

LCS Structure Name: North Pier (Ruin)

LCS Structure Number: HS-03

Feature: North Pier Overlook

Feature Identification Number: 150423

Type of Feature Contribution: Non Contributing

Feature: South Channel Dock and Pier

Feature Identification Number: 150455

Type of Feature Contribution: Non Contributing

Feature: South Channel Bridge

Feature Identification Number: 150413

Type of Feature Contribution: Contributing

Feature: Lieutenant Robert Rowan Grave Marker

Feature Identification Number: 150389

Type of Feature Contribution: Non Contributing

IDLCS Number: 90089

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

LCS Structure Name: Lieutenant Robert Rowan Grave Stone
LCS Structure Number: HS-13

Feature: Sellmer, Charles Howard Grave Marker
Feature Identification Number: 150411
Type of Feature Contribution: Non Contributing
IDLCS Number: 90090
LCS Structure Name: Sellmer, Charles Howard, Grave Marker
LCS Structure Number: HS-14

Feature: Battery Horace Hambright
Feature Identification Number: 150399
Type of Feature Contribution: Contributing
IDLCS Number: 12171
LCS Structure Name: Battery Horace Hambright
LCS Structure Number: HS-05

Feature: Administrative Office(Quarantine Station
Feature Identification Number: 150429
Type of Feature Contribution: Contributing

Feature: Tybee Knoll Cut Range Lighthouse Oil Sto
Feature Identification Number: 150461
Type of Feature Contribution: Undetermined

Feature: Tybee Knoll Cut Range Lighthouse Tower R
Feature Identification Number: 150463
Type of Feature Contribution: Undetermined

Feature: WWII Bunker #1
Feature Identification Number: 150425
Type of Feature Contribution: Contributing

Feature: WWII Bunker #2
Feature Identification Number: 150427

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

Type of Feature Contribution:	Contributing
Feature:	John Wesley Memorial
Feature Identification Number:	150409
Type of Feature Contribution:	Non Contributing
IDLCS Number:	12173
LCS Structure Name:	John Wesley Memorial
LCS Structure Number:	CS-01
Feature:	Garage (Maintenance Complex)
Feature Identification Number:	150421
Type of Feature Contribution:	Non Contributing
Feature:	Oil House (Maintenance Complex)
Feature Identification Number:	99970
Type of Feature Contribution:	Non Contributing
Feature:	Fee Collection Station
Feature Identification Number:	150465
Type of Feature Contribution:	Non Contributing
Feature:	Visitor Center
Feature Identification Number:	150419
Type of Feature Contribution:	Non Contributing
Feature:	Restroom Building
Feature Identification Number:	150457
Type of Feature Contribution:	Non Contributing
Feature:	Picnic Shelter
Feature Identification Number:	150459
Type of Feature Contribution:	Non Contributing
Feature:	Public Boat Ramp
Feature Identification Number:	150469
Type of Feature Contribution:	Non Contributing

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

Feature: Savannah Bar Pilots Complex

Feature Identification Number: 155071

Type of Feature Contribution: Undetermined

Feature: Public Fishing Pier

Feature Identification Number: 150473

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:

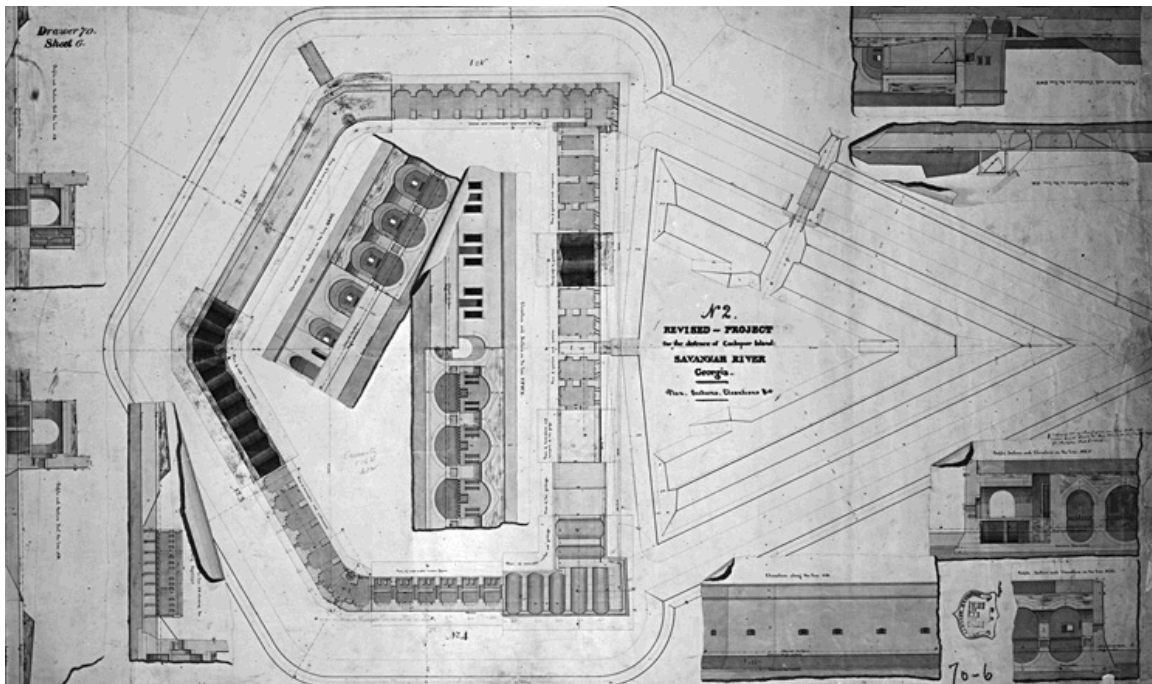


Figure 26. Plan of Fort Pulaski, 1868. National Archives



Figure 27. Structures on terreplein, 1863. Fort Pulaski National Monument archives

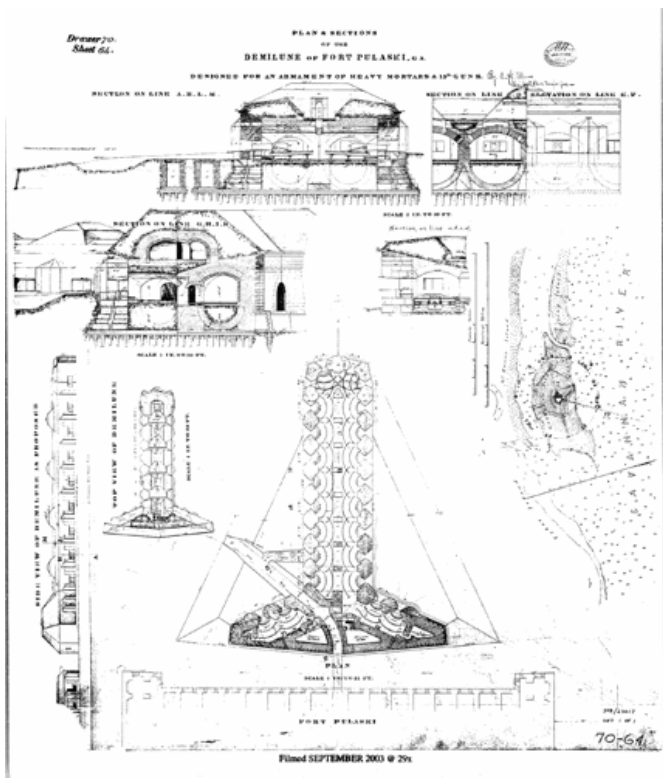


Figure 28. Demilune plan, 1872. Fort Pulaski National Monument archives

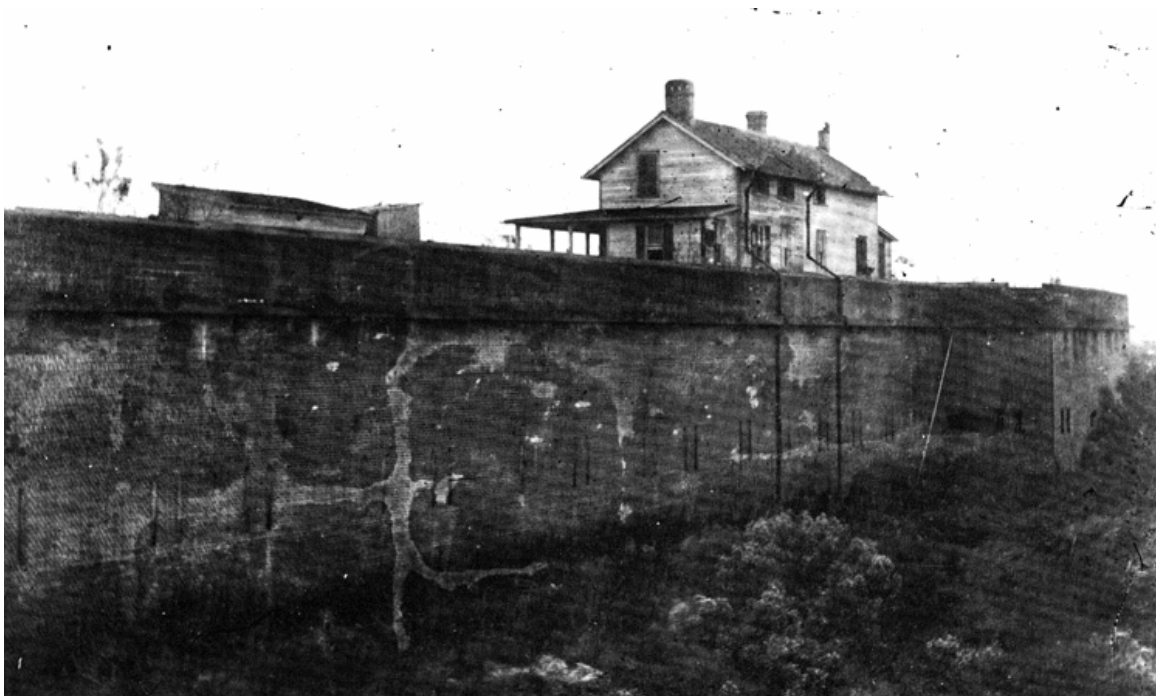


Figure 29. Lightkeeper's house, n.d. Fort Pulaski National Monument archives



Figure 30. Lead roof repair, n.d. Fort Pulaski National Monument archives



Figure 31. Demilune parade, 1936. Fort Pulaski National Monument archives



Figure 32. Repair work to pintle gun pit, c.1936. Fort Pulaski National Monument archives

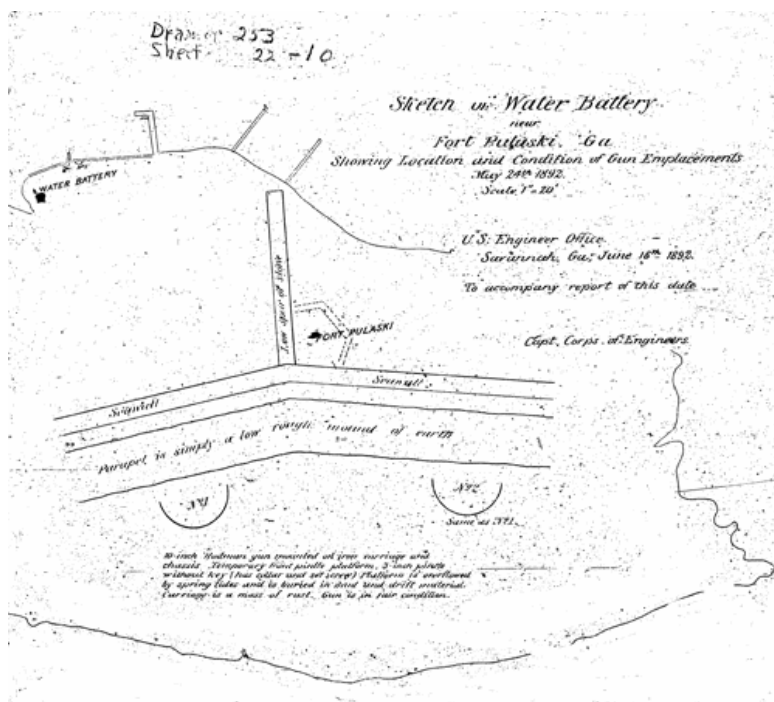


Figure 33. Water battery drawing, 1892. Fort Pulaski National Monument archives

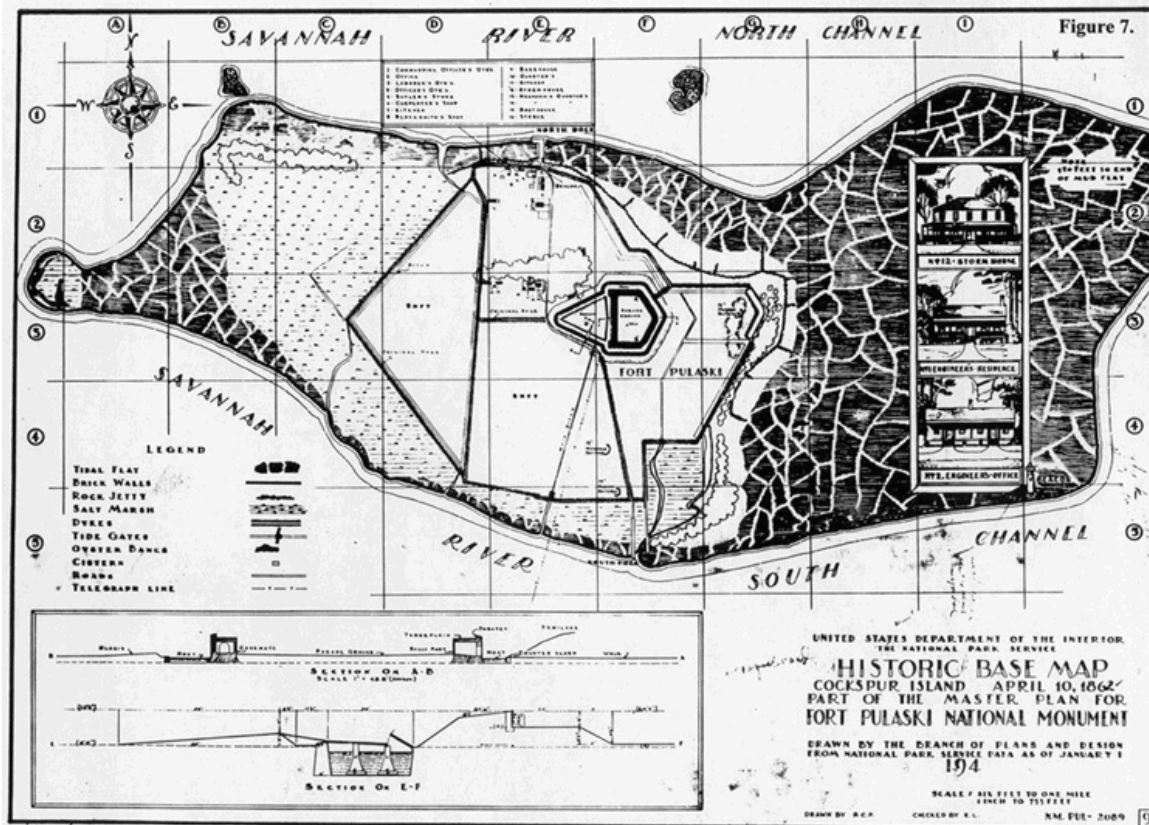


Figure 34. Historic base map depicting conditions, April 1862. Fort Pulaski National Monument archives



Figure 35. Construction village from southwest corner, 1863. Fort Pulaski National Monument archives

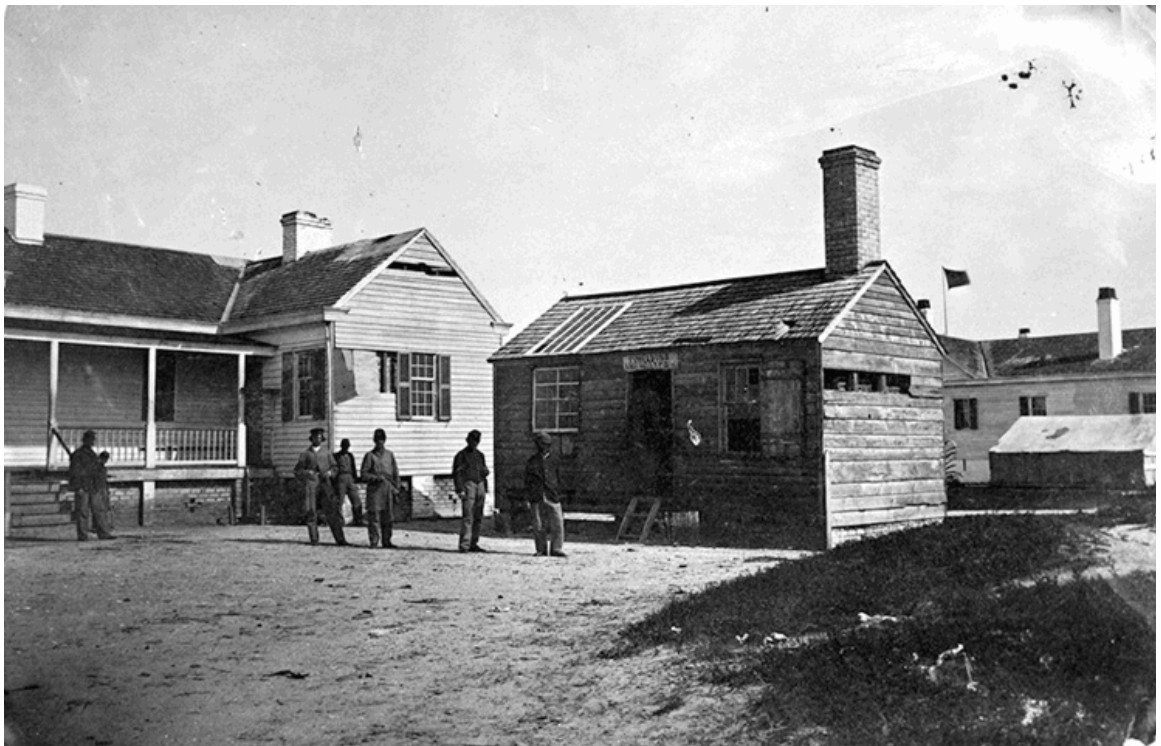


Figure 36. Frame structures, 1863. Fort Pulaski National Monument archives

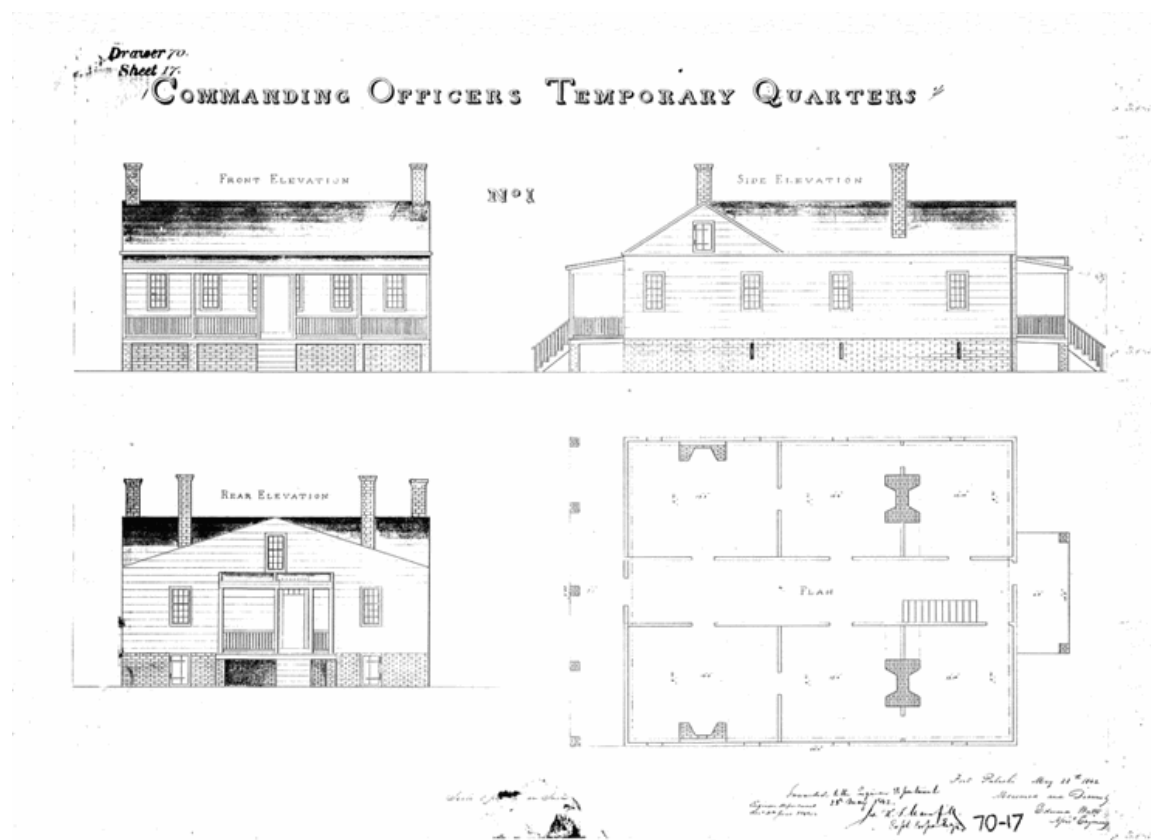


Figure 37. Superintending Engineer's Quarters, 1871. National Archives

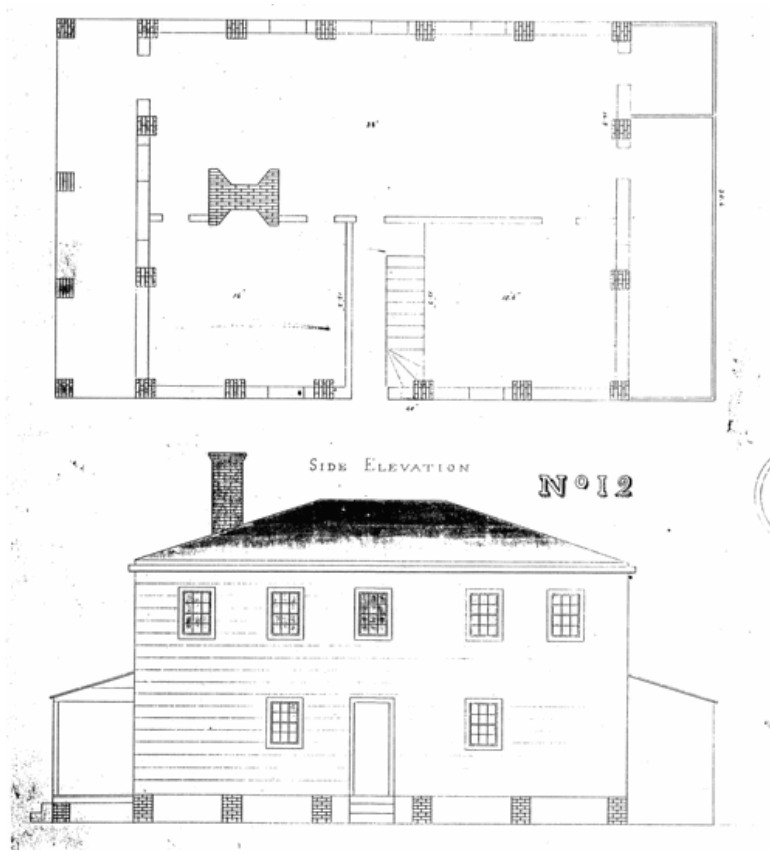


Figure 38. Storm House, 1842. National Archives



Figure 39. Cockspur Island Lighthouse, 1950s. Fort Pulaski National Monument archives



Figure 40. North Channel Pier, 1930s. Fort Pulaski National Monument archives



Figure 41. CCC dock, 1936. Fort Pulaski National Monument archives (Oct36dock2)

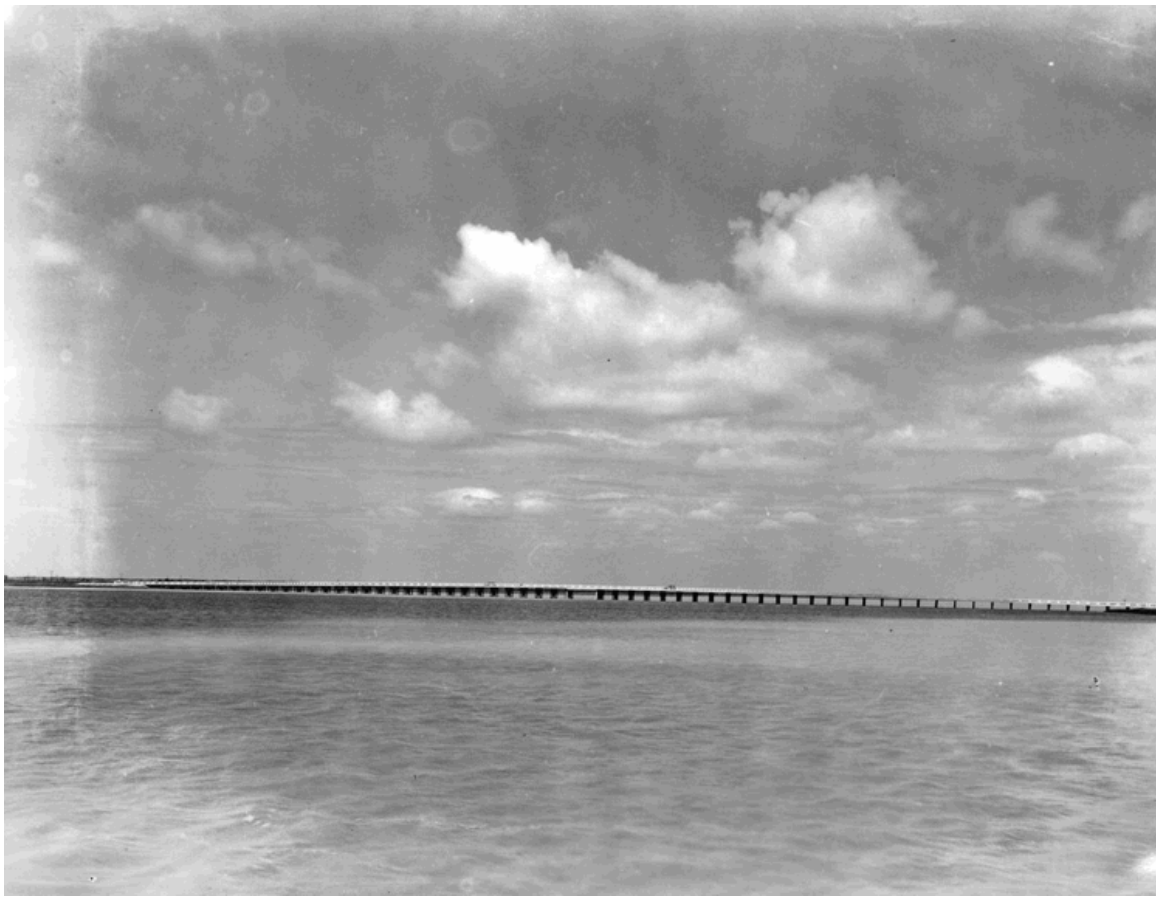


Figure 42. South Channel Bridge, 1938. Fort Pulaski National Monument archives



Figure 43. Grave marker with cannon in background, n.d. Fort Pulaski National Monument archives



Figure 44. Battery Hambright, 1950s. Fort Pulaski National Monument archives



Figure 45. John Wesley Memorial, 1992. Fort Pulaski National Monument archives



Figure 46. Quarantine Officers' Quarters, 1891. Fort Pulaski National Monument archives



Figure 47. Quarantine Attendant's Quarters, 1939. Fort Pulaski National Monument archives



Figure 48. Tybee Knoll Cut Range Lighthouse, c. 1923. United States Coast Guard archive



Figure 49. Frame utility building, 1940. Fort Pulaski National Monument archives



Figure 50. Contact station, 1940. Fort Pulaski National Monument archives

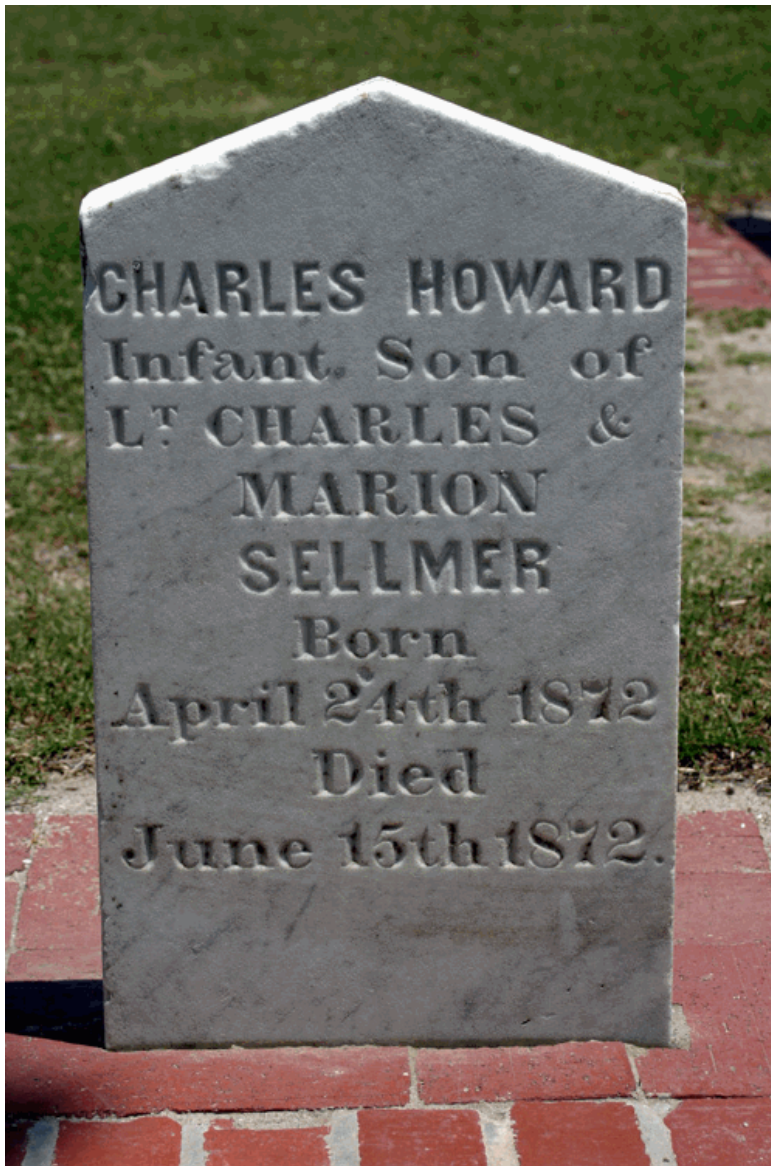


Figure 51. Charles Howard Sellmer Grave Marker, 2004. NPS photo.



Figure 52. Robert Rowan Grave Marker, 2004. NPS Photo



Figure 53. Cockspur Island Lighthouse, 2007. NPS photo



Figure 54. Fort Pulaski, 2003. NPS Photo



Figure 55. Fort Pulaski, 2003. NPS Photo



Figure 56. John Wesley Memorial, 2004. NPS photo



Figure 57. South Channel Bridge, 2007. NPS photo



Figure 58. Visitor Center, 2005. NPS photo



Figure 59. North pier overlook, 2006. NPS photo



Figure 60. Tybee Knoll Oil Storage, 2007. NPS photo

Circulation

The Building of Fort Pulaski, 1829-1856

In 1831, a temporary canal was dug to connect the new South Channel Pier and the fort. Building materials were transported to the fort site by lighter. The canal appears on the 1843 Mansfield map. In 1851, Lieutenant Gilmer filled in the temporary canal used to transport building materials during the fort's construction. The roadway from the North Channel Pier to the fort is shown on the 1843 Mansfield map.

In 1837, a narrow gauge railway was constructed from the South Channel to the fort. Mules were used to haul brick down the tract.

During the digging of the main feeder canal in 1843, excavated earth was placed west of the feeder canal to form a roadway. Mansfield planned on building a new wharf at the southern terminus of the roadway, explaining to Washington that the old South Pier, located 600 feet east of the new roadway, was rotten and should be abandoned. During the late summer of 1845, Lieutenant Alexander cut away part of the 1843 roadway to provide sufficient fill to grade the parade ground.

In 1843, Colonel Totten, Chief of Engineers, directed Mansfield to pave the walk along the

gorge with “the very best and hardest bricks laid flatwise,” while the postern was to be paved with “the hardest brick on edge or with granite flagging.”

Civil War, 1860-1865

Civil War-era photographs show at least two major roadways: one from the North Channel Pier to the fort, and the other from the South Channel Pier to the fort. Remnants of the 1843 road just west of the main feeder canal can also be seen. Numerous smaller routes connected the buildings of the Construction Village.

Fort Pulaski Military Reservation, 1881-1923

As the island was largely uninhabited during the 1880s, little is known about the circulation system at this time. A 1915 inspection reported that “the wharf is a total wreck” and that in order to reach the fort, “it was necessary to land at the quarantine station and cross very swampy ground.” In 1918, funding was sought to open up a trail from the fort to the quarantine station.

Fort Pulaski National Monument, War Department Administration, 1924-1932

Access to the island was by boat, generally from Lazaretto Creek across the South Channel of the Savannah River or to the quarantine station on the North Channel of the Savannah River. It appears that only a trail from the fort to the quarantine station existed before the 1930s.

National Park Service Administration, Park Development Era, 1933-1942

In January 1934, when the restoration project was begun by the NPS, the remains of the 1843 roadway, with an average elevation of 8 feet, were found paralleling the main feeder canal on the western side, approximately 18 feet from its center line and forming a 97 degree angle with the demilune. Mud excavated from the moat was used to rebuild the roadway, which led to the new South Pier, where all repair materials were unloaded. In 1937, “fine grading” of this shell roadway occurred. By 1938, a loop road shows up on park maps at the end of the roadway, which was used as a service road out to the CCC wharf and dock. The section of the service road between the main parking area and the demilune drawbridge was converted to stabilized turf when oyster shells became difficult to purchase.

The old trail to the quarantine station was used as a temporary truck trail beginning in 1934. This trail allowed access to a large oyster shell bed. Road maintenance required significant time and effort of the CCC enrollees since mud excavated from the ditches was being constantly hauled over them. Sand and shell from the borrow pit located near the quarantine station were spread over them on a regular basis. Charles E. Peterson, Deputy Chief Architect, Eastern Division, Branch of Plans and Design, supported the restoration of the old North Channel Pier and the roadway leading from it to the demilune, which appears on Alexander’s 1843 map and can be seen in historic photographs from 1863.

The final survey of the new road to the quarantine station and staking out of the final location of the entrance road and parking area occurred in January 1935. Actual construction of the South

Channel Bridge and entrance road began in 1937, and the project was completed in 1938. Cutback asphalt, sand, cinders, and ground oyster shells were used to surface the new road, which was 20 feet wide and 4 to 5 inches thick, with an elevation of 12. This road stopped at the quarantine station. Park maps show the road extended to the western park boundary by 1946.

The main parking area was completed in 1940. It appears from NPS drawings and correspondence that the parking area was paved by 1942. Coordinating Superintendent V. R. Vinten stated in 1942:

Our first reaction to the existing paved parking area was that it was located too far from the Fort, and that a smaller parking area should be located near the draw bridge entrance. However, further study of the problem ... indicates that a much more pleasant and practical solution is available by restricting all parking to the existing paved parking area.

Cars parked directly south of the demilune drawbridge before the construction of the formal parking area. Although it was supposed to be temporary until the main parking area was completed, its use continued until the roadway up to it was taken out in the 1970s.

A curvilinear shell walkway with a large oval was constructed from the demilune drawbridge to the sally port bridge in 1936. A brick curb was placed along its edge in 1937. The walkway was documented in CCC photographs and park planning maps.

In 1939, the CCC constructed the following shell walks:

- A five-foot-wide walk from the new parking area to the old quarantine station along the route of an old wagon road. It was to pass near several of the Construction Village cisterns, through the wooded area northwest of the fort.
- An eight-foot-wide walk along the roadway from the South Pier overlook to the fort, continuing through the parking area to the old North Pier.
- Three-foot-wide walks on top of the dike system to access tide gates for inspection and to reach the outside marsh areas.

The walks were surfaced with a mixture of cutback asphalt, washed sand, and oyster shells, and then a thin layer of crushed oyster shells was rolled into the mixture with a hand-operated roller.

In order to accomplish the dike and ditch restoration and other projects, five miles of temporary oyster shell truck trails were built, most of which were later obliterated.

Another CCC project was the restoration of the walk encircling the major part of the parade ground. Brick was taken up, the area was leveled and filled with oyster shell, and then the walk was re-laid. In 1938, the brick walk at the northeast powder magazine had to be redesigned with a wire-reinforced concrete layer put down to prevent the brick from sinking down and

causing a safety hazard.

Quarantine Station

It seems that the quarantine station was generally accessed by boat, even during the early stages of the CCC work on the island in June 1934. By the end of 1934, a trail from the fort to the quarantine station was developed into a temporary service road until a new road was constructed as part of the South Channel Bridge and entrance road project in 1938.

Concrete walkways connected the quarantine station buildings. As buildings in this area were removed in the 1950s, walkways were obliterated.

National Park Service Administration, Post-World War II, 1945-1955

Ralston Lattimore described the historic nature of the trail system at Fort Pulaski and his efforts to restore it after the war:

William W. Luckett, who served as monument superintendent immediately after the war, did not know personally of the trail system, and apparently had no reliable plan showing them. He rehabilitated the main walk from the parking area to the North Dock (Hambright Trail), but did not restore the remaining section of this walk, which originally extended through the parking area to fort entrance at the outer drawbridge. He restored no other trails. Soon after my arrival in November 1948, the Georgia Society Colonial Dames proposed a memorial to John Wesley, a circumstance which caused me to investigate the condition of the trail system, which I knew to exist. When a site for the John Wesley memorial was determined, I immediately restored a section of the trail system which gave access to the memorial site and constructed two short spurs to provide ingress and egress. Subsequently, as I could spare the labor I restored additional sections of the trail system. The Government has a large investment in these walks, which I assumed to be my duty to protect. ...

For your information, the Fort Pulaski trail system antedates master planning. It was originally designed in 1934 by Ralph S. Ellifrit, a promising and talented young landscape architect, who unfortunately was only with the National Park Service for one year. Mr. Ellifrit went from us to Hare & Hare in Kansas City and was recommended by that firm for a position with the City of Houston, Texas. Mr. Ellifrit is now City Planner for that great metropolis.

Mr. Ellifrit's plan received approval, but it was agreed that it be constructed only as the need for it developed. Mr. James Swanson made a few minor changes to the layout of the system. By 1937 all trails that now exist had been laid out with a base course of oyster shell. Shell was found unsuitable for a surface course and many experiments were tried in an attempt to find a satisfactory surface treatment. Finally a mixture of shell, sand, and asphalt was adopted. In the second sentence above I should have said all trails except the Quarantine Trail. ... [In 1940] the Quarantine Trail was constructed and the surfacing of all completed except about 400 feet of the loop trail east of Battery Hambright. Trails on the dikes, approved in this job were not constructed, nor was the main trail from the Fort entrance to the South Channel

ever surfaced.

National Park Service Administration, Mission 66, 1956-1966

The entrance road was realigned in 1962 to bring visitors from the parking area directly to the visitor center. Mission 66 philosophy placed an emphasis on interpretation and visitor orientation, and it was felt that visitors should be directed to the visitor center before going to the fort. The new road alignment allowed visitors to be dropped off in front of the visitor center before entering the parking area. From the visitor center, concrete walkways provided an all weather surface to the fort. Existing asphalt walkways connecting the fort with the parking area and cemetery were retained.

Existing roads and trails were resurfaced in 1963. The stabilized turf portion of the service road from the parking area, which was used both as a pedestrian path to the fort and a road down to the main tide gate, was realigned and replaced with two asphalt strips up to the fort, where it merged with the existing shell road down to the main tide gate. The construction of the visitor center created a conflict of pedestrian and vehicular circulation that persisted until the 1970s when the service road was finally obliterated. At some point after 1958, the oval walk in the demilune was replaced with the present walk.

National Park Service Administration, Post Mission 66, 1967-Present

To achieve a more historic appearance, the Park covered asphalt walks and roads with a pebble aggregate mixture in 1972. In 1975, the walkway at the visitor center was realigned to direct people into the main entrance. In 1977, in conjunction with the construction of the handicapped ramp at the visitor center west entrance, the asphalt section of the service road to the South Channel was obliterated. This change eliminated the conflict in vehicular and pedestrian circulation that had existed since the construction of the visitor center. The asphalt section intersected with the visitor center walkways and was also used by pedestrians leaving the fort and going back to the parking area. A section of walkway was added at this time to connect the walkway to the parking area with the walkway leading from the west entrance of the visitor center to the fort.

In 1984, park roads and trails were resurfaced. In 1993, the asphalt walkway leading to the cemetery was resurfaced in concrete with a broom finish to match the existing walk to the main visitor center entry. The Nature Trail was resurfaced with a chip seal treatment. A section of the trail north of the cemetery was removed and the area scarified and reseeded in grass. A trail around the Wesley Memorial was realigned. In 2000, the historic trail from the parking area out to the Old North Pier was overlaid with concrete, with an exposed aggregate surface.

In 1994, a nonhistoric dry laid brick sidewalk was constructed on the terreplein in an effort to provide a safe and durable walking surface for visitors. Efforts to grow grass in this area were unsuccessful due to high traffic volume. Also in 1994, the construction of wood guardrails along the shoulder of the entrance road occurred.

Current Conditions

Currently, 2.94 miles of roads and 1.38 miles of trails are maintained by Park staff. Visitors access Cockspur Island from U. S. Highway 80 via a 1938 trestle bridge built over the South Channel of the Savannah River. Once on the island, a paved entrance road curves eastward terminating at a parking lot adjacent to the fort and visitor center.

A spur off the main park entrance road provides access to the western end of the island, passing by the picnic area, maintenance area, and Park Headquarters. The Bar Pilots Headquarters and U. S. Coast Guard Station are also accessed from this service road. Immediately west of the Coast Guard Station, the road is blocked by a cyclone fence and gate that restrict access to the WWII bunkers at the far end of the island. The road is not maintained beyond the bunkers to the park property line. Shortly after the road passes off park property, it loses its integrity and ends.

A variety of pedestrian-oriented routes are provided on Cockspur Island. From the visitor center and parking lot, an exposed aggregate walkway leads east to the entry of the demilune and fort. The walkway is restricted by a drawbridge over a wet moat. The southeast flank of the demilune must be crossed to enter the fort, where another drawbridge restricts access to the sally port. In 2007, the Park changed the layout of the walkway from the parking lot to funnel visitors more directly to the visitor center. A portion of the walk was taken up and the surface changed to oyster shell as a reflection of the Civil War-era roadway to the South Channel. In 2012, a concrete walkway was added, connecting the existing concrete walkway around to the visitor center to the exposed aggregate walkway to the fort. Opposite the benches, a concrete pedestal was installed, which now holds the cupola of the Cockspur Island Lighthouse.

The walkways around the visitor center and heading east to the glacis and grave markers are concrete, with brick detailing near the entry to the visitor center. Along the outer perimeter of the glacis, the turf is manicured, making it easy to walk around the fort. From the northeast section of the glacis walk, a short connecting path leads to the perimeter dike. The entire span of the two-mile dike is maintained for pedestrians and park maintenance vehicles.

A .7-mile nature trail, beginning at the northern section of the parking lot, loops out to the North Pier Overlook, passing by the John Wesley Memorial and Battery Hambright. In 1995, the trail was resurfaced with chip seal for full accessibility. In 2000, that portion of the trail from the parking lot to Battery Hambright and the North Pier Overlook was resurfaced with exposed aggregate. That portion of the trail leading west over historical ditches and contemporary mosquito ditches and ending at the picnic area is gravel.

In 1992, the construction of the Savannah/Tybee Railroad Historic Scenic Multi-Use Trail occurred. This bicycle path and hiking trail follows the old railroad bed R.O.W. parallel to U. S.

Highway 80. The trail crosses in front of the South Channel Bridge, but no separate entry exists for non-vehicular traffic.

In 2006, a .75-mile trail was constructed along open marsh and through forested areas offering views of the Savannah River, Tybee Island, and back towards Fort Pulaski. The trail also offers the island's best view of the Cockspur Island Lighthouse.

Character-defining Features:

Feature: Main Feeder Canal Roadway
Feature Identification Number: 155109
Type of Feature Contribution: Contributing

Feature: South Channel Entrance Road
Feature Identification Number: 150483
Type of Feature Contribution: Contributing

Feature: Visitor Center Parking
Feature Identification Number: 150485
Type of Feature Contribution: Contributing

Feature: Nature Trail
Feature Identification Number: 150499
Type of Feature Contribution: Contributing

Feature: Spur Road (Service Road)
Feature Identification Number: 150487
Type of Feature Contribution: Contributing

Feature: North Pier Loop Trail
Feature Identification Number: 155113
Type of Feature Contribution: Contributing

Feature: Oyster Shell Walkway to Visitor Center
Feature Identification Number: 150493
Type of Feature Contribution: Non Contributing

Feature: Concrete with Brick Detailing Walkway to Grave Markers
Feature Identification Number: 150495

Type of Feature Contribution: Non Contributing

Feature: Lighthouse Trail

Feature Identification Number: 150501

Type of Feature Contribution: Non Contributing

Feature: Aggregate Walkway to Fort

Feature Identification Number: 150491

Type of Feature Contribution: Non Contributing

Feature: Savannah-Tybee Railroad Historic Scenic Multi-Use Trail

Feature Identification Number: 150489

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Figure 61. Nature Trail, 2005. NPS photo



Figure 62. Exposed Aggregate Walkway, 2005. NPS photo (walktofortdemilune)



Figure 63. New walkway configuration to parking lot, 2007. NPS photo



Figure 64. Oval walk, 1958. Fort Pulaski National Monument archives



Figure 65. Shell walk, 1940. Fort Pulaski National Monument archives



Figure 66. Entrance road and contact station, 1941. Fort Pulaski National Monument archives

Constructed Water Features

Originally a salt marsh interspersed with hammocks; Cockspur Island has been greatly changed by human intervention. Through the deposition of sand and dredged material, the island has developed into its current land form. This growth was assisted by the construction of ditches and dikes which drained the ground, and allowed for the quick recovery of the area after a storm surge. As the location of a military fortification, the island's access to water was also used as a defense in the form of a moat.

Dikes and Ditches

A two-mile system of dikes encircled the driest portions of the island. Ditches were cut from the south shore inland toward the center of the island. Tide gates in the ditches controlled the tide flow to the center of the island and eventually to the moat surrounding the fort. The dike and ditch combination provided protection for the interior of the island from storm surges that frequently washed over the island (CLI, 13; Groh, 119).

Feeder Canal

The main ditch, stretching 2,500 feet from the moat to the South Channel of the Savannah River, is located on Mansfield's 1843 map. The feeder canal had to be repaired following hurricanes of 1854 and 1881 and was restored during the 1930s CCC project. The flow of water is controlled by a series of locks and gates.

North Tide Gate

Located just south of the moat and east of the entrance drawbridge, this style of gate is called a

“slide” gate. Water is controlled by turning a large wheel located on top of the culvert, which raises and lowers the gate. Plans for the culvert arrived in December 1844 and its construction, with the exception of its coping, occurred in 1845. The north tide gate was reconstructed by the CCC in the 1930s.

South Tide Gate

The original south tide gate was constructed near the south end of the main feeder canal in 1842 and its culvert was constructed from 1857-58. By the 1930s, the culvert had collapsed. The construction of a new tide gate and culvert further south on the feeder canal occurred during the CCC restoration project using a “combination” style gate that automatically slides and acts primarily as a check valve (Young, 202; Groh, 126).

Moat

Constructed between 1845-47 at a width of 48 feet around the fort and 32 feet around the demilune, the moat was an integral part of the defenses of Fort Pulaski. It’s interior and exterior walls were revetted with masonry, and its average depth was 7 feet. The water was brought in from the South Channel of the Savannah River by the main feeder canal and the flow of water was controlled by a series of tide gates. The moat had to be re-excavated during the CCC restoration project, with an average of 400 yards of soil was being removed from the moat daily. Laborers recovered intact wooden planks from the bottom of the moat, suspected of being placed there during construction to stabilize the deep, loose mud (Groh, 124-25).

Canal Lock

Water from the canal enters this arched brick tunnel, containing a tide gate, just before it enters the moat. The tunnel is flanked by brick retaining walls; dimensions are 51' x 77'; a metal valve handle that controls the gate lies just north.

Character-defining Features:

Feature: Canal Lock

Feature Identification Number: 150503

Type of Feature Contribution: Contributing

IDLCS Number: 90086

Feature: Main Feeder Canal

Feature Identification Number: 150505

Type of Feature Contribution: Contributing

IDLCS Number: 90087

Feature: Historic Dike System

Feature Identification Number: 150507

Type of Feature Contribution: Contributing

Fort Pulaski National Monument Landscape
Fort Pulaski National Monument

IDLCS Number: 90085

Feature: Moat

Feature Identification Number: 150509

Type of Feature Contribution: Contributing

IDLCS Number: 90083

Feature: North Tidal Gate

Feature Identification Number: 150511

Type of Feature Contribution: Contributing

Feature: South Tidal Gate

Feature Identification Number: 150513

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:



Figure 67. Fort, demilune, and moat, 1992. NPS photo



Figure 68. North Tide Gate, 2007. NPS Photo.



Figure 69. South Tide Gate, 2007. NPS Photo



Figure 70. Main Feeder Canal, 2007. NPS Photo



Figure 71. Canal Lock. NPS photo

Small Scale Features

A number of signs, site furnishings and barriers are placed throughout the grounds of the Fort Pulaski National Monument. The majority of these cater to the needs of the visitor, while others are for general park maintenance. Decorative trash bins, way-finding signs, picnic tables and grills all contribute to the visitor experience.

The fort flagpole was reconstructed in 1935. Also at this time, water fountains were installed in restrooms within the fort. In 1970, the flagpole erected in 1935 was dismantled after a severe electrical storm damaged it beyond repair. It was replaced in 1974 with another replica flagpole (Annual Narrative 1974).

According to park planning maps, a picket fence enclosed the Administration and Residence area on three sides in 1939, prior to the removal of five buildings by the CCC. In 1948, a barb-wire fence was constructed across the trail leading from the parking area to the demilune drawbridge. This fence replaced the “old pipe fence,” which had broken allowing cars to drive through to the old South Channel Pier. In 1994, archeology uncovered the fence post footers associated with a fence that once surrounded the cemetery, erected in 1918.

The installation of cast aluminum signs to identify parts of the fort and other features of the landscape occurred in 1954. In the 1950s, new entrance signs and markers were placed along

the approach to the Park on U. S. Highway 80. In 1966 and 1975, new informational and directional signs and markers were erected within the Park.

The construction of an entrance feature on McQueens Island adjacent to U. S. Highway 80 occurred in 1964. In 1968, an entrance gate that could be locked at night was added when the fee collection booth was constructed (Superintendent, Fort Pulaski to Regional Director, May 8, 1968).

In the 1980s, the Park enclosed spigots outside the Quarantine Attendant's Quarters in brick. In 1990, maintenance staff constructed decorative trash container holders to standardize exterior trash cans throughout the Park (Annual Narrative Report, 1990).

Five benches are located in a small brick seating area at the visitor center and another bench is located near the walkway from the visitor center to the fort. Two of the benches in the seating area were moved when the brick restroom building was added in 1997. Two benches and an interpretive wayside at the North Pier Overlook provide visitors with a place to view the North Channel of the Savannah River and the remains of the old pier.

Metal gates with brick piers are locked after the Park closes.

Character-defining Features:

Feature: Brick Trash Enclosures

Feature Identification Number: 150523

Type of Feature Contribution: Contributing

Feature: Picnic Tables

Feature Identification Number: 150515

Type of Feature Contribution: Non Contributing

Feature: Grills

Feature Identification Number: 150517

Type of Feature Contribution: Non Contributing

Feature: Benches

Feature Identification Number: 150519

Type of Feature Contribution: Non Contributing

Feature: Metal Gates

Feature Identification Number: 150521

Type of Feature Contribution: Non Contributing

Feature: Decorative Wooden Dumpster Enclosures

Feature Identification Number: 150527

Type of Feature Contribution: Non Contributing

Feature: Flagpole

Feature Identification Number: 150525

Type of Feature Contribution: Non Contributing

Views and Vistas

Dividing the mouth of the Savannah River into the North and South Channels, Cockspur Island commands an impressive position on the coast. As one approaches the island from the west, on U.S. Highway 80, the island shoreline and, at times, the South Channel Bridge are visible. From the east, one is afforded a more dramatic view of the island, the fort and the bridge from the vantage point of the Highway 80 Bridge as it crosses Lazaretto Creek.

To the east of Cockspur Island, over the protective stands of salt marsh, lies the Atlantic Ocean. A line of vegetation on a spoil bank from mosquito ditch dredging by the eastern dike truncates the ocean view. The Cockspur Island Lighthouse is barely visible over an ever growing hedge of cedar; within a few years the view may be completely blocked. On the northeast horizon, one sees the silhouette of Hilton Head Island. Closer in, across the North Channel, is a view of Oyster Bed Island, with a lash, for anchoring ships, constructed off of its southern shore. The half mile wide North Channel is the primary shipping route, now, and the visitor is often afforded very close views of ocean going vessels arriving or leaving the Port Of Savannah. The western end of the property connects, from decades of spoil deposition, with Long Island. The views to the south are dominated by the South Channel. Where high vegetation does not interrupt, one has a vista of the salt marshes on McQueens Island, with the South Channel Bridge in the foreground. In some areas, U.S. Highway 80 is also visible on McQueens, but the low elevation of the road keeps the view relatively undisturbed. Where the highway crosses Lazaretto Creek, the bridge is quite visible; however, it does not interfere with the overall scene.

Condition

Condition Assessment and Impacts

Condition Assessment: Fair
Assessment Date: 08/01/2011

Impacts

Type of Impact: Impending Development
External or Internal: External
Impact Description: Private ownership proposing development

Type of Impact: Release To Succession
External or Internal: Internal
Impact Description: Release to succession particularly along spoil deposits between Fort Pulaski and Cockspur Lighthouse.

Treatment

Treatment

Approved Treatment: Preservation
Approved Treatment Document: Cultural Landscape Report
Document Date: 08/01/2011

Approved Treatment Document Explanatory Narrative:

Susan Hitchcock (SERO) prepared a Cultural Landscape Report for the park in 2010-2011. The treatment chapter states that the "overarching treatment associated with the historic landscape is preservation of all identified resources. Restoration has been applied to a select number of features, primarily the restoration of the open character of the landscape to more accurately reflect the conditions at the time of the April 1862 battle and to provide the visitor with a greater understanding of the Siege and Reduction of Fort Pulaski."

No treatment costs were estimated with this CLR.

Approved Treatment Completed: No

Approved Treatment Costs

Cost Date: 08/01/2011

Bibliography and Supplemental Information

Bibliography

Citation Title:	Connecticut Yankee on Georgia Coast
Source Name:	CRBIB
Citation Number:	002533
Citation Type:	Narrative
Citation Location:	SESO OCR Library
Citation Title:	Master Plan, Fort Pulaski National Monument
Source Name:	CRBIB
Citation Number:	010960
Citation Title:	Civil War Battlefields and Landmarks.
Source Name:	Other
Citation Number:	N/A
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO
Citation Title:	Fort Pulaski National Monument
Source Name:	Other
Citation Number:	FOPU HIST 1954
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO OCR Library
Citation Title:	Historic Resource Study: Fort Pulaski National Monument - Draft
Source Name:	Other
Citation Number:	N/A
Citation Type:	Narrative
Citation Location:	SESO CLI Files

Citation Title:	Historic Structure Assessment Report: The Cockspur Island Light House Building Number HS-4, Fort Pulaski National Monument.
Source Name:	Other
Citation Number:	FOPU HSR 1984
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO OCR Library
Citation Title:	Land Protection Plan, Fort Pulaski National Monument - Update
Source Name:	Other
Citation Number:	N/A
Citation Type:	Narrative
Citation Location:	SESO CLI files.
Citation Title:	National Register Nomination - Fort Pulaski National Monument
Source Name:	Other
Citation Number:	N/A
Citation Type:	Narrative
Citation Location:	SESO CLI Files
Citation Title:	Razing Undesired Structures: NPS FOPU Job # 98-CCC-7-713.
Source Name:	Other
Citation Number:	N/A
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO CLI Files
Citation Title:	Report on the Landing of John Wesley in America.
Source Name:	Other
Citation Number:	FOPU HIST 1949
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO OCR Library

Citation Title:	Robert E. Lee and Fort Pulaski
Source Name:	Other
Citation Number:	FOPU HIST 1970
Citation Type:	Narrative
Citation Location:	SESO OCR Library
Citation Title:	Statement for Management/Basic Operations Statement
Source Name:	Other
Citation Number:	N/A
Citation Type:	Narrative
Citation Location:	SESO CLI Files
Citation Title:	Test Excavations at Civil War Period Battery Halleck, Fort Pulaski National Monument, Chatham County, Georgia.
Source Name:	Other
Citation Number:	FOPU ARC 1995
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO OCR Library
Citation Title:	The Siege and Capture of Fort Pulaski, Cockspur Island.
Source Name:	Other
Citation Number:	FOPU HIST 1951
Citation Type:	Both Graphic And Narrative
Citation Location:	SESO OCR Library

Supplemental Information

Title:	A Collection of Fort Pulaski Portraits
Description:	Assembled by Rusty Fleetwood; no date; FOPU HIST 19??. (many of these photographs are from the office of Matthew Brady)
Title:	CCC Camp - Company 464 near Fort Pulaski, Cockspur Island, Georgia
Description:	From FOPU Archives, 1936 (Drawn by J. E. Kilpatrick)
Title:	Entrance of the Savannah River
Description:	Reproduction of 1778 drawing in Savannah Morning News by William Lyford, FOPU Archives.
Title:	Entrance to Fort Pulaski from Demilune
Description:	Photograph from the office of Matthew Brady, 1863, FOPU Archives.
Title:	Existing and Proposed Boundaries Roads and Trails, Part of the Master Plan for Fort Pulaski National Monument.
Description:	NPS TIC Map NM-PUL-348-2064, 1939
Title:	Fort Pulaski
Description:	Aerial Photograph, 1982, from FOPU Archives
Title:	Fort Pulaski: Official Map and Guide
Description:	GPO# 1992-312-248/40184
Title:	Historic Base Map, Cockspur Island April 10, 1862, Part of the Master Plan for Fort Pulaski National Monument
Description:	NPS TIC Map NM-PUL-348-2089, 1941 (Drawn by R.C.P.)
Title:	Hospital, Fort Pulaski, Cockspur Island, Georgia
Description:	Photograph from the office of Matthew Brady, 1863, FOPU Archives.
Title:	Index Map of Savannah river, Georgia (showing works constructed from 1804 to 1896)
Description:	From FOPU Archives
Title:	Northwest Corner, Fort Pulaski, looking towards Savannah
Description:	Photograph from the office of Matthew Brady, 1863, FOPU Archives.
Title:	Razing Undesired Structures, Quarantine Station Cockspur Island, Georgia

- Description:** NPS TIC Map NM-PUL-348-8065, 1938 (Drawn by S. P. Kehoe, Jr.)
- Title:** Rear of the "Pelican House," Cockspur Island, Ga., showing effect of shells
- Description:** Photograph from the office of Matthew Brady, 1863, FOPU Archives.
- Title:** Restoration of U.S.N. Area, U.S. Navy Section Base - Cockspur Island, Fort Pulaski National Monument
- Description:** NPS TIC Map NM-PUL-348-2007A, 1946 (from FOPU Archives)
- Title:** Southwest Corner, Fort Pulaski
- Description:** Photograph from the office of Matthew Brady, 1863, FOPU Archives.
- Title:** The Environs
- Description:** NPS TIC map 348-20003, 1968
- Title:** The Evolution of the Landscape of Cockspur Island
- Description:** A series of seven plan sketches by Simon Crowfoot, showing the landscape changes @ Cockspur Island from 1735 to 1944.
- Title:** The Vicinity
- Description:** NPS TIC Map 348-20004, 1968
- Title:** Untitled Photograph of Magazine on Demilune
- Description:** c. 1880s, FOPU Archives
- Title:** USGS 7.5 Minute Series Topographic Map - Fort Pulaski, GA-S.C., 1970
- Title:** View of Cockspur Fort at the Entrance of Savannah River in Georgia
- Description:** Reproduction of 1764 drawing, FOPU Archives