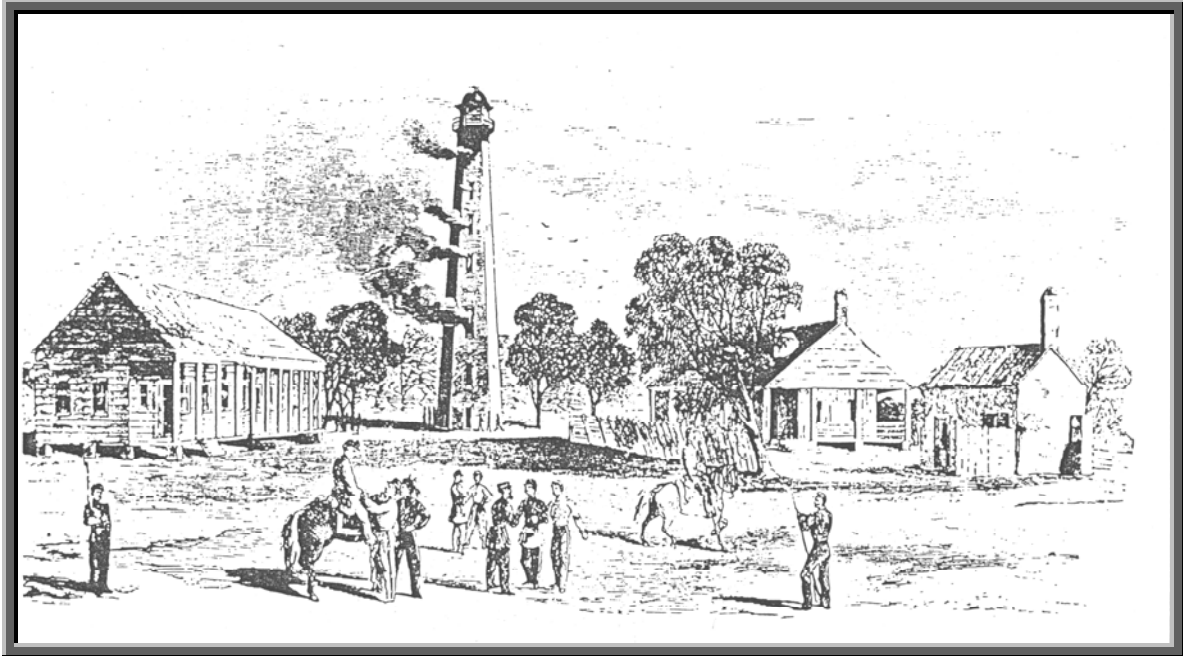


**Archaeological Research at the
Assistant Keeper's House, Tybee Lighthouse,
Chatham County, Georgia**



***LAMAR Institute Publication Series,
Report Number 75***

The LAMAR Institute, Inc.

**Archaeological Research at the Assistant Keeper's
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Georgia**

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*The LAMAR Institute, Inc.
Box Springs, Georgia
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I. Introduction

This report is an edited version of an earlier technical report that detailed the findings of an archaeological study conducted by Rocquemore Research, of Box Springs, Georgia, at the Tybee Lighthouse Museum for the Tybee Island Historical Society. As part of the ongoing restoration and preservation effort at the Tybee Lighthouse complex on the northern end of Tybee Island, Chatham County, Georgia, reconstruction of the Assistant Keeper's residence will involve ground disturbance beneath the existing wood frame structure. Visible brickwork evidence of an earlier building at this location may indicate that the standing building was constructed on portions of the foundations of the earlier building. This earlier building is suspected to be the pre-1880s Keeper's house, although the full range of its antiquity has not been established. Portions of the nearby lighthouse are known to date to the early 1770s and a nearby "Summer Kitchen" has been dated to circa 1812. Consequently, the area beneath the Assistant Keeper's residence was considered likely to contain archaeological deposits from the late 18th through late 19th centuries. Test excavations at two locations beneath the Assistant Keeper's dwelling, as well as other surface and near-surface explorations beneath this building, are described in this report. A view of the Assistant Keeper's house and an aerial view of the study area are shown in [Figures 1 and 2](#). [Figure 3](#) is a copy of John LeConte's 1837 nautical chart that shows the project location.



Figure 1. Northeast View of Assistant Keeper's Residence and Summer Kitchen, Tybee Island.



Figure 2. Aerial Photograph of the Tybee Lighthouse Complex (USGS 1993).

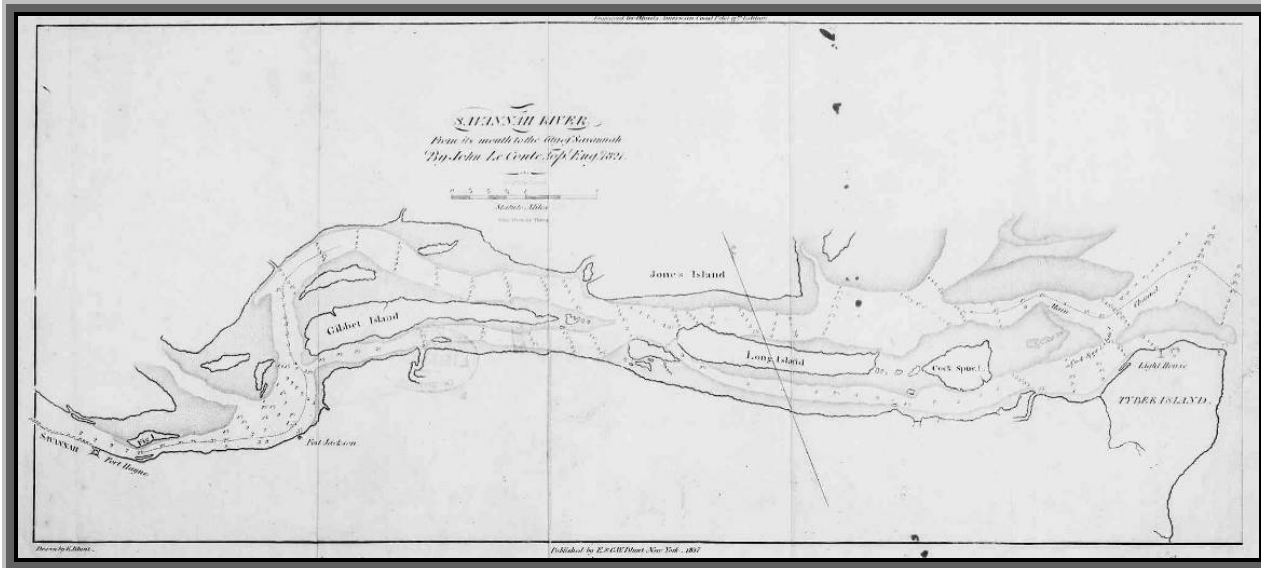


Figure 3. Project Location (LeConte 1837).

II. Background

Project Setting and History

The project area is located on the northwestern end of Tybee Island, which is a barrier island at the mouth of the Savannah River. This vicinity was selected by James Edward Oglethorpe, leader of the Trustee colony, for a lighthouse in the early 1730s and it has served that function to the present day. Storms and erosion forced the abandonment of two previous lighthouse site locations. The lighthouse has been located in its current position since at least 1773 (Cullen Chambers personal communication, April 14, 2003).

The first lighthouse was commissioned as a navigational marker in 1733 and by 1736 a ninety-foot wooden tower was completed. The construction of the tower was supervised by Noble Jones, Georgia's surveyor. Ten families were sent to Tybee Island by James Oglethorpe to settle the area at the time of the first lighthouse construction. The first lighthouse was actually not equipped with a light but was used only as a day mark for guiding ships entering Tybee Roads. The location of the original lighthouse is not known. This lighthouse, which was the largest British lighthouse on the eastern seaboard at that time, was destroyed by a gale in 1741.

Within 10 months after the lighthouse was destroyed, a second lighthouse, also constructed of wood and approximately 90 to 94 feet tall, was built. [Figure 4](#) shows a contemporary illustration of the circa 1742 lighthouse and its environs. The tower is shown capped with a flag pole and flag. Like the first tower, the second lighthouse also lacked a light and was only used for daytime navigation. The perspective of this drawing is probably from the east bank of the Tybee Road. A single one-story building, located to the right of the lighthouse, is shown on this drawing. Using the 90 foot lighthouse as a scale, the unidentified building, which may represent the keeper's house, is about 60 feet (roughly 20 meters) from the lighthouse. Henry Yonge's 1751 map, a portion of which is reproduced in [Figure 5](#), depicts the Tybee Light as a triangular symbol and it allows for an approximate location of the lighthouse on the island. The site occupies a low sand ridge, which was probably part of the original dune formation created by wind and the waters of the Atlantic Ocean.

The details on the demise of the second lighthouse at Tybee Island were not fully researched for this study. One secondary source noted that the second tower, "fell to wind and sea in 1768", and that a third tower [presumably wooden] was constructed in 1773 and was destroyed by fire in 1791. The NRHP nomination form states that the second lighthouse had received damage and was undermined by the sea by 1758 (NRHP 1982).

From 1760 to 1769 numerous recommendations are recorded in the Colonial Records for rebuilding the lighthouse in a more advantageous spot. In 1769 a contract was signed with John Mulryne for the construction of a lighthouse. This contract was later cancelled. Mulryne was a wealthy plantation owner, and a staunch loyalist in the American Revolution (NRHP 1982).

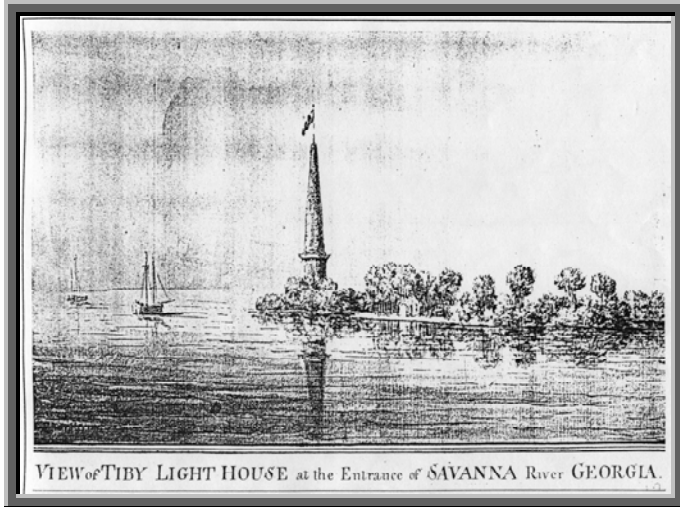


Figure 4. View of the Tybee Lighthouse and Vicinity, Circa 1742 (Marks 1979).



Figure 5. A Portion of Yonge's 1751 Map (American Memory, Library of Congress 2003).

The third (or fourth) Tybee Island Lighthouse, at the present location, was constructed as a 100-foot octagonal brick structure typical of colonial lighthouse design. Some modern sources place the construction date of the third lighthouse, which was built of brick, in 1773 (Cullen Chambers personal communication March 16, 2003). The NRHP nomination form stated that the base of the present lighthouse was built in 1791 (NRHP 1982:12). The lighthouse endured the ravages of the American Revolution, being occupied at various times by American, British, and French troops.

A redraft of a December 13, 1773 navigational chart of the Savannah River entrance at Tybee Island from the original drawn by William Lyford (“Branch Pilot for the Barr & River of Savannah in Georgia”) shows the lighthouse on the extreme northeastern tip of Tybee Island (Wright 1873). This chart also shows a building called “Lazzaretto” and an unnamed fort at the lower end of Cockspur Island, opposite from Lazzaretto. Lazzaretto was an early quarantine station. A portion of Lyford’s chart is reproduced in [Figure 6](#).

Tybee Island was the scene of some military action in the American Revolution. In March 1776 Royal Governor James Wright and his party fled Savannah and took refuge on board British vessels that were lying in Tybee Roads (the entrance to the Savannah River offshore from Tybee Island). Richardson (1886:14) noted that Governor Wright and other loyalists went ashore and, “utilized for their comfort and enjoyment the houses there situated”. The American patriots desired to end this pleasant scenario and dispatched an expedition on March 25, 1776, led by Archibald Bulloch and consisting of, “riflemen, light infantry, volunteers, and a few Creek Indians” (Richardson 1886:14). Bulloch’s expeditionary force descended upon Tybee Island and, “burned every house except one in which a sick woman and several children were found. Two marines from the [British] fleet and a Tory were killed, and one marine and several Tories were captured. Although the *Cherokee* man of war and an armed sloop kept up an incessant fire, the ‘Rebel’ party, --consisting of about one hundred men, --sustained no loss, and returned to Savannah in safety having fully executed the prescribed mission” (Richardson 1886:14).

Major General Robert Howe, commanding the Southern District of the Continental Army, recommended to Georgia Governor John Houstoun in January 1778 that a fort be constructed at Tybee and Cockspur islands to protect the Savannah River (Bennett and Lennon 1991:67, 90). No records were located, however, to indicate that a fort at Tybee was ever constructed by the Americans. The British sailed past Tybee Island unopposed (but by a single gunboat) on December 23, 1778 before anchoring most of Commodore Hyde Parker’s fleet near Cockspur Island. The American troops moved closer to Savannah by Major General Howe to defend that city. As described earlier in the report the British established a small post on Tybee Island sometime after December 23, 1778, but its precise location was not determined from the present archival research. That fort was burned by the British when they abandoned Tybee to join with the forces inside Savannah. The French held Tybee in September and October 1779 and may have established a camp or battery. The British returned to Tybee following the French departure and may have reestablished a post there. The British control of the city of Savannah and its river mouth held until July 11, 1782, when they evacuated the city of Savannah and returned control to the Americans. Their exit from Georgia to British East

Florida took some time to complete. Colonel Thomas Brown, commander of the King's Rangers and the Loyalist Creeks established camps on the barrier islands and continued to harass the Americans for several months. By the Fall of 1782, however, control of Tybee Island was probably returned to the Americans.

An unidentified British soldier recorded in his journal on September 3, 1779, "Saw from Tybee Light-house four large Ships in the Offing; sent Lieut. Lock in the Pilot Boat to reconnoiter them" (Hough 1975:57). These vessels were determined to be French war ships and on September 8, the unidentified British soldier reported sighting 41 ships and that, "an Officer and Reinforcement came to Tybee Fort, which had only one 24-pounder, and one 8 ½ inch Howitzer...", and on September 10 he reported that the French fleet had dislodged the British ships and, "The [British] Fort was abandoned and burnt" (Hough 1975:58-59).

American Thomas Pinckney noted that the British had posted a, "Company of Regulars" at Tybee Island and that Count D'Estaing was determined to attack them. Pinckney was part of the initial invasion force. D'Estaing, "...landed with the Officers of his Staff, the three Americans, and his Bodyguard, composed of a Subaltern's Command of about twenty Marines; we marched near half mile in the direction of the Fort, when D'Estaing, looking back and seeing only his slender Escort, asked the Adjutant General, where were the Troops to reduce the British Post?" An attack on the fort proved unnecessary, however, when the French and Americans learned from "a Couple of Negroes", that the Post had been withdrawn early that morning (Hough 1975:159-160). From September 10 until October 26 the French fleet controlled the Georgia coast at Tybee Island. Soon after October 26 the British returned to Tybee Island (Hough 1975:143).

Other navigational aids were constructed at Tybee Roads, including a beacon located east of the main lighthouse, possibly built in 1822, and the Cockspur Island Lighthouse. The Cockspur Island Lighthouse was completed in 1848, destroyed by a storm and rebuilt in 1857. Fort George was erected on Cockspur Island by the Royal government in the 1760s. Fort George was followed by Fort Greene, which was a United States military post built on Cockspur Island in 1804 and summarily destroyed by a major hurricane in 1808. Construction of Fort Pulaski by the United States Army began in 1829 and was completed in 1847. Fort Pulaski was destroyed by the Union Army in April 1862 (Totton 2000).

The State of Georgia approved the transfer of a five acre tract (465 ft²), surrounding the Tybee Island lighthouse, to the United States of America on December 15, 1791. The Journal of the U.S. Senate for February 10, 1792 reported the passage of an act of the Georgia legislature, "to empower their Senators in Congress, or one Senator and two of their Representatives in Congress, to execute a deed of the lighthouse on Tybee Island", in Georgia. The Senate Journal for March 2, 1793 noted that the deed of cession to the United States of the lighthouse on Tybee Island had been executed and was ordered to lie on file. The Senate Journal entry for March 8, 1798 included a resolution for establishing a beacon on Tybee Island (American Memory, Library of Congress 2003).

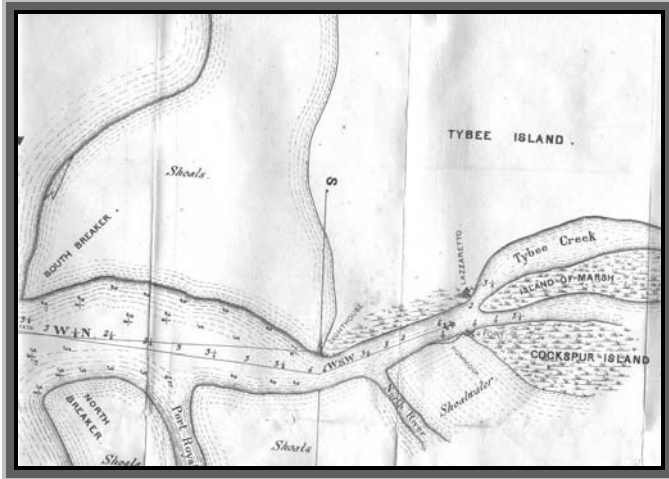


Figure 6. Portion of a Redraft of a 1773 Navigational Chart (William Lyford, in Wright 1873: Facing 176).

In the war of 1812, the U.S. Congress authorized funds for military defenses at Savannah and St. Marys (Point Peter). A Martello tower was constructed of tabby at Tybee Island during that period. The Martello tower was located east of the present study area.

The Tybee Island Lighthouse was an important nautical aid in the War of 1812, although its role in that war has not been fully explored. Although most of the military action in the War of 1812 transpired outside of Georgia, federal and state funds were spent to strengthen the defenses at Savannah and Point Peter (near St. Marys in Camden County). The Martello Tower, which was a cylindrical tabby fortification located east of the lighthouse, was built during the War of 1812 era (NRHP 1982). This unique defensive construction was bombarded and captured by the Union Navy in November 1861. [Figure 7](#) is an illustration of the Union capture of the Martello Tower in 1861.

By the early decades of the nineteenth century improvements to navigation at Tybee Roads were needed. The river and bar pilots in Savannah submitted a memorial to the U.S. House of Representatives, which was read on December 11, 1833 and included requests for additional navigation aids at the mouth of the Savannah River. This included: "... two beacon lights ... on Cockspur island;... a light-vessel ... stationed off "Martin's Industry," ... on the knuckle of Saint Michael's shoals; and that other and differently constructed lights may be placed in the light-house on Tybee island" (American Memory, Library of Congress 2003).

In 1838 the Tybee Lighthouse was described as an all brick structure, 95 feet in height. In 1841, the lighthouse was refitted with a new lens and in 1857 it was refitted with a Fresnel lens (NRHP 1982). The Journal of the U.S. House of Representatives for September 19, 1837, included a petition presented on behalf of James King, keeper of the lighthouse at Tybee Island, "praying for an increase in his compensation" (American Memory, Library of Congress 2003). An 1851 coastal chart of the Tybee Island vicinity depicts the lighthouse, the Martello Tower, and the Beacon ([Figure 8](#)). No other support buildings are shown.

At the beginning of the American Civil War, Tybee Island Lighthouse was controlled by the United States. On January 2, 1861 Charles Olmstead formed the 1st Georgia Regiment in Savannah. The next day three companies (134 men) boarded a steamer in Savannah for Fort Pulaski. The Confederates entered the fort without a fight, there being only two Union soldiers in the fort (Lawrence 1997:11-12). Two nautical charts, both dated 1861, show details of the Tybee Lighthouse complex. A portions of one of these charts is shown in [Figure 9](#).



Figure 7. Martello Tower Captured by the Union Navy, November 1861 (Savannah Images Project 2003).

Colonel Olmstead's 1st Georgia Regiment of the Confederacy established a battery on Northern Tybee Island and maintained a string of pickets along Tybee beach. That battery may have been garrisoned by the Montgomery Guards and possibly others. Cartographic evidences indicates that the Confederate battery was located west of the Tybee Lighthouse complex.

By April 13, 1861 the Confederate garrison at Fort Pulaski numbered 650 men. In early 1861 elements of Colonel Olmstead's 1st Georgia Regiment built a battery on Tybee Island and established a garrison there. Colonel Mercer described the post at Tybee in the

summer of 1861 as pleasant with a, “constant breeze from the sea...broad beach for drill...[and the]...surf bathing was delightful”. Pickets were posted at intervals along the beach (Lawrence 1997:19-20).

General Robert E. Lee was appointed to command the Department of the Coast of South Carolina, Georgia and Florida on Nov. 5, 1861. Although General Lee would later exhibit great military leadership qualities in the Mid-Atlantic theater, his command while in the Savannah vicinity was less than stellar. General Boggs noted: “There were no active operations undertaken by him; whether for the want of troops and material I do not know. All that was done, was to build batteries at Causton's Bluff and on Elba Island in the Savannah river” (Boggs 2003:24-25). The Confederate force at Tybee Lighthouse and the Martello Tower, prior to the Union naval attack in late November 1861 was not determined from the present research.

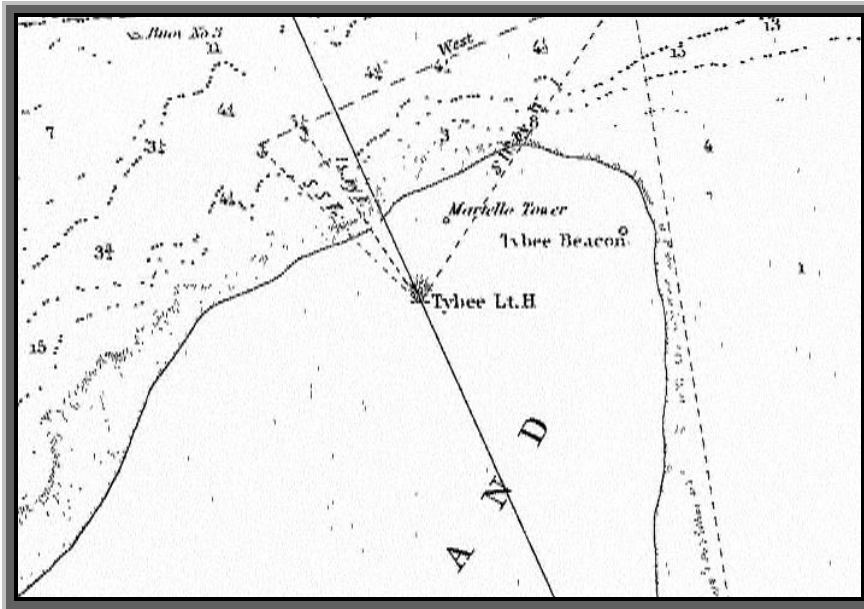


Figure 8. Portion of an 1851 Coastal Chart Showing the Tybee Lighthouse Vicinity (NOAA 2003).

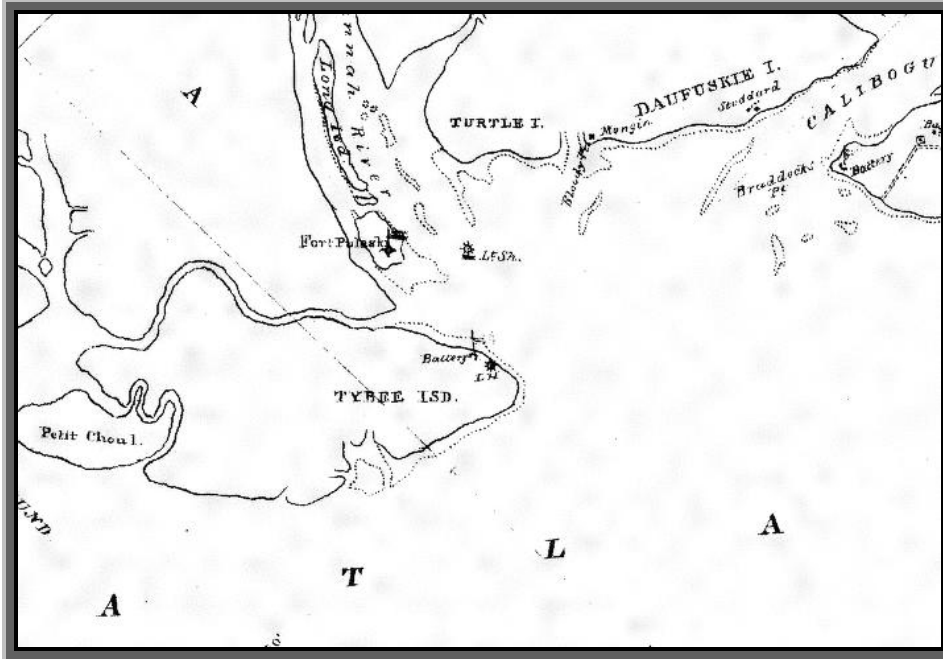


Figure 9. Portions of an 1861 Coastal Chart Showing Details of the Tybee Lighthouse Complex (NOAA 2003).

Richardson (1886:10) noted that the Confederates garrisoned at Tybee Island were, “1st Georgia Regulars, under command of Major [afterwards Brigadier General] William Duncan Smith. The 1st Georgia Regulars garrisoned the Island until 17th July, 1861 when they were ordered to Virginia and were relieved by the First Volunteer Regiment of Georgia, under command of Colonel Hugh W. Mercer, subsequently Brigadier General. The island remained thus garrisoned until November 13th, 1861, when it was evacuated...The two eight inch columbiads which had been used for its defense were dismantled and transferred to Fort Pulaski”. As observed on the 1861 chart in Figure 8, the Confederate battery was several hundred meters northwest of the Tybee Lighthouse and, consequently, archaeological evidence of the Confederate troops was not expected in the immediate study area.

Another Confederate military unit associated with Tybee Lighthouse were the Montgomery Guards. The Montgomery Guards were composed of mostly Irishmen from Savannah, Georgia. The Montgomery Guards were commanded by Captain Lamar J. Guilmartin. They were originally formed as an independent company known as Guilmartin’s Battery, Georgia Artillery. They were later known as [Christopher] Hussey’s Battery, Georgia Artillery. This company was temporarily attached to 1st Regiment, Georgia Volunteer Infantry, which was commanded by Colonel Olmstead. Olmstead commanded Fort Pulaski at the time of its capitulation. The battle flag of the Montgomery Guards was captured at that time and is currently curated by the National Park Service at the Fort Pulaski National Monument. The Montgomery Guards later became Company E, 22nd Battalion, Georgia Heavy Artillery but remained under command of Guilmartin (NPS 2003; Georgia Confederate Units 2003; Griffin 2003). The Montgomery Guards were also associated with the 20th Regiment, Georgia Infantry,

where they formed Company K (Spurlock 2003). Although the specific Confederate military company(s) assigned to the battery on Tybee Island in 1861 was not determined from the present research, in all likelihood included the Montgomery Guards. The Tybee battery was described as a “small sand battery” by C. C. Jones, Jr. (1997:97).

In 1861 the Union Navy implemented a blockade of the South Atlantic Coast, which included the mouth of the Savannah River and Tybee Island. A combined Expeditionary Corps of the United States Army and Navy was authorized by the Secretary of War in August 1861. Brigadier General Thomas W. Sherman was placed in command of the Army troops and Flag Officer Samuel Dupont commanded the Naval forces (Cornell University 2003c). On November 24, 1861, Flag-Officer Samuel F. DuPont issued the orders from aboard the Flagship *Wabash* in Port Royal Harbor, South Carolina to Commander J. S. Misroon, *USS Savannah*, which was located offshore from Savannah:

...Lieutenant Commander Ammen, who went in with Commander Rodgers, brought this note and gave me other particulars confirming the report of our possession of Tybee Island, and acquainting me also with the fact that the enemy has sunk obstructions in the river at Fort Pulaski. You will please, as soon after the receipt of this communication as possible, take the *Savannah* into Tybee entrance and anchor off the light or beacon, hoist the flag on the tower, and protect it from the ship with out keeping a permanent force on the shore...(Cornell University 2003d:325).

			<i>Present</i>		
<i>Commands</i>	<i>Officers</i>		<i>Men</i>		<i>Aggregate</i>
	<i>For duty</i>	<i>Total</i>	<i>For duty</i>	<i>Total</i>	
Division staff	26	26	25	25	51
First Brigade	185	192	3,682	3796	3,988
Second Brigade	137	141	3,915	3196	3,337
Third Brigade	147	153	3,574	3,747	3,900
Troops not brigaded	61	62	1,242	1,315	1,377
Total	556	574	11,538	12,079	12,653

(Source Cornell University 2003c:185).

Table 1. Abstract from Return of the Expeditionary Corps...for October 28, 1861.

Historian Lawrence noted that most of the Confederate troops on Tybee Island had been evacuated following the battle at Port Royal, South Carolina. A small picket remained until November 24, when one Confederate private wrote in his diary, “About ten o’clock, the Yankees commenced to shell us and kept at it for about two hours, when we retreated from the Island under fire of their shells...At forty-five minutes after three p.m., thirteen surf-boats loaded with men landed on the Island, and raised the Stars and Stripes” (Lawrence 1997:40-41). On November 25, Flag-Officer Dupont, Commander of the South Atlantic Squadron, reported on the status of Tybee Island to Gideon Wells, Secretary of the Navy, in which he noted:

...Captain Rodgers was instructed to push his reconnaissance so far as to 'form an approximate estimate of the force on Tybee Island and of the possibility of gaining access to the inner bar...I was not surprised when he came back and reported that the defenses on Tybee Island had probably been abandoned...The abandonment of Tybee Island, on which there is a strong martello tower, with a battery at its base, is due to the terror inspired by the bombardment of Forts Walker and Beauregard, and is a direct fruit of the victory of the 7th. By the fall of Tybee Island, the reduction of Fort Pulaski, which is within easy mortar distance, becomes only a question of time (Cornell University 2003d:325-326).

Commander Missroon reported back to DuPont that same day stating, "SIR: I have the honor to report that Commander Rodgers landed on Tybee Island at 3 p.m. last evening and hoisted the flag of the Union on the Martello tower and light-house, which were held last night by a boat's crew, by whom numerous camp fires were built to induce a belief that it was held in force..." (Cornell University 2003d:326). On November 25, 1861 Brigadier General T. W. Sherman, Headquarters Expeditionary Corps, U.S. Army, reported to the Adjutant General, "...It has been learned by a reconnaissance sent to the neighboring island that the forts on Tybee Island have been deserted by the rebels, I informed Commodore DuPont of the same, whereupon he yesterday started some gunboats down there, and discovered it to be a fact. We have therefore another light-house, which should be relighted at once" (Cornell University 2003c).

Commander Rodgers recorded this event in his log of the *USS Flag* on November 24,

...At 11:15 commenced firing upon the martello tower on Tybee Island. They fired 16 guns. At 3, beat the long roll, called away all boats armed, sent them in charge of the first lieutenant to join a landing party. The small-arms men landed at 4.03 from the boats and took possession of Tybee Island. The United States flag was hoisted on the martello tower and light-house; boats returned and reported the island deserted by the rebels: A launch's crew had been left ashore under command of Master Phoenix, of the *Pocahontas*, in charge of public property and to light false camp fires. At 9, two very large fires were discovered on the mainland. About fifteen minutes later another large fire showed itself, supposed to be in or about Fort Pulaski (Cornell University 2003d:327).

Lieutenant Balch, Commander of the *USS Pocahontas*, wrote in his ship's log on November 24,

At 10:30 a.m. got underway and stood in toward Tybee light, firing six rounds of X-inch shell and three shell from 32-pounder at fort near Tybee light-house, *Seneca* also firing. At 2:30 p.m., in obedience to a signal from the *Seneca*, lowered and manned all our boats. The boats from all the vessels having stopped at the *Flag*, they pulled ashore and took possession of Tybee Island. At 4.30 we made a signal that a Confederate steamer was coming down but she returned to Fort Pulaski without coming in range. The gig, first and second cutters returned, leaving Messrs. Phoenix and Wiley and the launch and launch's crew on shore to man the battery. From 8 to midnight, camp fires burning brightly on shore. Master Phoenix in charge with the launch's crew and a few marines garrison the fort with howitzers and small arms. The retreating rebels are apparently burning everything in their track. Immense fires are burning in different places (Cornell University 2003d:327).

Lieutenant Ammen, Commander of the *USS Seneca*, also made an entry in his ship's log on November 24, detailing the attack on Tybee Island. He noted, "...When within long range fired with 15 second fuzes on the Martello tower on Tybee Island, firing six of this range, then one 10-second fuze, then two 5-second fuzes from XI-inch pivot guns. We also fired six Parrott rifle shell..." (Cornell University 2003d:327).

Flag-Officer Dupont made a reconnaissance visit to Tybee Island on November 27, which he described to Secretary of the Navy Welles, "I find the island abandoned by the rebels. I landed with the armed boats from the ships of the squadron and the marines. The light-house is uninjured, except the glass of the lantern is very much broken. The Martello tower will require considerable repairs if occupied for defense" (Cornell University 2003d:364).

The Union Army and Navy captured Tybee Island on November 24, 1861. Shortly thereafter, a large camp was established in the vicinity of the Tybee Lighthouse. From that base of operation, soldiers were sent to construct a series of batteries and other works that were used in the siege of Fort Pulaski. The closest battery to the Tybee Lighthouse was about a quarter mile distant. Fort Pulaski was captured on April 11, 1862 and thereafter the Union Army controlled the northern Georgia coast. A few miles inland, however, the area continued to be held by the Confederates. The Confederate's grip was not loosened until the arrival of General William T. Sherman's army in December 1864.

Confederate General Robert E. Lee recounted the Tybee Island engagement to J. P. Benjamin, Secretary of War, C.S.A., in which Lee wrote:

SIR: On Sunday last, 24th instant, the enemy crossed Savannah Bar with five of his vessels, and made a lodgement on Tybee Island. Subsequently three other vessels joined them, and the force on Tybee Island was reinforced. Five vessels, one of them a frigate, said to be the *Sabine*, now lay inside of the bar north of Tybee Island. They are 3 or 4 miles from Fort Pulaski, within range of whose guns they have not yet approached. The force on Tybee Island is reported to be large, but I am unable to state it. No demonstration of their purpose has yet been made further than the occupation of the island.... (Cornell University 2003d:327-328).

On December 1, 1861, Union Captain Quincy A. Gillmore, Chief Engineer, Expeditionary Corps, reported from Hilton Head, South Carolina to Brigadier General T. W. Sherman of the military situation at Tybee and Cockspur Islands. Gillmore noted, "Agreeably to your orders I proceeded in the steamer *Ben DeFord*, on the afternoon of the 29th ultimo, to Tybee Island, to make a military examination of that locality. We arrived at the Tybee light-house about 7 p.m., when I called upon the senior naval officer present, and made arrangements with him for disembarking my escort (three companies of the Fourth New Hampshire Volunteers, under Major Drew) at 7 o'clock on the following morning" (Cornell University 2003c:193-194). Gillmore noted that the Confederates had established a 100 yard-long parapet on the west end of Tybee Island, opposite Fort Pulaski and these troops had been camped in, "bush tents", west of the parapet. This parapet defended against an attack from the Tybee Lighthouse vicinity. This

earthwork is probably the same as the “battery” shown on the 1861 chart (See Figure 9). Gillmore reported on his examination of the “old tower [Martello Tower] near the light-house”. He described its dimensions, included a sketch of the tower, and noted that it was surrounded by an unfinished Confederate fieldwork, which he noted, “...could with little labor be made a strong position, that would control the entrance to Savannah River, and thus render efficient services to the blockade in case the fleet should be driven off by stress of weather” (Cornell University 2003c:194). Gillmore assessed the position of Fort Pulaski and he recommended a strategy for reducing the fort. Gillmore wrote,

...I deem the reduction of that work practicable by batteries of mortars and rifled guns established on Tybee Island. I think it probable that a nearer position on firm ground (though very shallow, and therefore ill-adapted to mortar and sunken batteries) can be found on the island west of Tybee. I would establish these batteries from 20 to 25 yards apart, one gun or one mortar in each, behind the ridge of sand on the shore, westward from the light-house....There are now probably at Fort Pulaski 700 good troops...It may be their design to land on Tybee and hold the west end of it, to prevent the erection of batteries against the fort. I therefore recommend immediate occupation of Tybee Island by one good regiment until the question of attempting the reduction of Fort Pulaski be determined (Cornell University 2003c:149, 195).

The 46th Regiment, New York Volunteers arrived at Tybee Island aboard the steamer *Empire City* after leaving Hilton Head, South Carolina in late November (Cornell University 2003c:189). Lawrence (1997:113) noted that the 46th Regiment was composed entirely of Germans. On December 6, 1861, Captain L. H. Pelouze, 15th Infantry, gave the following orders to Colonel Rudolph Rosa, Commander of the 46th Regiment, New York Volunteers:

COLONEL: The commanding general directs that you take post with your regiment on North Tybee Island with as little delay as practicable, and at once take up a defensive position, so as to hold the entire island. Your men will occupy as quarters the buildings near the light-house, and you will establish a camp on the clear ground near the light-house, always keeping your pickets at the salient points of the island. Your attention is particularly called to the narrow neck of land west of the light-house, as a point which should always be guarded. The work thrown up by the enemy at this point [that parapet previously described by Captain Gillmore] should be torn down to the ground as soon as possible, and, to avoid the effects of the fire from Fort Pulaski, this should be done in the night. You must take every precaution against being surprised, and in the mean time take particular care that the works thrown up about the light-house are not injured or defaced in any way, as guns are to be mounted in them as soon as they can be got there. You will take particular care of your supplies, and see that they are not in any way wasted or destroyed. You will see that vessels sent there are unloaded as soon as possible and sent back to this place. You will keep these headquarters informed of all passing events (Cornell University 2003c:196).

When the Union Army launched an offensive against Fort Pulaski, Tybee Island served as a landing and unloading site, a headquarters complex, and as the site for a series of 11 artillery batteries that were used to reduce the Confederate fort. Construction of the Union batteries began in early 1862. The Tybee Island Lighthouse was beyond the range of the heavy ordnance in Fort Pulaski and the Union artillery batteries were located closer

to Fort Pulaski. The Federal batteries that were built on Tybee Island (proceeding from West to East) were named:

- Totten;
- McClellan;
- Sigel;
- Scott;
- Halleck;
- Sherman;
- Burnside;
- Lincoln;
- Lyon, and;
- Grant (NPS 2003; Anderson 1995).

The exact location of Battery Stanton, which was later described by Brigadier General Gillmore as 3,400 yards from Fort Pulaski, was not determined from the present research. Another Union battery described by Gillmore was located on Lazaretto Creek. Of these, Battery Halleck is the only battery that has been studied archaeologically (Cornell University 2003c:154; Anderson 1995). Gillmore stated that, “A depot powder magazine, of 3,600 barrels capacity, was constructed near the Martello Tower, which was the landing-place for all the supplies” (Gillmore 1862:24).

[Figure 10](#) depicts two contemporary Civil War maps of the locations of the Union batteries in relation to Fort Pulaski and the Tybee Lighthouse. The upper map, which shows the defenses as they were on April 10 and 11, 1862, depicts the Tybee Lighthouse with two buildings located southeast of it. The other view, which is undated, shows a similar configuration of the Tybee Lighthouse compound. The Martello Tower, which was destroyed in the November 1861 attack by the Union Navy, is shown on the undated plan map. The two buildings that are shown near the lighthouse probably represent the barracks and lighthouse keeper’s residence. The attack on Fort Pulaski began on April 10, 1862 and ended less than 30 hours later with the Confederates’ capitulation. The success of the Union attack was largely due to the use of rifled heavy artillery that was fired from these batteries to breach the thick, brick walls of Pulaski (National Park Service 2003).

Sometime prior to April 1, 1862 (and possibly in late November 1861) the Montgomery Guards, a company led by Captain Guilmartin, who formed part of the 1st Georgia Regiment under Colonel Olmsted, torched the Tybee Lighthouse, which resulted in the destruction of its interior and upper section. Although Flag Officer DuPont upon his first inspection declared the lighthouse to be, “...uninjured, except that the glass of the lantern is very much broken”, he later described the condition of the lighthouse at Tybee Island in less optimistic terms, “...the tower is standing, but the interior was burned and the lantern much injured. It is presumed the lens was taken to Savannah” (Cornell University 2003a). The lower 64 feet of the tower, which was constructed of brick, remained standing. A contemporary drawing and photograph of the damaged lighthouse attest to this event. [Figure 11](#) is a photograph of the Tybee Lighthouse compound taken in 1861. [Figure 12](#) shows an unattributed contemporary illustration of the Montgomery Guards

destroying the lighthouse at Tybee Island. The original caption for this illustration read, “Tybee Island, Savannah River, Ga- View of the Lighthouse and Barracks, Destruction of the Lighthouse by the Confederates” (Savannah Images Project 2003; Thomas Gamble Collection n.d.). The raid by the Montgomery Guards may have also resulted in the destruction of the associated Union garrison at Tybee Lighthouse (NRHP 1982).

On February 19, 1862, Brigadier General Quincy A. Gillmore, Chief Engineer Expeditionary Corps, was ordered by Brigadier General Sherman to Big Tybee Island to place it, “in a thorough state of defense against approach from Wilmington Narrows and Lazaretto Creek, to prevent all approach by water, and blockade the channel”. Gilmore noted that this action completed the investment of Fort Pulaski and the bombardment of the fort began immediately (Cornell University 2003c:153-154).

On February 22, 1862, two companies of the 46th Regiment, New York Volunteers were repositioned from their post at Tybee Lighthouse to a battery on Decent Island, Lazaretto Creek. Eighteen of those men were later captured by the Confederates. Captain Hinckel led one of these companies, whose men manned the small post at Lazaretto Creek for eight weeks prior to the siege (Cornell University 2003c:154, 160). The location of the Union battery at Lazaretto Creek has not been determined. The mouth of Lazaretto Creek is several miles west of the study area.

The Union troops posted at Tybee Island from November 21 to April 9, 1862 included the 7th Regiment, Connecticut Volunteers; 46th Regiment, New York Volunteers [minus the two companies described above]; two companies of the Volunteer Engineers, 46th Regiment New York, and; two companies of the 3rd Regiment, Rhode Island Volunteer Artillery (Cornell University 2003c:154).

The 46th Regiment, New York Volunteer Infantry, led by Colonel Rudolph Rosa, was assigned to the First Brigade, under Brigadier General Egbert L. Viehle, of the Expeditionary Corps. The 7th Connecticut Volunteer Infantry, led by Colonel Alfred H. Terry, was assigned to the Third Brigade, under Brigadier General Horatio G. Wright. The 1st New York Engineers, led by Colonel Edward W. Serrell; the 3rd Rhode Island Artillery, led by Colonel Nathan W. Brown and the 3rd U.S. Artillery, Battery E, led by Captain John Hamilton formed a part of T. W. Sherman’s Expeditionary Corps that was not brigaded (Cornell University 2003c:185).

The 46th Regiment, New York Volunteer Infantry had traveled south aboard the steamer *Webster* (later transferring to the steamer *Empire City*); the 7th Connecticut Volunteer Infantry aboard the steamer *Illinois*; the 3rd Rhode Island aboard the steamer *Cahawba*, and the Volunteer Engineers (from Fort Monroe) aboard the steamer *Star of the South* (Cornell University 2003c:179).

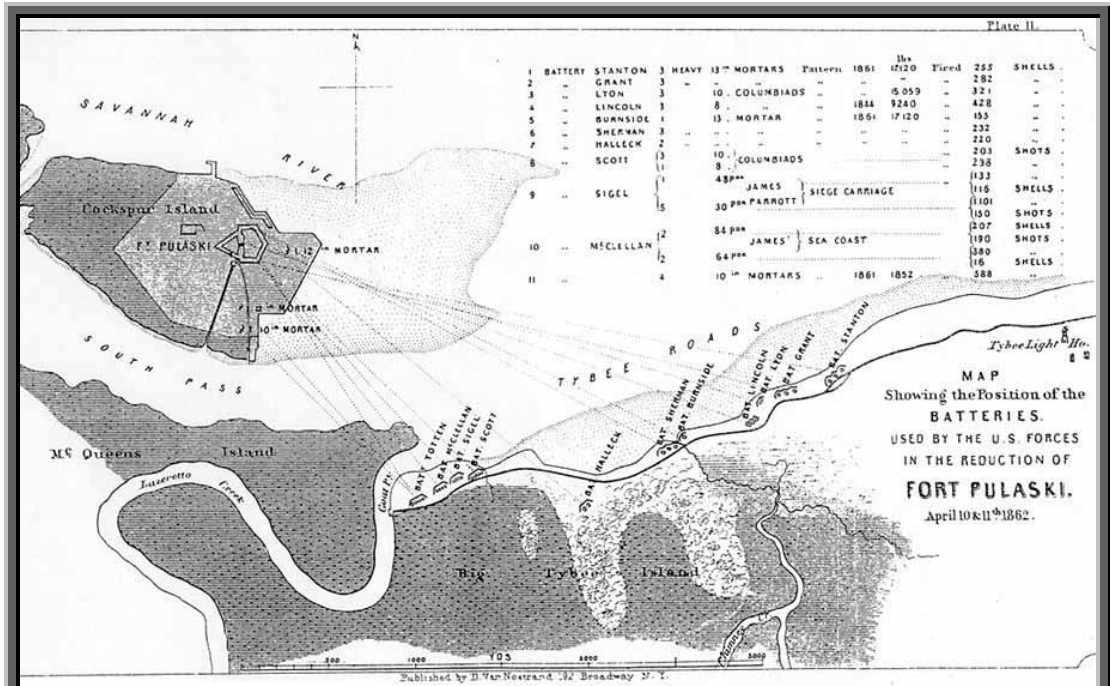


Figure 4 - Location of Union batteries on Big Tybee Island during the siege and reduction of Fort Pulaski, Georgia, in April 1862.

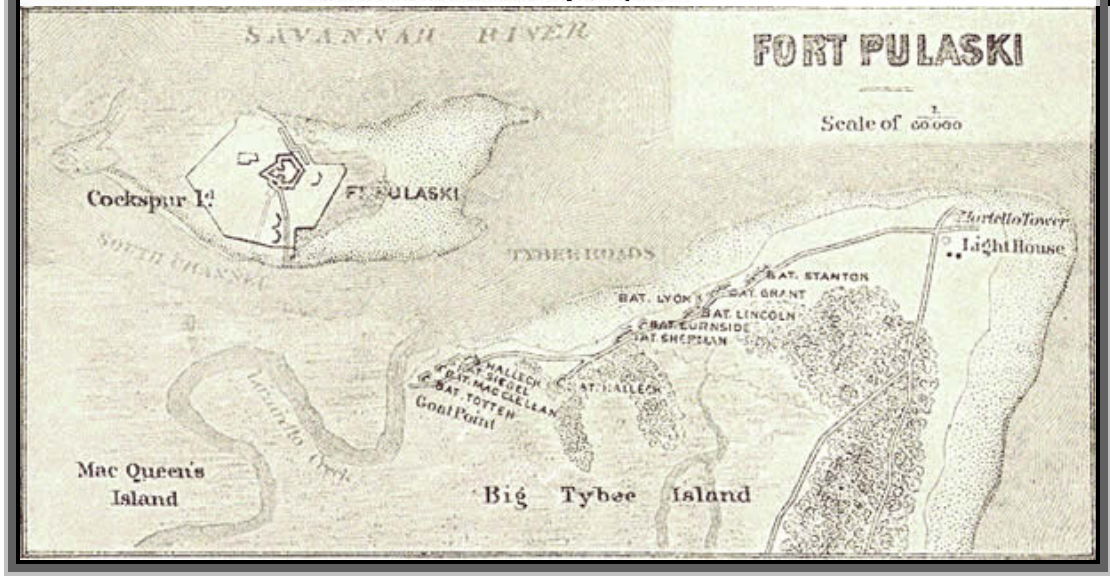


Figure 10. Two Civil War-Era Plan Maps of the Union Batteries near Fort Pulaski (Anderson 1995; NPS 2003).



Figure 11. Photographic View of Tybee Lighthouse, 1861 (Savannah Images Project 2003).

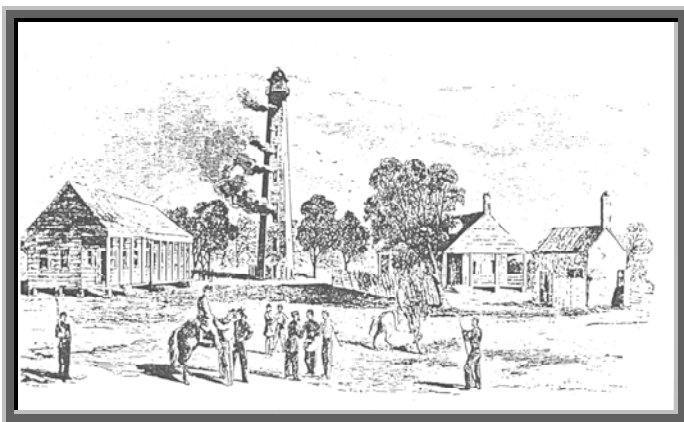


Figure 12. Confederate Soldiers Destroying the Lighthouse at Tybee (Thomas Gamble Collection, Savannah Public Library n.d.).

When originally mustered the 46th New York consisted of 672 men; the 7th Connecticut of about 1,000 men. By the end of the war the 46th Regiment had lost 195 men, including 10 officers and 185 enlisted men (91 of them died from disease). Consequently, the number of Union troops at Tybee Island in late 1861 and early 1862 probably numbered over 2,000 men. Quarters for an army of this size would have been considerable. All of the military units who got an early taste of war at Tybee Island and Fort Sumter went on to fight other battles and suffered considerable losses. The 7th Regiment lost 364 men in the war, including 15 officers and 349 enlisted men (196 from disease). The 3rd Rhode Island lost 135 men in the war, including 6 officers and 129 men (94 from disease). the 1st New York Engineers lost a total of 148 men, including 7 officers and 141 enlisted men (121 from disease) (NPS 2003).

Extracts from a summary of the activities of the 3rd Regiment, Rhode Island Volunteer Heavy Artillery are presented below:

October 12th the Regiment embarked on the steamship 'Cahawba' and proceeded to Fortress Monroe, where the military and naval forces were gathering under Gen. Thomas W. Sherman and Commodore Samuel F. Du Pont, preparatory to a descent upon the coast of South Carolina. Here the Regiment was encamped until the 23d, when it again embarked upon the same steamer, but was destined to wait another week before the expedition was ready to set sail. While in camp at this place, the Regiment exchanged its uniform of gray for that of the Union Blue, and companies A and C received Whitney rifles with sabre bayonets in exchange for their Enfield muskets. October 29th the expedition got under way, seventeen war vessels with thirty transports and supply vessels, and on board the "Expeditionary Corps" of Gen. Sherman, consisting of 12,653 officers and men...Tybee Island had been occupied early in the preceding December, and from February 21 to April 9, 1862, the batteries upon the island were constructed and equipped as fast as the ordnance arrived from the North. As in the case of the erection of the batteries on the upper river, this labor was of the most fatiguing character. Company F, under Capt. Mason and Company H, under Capt. Rogers, participated in this work. Company B, under Capt. Tourtellott, arrived April 7th, and the three companies were assigned to batteries as follows: Co. B, to Battery Lyon, 3 ten-inch columbiads, 3100 yards distant from the wall of the fort, under Capt. Tourtellott; Battery Lincoln, 3 eight-inch columbiads, 3045 yards distant, under Lieut. Albert E. Greene; Co. F, Battery Scott, 3 ten-inch columbiads and one eight-inch columbiad, 1740 yards distant, under Capt. Mason; Co. H, Battery McClellan, 2 eighty-four-pounder James rifles and 2 sixty-four-pounder James rifles, 1650 yards distant, under Capt. Rogers. Thus nearly all the breaching batteries were manned by this Regiment; of the seven other batteries, six were equipped with mortars, and most of them at great distance. There were, in all, 16 mortars and 20 guns in the batteries on this island, and 14 of the latter were served by the above companies (Department of Rhode Island, Sons of Confederate Veterans 2003).

Following the capitulation of Fort Pulaski by the Confederates, elements of the 3rd Regiment, Rhode Island Heavy Artillery and the 7th Connecticut Volunteers remained in the Savannah River region for some time:

Company B was stationed for a month in the captured fort to instruct the Seventh Connecticut in the use of heavy guns. Four men of this company, Sergt. George J. Hill, John A. Gorton, Michael I. Gibbens and Joseph T. Luther, were killed April 14th by the explosion of a shell which they were emptying, and Charles Morgan mortally wounded. April 16th a detachment of sixteen men from Co. F, under Lieut. Augustus W. Colwell, accompanied a reconnoitering expedition of 400 men under Lieut. J. H. Wilson, to Wilmington Island. In a sharp engagement with 800 of the enemy, the Union force lost 10 killed and 36 wounded, of whom some were of Co. F, which manned a six-pounder gun on the steamer 'Honduras.' All the companies on the Savannah, except Co. B, returned soon after to Hilton Head, and in May, Co. B was replaced in the fort by Co. G, which remained there until May, 1864 (Department of Rhode Island, Sons of Confederate Veterans 2003).

Brigadier General Gillmore noted that these troops were, "constantly engaged in landing and transporting ordnance, ordnance stores, and battery materials, making fascines and roads, constructing gun and mortar batteries, service and depot magazines, splinter and bomb proof shelters for the relief of the cannoneers off duty, and drilling at the several pieces. In all, 36 heavy artillery pieces were distributed in 11 batteries in the marshes west of Tybee Lighthouse (Cornell University 2003c:154). Of the 11 Union batteries that were constructed for the siege on Fort Pulaski, Battery Stanton was nearest to the Tybee

Lighthouse, being approximately 1,400 yards distant (NPS 2003; Anderson 1995). If these batteries were permanently garrisoned, it was probably with a “skeleton” crew. Orders issued by Brigadier General Gillmore on April 9, 1862 began with the statement, “The batteries established against Fort Pulaski will be manned and ready for service at break of day to-morrow...” (Cornell University 2003c:156).

On April 8, 1862 special orders were issued by Brigadier General Gillmore from his Tybee Island headquarters for the following assignments to the siege batteries:

- *Battery Totton*
Capt. D. C. Rodman, 7th Conn. Vols.
Capt. S. H. Gray, 7th Conn. Vols.
2d Lieut. S. J. Corey, 7th Conn. Vols.,
with a detachment of the 7th Conn. Vols., in three reliefs.
- *Battery McClellan*
Capt. H. Rogers,
with Company " H," 3d R.I. Vols., Artillery, in three reliefs.
- *Battery Sigel*
Capt. S. Seldeneck, 46th N.Y.S. Vols.
Capt. T. Hohle, 46th N.Y.S. Vols.
with Co's "K and H," 46th N.Y.S. Vols., in three reliefs.
- *Battery Scott*
Capt. Pardon Mason,
with Company "F," 3d R.I. Vols., Artillery, in three reliefs.
- *Battery Halleck*
Capt. O. S. Sanford, 7th Conn. Vols.
Capt. E. S. Hitchcock, 7th Conn. Vols.
2d Lieut. S. S. Atwill, 7th Conn. Vols.,
with a detachment of 7th Conn. Vols., in three reliefs.
- *Battery Sherman*
Capt. D. G. Francis, 7th Conn. Vols.
Capt. J. B. Dennis, 7th Conn. Vols.
2d Lieut. V. B. Chamberlain, 7th Conn. Vols.,
with a detachment of the 7th Conn. Vols., in three reliefs.
- *Battery Burnside*
Sergt. James E. Wilson, Co. A, U.S. Engineers.
Sergt. P. Maguire, Co. A, U.S. Engineers.
Sergt. Wadlie, Co. A., U.S. Engineers,
with a detachment of 8th Maine Vols., in three reliefs.
- *Batteries Lincoln and Lyon*
Capt. Louis H. Pelouze, 15th U.S. Infantry, and Acting Inspector General, Department of the South;
with Capt. L. E. Tourtelotte's Co. (B), 3d R.I. Vols., Artillery, in two reliefs.
- *Battery Grant*
Capt. Charles E. Palmer, 7th Conn. Vols.
Capt. Jerome Tourtelotte, 7th Conn. Vols.

1st Lieut. Wm. E. Phillip, 7th Conn. Vols.,
with a detachment of 7th Conn. Vols., in three reliefs.

- *Battery Stanton*
Captain B. F. Skinner, 7th Conn. Vols.
Captain Theodore Beacon, 7th Conn. Vols.
1st Lt. Theodore Burdick, 7th Conn. Vols.,
with a detachment of 7th Conn. Vols., in three reliefs
(Gillmore 1862, Appendix C:57-58).

The attack on Fort Pulaski was quick and decisive, even surprising many of the veteran Union officers involved. Approximately 385 Confederates surrendered the fort on April 11 and the Union troops suffered only one casualty. Confederate Brigadier General A. R. Lawton stated that Fort Pulaski contained five companies, “numbering a little over 400 men”, which suggests that the Confederate losses in the attack were about 15 men. The massive brick walls of Fort Pulaski were breached with an opening, “wide enough to drive a four-horse team through”, as described by Lawton. The fort’s commander, Colonel C. H. Olmstead, wisely chose to surrender the fort and its men rather than risk a direct artillery hit on the vulnerable munitions magazines (Cornell University 2003c:159, 167).

Brigadier General Gillmore later reflected on the accomplishments of his siege forces,

I take pleasure in recording my acknowledgement of the hearty, zealous, and persevering co-operation afforded me by the officers and men under my command, not only during the 10th and 11th, when all more or less forgot their fatigue in the excitement and danger of the engagement, but throughout the exhausting and unwholesome labors of preparation, occupying day and night a period of nearly eight weeks. The entire available strength of the command was on guard or fatigue duty every twenty-four hours. The details for night work were always paraded immediately after sunset, and were usually dismissed from labor between 1 and 2 o’clock in the morning, although circumstances frequently required parties to remain out all night (Cornell University 2003c:159).

In addition to Brigadier General Gillmore, whose headquarters were at Tybee Lighthouse from late February to early April 1862, Union officers who were associated with the post at Tybee Lighthouse include:

- Colonel Alfred H. Terry, 7th Regiment, Connecticut Volunteers;
- Lieutenant Colonel James F. Hall, Commander, New York Volunteer Engineers;
- Captain F. E., Graef, Company D, New York Volunteer Engineers;
- Lieutenant T. B. Brooks, Company A, New York Volunteer Engineers, and;
- Captain Charles E. Fuller, Assistant Quartermaster (Cornell University 2003c:160).

For the balance of the war the Union’s South Atlantic Blockading Squadron maintained a presence offshore from Tybee Island. Five ships were stationed off Tybee Island at various times from October 1863 to May 1864, and these included the:

- *USS Unadilla*, October, November and December 1863, February 1864;
- *USS Dai Ching*, January and February, 1864;
- *USS Mahaska*, January and February, 1864;

- *USS South Carolina*, April 1864, and;
- *USS Ward*, April 1864 (Cornell University 2003a, Volume 15:69, 113, 144, 176, 242, 258, 325, 390, 400).

The degree of interaction of these blockading vessels and the Union garrison at Tybee Island Lighthouse can only be estimated. Presumably, the troops on shore at Tybee Island and other posts in the Savannah area were re-supplied by sea with the aid from these vessels. Likewise, the some of the seamen on board the blockading vessels may have taken shore leave at Tybee Island from time to time. Civil War records provide few details about the Union troop composition at Tybee Island following the capture of Fort Pulaski.

The published records of the Civil War for the period from 1863 to 1865 contain very few references to Tybee Island and no references to any Union garrison at that place. On December 13, 1864, Rear Admiral Dahlgren wrote from Tybee Roads ordering Lieutenant Commander Young to facilitate communication with the U.S. Army, and Dahlgren noted: “A communication by signal should be established without delay between Wassaw and Tybee and Ossabaw [Islands] (Cornell 2003a: Volume 16, 130-131). On December 27, 1864, Major General William T. Sherman wrote to Captain Boutelle, of the U. S. Coast Survey, stating, “I have the honor to request that you will, at the earliest practicable moment, take the necessary steps to have the Tybee Light-House rebuilt, put in good order, and relighted; and also that the channels leading up to Savannah be buoyed and lighted as soon as possible...” (Cornell University 2003b:821).

An 1864 nautical chart of Wassaw Sound included details of the improvements on the north end of Tybee Island in the vicinity of the lighthouse. The Tybee Lighthouse is not identified on this chart, although a cluster of three buildings, which are organized along a rectangular plan, is shown, as well as a cruciform enclosure or compound, northeast of these buildings. The “Tybee Beacon” is shown on the 1864 chart, near the shore and east of the building cluster. The absence of the Tybee Lighthouse on the 1864 chart may indicate that it was a nonfunctioning facility, having not yet been rebuilt since its 1862 destruction. The “Tybee Light” is shown on an 1867 chart, which also includes the “Beacon” and the aforementioned cruciform compound, northeast of the lighthouse (NOAA 2003).

Some elements of the Union Army continued to occupy the Tybee Lighthouse vicinity, possibly into 1867 when reconstruction of the Tybee Lighthouse was completed. The exact date of departure of the U.S. Army troops was not determined from the present research.

Five acres at the Tybee Lighthouse complex were deeded to the U.S. Coast Guard in 1865, possibly for use as a Coast Guard life boat station (NRHP 1982:8). In 1866, the U.S. Congress authorized \$20,000 for construction of a new brick and cast iron lighthouse on Tybee Island, which utilized the existing lower 60 feet of the old 1773 brick tower. Construction of the lighthouse was hampered by a cholera epidemic and cost overruns of \$34,443. The revamped Tybee Lighthouse, as well as a new keeper’s dwelling, was completed by October 1867. During this reconstruction, an unnamed

account stated that the tower, "...was torn down to the proper point and new masonry carried up to the required weight" (NRHP 1982). This lighthouse, which has undergone various minor changes since 1867 today looms 145 feet from its base to the top, and is visible up to 18 miles offshore (Totton 2000).

Surgeon William Carroll, United States Volunteers attended to the victims of the cholera epidemic on Tybee Island. The cholera epidemic occurred in late August 1866. Carroll was promoted to the rank of Brevet Lieutenant Colonel as a result of his "faithful services" during the epidemic, as noted in the Senate Executive Journal of December 14, 1866 (American Memory, Library of Congress 2003). Although these records suggest that a sizeable force was present at Tybee Island, sufficient in numbers for a cholera outbreak, their identities and associated military units are presently undetermined. Disease had also been a problem in the area during previous years. Records of the 48th Regiment, New York Volunteers list six Union soldiers who died of disease at Fort Pulaski in 1862 (Beck 2001). These deaths occurred in April (N=1), June (N=3), and September (N=2) of that year.

By 1867, the conditions at Tybee Island were returning to normal. After the repairs and improvements to the lighthouse were completed, the size of the Union garrison at Tybee Lighthouse was probably significantly reduced, or removed. The salary of the lighthouse keeper at "Tybee Island Knoll" was established by the U.S. Congress on March 2, 1867 not to exceed \$600 (American Memory, Library of Congress 2003).

A violent storm struck Tybee Island in 1881 causing considerable damage (Richardson 1886:18). The U.S. Congress authorized funds for construction of a new keeper's dwelling that same year. In 1885 a fire destroyed one of the keeper's dwellings and a new Assistant Keeper's residence was built on the same site. This building served as the Assistant Keeper's dwelling until 1933, when that job position was discontinued (George B. Jackson served as the lighthouse's only keeper from 1933 to 1947).

In 1890 the land surrounding the lighthouse was developed as a U.S. Army military post, named Fort Screven. This post had been authorized by Congress as early as 1786 and by 1808 the federal government had acquired property for this purpose on Tybee Island. Title to the property was not secured until 1875, however, and construction of Fort Screven began in 1890. The fort consisted of a series of separate concrete artillery batteries that guarded the coast from a sea invasion at strategic points. One of these batteries, Battery Gardner, is located east of the Tybee Lighthouse complex and presently serves as a museum exhibit hall. Fort Screven was manned until 1945 when it was declared surplus and sold to the City of Savannah Beach.

Previous Research

Archaeological research on Tybee Island has been very limited. Historical interest in the general vicinity was stimulated in the 1930s by plans for the development of a national park at Fort Pulaski on neighboring Cockspur Island.

An archaeological survey was conducted by the University of Georgia in 1978 for a proposed parking lot, east of the Tybee Lighthouse. This survey, which searched for aboriginal sites, resulted in negative findings. Their survey included shovel tests spaced at 100 meters along the proposed road and three shovel tests along the length of the proposed parking lot in front of the museum. Although Pearson concluded that the survey revealed no cultural material, he noted that the, "...shovel tests in [the] parking lot encountered a layer of soil composed of shell, coal and clay at 10 to 25 cm". This zone was interpreted as fill from the leveling of the present parking lot or in connection with earlier construction of Fort Screven." This historic fill zone was not recorded as an archaeological site by Pearson (Pearson 1978:89).

A cultural resources study was prepared as part of the U.S. Army Corps of Engineers' Tybee Island Beach Erosion Control Project in 1979 (Marks 1979). That document included preliminary historical information on the lighthouse and the keeper's residences. The lighthouse was described as a 150 foot tower dating from 1790 and 1867, and the age of the keeper's cottages was estimated at, "as early as 1860-1870 and as late as 1890s" (Marks 1979:2). Marks (1979:35) provided this description of the Keeper's cottages at the Tybee Lighthouse:

A comparison of the present plan of the lighthouse complex with an historic view of the Tybee Lighthouse, during its burning by Confederate soldiers in 1862, indicates many similarities. The existing cottages are grouped with the lighthouse, as the fourth element, to form an open space or quadrangle between the buildings.

The cottage to the north and the long rectangular building to the south are in the same general position today as the arrangement shown in the 1862 view. Some of the outbuildings present today also appear to be in the general location of outbuildings shown in the historic view. Whether there is any connection of the existing plan or building with an earlier military or garrison use is not presently known. Because of the close proximity of the lighthouse complex to the Federal batteries firing on Fort Pulaski and the strategic military significance of this site to the blockade of the Port of Savannah it is possible that the present plan and some of the buildings are a reflection of an earlier Confederate or Union military installation on this site (Marks 1979:35-36).

The Tybee Lighthouse complex was included in the Fort Screven National Register Historical District (NRHD), which was listed by the National Register of Historic Places in 1982 (NRHP 1982, Reference 82002393). The nomination identified the Lighthouse, Assistant Keeper's House, Keeper's House, Barracks, Summer Kitchen and three other small buildings in the Lighthouse Reserve as contributing to the historical significance of the NRHD. The lighthouse complex (including the 5 acre reserve) is entirely within the NRHD boundary. Fort Screven covered approximately 205 acres, including the five acre Coast Guard station.

The archaeological components of Fort Screven and the Tybee Island Lighthouse complex were not considered in the 1982 NRHD nomination package. At that time the archaeological resources associated with these sites were not known. Larry Babits (personal communication, April 7, 2003) conducted limited investigations at Tybee Lighthouse in the early 1990s when a line of fence posts was excavated around the lighthouse museum compound. Although no archaeological report of this work was

compiled, Babits provided this description of his field methods: "...we used the line of post holes for a new fence as test pits and screened them all. I can't remember the directions but there was a concentration of material on the inland/mainland side that included some burned debris". Archaeological collections from Babits' work are curated at the Tybee Lighthouse Museum where they await more detailed study and description.

The Federal government focused attention on the archaeological resources at nearby Fort Pulaski in the 1990s in a series of management studies (Brewer and Cornelison 1997; Groh 1999, 2000; Jameson 1997). Archaeological exploration in the early 1990s by National Park Service archaeologists was conducted at Battery Halleck, a Union artillery battery that was used in the investment of Fort Pulaski (Anderson 1995). This study resulted in the location of architectural features and debris associated with the Federal battery. The report also contains an appendix of primary Civil War-era correspondence pertaining to the capture of Fort Pulaski. While the Battery Halleck study was important in identifying the structure of a Federal battery from 1862, only minimal information was generated on the material culture associated with the occupation. The low frequency of related refuse may be attributable to the relatively short period of time that the battery was in use.

Remote sensing studies were conducted offshore to identify any submerged cultural anomalies (Watts 1998). Historic structures that are potentially submerged archaeological sites include the first two sites for the Tybee Lighthouse and the Martello Tower, which was a fortified tabby tower, used to defend the entrance to the Savannah River during the 19th century.

The Tybee Island Light House served as a functioning navigational aid that was operated by the United States Coast Guard. Until the late 1980s when the property was transferred to private hands. The Tybee Lighthouse was then decommissioned and the property was transferred to the Tybee Island Historical Society. A newer Coast Guard Lighthouse station is located on Cockspur Island. Once it acquired the historic Tybee Lighthouse, the Tybee Island Historical Society wasted no time in effecting its repair. This restoration project included repair of more than 5,000 feet of Savannah gray brick and replacement of aluminum windows with more historically accurate bronze windows. The restoration work by Kenneth Smith Architects, Inc. and the International Chimney Corporation was based on original drawings and photographs.

Archaeological and historical research at other lighthouses and coastal Civil War military sites in the Southeastern United States were reviewed for this report (Legg and Smith 1989; Trinkley et al. 1999; Kagerer 1985; Totton 2000). Related studies include research by Brockington & Associates at the historic lighthouse at Pensacola, Florida and work by the South Carolina Institute of Archaeology and Anthropology at the Union Army Civil War encampment on Folly Beach, South Carolina (Legg and Smith 1989). The situation at Pensacola was strikingly similar to that of Tybee, where an early lighthouse was later modified for use as a military fort and campsite. Their excavations and analysis at Folly Beach revealed unknown aspects of maritime and military life in this type of coastal environment. The Folly Beach example provides a good parallel for the situation at

Tybee Lighthouse. Legg and his colleagues were able to link historical records, including personal accounts, maps, and photographs to the archaeologically defined Union Army camp and cemetery.

III. Methods

Research Goals

The purpose of the archaeology beneath the Assistant Keeper's residence was four-fold:

1. to examine two specific locations of the brick foundation for evidence that would assist the architectural restoration effort;
2. to delineate the earlier building plan, based on surface and shallow-buried brickwork;
3. to recover archaeological material that will help determine the construction date of the earlier building; and,
4. to provide a preliminary assessment of the research potential of the associated archaeological deposits.

Research Tasks

This research was a limited archaeological excavation, which included:

- test excavation units on the northwest and southeast brick piers (not to exceed 3 square meters);
- surface reconnaissance mapping of structural remains and artifact collection of surface and shallowly-buried artifacts and,
- analysis of the collected materials and documentation of the investigations in a technical research report.

Historical research for the present study consisted of a review of relevant published histories and biographies. No primary archival research, other than research at the Georgia Archaeological Site Files, Athens, and the Georgia DNR Historic Preservation Division, Atlanta, was undertaken. Important sources for the Colonial and American Revolution period included (American Memory, Library of Congress 2003; Wright 1873; Bennett and Lennon 1991; Hough 1975). Sources consulted for the American Civil War period included (Beck 2001; Beers 1986; Boggs 2003; C. C. Jones 1997; C. E. Jones 1999; Cornell University 2003a-d; cwbullet.com 2003; Davis 1882, 1885; Davis et al. 1894; Department of Rhode Island, Sons of Confederate Veterans 2003; Dyer 1979; Georgia Confederate Units 2003; Gillmore 1862; Griffin 2003; Hawes 1964; Henderson 1964; Lawrence 1997; Legg and Smith 1989; Lord 1980; Olmstead 1879; Sifakis 1995) and others. General histories of Savannah, Chatham County, and Tybee Island also were consulted and these included Harden (1913), the Thomas Gamble collection (Live Oak Public Libraries 2003), and Richardson (1886).

Fieldwork consisted of excavation of two small test units, which totaled 3 square meters, and the surface and near surface examination of the early brick footings and other brickwork beneath the existing structure. A total of five field days was expended in this effort, using a two-person crew (or 10 person days) with considerable help from three volunteers from the Coastal Georgia Archaeological Society. The volunteer effort consisted of an additional six person days on the project. Fieldwork was directed by Daniel T. Elliott, assisted by Thomas Elliott and Michael Shirk. Helpful project volunteers included faithful members of the Coastal Georgia Archaeological Society-- Carl Arndt, Chica Arndt, and Linda Lash.

All excavations were performed consistent with professional standards for archaeological survey research. Excavation was by arbitrary 10 cm levels or by natural levels, depending on the context and the appearance of the soils. Units were excavated to the base of the cultural deposit. All excavated fill was screened through ¼ inch hardware cloth. Artifacts, other than brick and other building rubble, were recovered and returned to the laboratory for analysis.

Brick, mortar, and marine shell (including oyster, clam, whelk, and a minority of other small species) were weighed in the field, recorded in the notes and subsequently discarded. Laboratory analysis was accomplished by Matt Wood and Virginia Pierce. Graphics were prepared by Glen Strickland and Debra Wells. Virginia Pierce performed the data entry into a Microsoft Access database.

The technical includes a historical and environmental background discussion; a discussion of the research methods employed for the study; results of findings; interpretations of these findings, and; recommendations for future management of the cultural resources. All artifacts illustrated in this report are actual size, except where noted otherwise.

Curation Statement

Artifacts were prepared for permanent curation following accepted standards for archaeological collections in Georgia. The artifacts, analysis sheets, notes, photographs, and other records generated by this research project are curated by the Tybee Island Historical Society at their museum facility at Battery Gardner on Tybee Island.

IV. Results

The preliminary archaeological investigations beneath the Assistant Keeper's Residence at the Tybee Island Lighthouse were completed in April 2003. This study included a surface (and near surface) examination of the soils and brick features beneath the existing dwelling and excavation of two test units near the northwest and southeast corners of the building. [Figure 13](#) shows the locations of Test Units 1 and 2, as well as the extent of the old brickwork that exists beneath the Assistant Keeper's residence. The findings from each test unit are discussed in the following section.

The project resulted in the recovery of 4,987 artifacts or ecofacts. Their distribution is summarized in [Table 2](#). A detailed inventory of the artifacts from the project is presented in Appendix 1.

Test Unit	Level	Artifact Count
1	1	421
1	2	256
1	3	29
1	4	142
1	5	201
1	6	168
1	7	348
1	8	692
1	9	552
1	10	913
1	11	351
1	12	104
1	Total	4177
2	1	356
2	2	92
2	3	103
2	4	40
2	5	7
2	Feature 5	172
2	Feature 6	37
2	Total	807
Surface		3
PROJECT		
TOTAL		4987

Table 2. Artifact Summary, Assistant Keeper's Residence, Tybee Island.

Test Unit 1

Test Unit 1 was placed in the northwestern part of the Assistant Keeper's dwelling, adjacent to the East-West brick wall or footing. It extended along the project grid from 1008.65 to 1009.65 meters North and 1001.5 to 1003 meters East. This unit measured 1.5 meters by 1 meter. It was excavated in 14 levels to a maximum depth of 168 cm below surface, or 151 cm below the top of the brick wall. Three features were defined in this test unit. Feature 1 consisted of a massive brick footing or wall that formed the southern edge of the excavation. No apparent construction trench was associated with this brickwork. Feature 2 consisted of a displaced section of brickwork, which was lying flat and deeply buried in the Test Unit 1 midden zones near the base of the excavation. Feature 3 consisted of a shallow concentration of oyster shells in the lower midden deposit in Test Unit 1 (Figure 14). Test Unit 1 contained approximately 4,177 artifacts, excluding building rubble and shellfish remains that were quantified and discarded in the field.

Two profiles of Test Unit 1 are illustrated in Figures 15 and 16. The stratigraphy in Test Unit 1 reflected the history of the original Keeper's Residence, which was known to have burned in 1885. The uppermost stratum was unconsolidated sand and rubble with mixed artifacts (Figure 16, Zone A). Beneath that was a zone of dense building rubble and melted glass, which probably represents the 1885 fire and immediate post-fire deposit (Figure 16, Zone B). That zone contained mostly late 19th century artifacts. Immediately below that rubble zone was a thin midden layer with few artifacts (Figure 16, Zone C). Next was a thick zone of dense mortar/stucco rubble that contained mid-19th artifacts, including some military (Civil War) items (Figure 16, Zone D and I). Below that was a midden zone that contained more Civil War artifacts (Figure 16, Zone E, F and G). The lowest part of this midden contained mid-19th century artifacts, but was devoid of military items. The final zone of cultural-bearing sand contained a low frequency of early 19th and late 18th century artifacts (Figure 16, Zone G). The base of the cultural zone was underlain by pale brown sand (Figure 16, Zone H).

A sample of 117 historic ceramic sherds from Test Unit 1 yielded a Mean Ceramic Date (MCD) of 1847.72. MCDs were calculated for individual excavation levels in Test Unit 1, which yielded the following results shown in Table 3.

When the sherd data for Levels 1 through 6 are combined these yield a MCD of 1866.7 (N=54 sherds) and Levels 7 through 12 combined produced a date of 1831.4 (N=63 sherds). Although the Civil War deposit dominated Test Unit 1, these data hint at an earlier occupation that is more manifest in the lower excavation levels. Of the 13 pottery sherds whose production had ceased by 1800, seven were recovered from Levels 6 to 12. The older occupation in this area is heavily masked by the later Civil War occupation.

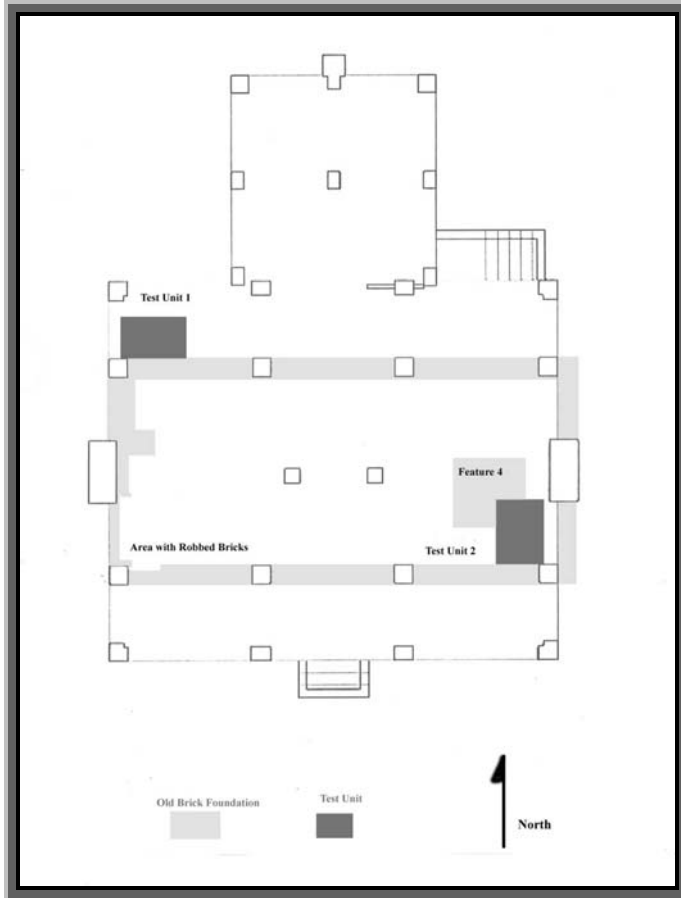


Figure 13. Project Plan Map.

Level	MCD	Count
1	1851.3	14
2	1828.9	5
3	1874.8	2
4	1857.0	5
5	1880.2	26
6	1910.0	2
7	1763.7	3
8	1818.9	20
9	1868.3	19
10	1829.4	11
11	1818.9	6
12	1794	4
Total	1847.7	117

Table 3. Mean Ceramic Dates (MCD) for Excavation Levels in Test Unit 1.

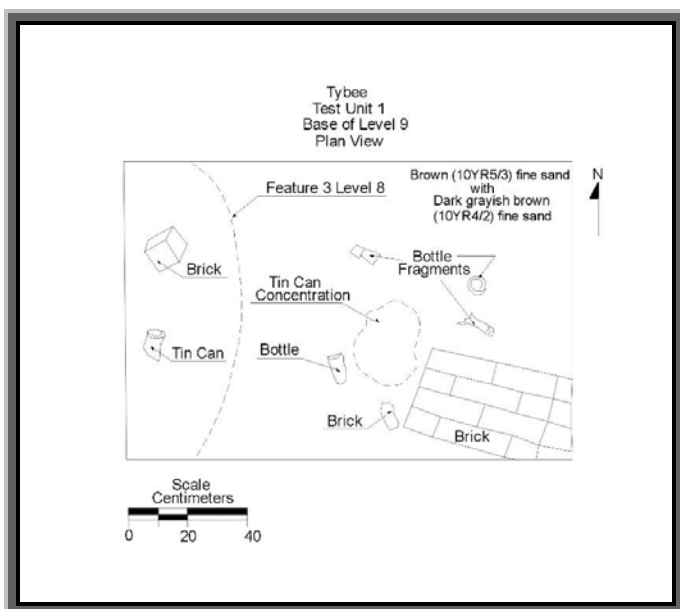


Figure 14. Plan of Level 9, Test Unit 1.

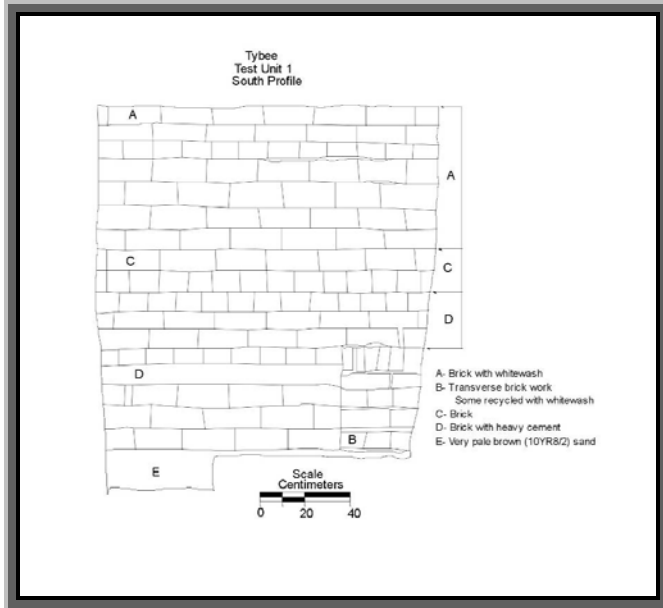


Figure 15. Test Unit 1, South Profile.

Test Unit 2

Test Unit 2 was placed adjacent to the East-West brick wall or footing of the southeastern part of the dwelling. This unit measured 1.6 meters by 1 meter. It was excavated in five levels to a maximum depth of 80 cm below surface, which was also 80 cm below the top of the brick wall. Three features were defined in this test unit. Feature 4 consisted of a rectangular brick chimney pad with no associated construction pit. Only a portion of Feature 4 was included in Test Unit 2 and the interior of the probable chimney hearth was not explored. The excavated portion is delineated in [Figure 17](#). Feature 5 consisted of a brick wall and associated construction trench. Feature 6 was a brick footing and associated construction trench. Test Unit 2 yielded approximately 807 artifacts, excluding building rubble and shellfish remains that were quantified in the field and discarded.

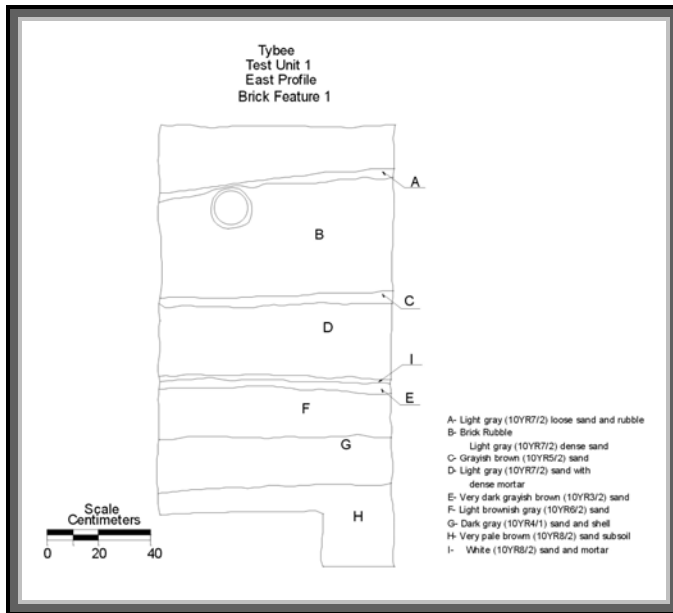


Figure 16. Test Unit 1, East Profile.

The stratigraphy in Test Unit 2 was less complex than in Test Unit 1. Two profiles of the unit are shown in [Figures 18 and 19](#). Test Unit 2 was excavated in five levels. The uppermost zone (Figure 19, Zone A) was unconsolidated sand and rubble with mixed artifacts, including several 18th century items. Beneath that was a zone of rubble and relatively undisturbed midden that contained primarily 19th century artifacts and a few 18th century ones (Figure 19, Zone B). Beneath that midden were light colored sands that contained very few artifacts (Figure 19, Zone F). That sand deposit graded into sterile subsoil (Figure 19, Zone H).

Feature 5 yielded 172 artifacts. The construction trench for Feature 5 contained a pottery sherd that was identified in the field as brown transfer printed ware. The earliest production date of this ware type was about 1809. This sherd establishes a Terminus Post Quem (TPQ) for the feature of 1809. A sample of 10 pottery sherds from Feature 5 yielded a MCD of 1832.7. This MCD suggests that the brick building was not constructed until sometime after 1830. The dateable historic ceramics from the remainder of Test Unit 2 (excluding Feature 5) yielded a MCD of 1815.2 (N=18 sherds). The entire dateable ceramics from Test Unit 2 produced a MCD of 1821.5 (N=28).

In addition to the excavation of the two test units, architectural features beneath the Assistant Keeper's residence were explored. The edges of the southern brick wall were partly exposed with a trowel to identify any projections or architectural deviations from a straight line. This was also done for the western brick wall. The northern brick wall was already fully exposed and was examined for any brick appendages or architectural deviations. The eastern brick wall extended beyond the footprint of the present Assistant Keeper's dwelling and all visible traces of it were mapped. Brickwork, which was partially exposed in Test Unit 2 was traced, which revealed a probable chimney pad

(Feature 4) from an earlier building. Artifacts recovered from the surface of this chimney date to the 18th century or early 19th century, which may indicate the age of this chimney.

Features

Six features were defined from the present excavations and surface inspection beneath the Assistant Keeper's Residence at the Tybee Lighthouse Museum.

Feature 1 consisted of a massive brick wall or building footing that formed the southern edge of Test Unit 1. Feature 2 consisted of a small chunk of brick wall that had been discarded in the midden in Test Unit 1. One brick from this section of brickwork measured 19 cm by 9.5 cm by 5.5 cm.

Feature 3 consisted of a concentration of oyster shells and other historic debris in the midden in Test Unit 1. Approximately 129 artifacts in Feature 3 included:

- 1 ornate molded red clay tobacco pipe
- 19 window glass
- 10 nails
- 60 metal can fragments
- 4 olive green bottle glass
- 2 aqua bottle glass
- 1 pharmaceutical bottle glass lip
- 4 brass grommets
- 2 bone buttons (1 hole)
- 2 iron hinges
- 1 unidentified brass fragment
- 1 slate fragment
- 20 bones (11.2 g)
- Shell
- Crab claw

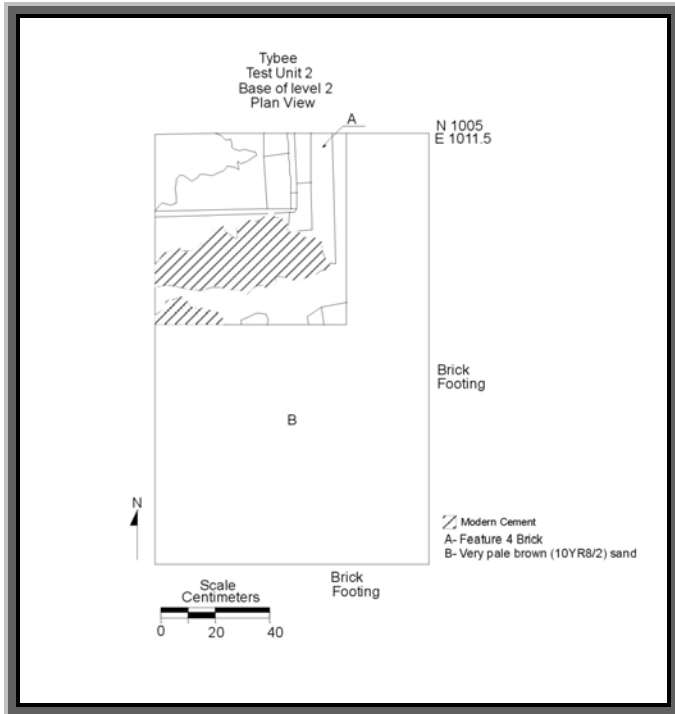


Figure 17. Plan of Level 2, Test Unit 2.

Feature 4 consisted of a rectangular chimney pad, which was located in the northern part of Test Unit 2. This feature extended beyond the test unit to the north and west. Most of this feature was located outside of Test Unit 2. The chimney pad was partially exposed and mapped but time did not permit a detailed investigation of this feature. It is shown in plan view in [Figure 20](#). Determining the age of this feature was enigmatic. The top, southeastern portion of the feature contained concentrations of modern cement. At first glance this gave a modern appearance to the feature. The lower courses of brick lack this cement however and appear to be considerably older. Logic would dictate that if it does represent a chimney, it is older than the 1885 dwelling that covers it and is served by chimneys at either end of the building. It possibly represents a chimney from the previous building, which was destroyed by fire in 1885, or it even may be part of an earlier dwelling house. Its age, however, must await more detailed investigation.

Feature 5 consisted of a massive brick wall or footing and its associated construction trench, which was located in the south side of Test Unit 2. Approximately 172 artifacts were retrieved from Feature 5, including:

- 3 window glass
- 10 cut nails
- 11 wrought nails
- 30 unidentified nails
- 1 glass button
- 1 porcelain
- 4 stoneware

- 3 creamware
- 2 pearlware
- 1 redware
- 1 polychrome h.p. pearlware
- 3 blue t.p. pearlware
- 1 brown t.p. pearlware
- 7 unidentified burned ceramic
- 13 bone,
- Oyster shell

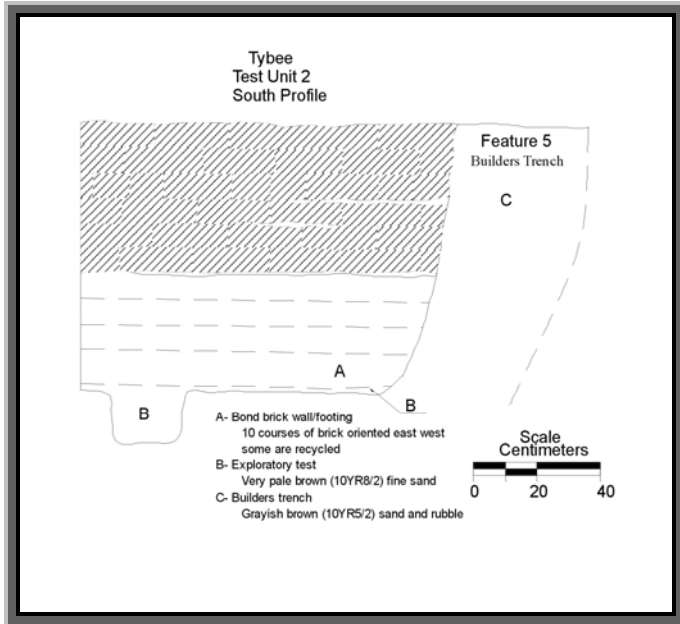


Figure 18. Test Unit 2, South Profile.

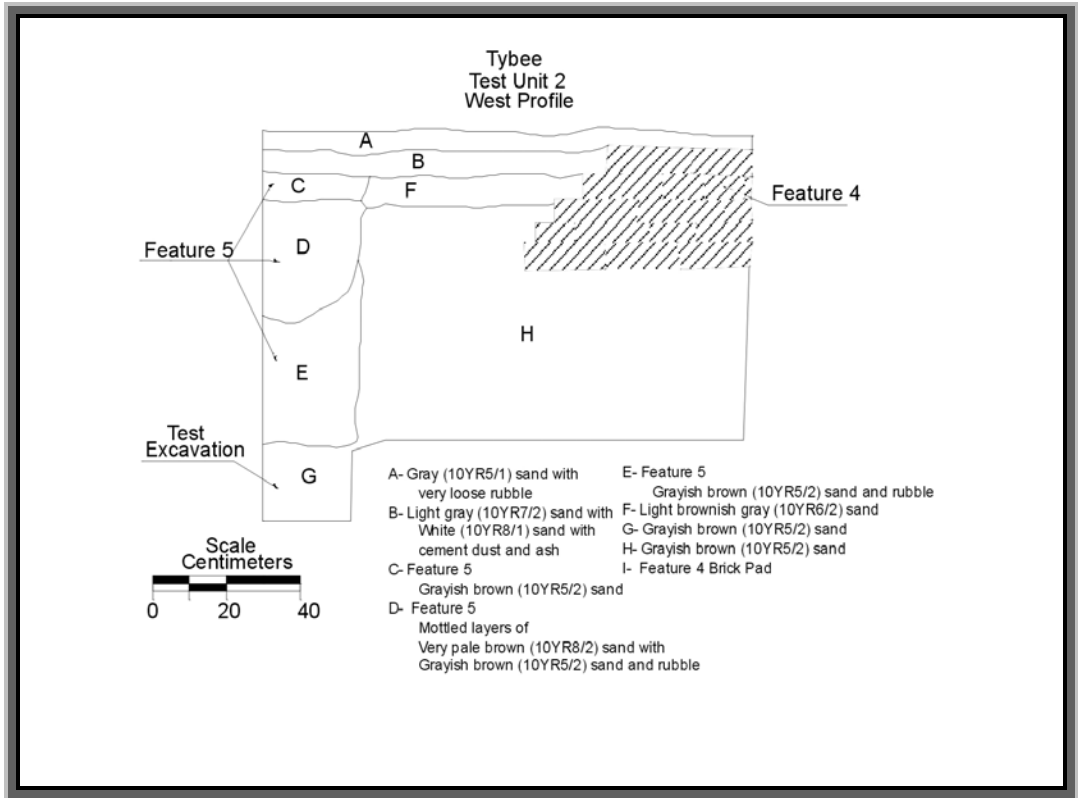


Figure 19. Test Unit 2, West Profile.

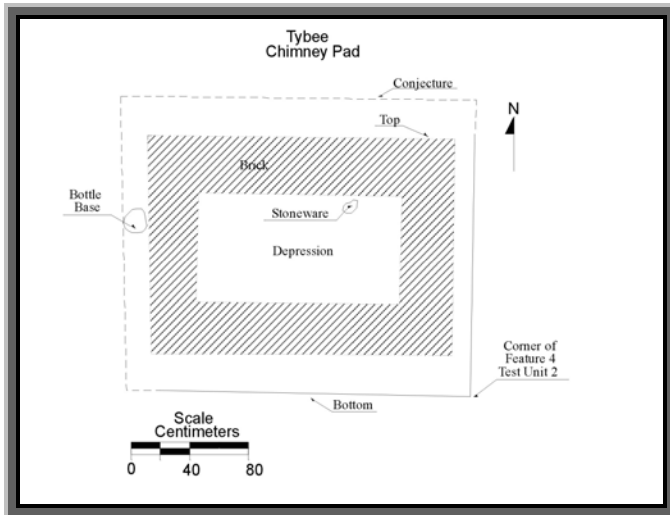


Figure 20. Plan of Figure 4, Chimney Pad and Hearth.

- 3 egg shell
- 27 turtle bones
- 1 aqua bottle glass
- 16 olive green bottle glass
- 1 olive green case bottle glass
- 4 melted bottle glass

- 2 tobacco pipe stems
- 1 barrel hoops.

A sample of 10 ceramic sherds from Feature 5 yielded a MCD of 1832.7. A single brown transfer printed pearlware sherd, which was recovered from a secure context within this feature, established its TPQ date at 1809. The artifacts in the fill suggest that the brick wall was constructed sometime after 1809. The absence of artifacts typically dating after the 1830s suggests that the brick building was completed by the 1840s. The presence of hand wrought nails, which began to be replaced by machine cut nails after 1790, as well as other artifacts whose manufacture began in the 18th century, suggests that an 18th century dwelling was present in this vicinity prior to the construction of the brick dwelling.

Feature 6 consisted of a brick pier and associated construction trench, which was located in the northeastern corner of Test Unit 1. This footing supports the eastern chimney of the 1885 Assistant Keeper's residence and it may have been constructed at the same time. Approximately 37 artifacts were recovered from Feature 6 and these included:

- 2 stoneware sherds
- 1 metal can
- 4 nails
- 1 mirror glass
- 1 melted bottle glass
- 25 turtle bones, 19.4 g
- Oyster shell.

Remains of the earlier brick foundation extend beyond the existing Assistant Keeper's dwelling, and are partially visible on the surface. A photographic view of this area is shown in [Figure 21](#).



Figure 21. Southwestern View of Assistant Keeper's Residence, Showing Brick Foundation Just West of the Cement Walkway.

Artifacts

Architecture Group

Brick

Brick rubble was abundant in Test Unit 1 and to a lesser extent in Test Unit 2. Several examples of whole brick also were recovered. Measurements were made on many of these complete brick, which are presented in [Table 4](#). Measurements were also taken on representative bricks in the existing architectural foundation for comparative purposes.

More than 50 million Savannah Gray bricks were produced on Henry McAlpin's Hermitage plantation in the mid 19th century. These bricks were widely used in the Savannah region (The Henry Ford Museum 2003). Savannah Gray brick was also used in the 1830s construction at Fort Pulaski and the 1854 lighthouse construction at Cockspur Lighthouse on Cockspur Island, and in the 1872 lighthouse keeper's dwelling construction at St. Simons Island Lighthouse (Coastal Georgia Historical Society, St. Simons Island Lighthouse Museum 2003). Savannah Gray bricks typically measure 9 inches long by 4 inches deep by 3 inches high, (Savannahhardscapes.com 2003).

Provenience	Length	Width	Thickness
TU1, Level 2	23	12.5	7
TU1, Level 4	22.5	11	6.5
TU1, Level 6	24	11.5	7
TU1, Level 7	21.5	10.5	6.5
TU1, Level 8	22.5	12	7
TU1, Level 10	24	12	6.5
TU1, Level 10	21	9	6
TU1, Feature 1	23	11	6.5
<i>TU1, Feature 2</i>	21	10	7.5
TU1, Feature 2	19	9.5	5.5
Brick Wall, NE Corner	24	12	8
Range	21-24	9-12	4.5-8
Site Average	22.3	11	6.7

Table 4. Metric Measurements (in cm) of Selected Bricks, Assistant Keeper's Residence, Tybee Lighthouse.

Mortar, Cement, Stucco, Shell and Plaster

The excavations at Tybee Lighthouse yielded considerable quantities of mortar, cement, stucco, and plaster building materials of various ages. For the most part, these materials were undifferentiated and quantified with the brick building rubble ([Table 5](#)). A thick deposit of cement stucco in Test Unit 1 caught our attention, however, and selected samples of this material were collected. After consultation with Cullen Chambers, this rubble deposit was interpreted as the debris from the 1866-1867 repairs to the Tybee Lighthouse. Mr. Chambers noted that similar deposits had been encountered on various construction projects at the Lighthouse site. The bulk of this stucco was flat fragments,

although some smoothed corner pieces were noted. Most were unpainted (or possibly whitewashed) specimens. Several examples of red-pigmented stucco were observed, which may indicate the former color scheme of red and white for the Tybee Lighthouse, which is currently painted black and white. The red pigment was probably made from naturally oxidized minerals with no gloss.

Wrought Nails (N=32)

Thirty-two hand wrought nails were recovered from Test Unit 2. None were conclusively identified in Test Unit 1. Hand wrought nails are commonly found on colonial and early federal period sites in America. In those days all nails were manufactured individually by a blacksmith. New technology was introduced in 1790 for machine made square (or cut) nails and hand wrought nails were soon replaced by machine cut nails. By 1820 wrought nails are uncommon on archaeological sites in Georgia. Their presence in Test Unit 2 strongly suggests that an 18th century structure was once present in this vicinity. Their absence in Test Unit 1 suggests that this area was either more distant from the building, or the 18th century deposits in this vicinity were removed by later historic activity. Eighteenth century artifacts were lightly scattered throughout Test Unit 1 and their mixed context may support the latter explanation.

Test Unit	Level	Description	Weight (kg)
1	1	Brick, mortar, & shell	84
1	2	Brick, mortar, & shell	139
1	3	Brick, mortar, & shell	62
1	4	Brick, mortar, & shell	49
1	5	Brick, mortar, & shell	40
1	6	Brick, plaster, mortar & shell (lighthouse repair?)	119
1	7	Mortar, plaster & shell, some brick	103
1	8	Brick, mortar & shell	20
1	9	Shell, mortar & brick	4
1	10	Shell, brick, & mortar (mostly clams)	79
1	11	Shell, brick & mortar	57
1	12	Shell, brick & mortar	4
1	13	Sterile	0
1	14	Sterile	0
1	Total		760
2	1	Brick, mortar & shell	84
2	2	Shell, brick & mortar	26
2	3	Brick, shell & mortar	11
2	4	Brick, shell & mortar	12
2	5	Shell, mortar & brick	0.3
2	Feature 5	Brick, mortar & shell	24
2	Feature 6	Brick & shell	1
2	Total		158.3
PROJECT TOTAL			918.3

Table 5. Building Rubble and Shellfish Remains Quantified and Discarded.

Machine Cut Nails (N=355)

Machine cut nails were the dominant identifiable nail type recovered from the Tybee excavations. Test Unit 1 yielded 279 cut nails and Test Unit 2 produced 76. The greatest frequency of cut nails in Test Unit 1 was observed in Level 1, followed by Levels 11 and 12. The greatest frequency in Test Unit 2 was in Level 1, followed by Level 3.

Wire Nails (N=32)

Wire nails, which were first produced in the mid-19th century and generally replaced cut nails by 1900, were present as a minority type in the Tybee excavations. Wire nails were not found below Level 1 in Test Unit 1 or below Level 2 in Test Unit 2. Their absence in the lower levels of these test units bolsters the pre-20th century age for these deposits.

Spikes (N=5)

Five iron spikes were recovered from the Tybee excavations. Four of these were from the lower excavation levels of Test Unit 1 and one was from Test Unit 2, Level 1. Spikes were used in building construction in the 18th and 19th centuries. Spikes also were used in ship construction and to construct artillery carriages and for various other uses on military fortifications.

Brads (N=4)

Three machine cut iron brads were found in Level 2 of Test Unit 1 and one brass machine cut brad or nail was found in Level 8 of that test unit. Brass nails were used in ship construction because they resisted corrosion from sea water

Cut or Wrought Nails (N=3)

Three square nails in the assemblage were either hand wrought or machine cut. Two of these from Test Unit 1, Level 8, were made of brass and may have been used in marine construction. The other was an iron example from Test Unit 2, Level 4.

Unidentified Nails (N=960)

The greatest amount of nails from Tybee was unidentified because of their corroded condition. Most of these are presumed to be machine cut nails. Of these, 831 were from Test Unit 1 and 129 were from Test Unit 2. Peak frequencies of unidentified nails were observed in Level 8 of Test Unit 1 and Level 1 of Test Unit 2.

Other Hardware (N=11)

Other architectural hardware items from the Tybee excavations included two wood screws and nine iron hinges. The screws were recovered from Level 1 of Test Unit 2. The hinges were recovered from Levels 8, 9, and 11 of Test Unit 1.

Window Glass and Melted Glass (N=896)

Window glass (N=840) was present throughout the excavations. Most of the window glass was recovered from the lower levels of Test Unit 1. A high concentration of window glass was located in Levels 8 through 12 in Test Unit 1 with the greatest

concentration in Level 10 (N=335 sherds). Secondary peaks in window glass were noted in Levels 1 and 5 of Test Unit 1. Melted glass was concentrated in Level 2 of Test Unit 1, which probably relates to the 1885 dwelling fire.

Test Unit 2 contained a total of 58 window glass sherds, including 55 sherds in Level 1 but none in the lower levels. Feature 5, the builder's trench for the brick foundation, yielded three window glass sherds. Melted glass also was common in Test Unit 2 where it was distributed in excavation levels 1, 2, 3 and 5, and in Features 5 and 6. The presence of melted glass in Feature 5 may indicate that more than one dwelling was destroyed by fire at this location.

Plate Glass (N=9)

Thick plate glass sherds were found in both test units, including six sherds from the lower levels of Test Unit 1, which suggests use of this material at the site during the mid-19th century. Thick plate glass may represent fragments of a former lighting mechanism, or possibly porthole glass from 19th century marine vessels.

Kitchen Group

Ceramics

Tin Enameled Ware (N=4)

One small blue and white delftware sherd was recovered from Test Unit 1, Level 10. Plain delftware sherds were recovered from Levels 1 and 5 in Test Unit 1.

Lead Glazed Slipware (N=3)

Two sherds of combed yellow slipware were recovered from the excavations, one from each test unit (TU 1, Level 12 & TU2, Level 1). One undecorated yellow slipware sherd was recovered from Test Unit 1, Level 12. One example of this ware is shown in [Figure 22](#). This ware was produced in England and is not generally observed on Post-Revolutionary War sites in America.



Figure 22. Combed Yellow Slipware Sherd, Test Unit 2.

Jackfield (N=2)

Two sherds of Jackfield refined redware were recovered from Test Unit 1 (Levels 5 and 8). Production of Jackfield wares began about 1740 and this pottery type is not common on sites in America dating after the American Revolution.

Salt Glazed Stoneware (N=6)

A small portion of the stoneware sherds were decorated with a salt glaze, which is a trait usually associated with the colonial period in Coastal Georgia. These included white and gray salt glazed wares. One sherd from a molded white salt glazed stoneware plate rim was recovered from Test Unit 2, Level 2. It is shown in [Figure 23](#).



Figure 23. Molded Salt Glazed Stoneware Plate Rim, Test Unit 2 (Shown Reduced).

This type of ware was first produced in 1740 and manufactured until about 1765. The presence of this sherd in Test Unit 2 (Level 2) strongly suggests occupation of this part of Tybee Island in the decades prior to the American Revolution. Five other salt glazed stoneware sherds were recovered from the two test units. One of these was a brown bottle neck fragment with a rouletted motif at the lip, which is reminiscent of a Bellarmine vessel. Bellarmine stoneware is uncommon in colonial Georgia, although it does occur. The Tybee specimen is shown in [Figure 24](#).



Figure 24. Possible Bellarmine Stoneware Bottle Neck, Feature 5, Test Unit 2.

Other Stoneware (N=20)

The remaining stoneware sherds included one Albany slipped stoneware sherd from a utilitarian vessel; one alkaline glazed stoneware sherd; three unidentified lead glazed stoneware, and; other unidentified domestic stoneware sherds. These sherds likely date to the 19th or early 20th centuries.

Porcelain (N=8)

Porcelain was present as a minority ware in the Tybee ceramic assemblage. One sherd of overglazed enameled polychrome hand painted porcelain was recovered from Test Unit 1, Level 11. This sherd probably represents an imported 18th century Chinese vessel. The other porcelain sherds were undecorated and of limited diagnostic value.

Whieldon ware (N=2)

Archaeologists recovered two sherds of Whieldon ware, a clouded glazed refined earthenware first produced by Thomas Whieldon in England about 1740 and ending about 1770. Its presence at Tybee strongly suggests that the site was occupied prior to 1770, since this ware was quickly replaced by creamware in the consumer market.

Creamware (N=20)

Creamware was a very popular refined earthenware produced in England from 1762 to about 1820. Creamware in the Tybee ceramic assemblage included 19 plain and one rouletted rim cup or bowl. Vessel forms included plates, flatware and hollowware.

Pearlware (N=43)

Pearlware was another popular refined earthenware produced in England from about 1774 until 1820. Pearlware was the most common refined earthenware type in the Tybee ceramic assemblage. Decorative motifs among the pearlware sherds included: polychrome hand painted, early variety; dark blue, blue and brown transfer printed; underglazed blue hand painted; blue edgeware, and undecorated ware. One example of a blue transfer printed pearlware bowl from Test Unit 1 is shown in [Figure 25](#).



Figure 25. Blue Transfer Printed Pearlware Bowl, Test Unit 2 (Shown Reduced).

Whiteware (N=10)

Whiteware was another popular refined earthenware, whose manufacture began in England about 1810 and continued throughout the 19th century. Whiteware types in the Tybee ceramic assemblage included: blue edged; blue, brown, and other transfer printed; and polychrome hand painted, late variety ware.

Cream-colored Ware (N=52)

Fifty-one refined earthenware sherds were identified only as cream-colored, or CC ware. These could not be distinguished by the subcategories of creamware, pearlware, or whiteware. Most of the sherds in this category are 19th century wares. Decorative motifs on these sherds were mostly plain but included blue edgeware and blue transfer printed ware.

Ironstone (N=9)

Eight ironstone sherds were recovered from Test Unit 1 and one from Test Unit 2. Ironstone appears on historic sites dating to about 1810. By the late 19th century it becomes a dominant tableware on historic sites in Georgia.

Yellow Ware (N=7)

Yellow ware is a common mid-19th century ware on historic sites in America. The examples recovered from Tybee included decorated vessels and plain wares. Yellow wares were commonly used for utilitarian purposes and vessel forms recognized at Tybee include a large pan and other unidentified large vessel forms. One mocha decorated yellow ware sherd was recovered from Level 4 in Test Unit 1.

Unidentified Ceramics (N=26)

Twenty-six pottery sherds from Tybee were badly burned, which precluded their identification. Most (N=23) of these burned sherds were from Test Unit 2, which may relate to the chimney (Feature 4). Although these sherds were not identifiable by ware type, their thinness and morphological appearance suggested that most were early historic wares (18th or early 19th century).

Bottle glass

Bottle glass was commonly encountered in the excavations at Tybee. Most of this was 19th century glass and primarily olive green, aqua, or clear colored. Olive green bottle glass was the dominant type, represented by 663 sherds. The greatest concentration of olive green glass was observed in Levels 8 and 10 of Test Unit 1. Aqua bottle glass was the next most frequent, represented by 70 sherds. This type of glass was most prevalent in Levels 5 and 8 of Test Unit 10. Two fragments from Level 8 exhibited a blowpipe pontil. Handblown bottles become less common on archaeological sites in Georgia after 1840. Clear bottle glass was the third most common type, represented by 48 sherds. Three of these from Test Unit 1, Levels 7 and 9, were fragments of hand blown pharmaceutical bottles. Most of the clear bottle glass was recovered from the upper two excavation levels of Test Unit 1, however, which suggests a post-1885 association. Only five amber bottle glass sherds were recovered from the excavations. Two dark green bottle glass sherds were identified in Test Unit 1. One of these bore the raised molded letters, "PASTORIUS SCHULZ & CO. PITTS, PA", on its post-bottom mold type base. This bottle base is shown in [Figure 26](#). One solarized, or amethyst-colored, bottle glass sherd was recovered from Test Unit 1, Level 1. This type of bottle glass, which employed

manganese in its manufacturing process, is common on archaeological sites dating from 1880 to 1914.



Figure 26. Pastorius Schulz & Co., Pitts, PA, Post-Bottom Mold Bottle Base, Test Unit 1, Level 10.

Tableware glass (N=1)

One fragment of an octagonal glass cruet, decanter, or tumbler was recovered from Test Unit 1. Archaeologists recovered no other tableware artifacts.

Tin Cans and Containers (N=629)

The use of tin cans for commercial food storage has its roots in the 18th century when tinsmiths produced a variety of useful household items from sheet tin. Tin can production began after an Englishman named Peter Durand received a patent in 1810 from King George III. Canning in America began in earnest after 1819 and the tin-plated can was patented in America by Thomas Kensett in 1825 (Benjamin Packaging Co., Ltd. 2003). Early tin cans were sealed with lead solder, which led to health problems in some cases where canned foods were a primary food source. By the Civil War, however, most of these problems had been addressed and canned foods were considerably safer.

Tin cans were well represented in both excavation units at Tybee Island. Most were recovered from the lower excavation levels of Test Unit 1, where they were found in association with other Civil War occupation debris. The greatest frequency was observed in Levels 9 and 10 where two clusters of cans were identified.

In Test Unit 2 they were most frequent in Level 2. While most of these containers are presumed to be food-related, some probably had other uses. Several narrow, elongated container fragments were found that may represent a storage container for percussion caps or friction primers. One of these measured 40.3 mm in diameter. Preservation of the

metal containers was poor and none were recovered intact. Many crumbled into small fragments upon excavation and these residual fragments were not retained.

Kitchen Cookware and Utensils (N=4)

Archaeologists recovered several artifacts that indicated that food was prepared and cooked nearby. One fragment of a cast iron skillet or pan was recovered from Level 11 in Test Unit 1. One pewter tablespoon handle was recovered from Level 1 in Test Unit 1. It bore no identifying marks. The spoon was twisted and broken. One poorly preserved iron serving fork was retrieved from Level 8 in Test Unit 1. One bone utensil handle with iron rivets was found in Level 2 of Test Unit 1.

Food Remains

Food bones and shellfish debris were well represented in the excavations at Tybee. Turtle carapace bones were very common in the faunal assemblage. A variety of species and sizes of turtles was represented in the collection, although we made no attempt to subdivide the collection. Field identification of turtle bones in both test units and in multiple excavation levels and various feature contexts indicates that turtles were an important component of the diet at Tybee Lighthouse. Beef was also eaten at the site. Several large beef bones were recovered. Most of the larger bones exhibited saw marks. Pig bones and tusks were recognized in the assemblage. Fish and bird bones were recovered from both test units. Several fragments of eggshell were recovered from Test Unit 2, Levels 2 and Feature 5.

Shellfish were an important part of the diet at Tybee. Oysters were scattered throughout the excavation in limited quantity. While some small oyster shell fragments may represent residue from decomposed tabby mortar, most of the larger pieces were interpreted as food debris. Clams were recovered from both test units, although a concentrated deposit was identified in the lower levels of Test Unit 1, particularly in Level 10. Their presence in that buried context suggests feasting on clams by the Union soldiers, possibly in late 1861 or early 1862. A small number of large whelk shells was recovered from the excavations. Two of these exhibited fracture evidence indicating that they were consumed as food. Other small shellfish species were represented in the faunal assemblage, although some of these may not represent food items. Crustaceans were included in the diet at Tybee Island. Crabs were apparently consumed, based on the recovery of small fragments of crab claws.

Clothing Group

Twenty-eight clothing related artifacts were identified in the artifact assemblage from Tybee. These included buttons, grommets, buckles, hook and eye fasteners, and scissors. These are discussed in greater detail below.

Buttons (N=15)

The buttons included three bone, six milk glass, two brass, and four iron examples.

The bone buttons were found in Feature 3 in Test Unit 1. The single shell button came from Level 8, Test Unit 1. Four of the milk glass buttons were retrieved from the lower excavation levels of Test Unit 1. Feature 5 in Test Unit 2 yielded one milk glass button. One plain brass button was recovered from Test Unit 2. The reverse of this button was stamped with the letters, “GILT”. This button, which is depicted in [Figure 27](#), was identified as South Type 9. The other brass button, which came from Level 7 in Test Unit 1, was identified as a South Type 18 button, which was a type produced from about 1800 to 1865. Surprisingly, no Civil War military buttons were recovered from the excavations at Tybee despite the abundance of other artifacts from that period.



Figure 27. Plain Brass Button (Reverse), South Type 9, Test Unit 2.

One brass hook and eye clothing fastener was recovered from Level 8 in Test Unit 1. Seven brass grommets were recovered from Levels 9 and 10 of Test Unit 1. Four of these came from Feature 3. This type of large grommet was commonly used by the Union army for rubber tarps. Numerous archaeological examples were recovered from the Union camp on Folly Island, where they were found in soldier’s burials (Legg and Smith 1989). Tarps no doubt experienced a wide variety of uses in the Civil War. Smaller grommets may have been used on shoes. Three iron clothing buckles were recovered from the lower excavation levels in Test Unit 1. Two fragments of scissors were found in the Tybee excavations. One came from Test Unit 1, Level 9 and the other from Test Unit 2, Level 2. Both were made of iron or steel.

Arms Group

Five categories of artifacts in the Arms Group were identified from the excavations. These included: 1 iron grapeshot, 3 lead minie balls, 1 altered lead ball, copper/brass percussion caps, 1 English spall type gunflint, and 1 French blade type gunflint. These arms artifacts are described below. [Editorial note: After the fieldwork was completed an employee at the Tybee Lighthouse Museum pulled a complete bayonet from the exposed profile of Test Unit 1. That artifact is currently owned by the museum.]

Grapeshot (N=1)

Grapeshot, which were iron or lead balls contained in a cloth bag or metal cylinder, were fired from mortars or cannons. Once fired these shot scattered and were an effective anti-personal ordnance. One iron grapeshot was retrieved from Level 9 in Test Unit 1. This artifact, which measured 1.25 inches in diameter, is probably associated with the Civil War period at Tybee Island.

Lead Bullets (N=4)

Minie balls weapon technology was invented by Captain Claude Minie about 1849. A patent for Minie's invention was purchased by the British government in 1851 where it was adapted for the Enfield rifle (Researchpress.co.uk 2003; cwbullet.com 2003). All of the recovered specimens of minie balls were the 3-banded style associated with the United States Armory at Springfield. No Confederate bullets were identified. This type of bullet was used by the United States military until the widespread adoption of metal cartridges by the Springfield Arsenal. All were recovered from Test Unit 1 (Levels 1, 7 and 9) and are illustrated in [Figures 28, 29 and 30](#). One of the specimens was possibly fired and impacted into the sand, although it was barely distorted as a result. The other specimens are probably dropped bullets that were never fired. The diameters of the three minie balls were 14.4 mm, 14.5 mm and 15.3 mm. One altered round lead ball was recovered from Level 1 of Test Unit 2. This specimen was bored and flattened on both sides, possibly for use as a fishing weight. It is shown in [Figure 31](#).



Figure 28. Minie Ball, Test Unit 1, Level 1.



Figure 29. Minie Ball and Two Percussion Caps, Test Unit 1, Level 7.



Figure 30. Minie Ball and Rimfire Cartridge, Test Unit 1, Level 9.

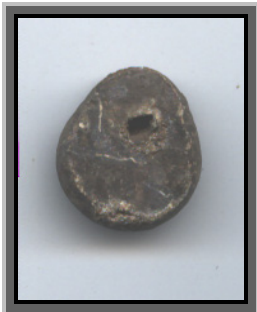


Figure 31. Round Lead Ball Modified Into a Fishing Weight.

Percussion Cap (N=10)

Percussion cap weapon technology was invented by Joshua Shaw about 1814 but Shaw kept his invention secret until 1822 when he was issued a patent. Shaw obtained another patent in 1828 but by 1826 the percussion cap was widely used for personal weapons. Military service use of percussion cap technology lagged behind by nearly two decades. The British adopted it for their service weapons at Woolwich in 1843 (Researchpress.co.uk 2003). All of the percussion caps from the Tybee excavations were recovered from Test Unit 1. Most were recovered from the lower excavation levels, although two were found in Level 2 and one in Level 5. Level 8 yielded the greatest frequency (N=4). Most of the percussion caps had been fired, but at least one example probably was unfired. Two examples are shown in Figure 29.

Rimfire Cartridges (N=2)

Two brass rimfire cartridge cases were recovered in the excavations at Tybee. Metallic rimfire cartridges were in use as early as 1835 but they were not widely used until after 1863. One of these was a brass casing in Level 9 of Test Unit 1. It bore no markings and its aperture measured 8.8 mm in diameter (see Figure 30). The other brass casing was a .22 caliber shell from Test Unit 2, Level 1. Both were spent rounds.

Gunflints (N=2)

Two gunflints, one English spall type gunflint and one French blade type, were both recovered from Test Unit 2. The French flint possessed these metric attributes: length, 20.9 mm; width, 28.7 mm; and thickness, 7.7 mm. This specimen exhibited moderately heavy use. The English spall type gunflint possessed these attributes: length, 29.3 mm; width, 29.5 mm; and thickness, 6.5 mm. This specimen exhibited heavy reuse. These gunflints are shown in [Figures 32 and 33](#). These artifacts likely date to the time of the American Revolution or earlier (Elliott 1996). French blade gunflints were the preferred gunflint in the colonial period, although in Georgia, being an English colony, they are present as a minority in gunflint assemblages. The French gunflint knappers managed to keep the manufacturing technology secret until about 1780, when English blade type flints make their appearance. By the early 19th century, they dominate the arms artifact assemblages in the Southeastern U.S. English blade type gunflints are common throughout the Colonial and Revolutionary War period in Georgia. By about 1840 percussion caps had largely replaced older flintlock technology, although flintlocks

continued to be used by military units for decades afterward. Flintlocks that were used in the Civil War most likely held small English blade type flints. No flints of this variety were recovered from the excavations.



Figure 32. French Blade Gunflint, Test Unit 2, Level 2.

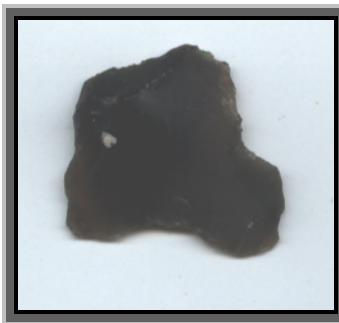


Figure 33. English Blade Gunflint, Test Unit 2, Level 1.

Tobacco Group

Clay Tobacco Pipes (N=37)

Clay tobacco pipe fragments were recovered from both Test Units, although most (N=30) were from Test Unit 1. The most common fragments were from plain, long stem white kaolin pipes. One large portion of a molded “TD” pipe, which is shown in [Figure 34](#), was recovered from Test Unit 1. The design on this specimen consisted of a circle of 13 raised stars surrounding the raised initials T.D., which faced the smoker. The design on the opposite side of the pipe was a raised stylized wheat grain border. Ironically, a very similar pipe example was described by Thomas (2000:4) from excavations at a 19th century lighthouse on Lake Erie. That lighthouse site was occupied nearly continuously from 1818 until 1899.



Figure 34. TD Tobacco Pipe, Test Unit 1 (Shown Reduced).

Redware pipe fragments from two distinct tobacco pipes were recovered in Test Unit 1. The larger tobacco pipe example, which is shown in [Figure 35](#), was a nearly complete, glazed, reed stemmed, redware pipe. A flowing stylized floral motif covered the entire pipe. This pipe was an elbow variety but with an unusually exaggerated bowl. This tobacco pipe was coated with remnants of red paint, which, unfortunately, was determined to be water soluble.



Figure 35. Ornate Redware Tobacco Pipe, Feature 3, Test Unit 1.

The smaller redware tobacco pipe was an anthropomorphic form. Evidence of a man's face, moustache and beard were visible but the fragment was too small for further identification. This pipe fragment is shown in [Figure 36](#). This pipe also was a reed-

stemmed type. Anthropomorphic pipes of this type were common throughout most of the 19th century.



Figure 36. Selected Tobacco Pipe Fragments, Test Unit 1, Level 8.

The bore diameters of long-stem tobacco pipes can often be used to date historic sites, particularly on sites dating prior to 1775. Several tobacco pipestem dating formulas have been developed by archaeologists for this purposes. Pipestem bore diameters were measured for 17 clay tobacco pipe fragments. This sample was of inadequate size, however, for a statistically reliable date calculation. The Tybee pipestem assemblage included: four 3/64 inch bore, three 4/64 inch bore, and nine 5/64 inch bore. The sample of tobacco pipes from Test Unit 1 were primarily associated with the lower excavation levels. Twenty-eight specimens were recovered from Levels 6 to 11. One plain colonoware tobacco pipe fragment was recovered from Level 8 in Test Unit 1. Evidence of 20th century tobacco usage was found in Test Unit 2 by the recovery of a paper tag from a cigarette package.

Personal Group

One brass finger ring was recovered from Test Unit 1, Level 10. This ring was an undecorated single band that measured 20.7 mm in diameter; 2.8 mm in band width, and; 0.5 mm in band thickness. One bone ring was recovered from Test Unit 1. This ring was carved and sawn from a leg or arm bone of a large mammal. It is shown in side view in [Figure 37](#). The function of this crudely carved ring is subject to debate. Two fragments of a brass pocket (pen) knife were recovered from Test Unit 1, Level 10. This tool was decorated with a layer of mother of pearl that was riveted to its handle. A broken glass marble was recovered from Test Unit 1. This marble dates to the 20th century and hints at the presence of children involved in play on the lighthouse site during that period. Another modern item, one brass pencil part, was found in Test Unit 1, Level 1.



Figure 37. Bone Ring, Test Unit 1, Level 9.

Furniture Group

Furniture Artifacts (N=3)

One wrought brass upholstery tack was recovered from Test Unit 1, Level 10. Such tacks were used to adorn the edges of chairs and other seating items. Tacks also were used to decorate personal chests and trunks in the 18th and 19th centuries, particularly in a military context. One fragment of mirror glass was recovered from Feature 6 in Test Unit 2. A brass loop of unknown function was recovered from Level 5 in Test Unit 1.

Activities Group

Uniform Parts (N=4)

One example of Artillery uniform insignia was recovered from Test Unit 1, Level 10. The design on this specimen was crossed cannons (Figure 38). This insignia was adopted by the Artillery Corps of the United States Army in 1834. One small stamped brass numeral “3” was recovered from Test Unit 1, Level 8 (Figure 39). This was probably associated with the Union military occupation of the site. Both of these brass items (crossed cannons and the numeral 3) may have once been attached to a kepie, or period uniform hat. These items may have been on an artilleryman’s kepie and possibly a non-commissioned officer or enlisted man in the 3rd Regiment, Rhode Island Heavy Artillery. Similar brass numerals are often reported from Civil War battlefield and campsite settings (Legg and Smith 1989). One brass satchel or knapsack hook was recovered from Test Unit 1, Level 10. The reverse side of this artifact is shown in Figure 40. Its obverse side featured an undecorated domed disc. One brass strap buckle was retrieved from Test Unit 1, Level 9. This specimen had molded marks on both sides. The obverse side is shown in Figure 41. The front had the name of the manufacturing company, “N__WANNUCK MFG CO”, and the reverse stated, “Patent 1855”. This artifact helps to date the archaeological deposits. Its presence shows that Level 9 must date after 1855. This buckle was probably discarded by Union soldiers in 1861 or 1862.



Figure 38. Crossed Cannons Artillery Insignia, Test Unit 1, Level 10.



Figure 39. Numeral "3" Insignia, Test Unit 1, Level 8.



Figure 40. Knapsack Hook, Test Unit 1, Level 10.

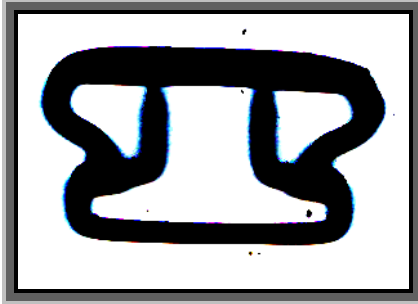


Figure 41. Strap Buckle, Test Unit 1, Level 9.

Barrel Hoops (N=48)

Iron barrel hoop fragments were recovered from both test units, as well as surface contexts, at Tybee Lighthouse. The hoop strips ranged in width from 1 inch to 1 ¼ inch. Most of these came from the lower excavation levels in Test Unit 1. Level 10 produced the greatest frequency of barrel hoops (N=26). Wooden barrels with iron hoops were widely used for storing a variety of materials in the 18th, 19th and early 20th centuries. On Revolutionary War sites, barrel hoops were often modified for use as cooking utensils and paraphernalia. None of the excavated specimens at Tybee revealed any modifications. The Union troops who occupied Tybee Island in 1861 and 1862 received many of their supplies in barrels. The wooden staves may have been used for firewood but the hoops were simply discarded.

Other Metal Items

Two sections of iron chain links, one washer, one single sided disposable razor blade, and one triangular file fragment were retrieved from Test Unit 1, Level 1. One brass rivet, a brass strap, and a squared brass box lid were recovered from Test Unit 1, Level 10. Other miscellaneous pieces of lead and brass were recovered from the excavations and are listed in Appendix 1.

Newspaper

Several fragments of newspaper were recovered from the upper two levels of Test Unit 1. Most of these crumbled to dust upon excavation. One larger fragment revealed a portion of a post-World War II bicycle advertisement. Another fragment was from the Sports section and referenced the Brooklyn Dodgers. The Brooklyn Dodger baseball team was based in Brooklyn, New York until late 1957. The period of residence of the Dodgers in Brooklyn allows us to bracket the age of this newspaper between 1898 and 1957.

Matches

Two used wooden matchsticks were recovered from the uppermost level of Test Unit 2. These objects probably date after the 1885 house fire. Otherwise they would have likely been consumed by the fire.

Engraved Slate (N=2)

Fragments of engraved slate were recovered from Levels 8 and 9 (Feature 3) in Test Unit 1. The example retrieved from Feature 3, which is shown in [Figure 42](#), possessed a series of radiating fine engraved lines within a concentric circle grid. The pieces from Level 8 bore similar incised lines and may represent fragments of the same artifact. These pieces are probably part of one or more sundials that were used at Tybee. Slate sundials were produced in the 17th and 18th centuries.



Figure 42. Engraved Slate Fragment, Feature 3, Level 9, Test Unit 1.

Aboriginal Artifacts

Surprisingly, no aboriginal artifacts were recognized in the present excavations. The absence of aboriginal artifacts is more likely a function of sample size, rather than their absence from the site.

V. Interpretations and Recommendations

Tybee Island Lighthouse Complex

The Tybee Island Lighthouse Complex, including the Assistant Keeper's Residence, was incorporated as part of the Fort Screven National Register Historical District which was listed in the National Register in 1982. The Assistant Keeper's Residence was identified as a contributing element to the eligibility of the property. The archaeological components of the lighthouse complex and Fort Screven, however, were not considered in the NRHP nomination package, since very little was known about these resources at the time of the nomination. Small-scale studies by archaeologists with the University of Georgia, Armstrong State College, and Tidewater Atlantic Research have provided limited information about these resources but no significant deposits were described (Pearson 1978; Larry Babits personal communication April 12, 2003; Watts 1998).

The cultural deposits in both test units spanned the mid-18th through late 20th centuries, although most of the artifacts date to the 19th century. Test Unit 1 contained a more deeply buried deposit, which was extremely well preserved. The depth and diversity of this deposit exceeded everyone's expectations. The cultural deposits in Test Unit 2 were comparatively shallow, although intact deposits were present in this test unit as well. In both test units the upper 20 cm was heavily disturbed and contained mixed artifacts dating to various periods.

The East-West brick walls beneath the Assistant Keeper's house were suspected by various researchers to be the footing or wall of the original Keeper's residence. Extant early photographs of this dwelling suggested that it was a brick building. The precise age of the original dwelling was not known from previous historical research, although it was thought to date possibly to the early 1770s. Clues to the age of the brick foundation, which underlies the existing Assistant Keeper's residence, were unearthed in Feature 5 in Test Unit 2. Feature 5 was the builder's trench for the brick wall and this trench was not created until sometime after 1809, based on the presence of a brown transfer printed ware sherd in the feature fill (Figure 43). Production of this type of ceramic did not begin until after 1809, thus indicating that the brick building was constructed after that date. Furthermore, the abundance of 18th and early 19th century artifacts in the builder's trench indicates that a dwelling probably existed on the site prior to that date. One fragment of a possible Bellarmine stoneware bottle suggests that occupation in this vicinity took place in the very early British colonial period of Georgia's history. Other artifacts from Test Units 1 and 2 substantiate an occupation in the mid-18th century, several decades prior to the 1770s.



Figure 43. Brown Transfer Printed Ware, Feature 5, Test Unit 2 (TPQ 1809).

Historical records indicate that the Keeper's Residence was consumed by fire in 1885. Archaeological support for this catastrophic event was revealed in both test units, although signs of it were more pronounced in Test Unit 1. Excavation Levels 2 and 3 contained many examples of melted window and bottle glass, exploded bricks, and highly tempered nails. In the vicinity of Test Unit 1, this catastrophic fire served to seal the underlying archaeological deposits from subsequent disturbance. Probably the best evidence that the previous dwelling on this site had burned was the abundant melted glass that was recovered from the upper excavation levels. Many of the brick that was recovered from Test Unit 1 were very brittle and heavily spalled, which also indicated intense heat.

The fieldwork generated a wide variety of 18th and 19th century artifacts that should prove to be an important addition to the interpretive database at the Tybee Lighthouse Museum. The rich assortment of Civil War related items promise to help tell the story of Tybee Lighthouse during that important period of American history. The most impressive finding in the present study was the deep midden deposit in Test Unit 1, most of which was probably deposited in the early 1860s by the Union Army. The absence of Confederate military artifacts can be explained by the location of the Confederate camp elsewhere, probably closer to the sand battery that is shown the 1861 navigational chart. Other artifacts recovered in these limited excavations may begin to provide insight into the daily life of the lighthouse keeper.

Northern Tybee Island has the potential to contain numerous military sites. Several of these may be in the vicinity of the Tybee Lighthouse. These include a British fort from December 1778 to September 1779; an American camp in the War of 1812; and a massive Union Army camp from November 1861 to April 1861. In addition, the study area was possibly the site of other minor military occupation during the American Revolution and Civil War. By 1885, however, the present Assistant Keeper's residence stood over the study area and cultural deposition in this part of the site declined markedly. The study area was part of Fort Screven in the Spanish American War, World War I, and World War II.

The most prominent aspect of the present study was the discovery of abundant midden deposits associated with the American Civil War. The archaeology of the Civil War has a long tradition, although a scientific approach to excavating Civil War campsites, forts and battlefields is relatively new (Geier and Winter 1994; Geier and Potter 2000). Despite

the multitude of Civil War camps, forts and battles in Georgia, only a handful of detailed archaeological studies are available. This dearth of archaeological information is particularly true for the Georgia coast, where only a few archaeology projects are documented (Anderson 1995; Babits and Barnes 1987; Elliott 1999).

Preliminary archaeological study suggests that the brick foundation that is visible beneath the Assistant Keeper's residence represents the bottom section of a substantial brick dwelling that was built sometime after 1809, and probably after 1830. This brick building was slightly longer (and possibly narrower) than the Assistant Keeper's residence. This brick foundation was probably the Tybee Lighthouse Keeper's dwelling, which was consumed by fire in 1885. The northern edge of this brick dwelling was used as a garbage dump during the Union Army's occupation in the 1860s. Artifact evidence indicates that the immediate area was occupied prior to the construction of that building, possibly as early as the 1750s, although no structural features were conclusively located that are associated with the 18th century (or early 19th century) occupation. The brick hearth and chimney pad that was designated Feature 4 remains a mystery and it may hold clues to the earlier occupation. After 1885, the Assistant Keeper's dwelling was constructed on the site and archaeological deposition beneath the house slowed to a trickle. Consequently, this location harbors significant archaeological deposits from sometime in the mid-18th century until 1885.

Recommendations

Additional historical research on the people and events pertaining to the Tybee Island Lighthouse is recommended. Several pertinent manuscript collections were identified by the present research but were not physically examined.

The holdings of the National Archives and Records Administration (NARA) include many Confederate States of America documents that may pertain to Tybee Island. These include records of the C.S.A., Treasury Department, Lighthouse Bureau (Record Groups 45 and 365); Records of the U.S. Coast Guard, 1785-1988 (Record Group 26); Records of Georgia Troops (Record Group 109); Records of General Lee's headquarters in 1861 (Record Group 109); (Beers 1986:113-114, 305, 312; NARA 2003). The correspondence and other documents of Colonel Charles H. Olmstead, who was commander of the 1st Georgia Infantry (at Fort Pulaski), are curated at the Southern Historical Collection in the University of North Carolina Library (Beers 1986:327). Other records exist for the 1st Georgia Infantry, including Rigdon (1999), but these were not consulted for the present study.

The papers of General Pierre G. T. Beauregard, which likely include many references to people and events at Tybee Island in 1861 and 1862, are housed in Columbia University Library, the Library of Congress, the Charleston Library Society, Duke University Library, Emory University Library, and several other repositories (Beers 1986:314-315).

The Connecticut Historical Society's manuscript collections include many entries pertaining to the 7th Regiment, Connecticut Volunteers (Nolin 2002). Other records of the

7th Regiment are found in various Florida Archives. One example of a relevant document is Stephen Walkley's "The History of the Seventh Connecticut Volunteer Infantry", which was written soon after the war. Walkley was a private in Company A, 7th Connecticut Volunteer Infantry and a copy of his book is available in the Florida Collection Room of the Library of the University of Florida, Gainesville, Florida (Walkley n.d.). These records were not examined in the present study. Images of men in the 7th Connecticut Volunteers, 46th Regiment, New York Volunteers, and several other Union Army and Navy officers associated with Tybee Island are archived at Military History Institute (MHI 2003; Florida State Archives Photograph Collection 2003). One example from the Florida State Archives Photograph Collection in Tallahassee Florida is shown in Figure 44. This soldier was quite possibly one of the thousands of Union enlisted men who endured at Tybee Island.



Figure 44. Unidentified Soldier in the 7th Regiment, Connecticut Volunteer Infantry (Courtesy Florida State Archives Photograph Collection 2003).

Researchers with the National Park Service at the Fort Pulaski National Monument and the Southeastern Archeological Center (Tallahassee, Florida) have assembled many primary and secondary accounts pertaining to the military action at the mouth of the Savannah River (NPS 2003; Brewer and Cornelison 1997; Groh 1999). These manuscript reports and other archival holdings were not examined for the present study. Other NPS research and excavation records relevant to Fort Pulaski, Battery Halleck, and other military features upstream from the Tybee Lighthouse should be reviewed prior to any future archaeological undertaking at Tybee Lighthouse.

The present study allows a glimpse of one specific area of a large, complex archaeological site. These findings almost certainly are not truly representative of the overall site, however. Future impacts to the site will likely result from the installation of utility pipes and other contemporary uses. Systematic archaeological survey and testing should be conducted the Tybee Lighthouse Museum grounds. Traditional survey and testing techniques may not be appropriate for all areas of the Tybee Lighthouse grounds. As Pearson's (1978) findings demonstrate, traditional survey techniques may not adequately locate the buried cultural resources in this part of Tybee Island. Non-destructive remote sensing survey techniques, such as Ground Penetrating Radar (GPR), may be useful in delineating the buried resources (Conyers and Goodman 1997). GPR is a cost-effective way to map underground archaeological resources and can result in a far more detailed depiction of the archaeological resources on a site. It is particularly useful for situations where excavation is not feasible or desirable. Recent improvements in 3-D imaging of GPR data can provide exciting glimpses of the underground. A thorough GPR survey of the site would provide useful baseline data that should prove highly useful in future management of these resources.

The present archaeological study shed new light on the age and configuration of the earlier buildings in the vicinity of the Assistant Keeper's dwelling. Many questions posed prior to the research were answered by the field study, although many new questions were generated as well. The abundant debris from the Union occupation at Tybee Lighthouse in 1861 and 1862 speaks to an untold story of the American Civil War. The archaeological deposits that were identified in this vicinity have the potential to inform Georgians and other visitors on many aspects of American history, including the British Colonial, American Revolution, Early Federal, Civil War, and Reconstruction periods. The archaeological remains at Tybee Lighthouse can provide a unique and fascinating cultural tourism experience.

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Appendix 1.
Artifact Inventory,
Assistant Keeper's Residence,
Tybee Lighthouse,
2003 Excavations.

