The Martello Tower at Tybee Island, Georgia

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Tybee Island’s Martello Tower

The history of Martello Towers is a subject of international interest (Sutcliffe 1973; Robinson 1974:158-164). Martello Towers were used in coastal defense in the late 18th and early 19th centuries. Most were cylindrical towers, about 30 feet in diameter and 20 feet high. They were constructed with solid walls to defend against enemy cannons. Cannons typically were mounted on the uppermost deck. A primary purpose for these defenses was to serve as signal stations for warning inland settlements of enemy sea invasions. The history of the example of a Martello Tower that formerly existed on Tybee Island, Georgia is most obscure (Estill 1905). This brief treatise attempts to provide context for this military defensive work. Figure 1 shows the approximate location of the Martello Tower.

The Martello Tower on Tybee Island was constructed by the United States Army immediately following the War of 1812 (Swift 1815). U.S. Army Engineer Lieutenant James Gadsden wrote in 1815, “A Martello Tower at Tybee, defending the only anchorage ground in that neighborhood and serviceable as an advanced alarm Post is now constructing and will be completed in a few months” (Gadsden 1815:33). In an undated letter (ca. 1815), Lieutenant Gadsden wrote to Brigadier General Joseph Gardner Swift regarding the design of a Martello tower,

I submit for your inspection the accompanying plan of a Tower. In the perfecting of works of this nature it would be desirable that they should be secured not only against assault but battery and bombardment, these however which have been constructed in this country have seldom embraced more than one of these assemblages. Where a sufficient strength has been given to the works to resist the effects of cannon the defence of the base has been imperfect and the fire from the loop holes placed on the sides too inconsiderable to protect the approaches to the Tower, on the contrary where a reduction has been made in the walls to obtain a sufficient cross fire from the loop holes a consequent weakness in the Tower, and insecurity against an enemy has ensued.

An important consideration to a Tower is a perfect defense of the foot, those means however which have been adapted to effect that object are defective, not solely from the insufficiency of the fire, but from the case with which they may be destroyed by an enemy’s battery. In the Tower now submitted a new mode, or flank fire is substituted and the whole works combines the important advantages, security against assault, battery and bombardment.

The lower story is a fortification on a square, with an increase of length to the faces of the Bastions and a consequent reduction of the curtains and flanks. These latter are made just large enough to admit of an embrasure for a carronade, or Howitzer, with a sufficient flare to command the width of the Ditch. The walls of this story are three feet thick, pierced with loop holes and protected from being battered by a high glacis. From the extremity of the curtains, and flanks are strong arches supporting an octagonal Tower, with walls of six feet thickness, and the terrace of which four guns, with the use of breechings, may be consistently mounted and even eight would not be as much crowded as they are on the decks of a vessel of war. In the
center is an octagonal pillar (The sides of which corresponds to the faces of the Tower, supporting Boom Proof archs and through which runs cylindrically a stair way to the terrace. The Bastions are covered with arches Boom Proof, with a tile roof and the walls of the faces are continued up four feet above said covering forming (as they may be termed) triangular places of arms, in which may be advantageously posted resolute musketeers for the defense of the glacis. These places will not be deemed objectionable as assisting an Enemy to escalade the walls of the Tower, for the roof of the arches have such a pitch as to render the application of ladders impracticable and their reduced capacity will not admit of the assembling of as many men as may be brought to operate against them in the face of the Tower above and where the forces are exposed the advantage is always greatly on the side of the assailed.

In the angles of the Bastions are chimneys for the convenience of the garrison the flue of which may be serviceable as ventilation. There are indentations likewise in the center arches communicated with the terrace, I have made but few notches, seeing them very essential, the lower story will only be used in the event of an Enemy attempting an assault and gaining the ditch, where the contest must be short and decided before the garrison can possibly be inconvenienced from the smoke.

The stair way may be protected from shells by continuing up the walls enclosing and arching and roofing it as presented in Sections C D (Gadsden 1815:38-39).

Unfortunately, Lieutenant Gadsden’s plan drawing of the tower, which is mentioned as an enclosure in his letter, was not contained in the bound volume of letters and its whereabouts is undetermined. It is clear from his verbal description of various elements of the defensive works that it was more than simply a tower. It included bastions, curtains, ditch and glacis—which are all key components of a fortification. These earthworks likely surrounded the tower structure.

Henry Middleton, Jr., Lieutenant of Engineers wrote to Brigadier General Swift from Charleston, South Carolina on October 21, 1815 regarding the construction of the Martello tower on Tybee Island:

I have the honor to inform you that in conformity to the instructions which I received from Lieut. Smith of Engineers I applied to Major Champlain for information with regard to the fortification & funds &c’s at Savannah and Tybee. During the interview which I had with him he informed me that there were no funds whatsoever for carrying on the Martello Tower which is building at Tybee. It appears from a letter which he received from Isaiah Davenport the person who contracted to build the tower that two thirds of it were completed about the 18th U.to. and that the fourth installment was due on the 28th of the same month, but has not been paid for want of funds, with regard to Cadet McWilliam’s papers I have not yet been able to obtain them. They being as I am informed in the possession of a gentleman in Savannah to whom I shall apply for them upon my arrival at that place (Middleton 1815:69).

Although historical sources generally agree that a Martello Tower was built on the northern end of Tybee Island, there are discrepancies as to its precise location. An 1851 coastal chart places it north and east of the Tybee Light House and west of the Tybee Beacon (Figure 1). The Martello Tower is not shown on the 1854, 1855 or 1867 charts. An 1861 coastal chart,
however, places it southwest of the Tybee Light House (Figure 2). A December 1861 newspaper illustration identifies the Martello tower on Tybee Island within an earthwork (Figure 3). An 1862 newspaper illustration shows the Martello tower, identified by the number “15’, on Tybee Island. Gillmore’s map of the siege of Fort Pulaski identifies the Martello Tower on Tybee Island (Figure 5). Numerous illustrations and photographs show the Martello Tower on Tybee Island from 1837 through the late-19th or early 20th centuries (Figures 6-15). Interestingly, several maps of Tybee Island from the mid-nineteenth century do not show the Martello Tower (Blunts Coast Pilot 1835; Stephens 1841).

Confederate troops destroyed the Tybee Lighthouse in advance of the Union Army and Navy invasion, although the lighthouse was reconstructed on its base following the war. Consequently, the current Tybee Lighthouse serves as a landmark for interpreting these early charts.

Figure 1. LeConte's Plan of the Savannah River (LeConte 1837).

Figure 2. Portion of an 1851 Coastal Chart Identifying the Martello Tower on Tybee Island (NOAA 2016).

Figure 3. Portion of an 1861 Coastal Chart Identifying a "Tower" on Tybee Island (NOAA 2016).

Figure 4. Portion of Map of 1861 ‘Great Southern Expedition’ Showing the Martello Tower (Frank Leslie's Illustrated Newspaper 1861:85).
Figure 5. Perspective View of Tybee Island Showing the Martello Tower (15) (Harper’s Weekly 1862:5).

Figure 6. Portion of Gillmore's Siege of Fort Pulaski Map Showing the Martello Tower (Gillmore 1891:147-148).
By the time of the American Civil War, the history of the Martello Tower was already fleeting. An August, Georgia newspaper had to remind its readers that a Martello tower, “is a round tower or circular building of masonry, used principally for coast defence”, and that, “There is one on Tybee Island near Savannah” (*Daily Constitutional*ist 1862a:3). The tower was in a ruinous state by that time but it was photographed and sketched by several wartime correspondents (Figures 2-5). Photographer Henry P. Moore photographed the tower in 1862 or 1863, as shown in Figure 3 and he titled his photograph, “Martello Tower, Tybee Island, Georgia, Built in 1537, by the Spanish” (Moore ca 1862-1863).

One northern newspaper correspondent visited the Martello Tower on Tybee Island and described it as, “three stories high and built of concrete 10 inches in thickness”. That writer also provided the readers with a brief history of Martello Towers as coastal and river defenses but noted, “they are found quite too small to cope with the huge guns used in modern war-fare, and have been entirely abandoned” (*Daily Commercial Register* 1861:3).

A Baltimore correspondent gave this description on December 30, 1861 of the “Spanish Martello tower”,

The first object on Tybee Island is the ancient Spanish Martello Tower, described below, and about 300 yards beyond that sands the ruined lighthouse. Two miles westward of the Martello Tower is Fort Pulaski...When the Pocahontas and the Seneca arrived off Savannah river, on the evening of the 23d November, Capt. Ammon was fully under the impression that the Martello Tower was occupied but when troops landed on Tybee Island, at the mouth of the river, they found the fortifications erected there abandoned. In the centre of the works was a Martello tower, built by the early Spaniards (*Frank Leslie’s Illustrated Newspaper* 1861:84, 93).

A writer for a New York newspaper provided an illustration of Tybee Island’s Martello Tower and this description of it, “

The tower is built of oyster shells and mortar, and, from appearances, it must be of great age. It is about one hundred and thirty feet in circumference, and is thirty feet high. The walls are twelve feet thick at the base, and ten feet at the top. The walls are very hard and compact. One of the gunboats lying off on the blockade fired at the tower from one of her largest guns, and yet the ball made but a slight indentation. The fortifications around the tower are yet in an incomplete state. Only four guns are mounted, viz: one 24-pound rifled; one 32-pound rifled; one 8-inch columbiad, and one light 6-pounder brass piece. There are four 8-inch columbiads and two 32-pounder Parrott guns lying on beach to be yet mounted. It is the intention to place a heavy gun on top of the tower. The walls of the tower were originally pierced for guns of light caliber. There is a battery of two rifled 32-pounders on a hill a short distance beyond the tower, and a battery of six 6-pounders (brass) on the beach (*Baltimore American* 1862:2).

That author cited a previous description of the tower by the Herald correspondent” as, “50 feet in diameter and as many feet in height of tapia, a concrete of oyster shells and lime, 10 feet thick, pierced for musketry, and with cannon”, with entrance to the tower, “by a ladder of primitive style”, and in the center was a well, “constructed of heavy timber” and having, “Two or three fireplaces, built in the walls” (*Frank Leslie’s Illustrated Newspaper* 1861:84, 93).
Figure 7. Illustration of Tybee Inlet in December, 1861 Showing the Tybee Lighthouse and Martello Tower and Fort Pulaski in Distance (Frank Leslie's Illustrated Newspaper 1861:84).

Figure 3. A Wartime View of Martello Tower (Harper's Weekly 1861).
Figure 8. Wartime Sketch of Tybee Island Showing the Martello Tower (NPS.gov n.d.).

Figure 9. Photograph of Martello Tower (Moore ca. 1862-1863).
The Martello Tower saw some use in the American Civil War by both the Confederate and Union military. The tower was manned by Confederates in 1861 but was abandoned shortly before the Union Navy landed in late November 1861. A New Hampshire newspaper reported on December 5, 1861, “There is on the island a strong martello tower, with a battery at its base” (*New Hampshire Sentinel* 1861:2).

It was soon occupied by the Union troops during their occupation on Tybee Island and its campaign to recapture Fort Pulaski. A New York newspaper reported on the Federal defenses at Tybee Inlet in April, 1862, noting,

> The old Spanish fort, or, as it is now called, Martello Tower, situate on the south-eastern extremity of Tybee Island, was repaired and mounted with an effective armament by our troops of 32 and 64-poundres. Breastworks, a mile in circumference have been built, entirely surrounding the fort….Shells have been thrown from the parapet of Fort Pulaski which struck inside the breastworks of the Spanish fort. Owing to some defect, none of them exploded, and thus failed to do any damage (*New York Tribune* 1862:5).

Captain Quincy A. Gillmore, Chief Engineer Expeditionary Corps, reported on December 1, 1861 to Brigadier General Thomas W. Sherman on December 1, 1861,

> Returning to the old tower near the light-house, I took its principal dimensions and those of the unfinished earthwork which surrounds it. The tower is built of shell concrete; its walls are 10 feet thick, and it is three stories in height. The first story is 9 feet high, with but one opening (4 feet wide) to the exterior. In it is a good magazine 6 by 7 feet and 7 feet high, with brick walls 3 1/3 feet thick. The second story is about 9 feet high, and has one communication with the exterior. It is on the west side. The third story is pierced with twelve loop-holes, at equal distances apart,
1 by 1 foot at the throat and 2 by 2 feet on the exterior. Four fire-places exist on this story. Above the floor covering the third story the wall is carried up flush with the inside, so as to form a breast-height 4 feet thick and 4 1/2 feet high (Gillmore 1862:155).

Gillmore continued, “The tower is surrounded by an unfinished field work, which could with little labor be made a strong position that would control the principal entrance to Savannah River, and thus render efficient services to the blockade in case the fleet should be driven off by stress of weather. One or two siege guns could be mounted on the tower” (Gillmore 1861:193-194). The Federal troops constructed a powder magazine after landing on Tybee Island. Gillmore described it as, “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 1862:155).

In early January, 1862, a detachment of 10 Confederate Irish Volunteers, led by Captain Read, reconnoitered Tybee Island and engaged in a minor skirmish with the Federal pickets near the Martello Tower (Savannah Republican 1862a:3). In March, 1862, a Savannah newspaper reported that the Federals had erected a battery with a rifled cannon on the Martello Tower, noting, “the rifled cannon on the Martello Tower was fired once at a boat near the north wharf of Cockspur, twice at the hospital, and once at the Fort, neither shot taking effect” (Savannah Republican 1862b:1).

The artillery duel between the Federal and Confederate guns at Tybee Inlet culminated in the bombardment and reduction of Fort Pulaski on April 10-12, 1862. The Federal artillery at the Martello Tower was engaged in this battle (Daily Constitutionalist 1862b:1). The Federal artillery at the Martello Tower continued to serve effectively in August, 1862, when it bombarded the steamer London, which was attempting to run the naval blockade at Tybee. A Macon, Georgia correspondent noted that the London, “succeeded in passing the Martello Tower after being fired into”, but she turned about and, “on passing the Tower a second time, some fifteen or twenty shots were fired at her, one of which struck the bulkhead and passed thro’ her cabin, doing considerable damage” (Macon Weekly Telegraph 1862:3). The steamer London was captured by the blockade soon thereafter after it was grounded at Hellgate in Ossabaw Sound.

Colonel W.W.H. Davis, 104th Pennsylvania Volunteers, noted in a letter to Brigadier General John P. Hatch that 50 soldiers were posted at Tybee Island on April 30, 1864 and that, “The defensive work on Tybee is a martello tower, armed with a 30-pounder parrott and inclosed in an earthen parapet. This is more of a picket of observation than for any other purpose, as the island can only be approached across wide marshes” (Davis 1864:75-76).

Tybee Island’s Martello Tower was briefly described in an 1886 history of the island as, “standing prominently forth on the northern extremity in proximity to the light-house” (Richardson 1886:8). That author was ignorant as to the age of the tower. The Martello tower also was briefly described by Wilson in 1889, along with an illustration of the ruin by Georgia Weymouth (Wilson 1889:226). Weymouth’s illustration is reproduced in Figure 11. It was shown on a circa 1911 post card, a version of which is reproduced in Figure 12 (Georgia Department of Archives and History 1911). Two other undated depiction of Tybee Island’s Martello Tower are reproduced in Figures 13 and 14. The building located on
the summit of the tower was not present in 1889 but was likely constructed on the tower prior to the creation of Fort Screven in 1897-1904. A U.S. Army post on Tybee Island was authorized in 1872 and the Federal government purchased property for its construction in 1875. Construction began in 1897 and was completed by 1904. The fort continued in use before it was deactivated and the property sold to the City of Savannah the following year. Battery Garland, which contains the present-day Tybee Museum, was completed in 1899. This battery was possibly in the same general vicinity as the Martello Tower (Adams 1996; Jones 2010).

The Georgia Telephone and Telegraph Company was granted permission by the government to use the Tybee’s Martello tower structure as its headquarters (Estill 1905).

Later photographs of the northern part of Tybee Island reveal no physical evidence for the Martello Tower (Figures 16 and 17). Similarly, plan maps of Fort Screven provide no clues as to its location (U.S. Army 1921).
Figure 14. Martello Tower, Fort Screven, Savannah, GA. (Detroit Publishing Co. n.d.).

Figure 15. Undated Postal Card Showing the Martello Tower, Tybee Island (Postcardman 2016).
Figure 16. Undated Perspective View of Fort Screven, Tybee Island (Jackson 2016).

Figure 17. Undated View of Tybee Light (U.S. Coast Guard 2016).
What Remains?

Historical archaeology on the north end of Tybee Island has been quite limited. Archaeologists with the University of Georgia’s Department of Anthropology performed a survey for a proposed roadway and parking facilities in 1978. That survey revealed no important findings (Pearson 1978). Armstrong State University students and Coastal Georgia Archaeological Society volunteers conducted some explorations on the grounds of the Tybee Light House in the 1980s, but their findings are unpublished (Babits 1980-1990; Carl Arndt personal communication 2004). Daniel Elliott (2005) completed test excavations beneath the Assistant Keeper’s House. That study revealed a deep deposit of Civil War era military occupational debris that was likely deposited in 1861-1862. The LAMAR Institute explored the Drudi lot (9CH1208) immediately adjacent to the Tybee Lighthouse property in 2008. Ground Penetrating Radar and systematic shovel testing were used to map subsurface resources where the landowner had discovered a series of curious cylindrical objects (Elliott 2008). More recently, Brockington & Associates conducted a Phase I Survey for a proposed trail west of the Tybee Lighthouse. Their study located historic period artifacts at one site (9CH1372) but these resources they deemed these resources ineligible for the NRHP (Whitacre et al. 2015). None of these previous archaeological studies shed light on the location of the Martello Tower.

Similarly, studies by the National Park Service have focused on the immediate environs of Fort Pulaski and included no search for the Martello tower on Tybee Island (Holland 1937).

According to one longtime resident of Chatham County, Georgia, the “stump” of the Martello Tower on Tybee Island remained visible in the late twentieth century. It was located on Tybee Island’s North Beach immediately adjacent to the late 19th century concrete defenses of Battery Garland on Fort Screven (Carl Arndt personal communication October 31, 2007). A brief reconnaissance by the author in 2014 of the location described by Arndt revealed no surface evidence of the Martello Tower feature. A view of this general location taken during this brief site visit is shown in Figure 18. Most of the north end of Tybee Island, however, remains unexplored for its archaeological resources. The mystery of the Martello Tower on Tybee Island awaits.
Figure 18. Recent View from Boardwalk Facing Battery Garland and Tybee Lighthouse, Tybee Island.
Summary

This short treatise provides historical information on a military fortification type known as a Martello tower, which was built on the north end of Tybee Island, Georgia by the U.S. Army in 1815. This construction is no longer standing and the location and status of its archaeological footprint remains undetermined. In the history of warfare and coastal defenses Martello towers have a brief but worldwide expression. While more are located in Europe, several Martello towers dotted the eastern seaboard of North America. By the mid-19th century Martello towers were falling out of vogue, so much so that by the time of the Federal expedition on Tybee Island in November, 1861, the Martello tower was shrouded in mystery and many attributed its construction to the Spanish several centuries earlier. This solidly constructed coastal defense was revived briefly as an artillery battery in the Civil War but by the time of the construction of Fort Screven’s Endicott System of defenses (1897-1904), it is hardly mentioned (Lewis 1970; Guss 2002; Byous 2006). Perhaps some vestige of the Martello tower on Tybee remains for future archaeologists to explore. If so, we hope that this document provides a useful starting point for such a study.
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