4-2012

Mars Bluff Navy Yard

Christopher F. Amer
University of South Carolina - Columbia, amerc@mailbox.sc.edu

Follow this and additional works at: https://scholarcommons.sc.edu/mrd_prsn
Part of the Anthropology Commons

Publication Info
2012.
http://www.cas.sc.edu/sciaa/
© 2012 by The South Carolina Institute of Archaeology and Anthropology

This Presentation is brought to you by the Maritime Research Division at Scholar Commons. It has been accepted for inclusion in Presentations by an authorized administrator of Scholar Commons. For more information, please contact dillarda@mailbox.sc.edu.
Not too far from the Winyah Bay channel, poking out of the placid waters of a tidal flat, sits a rusty six-foot-diameter smokestack. This marks the final resting place of USS *Harvest Moon*, Admiral John Dahlgren’s flagship that sank after hitting a floating torpedo on February 29, 1865 three days after Union forces captured Georgetown. This date becomes significant in our story and pivotal to the plot, as you will later come to realize.

At the onset of the Civil War, the Union needed a naval force to reestablish control of the Mississippi and western rivers, to launch offensives, to support invasions of the South, and to maintain the blockades of southern ports. The largely agrarian Southern States, out of necessity, had to raise a similar force to, run and raise the blockades, maintain defensive fleets, conduct privateering, and maintain commerce raiders to disrupt Union merchant shipping and whaling operations. Secretary of the Confederate Navy, Stephen Mallory’s order on March 4th, 1862, requested the immediate construction of naval yards on inland waters so that the newly-built vessels would be protected by land from the Union forces that were effectively blockading the 3,500 miles of Southern coast. Even though the Confederacy was hampered by the loss of important industrial and port services when Nashville, New Orleans, Memphis, and Norfolk were taken early in the war, the Confederate Navy managed to produce 22 ironclads and gunboats during the war, an stunning accomplishment. In South Carolina, Mars Bluff on the Great Pee Dee River was chosen as one of these inland shipbuilding facilities. This painting of the Navy Yard at Richmond gives you some idea of what the one at Mars Bluff may have looked like.

*Mars Bluff* was chosen because of its inland location, proximity to the railroad, water communication with Charleston via Georgetown, and local availability of vast stands of ash, oak, and pine, which supported lumbering operations both before and after the War.

The yard was also close to the Mars Bluff Ferry located just downstream. The rail line in question was the Wilmington and Manchester Railroad, the object of a suit filed by Mr.
Joseph Bird, owner of the property on which the Navy Yard would be constructed, in 1854, against the president of the railroad, W.W. Harlee.

Lt. William Dozier started the yard, after being assigned there by Mallory, but in 1863 Dozier was promoted to command the Navy’s receiving vessel, *Indian Chief*, stationed in Charleston Harbor, and from where most of the final crew of the *Hunley* were selected. That year, Lt. Van Renaisler Morgan (CSN) was assigned to actually construct the Mars Bluff Navy Yard, which was to include some **14 buildings, a saw mill, a forge, a dry-dock and ways** for constructing vessels. Morgan was tasked with building **two torpedo boats, a sternwheeler steamer, a steam tender, and a Macon-class gunboat**. However, it was left to Lt. Edward J. Means (CSN), who took over from Morgan around August 3, 1864, to complete and launch the vessels. Means’ Letter book (shown here), one of the few comprehensive contemporary documents pertaining to the Navy Yard at Mars Bluff in existence, contains a wealth of information about the operation during the latter eight months of the war.

**CSS Peedee**, as the gunboat was to be named, in design rather like CSS *Alabama* and the *Chattahoochee* (shown here), when completed, was to enter the Atlantic Ocean via Winyah Bay to protect the inland waters and possibly take on the blockading fleet anchored off Charleston.

**Macon-class gunboats** were twin-screw, steam and wind powered vessels, 150-feet long, with a beam of 25 feet, and a draft of 7 ½ feet, sporting two or three masts and a prodigious broadside of weaponry. The vessel would be armed with two Brooke Rifles pivoting at the bow and stern and a 9” Dahlgren amidships, requiring gun crews of 12 men each to maneuver, load and fire the weapons. Records confirm that two Brooke Rifles were ordered on June 1, 1864 and shipped to the Mars Bluff Navy Yard on July 3rd (6.4”) and 13th (7”) of the year. However, due to numerous delays, a regular occurrence during times of conflict, neither weapon arrived at Mars Bluff until September 1864. The Brooke rifles were considered by many to be one of the most accurate weapons of all Civil War era naval artillery, having both long range and accuracy. However, smoothbore guns like the Dahlgren were considered by many naval officers to be superior to rifles for naval engagements, which were fought at close quarters. They had greater smashing power, and the projectiles could be skipped over the surface of the water (ricochet fire). The smoothbore gun tubes were capable of firing **shot, shell, shrapnel, canister**, and (with the exception of the XV-inch shell gun) **grape-shot**.

By 1864, the workforce at the yard topped 200, including some 91 officers and crew for the *Peedee*, 48 skilled craftsmen, including shipwrights, engineers, blacksmiths, millers, and cooks. Additionally, there were a number of blacks working at the site, one of whom was to
pilot the gunboat on its initial trials. The launching of CSS Peedee in August 1864 was a social event for the local populace. Despite inclement weather, many families most of whom had raised money and provided other services for the cause attended. (Relate Louise Harlee Pearce story in Charleston News and Courier, July 10, 1938). During 1861-1862 southern women formed the Ladies’ Defense League and the Womens’ Gunboat Fund, raising some $80,000 needed for gunboats. During trials, the gunboat performed well but was unable to make the design-speed of nine knots. In the months leading up to completion of Peedee much effort was expended to supply and, especially, procure coal for the vessel’s two steam engines. Means dispatched officers to Fayetteville and Georgetown to purchase coal and supplies. On December 7, 1864, Means dispatched Lt. Charles Hasker, a survivor of the first Hunley sinking, to Georgetown for coal and general supplies, and to arrange for a pilot to get the vessel downstream to Georgetown. The vessel appears to have been officially commissioned in January 1865 and the crew completed outfitting the warship by February’s end.

10 (Roadside Plaque)

CSS Peedee’s career was to be short-lived as General Sherman’s troops advanced northward through South Carolina and the war drew towards its inevitable conclusion. On February 26, 1865, Union forces took Georgetown (where the Pee Dee River empties into Winyah Bay). In early March, the vessel was sent up stream to Cheraw to cover General Hardee’s troops crossing the Great Pee Dee River to join General Johnston’s forces in North Carolina for what was to become the last major battle of the War. Thereafter, Lt. Oscar Johnston, commander of the gunboat, turned the vessel (no mean feat in a river that was scarcely wider than the ship was long) and headed back downstream to Mars Bluff. Following the fall of Georgetown in late February, on March 2, 1862, Lt. Means was given the order to destroy the Navy Yard and vessels. On March 15th (the Ides of March- “Et tu Brute”) the guns of the Peedee were committed to the river and the gunboat moved below the railway bridge, set afire, and blown up.

11 and THREE ARROWS

Seven months later, Acting Ensign Sturgis Center (USN) conducted an assessment of the Navy Yard, from which by then much usable materials had been liberated by local inhabitants and contractors, including building materials, small boats, and machinery. Center did note, among other things, the remains of the Peedee lying downstream from the bridge, the steam tender and a torpedo boat sunk above the bridge with one unfinished vessel on the stocks. He also observed engines and boilers on the bank, along with two 24 pounder Dahlgren howitzers and the anchors for the Peedee. The location of the wreck of CSS Peedee remained well known to the government into the 20th century. Finally, in 1910, the US Army dredge, Cheraw, blasted the hull of the gunboat, which lay mid-channel, and deposited the fragments near the west bank of the river.
During the 20th century, on at least two occasions when the river was exceptionally low, individuals and groups wanting to recover a piece of history, visited the wreckage of the Peedee. In 1925, sponsored by the United Daughters of the Confederacy (UDC), the gunboat’s screws were salvaged and put on display at the Florence County Museum. Again, in 1954, machinery, the boiler, and some 35-50 feet of the stern structure were removed and displayed nearby at a place called Confederateland. Over the years, various attempts have been made to locate the Peedee’s guns. In the 1960s, US Navy divers searched for the ordnance near the fragmented wreck, where Ensign Center believed them to lie, but to no avail.

In 1986, the Underwater Archaeology Division (now Maritime Research Division) of SCIAA conducted a magnetometer survey of the river adjacent to the Navy Yard. But no guns. During the 1990s the Division conducted a remote sensing survey of accessible sections of the river from Mars Bluff to Cheraw to detect areas of cultural activities. The project was supported by Dr. Chip Helms, who assisted with the survey, along with his niece Sara Ashley. While not specifically focusing on Mars Bluff, the results from that stretch of the survey, again, indicated the presence of magnetic anomalies in the river adjacent to the Navy Yard.

Also during the 1990s, a group named the Pee Dee Research and Recovery Team, headed by Ted Gragg and Bob Butler, under an intensive survey license from SCIAA, conducted an underwater survey of the near-shore river bottom at the yard. Their purpose was to map the river bottom in front of the Navy Yard site and recover artifacts to exhibit at their South Carolina Civil War Museum in order to tell the story of the Mars Bluff Navy Yard. They recovered numerous artifacts associated the Navy Yard activities, as well as logging operations before and after the Confederate occupation of the site.

Items recovered and exhibited at their museum in Myrtle Beach include: 6.4” and 7” Brooks shells, sabots, and canister shot.

A drum from a ship’s windlass (left) and a bearing for a gun carriage (right).

A shattered stove along with tools, instruments, and items used at the site dating from the Civil War up through the 20th century.

Their maps and descriptions of the river bottom adjacent to the Navy Yard provide a tantalizing glimpse of the wealth of artifacts either discarded or eroded into the river from the bluff during the last 150+ years, including the presence of two gun tubes identified as a Brooke Rifle and a 9” Dahlgren.
The gun tubes jettisoned on that fateful day in March 1865 were two Brooke rifles (6.4” and 7”) weighing in at 9,000 lbs and 15,000 lbs respectively, cast at the Selma foundry (characteristic because of the double bands that all Selma guns sported). The 9” smooth-bore Dahlgren also weighed 9,020 lbs. The serial number on the breach and the initials JMB stamped into the left trunnion suggest the gun was cast at the Fort Pit Foundry in Pittsburg. Commodore John M. Berrien was ordnance duty officer in Pittsburg between 1862-4 before commanding the Navy Yard at Norfolk in 1865. He was commissioned as Commodore, September 26, 1866.

The Dahlgren used on CSS *Peedee* was likely one of three raised from the wreck of USS *Southfield*, a converted Staten Island Ferry, that was rammed and sunk by the Confederate Ram, CSS *Albemarle*, in the Roanoke River during the Battle of Plymouth on April 19, 1864.

Building on the results of the Pee Dee Research and Recovery Team, earlier this year, the MRD of SCIAA (USC) received a grant from the Drs Bruce and Lee Foundation to conduct further research at the site. The specific plans include:

- Locate and raise the guns jettisoned from CSS *Peedee*.
- Complete mapping of the river bottom (both surface and sub-surface) adjacent to the Navy Yard site by remote sensing and direct survey.
- Conduct remote sensing and sub-surface testing of the terrestrial site to locate the building foundations and activity areas of the Navy Yard.
- Excavate significant cultural remains that will help tell the story of the Mars Bluff Navy Yard.
- Attempt to locate any remaining vessels associated with the site. Possibly the remains of a steam tender and torpedo boat remain submerged at or near the site.
- Re-locate the remains of the fragmented wreck below the bridge and verify/refute its identification as CSS *Peedee*.

We accomplished the underwater remote sensing phase of this work in Spring 2009 using an array of survey equipment, including a sub-bottom profiler to look at the sediment layers below the bottom and image any large cultural objects buried therein. As a result, we produced a magnetic and acoustic map of the river adjacent to the Navy Yard site. Here we see numerous magnetic anomalies occurring along the shoreline of the river and a close-up of sonar image of the river bottom at the site.
Mike Hartley’s map showing Peedee based on his recollections at age 12 when he witnessed the 1954 salvage, and GIS showing the Navy Yard site, wreck location and magnetics.

24
When it came time to physically investigate the Navy Yard and possible vessel(s) associated with the operation, we enlisted to assistance of East Carolina University’s Program in Maritime Studies. I asked them specifically because of the Program’s background in working on War Between the States land and submerged sites and because their faculty and staff had recorded two remaining Macon-Class gunboats, CSS Chattahoochee and the Chicod Creek Vessel.

25
In Summer 2009, some 20 graduate students, staff and faculty from the North Carolina school, under the direction of Drs. Larry Babits and Lynn Harris, conducted an underwater/terrestrial archaeology field school at the site and worked with my Division staff to complete the project objectives. Here we see students screening the dirt from one of 200, 30-cm-square terrestrial test pits. Result: a pipe bowl fragment with ‘WG’ incised. The three days of testing revealed a continuous Native American presence representing Archaic through Contact occupation. No evidence of shipyard on the property. Shipyard probably further upstream.

26
The river was not so accommodating. Upper: during assessment of the site for the field school in February 2009. Lower: throughout the field month in May and June 2009.

27
Artifacts recovered from the bottom of the raging torrent include: Yadkin point, ring dogs and artifacts associated with the logging industry, caulking irons (associated with shipbuilding), friction primers…

28
And artillery shells: both 6.4” and 7” Brooke shells with sabots.

29
Recorded (drawn and photographed) with concretion on…

30
And again when concretion removed. Two 7” Brooke and five 6.4” Brooke shells. The latter particularly interesting for the information they carried.

31
Sabot has “BROOKE” and “Q” (for Richmond). Forward bourlette has “LT. R. D. M” (Lt. RD Minor) “RNOW” (Richmond Naval Ordinance Works).

32
Jon Leader is conserving the shells, along with the other artifacts, at a lab at Francis Marion University with the assistance of experienced and qualified volunteers, one of which is
shown here. Additionally, a 6.4-inch and 7-inch shell were featured in a 2011 exhibition called, “Imaging the Invisible” at the McKissick Museum at USC.

33 and ARROWS
Two of the cannon, originally located by the Pee Dee Research and Recovery Team in the 90s were reacquired and positively identified as the 6.4-inch Brooke Rifle and the 9-inch Dahlgren. We have not yet found the 7-inch Brooke. Here we see the bracket of one of two hammer mechanisms on the breech of the Dahlgren to seat a hammer used to fire the gun. Lower right is the mechanism on a 9-inch Dahlgren raised from USS Westfield in Texas. On that Dahlgren the hammer is present. On the Peedee Dahlgren the hammer is probably located on the right hammer bracket, still hidden beneath the river sediment.

34 and TWO ARROWS
Another view of the same assembly with a metallic insert in place of the hammer. The inscription on the insert reads, “IX IN No 318”

35 and TWO ARROW
Muzzle of the Dahlgren.

36 and ARROW
Left trunnion of the Dahlgren with “JMB” stamped into it, John M. Berrien’s initials, duty officer at the Ft. Pitt Foundry in Pittsburg in early 1864.

37
Muzzle of the 6.4-inch Brooke with archaeologist probing the bore with a hydroprobe. This year we have been conducting further research on the guns and, with the assistance of the local landowners off whose property the guns lie, cleared away the 92 cut logs from around the two guns that litter the site from logging activities after the War. We plan to raise and conserve the two guns during the next few years.

38
At that point, pending successful ratification of an agreement between the General Services Administration (that owns the guns) and the Florence County Museum (that wants the guns) the Union and Confederate gun tubes will join the Peedee’s propellers in an exhibition on Mars Bluff Navy Yard, the gunboat Peedee, and the men and women who made it all happen at the soon-to-be-constructed Florence County Museum.

39
Few archaeology projects in this state are successful without the assistance and participation of numerous individuals and groups who provide invaluable support, from funding (like the South Carolina Archaeological Research Trust), logistical support (like members of the SCV who provided parking services and helped keep order during our weekly “public days” during the field school and David Freeman, owner of the local dive shop who provided free SCUBA air, dive lights and a boat for the project ) and diving to oral histories of the sites and surrounding area. This project is no exception. The list of people and groups contributing to this important project is getting longer by the day.

40 ENDING SLIDE
THE MARS BLUFF NAVY YARD

Being a Brief Accounting of the Confederate Mars Bluff Navy Yard on the Great Pee Dee River, the Ships, Boats, and Vessels Built There, a Brief History of Underwater Archaeology Conducted at the Site, and Future Archaeological Plans.

Christopher F. Amer, State Underwater Archaeologist
SCJAA/USC

Ted Gragg (SC Civil War Museum, PDRART)
Bob Butler (PDRART)

Here, the plaintiff has filed his bill here this diagram will sufficiently represent the premises.

The curved track presents as near as may be high water mark for the time.
September 19, 1864

I have the honor to report that a large number of the Yankee prisoners confined at Florence have escaped, and are making their way for the coast. One of these was arrested near the Pee Dee River last night, and I learn that some twenty or thirty were conveyed the Pee Dee River in the last thirty days. Some were guarding the East Road Bridge and near Greenfield with men from the Army. I think it of the utmost importance that these men should be stopped before reaching the coast, for once they would be able to raise a manned party which could be an annoyance to the section. Some injury to this section, country, besides rescuing the prisoners at Florence. My force at the river does not exceed thirty-five men, and it is very difficult to resist a resisting party. Nothing more will be able to intercept those already escaped. I remain yours very respectfully.

Capt. J. D. Smellie
Headquarters Station

Page(s) missing in the original
THE CRUISER PEE DEE, C. S. N.
BUILT C. S. N. NAVY YARD, PEE DEE, S. C. 1864.
BURNED TO AVOID CAPTURE MARCH 15, 1865.
"NO NATION ROSE SO WHITE AND FAIR,
NONE FELL SO PURE OF CRIME."
services at that place. I found the following list of property belonging to the Navy Yard. Gunboat "Pea Dee" lying below the bridge burnt to the waters edge. Double engine still remaining on board, also the boiler and shafting not much damaged - her battery consisting of 3 Armstrong guns are supposed to be along side of her in the river. The Tender as she is called, lies above the bridge and is a new boat; her dimensions (sic) are as follows, length, 128 feet - breadth of beam, 22 feet - depth of hold 5 feet, and was filled with machinery of all kinds belonging to the yard, having on her deck 2 engines, one of them supposed to be the one referred to in orders. And there sunk a Torpedo Boat about 60 feet long lays along side of her, with engine complete.

On the bank of the river in the vicinity of the yard is now laying the following property, one small engine and boiler complete for torpedo boat, one boiler with engine attached supposed for saw mill, also part of a planing mill - grist mill - one turning lathe, also parts and pieces of engines such as driving wheels and all kinds apertaining to machiner - there is also one Donkey pump in good order, also tools and iron of all kinds. Two 24 pounder Dahlgren Howitzers laying on the bank of the river. On the stocks of the hull of a torpedo boat not yet planked up. The anchors belonging to the gunboat "Pea Dee" are on the bank of the river, one weighing 1000 lbs. with 50 fathoms of 1 and 1/4 inch chain attached, also one weighing 700 lbs., with 45 fathoms of 1 inch chain attached.

From information received from Mr. Smith one of the
The Confederate Naval Shipyard at Mars Bluff

The Confederate Naval Yard at Mars Bluff was undertaken to construct ironclad and ironclad warships, harvest the timber of the nearby swamps, andki the shipbuilding industry of the new nation, and to act as a receiving and shipping station for naval stores since the shipyard was located on the main line of the Wilmington and Weldon Railroad. The Confederate Naval Yard at Mars Bluff was commanded by the Station Naval Station. Lieut. A. B. H. Morgan, and Edward M. Meaux, CSS, commanding, in the order of succession until the destruction of the Navy Yard in the spring of 1863. Seven vessels were possibly constructed at this site for the Confederate States Navy. Two of these were river transport steamers of stern wheel construction, three David class torpedoes boats, a 150 foot tender or support vessel for the principal warship berthed at the site, and the famous warship, the CSS Peedee, 170 feet long, commanded by Lt. Oscar Johnston, CSS. She too, like the naval yard, was destroyed by her own crew at war’s end to prevent her capture by the Northern invaders.

The CSS Peedee

The CSS Peedee was a wooden gunboat built at Mars Bluff on the Great Pee Dee River to the design of Union Naval Constructor John L. Porter. CSS, lat in 1862. Lt. Edward Meaux, CSS, commanding the naval station there, superintended construction of the twin-screw gunboat; one engine was ordered from the Navy Yard, Richmond, and the other is believed to have run the blockade from Great Britain. Her battery consisted of one 8” Brooke rifle, stern mounted, one 9” Confederate Rodger mounted on deck, and one 6” Brooke mounted on the bow. Her compound length was 199, with a beam of 27, drawing 8.5’ of water.

The CCC Peedee was a "Chattahoochee Class" Warship, built after the CSS Chattachoochee and the CSS Jackson.
Brooke Naval Rifle Shells

These shells, fired by the C.S. Naval Department during field tests penetrated 8" armor plating and 18" of white oak at 265 yards propelled by 14 pounds of black powder.
6.4-inch Brooke Rifle, Selma Serial Number S-53, 9,000 pounds
7-inch Brooke Rifle, Selma Serial Number S-46, 15,000 pounds
9-inch Dahlgren, Serial Number FP-573, 9,020 pounds
• Locate and raise the Peedee guns.
• Map the river bottom at the site and excavate significant artifacts for exhibition.
• Archaeologically test the terrestrial site to locate components of the Navy Yard.
• Locate any remaining vessels from the Navy Yard.
• Re-locate the shipwreck thought to be CSS Peedee and refute/verify its identification.
THE MARS BLUFF NAVY YARD

Being a Brief Accounting of the Confederate Mars Bluff Navy Yard on the Great Pee Dee River, the Ships, Boats, and Vessels Built There, a Brief History of Underwater Archaeology Conducted at the Site, and Future Archaeological Plans.

Christopher F. Amer, State Underwater Archaeologist
SCIAA/USC
Ted Gragg (SC Civil War Museum, PDRART)
Bob Butler (PDRART)
Presented to the S.C.V. Camp 1963 May 3, 2012