

FORT MACON RAMPARTS

A publication of the Friends of Fort Macon

Volume X Issue 1 Spring 2003

ROBERT E. LEE AT FORT MACON PART II

by Paul Branch

Editor's note: The first part of this article was published in the Fall 2002 issue of the Ramparts.

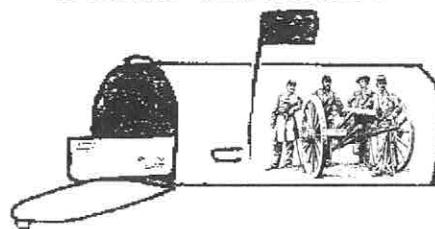
Lee's inspection of Fort Macon was done with great thoroughness. He took precise measurements of the lengths and heights of the fort's walls. He then went through each casemate of the fort as well as outside buildings and structures noting cracks, leaks and problems. While the overall condition of the fort was good, there were a number of problems which needed to be corrected, some of them quite serious. Lee studied each and determined a solution.

First, settling of the foundation piers of the fort's scarp wall (the main wall of the inner citadel fronting the ditch) had resulted in cracks running through the ceiling arch of each casemate. These had to be sealed and patched with bricks and cement from below. Then the earthen parapet had to be excavated on top of the fort to allow access to the cracks from above on top of each casemate. The cracks were then to be flooded with grout.

Next, Lee found all three of the fort's magazines were very damp and poorly ventilated. The wooden lining of each magazine was so close to the masonry as to allow no air circulation between the two. Each magazine was also secured by two solid oak doors which likewise allowed no circulation when closed. To increase ventilation he recommended a two-foot square passage be cut through a wall of each magazine into the adjoining casemate to allow increased air flow. The inner door of each magazine was to be replaced with a grated door which would allow air circulation while providing proper security for the magazine. Lee also recommended the wooden lining of each magazine be replaced with a new wood lining which had a one-foot spacing between it and the masonry walls of the magazine to allow further air circulation.

Another problem Lee found involved the fort's emergency water system and cisterns. In operation, rain-water filtering through the soil over each casemate flowed through a gutter in the bottom of each casemate

LETTERS FROM FORT MACON



This is another installment in a series of letters written by soldiers stationed at Fort Macon. Some of the letters were written by Confederate soldiers prior to the 1862 battle at the fort, while others were written later by Union soldiers. The letters describe aspects of military life in the mid 19th century in coastal North Carolina.

The following letters were written by enlisted members of Company C, 51st Infantry Regiment, Massachusetts Volunteer Militia.

*Fort Macon
April 10, 1863*

You see that this is dated on the day on which I told you we were ordered to change our place of abode, and that we are where I wrote you in my last I thought we might be. We started early in the morning to complete our preparations and about eight went down to the depot where we found a tug-boat, on which we went directly and were in a short time transported to the fort, which is only

Continued on page 5

***Don't Forget
The Ice Cream Social
April 27 - See Page 7***

valley into an iron pipe in the fort's parade wall. The pipe ran laterally through the wall over the doors and windows to a point above each cistern, located under the parade walkways. The water was then conveyed down by a single downspout in the wall to each cistern. The iron pipe had proved inadequate for the amount of water and clogged easily. Water then backed up in the casemate valleys and leaked below into the casemates. What water did reach the cisterns became brackish and undrinkable.

Lee's solution was to get the water from above the casemates to ground level as quickly as possible so that it had little chance to leak into the casemates. Dispensing with the iron pipe, he called for a gutter chase to be chiseled in the parade wall from the head of each casemate valley to the foot of the wall. Each was to receive an 8-inch diameter zinc downspout to bring the water down from the casemate valleys. At the foot of the parade wall, under the walkway, the downspouts would tie into a covered gutter which would then convey the water along the wall to the cisterns.

To stop the salty tidal groundwater from contaminating the cisterns themselves, Lee ordered the cistern interiors to be coated with hydraulic mortar and built up with one course of bricks.

When he examined the four counterfire galleries under the fort's outer wall, Lee found two problems. These rooms were designed to defend the ditch (the sunken area between the fort's outer and inner walls) against assault. First, the rooms were full of water several feet deep which he thought had percolated through the wall from the ditch. Second, though the galleries were loopholed for riflemen to shoot from, he felt their firepower was inadequate to stop an assault.

To control the amount of tidal water entering the ditch, Lee called for a sluice gate to be installed in the culvert which conveyed the water into the ditch from the creek outside the fort. Controlling the water in the ditch should control the water leaking into the counterfire galleries.

To increase the firepower of the galleries in defending against an assault, Lee proposed to install a total of six carronade cannons in the three largest galleries from which a sweeping fire was possible. Carronades were stubby, large caliber naval cannons frequently utilized in forts for interior defense to deliver a sweeping, scattering fire with anti-personnel ammunition.

Should the fort have been called upon to fight, Lee found only a limited potential for defense at hand. It had received only a third of its intended armament and had only one hot shot furnace inside the citadel for use against naval attack. No guns were mounted and, had there been a need to, there

were no permanent gun mounts in the fort. Fourteen temporary gun mounts, consisting of wooden platforms and traverse circles, all mounted on brick foundations, had been installed four years earlier but these were insufficient for proper defense. Lee's recommendation was that permanent brick and stone gun mounts be built for the fort's full intended armament. Also, a second hot shot furnace was needed to serve the guns on the fort's outer wall against naval attack.

These repairs covered all the fort's major problems. Added to these were also a few minor items. Lee completed his inspection of the fort and its site by December 9, 1840. Although the weather was still poor, he sent a letter that day to the Engineer Department advising of his intention to continue on to Fort Caswell (Southport, N.C.) and Fort Moultrie (Charleston) to observe the breakwaters previously constructed at those two forts. Because the beach at Fort Macon required immediate attention, he planned to obtain information on the cost of the breakwaters and see how they could be adapted to the erosion situation at Fort Macon.

It is not known with certainty if Lee did continue on to observe the erosion control efforts at Forts Caswell and Moultrie as planned. He did not inspect either of the forts themselves or write any report of going there. However, it is clear from his December 9 letter that he regarded the immediate halting of the erosion at Fort Macon as critical and that studying the breakwaters at Caswell and Moultrie would aid in his recommendations for Fort Macon's problems. He could've easily made the trip to each of these forts by steamer in just a few days.

It is certain that Lee was back with his family at Arlington, Virginia, for the holidays. At the beginning of 1841 he sat down with his field notes to draft his final report to the Engineer Department on his findings and recommendations in regard to Fort Macon. His 6-page "Report on the site of Fort Macon, N.C." with its accompanying estimates for constructing two permanent stone jetties was penned on January 7, 1841. He recommended the two jetties each be a minimum of fifty yards long to be effective. They would require a total of 6380 linear feet of palmetto logs and 3630 tons of stone, for an estimated cost of \$25,000. This would provide immediate protection to the fort. To permanently secure the fort site Lee stated in a further 6-page report on February 22, 1841, that the jetties had to be much larger: 200 yards long for Jetty 1 and 100 yards long for Jetty 2. Carrying them to this extent would require 22,535 feet of palmetto logs and 8317 tons of stone. The cost of full length jetties, along with brush fences to stabilize the dunes west

Col: Jos: J. Potter
 Chief Engineer
 Washington City, D.C.

Beaufort N.C.
 9 Dec 1840

210

I have completed the examination of the site & condition of Fort Macon, & as the encroachment of the sea on the former requires in my opinion to be speedily arrested, I shall proceed to Forts Casswell & Moultrie to see the effects of the Breakwaters there constructed, get the required information as to their cost &c and judge how they can best be adapted to the preservation of the beach at Bogue Point.

I have been retarded by inclement weather which from present appearances promises to continue.

I am very respectfully
 Sir Yours Obdt
 R Lee

Capt. Lee

of the fort, was \$70,000. Lee also drafted two detailed maps of the site of Fort Macon dated January 7 and February 22, 1841, showing the locations and details of his two proposed jetties.

As for repairs to the fort itself, Lee's 22-page "Report on the State and Condition of Fort Macon, N.C." with estimates for repairs was completed on January 22, 1841. It is one of the most detailed inspections of the fort ever conducted. In carefully calculating the costs for materials and labor, Lee's estimate for all the repairs to the fort amounted to \$17,674.

This completed Lee's work at Fort Macon. Although he had the choice of returning to the Carolinas to take charge of the repairs and improvements to Fort Macon and the

other forts there, he decided instead to take a new, perm up, his reports served as the blueprint for other engineers to do so. In June, 1841, another engineer was assigned to carry the recommendations into effect. The recommendations were to initiate a phase of repairs and alterations to the fort and its site which lasted from 1841 to 1846.

The recommendations for Lee's two jetties were adopted and four others were even added to provide additional protection. They stabilized the fort site for years. All are currently covered over with sand. The large sea jetty present

today was built over Lee's Jetty 1.

The repairs to the fort were also carried out during the 1841-46 period. These, along with additional repairs and alterations added by the Engineer Department, brought Fort Macon to a pinnacle of top military condition and readiness before the outbreak of the War Between the States. In that conflict, both Robert E. Lee and Fort Macon would receive their trial by fire.

The author of this article, Paul Branch, is the Ranger/Historian at Fort Macon State Park.

SPECIAL TOUR OF LEE'S WORK TO BE SCHEDULED

Fort Macon's Ranger/Historian Paul Branch will conduct a special tour of the Fort in which he will point out and discuss the improvements made by Captain Robert E. Lee as a result of his inspection of the Fort in 1840.

Based upon the level of interest expressed by our members, more than one special tour may be scheduled. The date(s) and time of the special tour(s) will be published in the Summer issue of the Ramparts.



Robert E. Lee in 1845

FINANCIAL RESULTS SUMMARY FOR 2002

INCOME

Member Dues.....	\$10,350
Gifts & Grants.....	5,940
Fort Donation Box.....	7,145
Interest on Deposits.....	84
Sales Tax Refunds.....	75
TOTAL INCOME.....	\$23,594

EXPENDITURES

Membership Support	
Printing & Mailing.....	\$3,530
Computer/Office Ops.....	332
Membership Meetings.....	924
Contribs./Memberships.....	685
Fort Exhibits/Artifacts.....	5,617
Support Fort/Park Ops.....	1,389
TOTAL EXPENDITURES.....	\$12,477

NET INCOME..... \$11,117

2002 FUNDS

January 1 Balance.....	\$48,627
December 31 Balance.....	59,744
Increase for 2002.....	\$11,117

COMMENT

In 2002 the Friends continued to make important contributions to the educational exhibits and operations of the Fort, while at the same time accumulating funds for the future construction of a replica of one of the married officers' houses outside of the fort. We hope that construction of that house will get underway in 2003 or 2004. Its completion will provide a wonderful example of domestic life in the mid 19th century in coastal Carolina.

Once again the Friends received a generous contribution from the Carteret County Commissioners. By agreement, these funds will be used to stimulate increased tourism in the county. To that end, we are in the process of developing new brochures to promote increased visitation to our historic site.

We want to thank all of our members, especially our tour guides and other volunteers, who make it possible for us to accomplish our mission without any paid employees. Your support is greatly appreciated!

Continued from page 1

went up to the fort and took possession of our quarters, which are very pleasant and comfortable, reminding me very strongly of college and college life. We did nothing in particular during the day, except to get more perfectly settled and watch the occupants of the fort in their drill with the cannon. We occupy three rooms, each in charge of a sergeant; there are twenty of us in this room, several of them being room-mates or were at Morehead. Spaulding is one and is opposite me by the entrance to the room. Miller is in the room next to me. Wadsworth is with the other orderlies, those of Company I, Forty-fifth and Company C, First Regiment U.S. Artillery. The fort is on an island and forty or fifty rods from the wharf. A railroad track is laid nearly up to the fort on which the soldiers convey quite easily whatever is to be brought into the fort. A comfortable walk is provided for us by laying boards on the ties between the rails.

There is a fire-place in each room, and enough single bunks for most of us with tick and straw. It seems very much like being in a city, the gates are closed at night when the sunset gun is fired and the flag taken down, and opened at sunrise. Everything is kept very neat here and it is very pleasant. Almost all the grass I have seen in North Carolina is on the top of this hill. We have dress parade a little before the setting of the sun, immediately after which we go to our respective places in case of an attack. We cannot go out of the fort without the countersign between sunset and sunrise. The boys cannot run guard here, if they wished to. I feel almost provoked with myself for being so honest in this respect while at Worcester. I know more now than then. At the time when the rebels took possession of the fort, before the breaking out of the war, it was occupied by a sergeant with his family and one private. Corporal Kimball of the Regulars, who is commissary for the post, was one of the gunners with Burnside when he besieged the fort, his first shot dismounted a large gun which is now mounted on the outer wall in the angle toward the sea. He knew the situation of the magazine and three shots in succession were thrown into the same place in the wall, just over the door leading to it. It appeared to our brothers by that time that they were somewhat in danger, and they wisely surrendered.

George E. Dunlap

Fort Macon
April 11, 1863

On April 9th we received orders to get ready to march for Fort Macon. This surprised us greatly as we all wanted to stay. I was on guard the first day. The countersign was White Plains. We have to attend strictly to business; have to do it right up a la militaire style. Wear white gloves, shoes blacked up and carry guns always at right shoulder, shift or at support. Company I of the Forty-fifth Regiment Mass. Vols., according to my mind, is the best drilled nine months' company. There is also Company C of the First U.S. Artillery here. We are going to stay here and do garrison duty and learn to work the guns. I had a pass today; went over to Beaufort. I had quite an adventure over there; when I was getting into the boat I put my hands up against the wharf to steady myself and in so doing the boat naturally pushed away and down I went into the water to the bottom, ten feet, when I came up I grabbed the boat and got in rather wet.

Charles F. Pierce

Fort Macon
April 27, 1863

We have received our pay to the first of March, which amounted to \$83.20. I shall send home \$70.00; the check I expect will come over from Beaufort today. We have to work now harder than we ever did before. We have to get up at sunrise and drill from half-past six to half-past seven, and from ten to eleven in artillery, and from four to five in the afternoon, with dress parade at six. We have to go on guard once in three days and once in four days. We have to go on in the night two hours and sit up two hours before we can go to sleep, then we can sleep what time we can in two hours, then we go on guard. We have inspection every time we go on guard and dress parade, which we have never done before. We have to drill in the afternoon as usual, the next day we have to go on police duty, and in the afternoon we have to patrol the island up five or six miles and get back at retreat. We are not allowed to go out of the fort after dress parade. When Ira and I were on patrol we killed two snakes, one of them was an adder, and a large one, too. Came near stepping on him as he faced us. The other one was a large black snake. I was on guard

Sunday. The boys killed twelve copperheads. I shall not have to go on guard when my turn comes the next time. The one that makes the best shot in the morning gets excused and I happened to be lucky enough to get it. The duty is hard, but we live better than we ever did before. We have soft bread nine days out of ten, it is tip-top bread, baked here in the fort and we get it warm. We had artillery practice last Saturday. Our company fired twenty rounds at a target up where Burnside planted his battery. We did not hit it, but we came pretty close to it, so that I should not like to stand there when the shells burst. I was almost deaf when we got through. It was in one corner of the fort and one of the guns pointed almost at me. Some of the shells burst almost before they got out of the gun. They were some of the shells that the rebels had. The company out of the Forty-fifth fired three and the regulars three with the ten-inch columbiads; every shot went pretty near,

and two of them hit the target. The shells weigh 138 pounds. We fired thirty-four guns yesterday for the taking of the Fort. It is just one year from yesterday, the twenty-sixth day of April. We fired a battery of eight guns. The pickets brought in a rebel this morning. He had a pass, but he could not get in on that because there had not been any passes given out. He said there were a "right smart lot" of rebels opposite Newport barracks.

George W. Tourtelotte

Charles F. Pierce, the author of one of these letters, assembled an account of the history and the camp life of his militia unit for the period of their enlistment in 1862-1863. These three letters are part of that account which was published by the Charles Hamilton Co. of Worcester, Massachusetts in 1886.

FRIENDS BOARD OF DIRECTORS FOR 2003

PRESIDENT.....	Grayden Paul
VICE PRES.....	Herman Jennette (actg)
TREASURER.....	Bill Horton
SECRETARY.....	Gwyn Towles
COMMITTEE CHAIRS	
ADMIN SERVICES.....	Bob Donnan
EXHIBIT CONST.....	David Pleace
LIVING HIST COORD.....	Herman Jennette
MEMBERSHIP.....	Pat Pitts
PLANNING.....	Rosie Scenario
PROGRAMS.....	Jean McElvein
PUBLICITY.....	Nancy Donnan
RAMPARTS.....	Bennett Moss, Dick Whipple
TOUR GUIDES.....	Joe Beam
EX OFFICIO	
PARK SUPERINTENDENT.....	Jody Merritt
PRESIDENT EMERITUS.....	Kathryn Cloud

Board members serve without compensation for a one year term beginning January 1.

FREE CONCERTS IN THE FORT

During the past five summers, our Friday evening concerts on the fort parade ground have proved to be very popular with both residents and visitors. This year we will sponsor a total of six concerts on alternate Friday evenings beginning June 6, and continuing on through August 15.

The concert dates for 2003 are June 6 and 20; July 4 and 18; and August 1 and 15. All Friday concerts begin promptly at 7:00 PM and end at 8:00. There is no charge for admission, but donations are welcomed. Your dues are not used to support these fine performances. The six groups of talented performers will present a variety of musical styles, all of which can be enjoyed by the whole family. A picnic supper on the grass can further contribute to an unforgettable experience.

If you are in the area on any of these concert dates, make a special point of coming to the Fort for some great music. The acoustics and the ambiance make the Fort the perfect venue for a delightful evening.

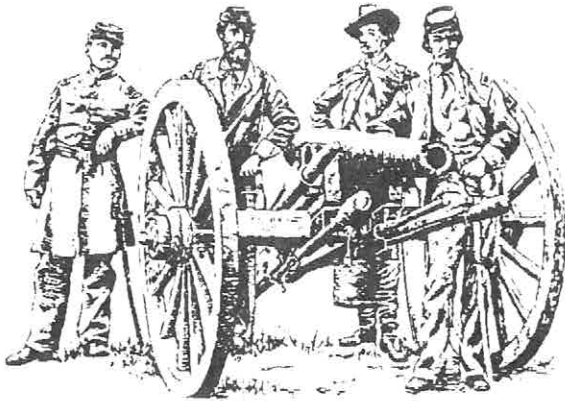
BRAIN POWER

One of the symptoms of an approaching nervous breakdown is the belief that one's work is very important.

Bertrand Russell

The brain is a wonderful organ. It starts working the moment you get up and does not stop until you get into the office.

Robert Frost



FRIENDS RECEIVE AWARD FOR RAMPARTS

In 2002 the Friends received the prestigious **JOE M. MCLAURIN NEWSLETTER AWARD** from the North Carolina Society of Historians. This award recognizes the contribution made to historic preservation in North Carolina through the publication of *The Fort Macon Ramparts*. The Friends are very grateful to the N. C. Society of Historians for extending this honor to us.

ICE CREAM SOCIAL ON APRIL 27 TO FEATURE DEDICATION EVENT

Each year the Friends commemorate the 1862 Battle of Fort Macon with our annual meeting and ice cream social on the Sunday closest to the April 25 anniversary date of that historic event.

The Ice Cream Social is your chance to get even on your annual membership dues. There will be free ice cream with all the toppings, all the delicious brownies you want, authentic historic demonstrations in period costumes, great music by talented performers, and a chance to view all of the fort's new exhibit rooms.

This year there will also be a special rededication ceremony to mark the completion of the extensive

renovation of the fort structure, and the creation of wonderful new exhibits in many of the fort's casemate rooms. Many dignitaries from the state, county, and local municipalities have been invited to join us in celebrating this special achievement. You won't want to miss this memorable occasion.

Ample free parking will be available in the newly expanded parking lot at the fort. So there is no excuse for not coming to the Friend's major event of the year. And bring a friend or two! Mark your calendar for Sunday, April 27, at 2:00 in the afternoon. See you there!

NEW EXHIBIT ROOMS TO OPEN AT ICE CREAM SOCIAL

After four years and some 13 million dollars of time and money, the fort has been restored to its best condition since before the Civil War. As part of this process, several wonderful new exhibit rooms have been included. These professionally constructed exhibits include displays of uniformed mannikins, tools, weapons, equipment, personal items and other artifacts from all of the different time periods of the fort's use since 1834.

Some exhibits illustrate interesting details of the fort's construction, and the history of earlier forts on the site. There are fascinating murals and some interactive displays too.

All in all, Fort Macon is now one of the finest historical and educational attractions in the Southeast. Come and enjoy!

