Archaeological Report No. 13

THE CONFEDERATE UPPER BATTERY SITE, GRAND GULF, MISSISSIPPI

EXCAVATIONS, 1982

William C. Wright

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and
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# TABLE OF CONTENTS

Personnel ............................................................... ii
Acknowledgements .................................................. iii
Introduction .......................................................... iv
Goals ................................................................. v
The Military Struggle ............................................... 1
  Historical Background ......................................... 1
  Notes ............................................................. 33
The Upper Battery Site ............................................. 41
  Notes ............................................................. 43
  Procedures and Methods ....................................... 45
  Conclusion ....................................................... 49
Artifact Inventory .................................................. 56
References .......................................................... 64
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INTRODUCTION

The excavations at Grand Gulf's Upper Battery site on the man-made terrace in the western face of Point of Rock during the summer of 1982 were a continuing study of Grand Gulf's Confederate fortifications, constructed during March and April of 1863. The Mississippi Department of Archives and History (MDAH) had conducted two summer excavations at the site of the Lower Battery, Fort Wade, during 1980-1981, which greatly influenced the 1982 excavations at the Upper Battery.

The Upper Battery has been referred to as "Fort Cobun" for a number of years. This writer has been able to trace that name to only one source—an 1864 United States Coast Survey map of the Grand Gulf, Turner's Point, New Carthage area of the Mississippi River. The only other historical evidence for the name Cobun is a possible reference to Samuel Cobun, an early resident of Claiborne County. Cobun served as the county's first sheriff, elected in 1802. A cursory research to establish a possible tie between Samuel Cobun and the Upper Battery fails to find a connection. Cobun does not appear ever to have owned land in Grand Gulf. He died in 1853, some ten years before the Upper Battery was constructed. It is doubtful that the occupants of the Upper Battery, Battery A, First Louisiana Heavy Artillery, were aware of Sheriff Cobun. Other than the map, made by the enemy and not those who manned the Upper Battery, the term "Fort Cobun" does not appear to bear any relationship to the Upper Battery. It will not be used in this report to refer to the Upper Battery.

The Grand Gulf State Military Monument Commission (GGMMC) and the MDAH agreed that the archaeological study of the Confederate fortifications within Grand Gulf State Military Park should be continued as the economy permits. The two-month excavation expense was divided between the two state agencies with June being sponsored by MDAH and July financed by GGMMC. The project was supervised by a full-time historical archaeologist from the staff of MDAH.

Success of an archaeological excavation must never be judged by the quantity of artifacts recovered. If the two principal fortifications, the Upper Battery and the Lower Battery (Fort Wade), are compared by artifact recovery, then we would assume that the Upper Battery was much less significant than the Lower. This is misleading. The exact opposite was true. The two excavations confirmed precisely what we have discovered through research. The Lower Battery site had been used intermittently by the Confederates for over a year and occupied continuously for two months. On the other hand, the Upper Battery took over two weeks to carve from the side of a natural rock formation, and was only used as a fortification for less than two weeks. The truth is that despite the discrepancy between the
artifact-rich magazine of Fort Wade and the relatively poor assemblage of the Upper Battery, more was learned of the Upper Battery's history than of that of the Lower Battery at Fort Wade.

GOALS

The goals for the archaeological investigations during the summer season of 1982 were to continue an in-depth and accurate study of the complex Confederate fortifications at Grand Gulf, Mississippi. Of primary importance were the goals of locating the various gun emplacements, identifying the gun's caliber or size, locating the various stations of activity, and bringing this information into a synthesis with the two previous years' work of research and excavation at Grand Gulf.

A secondary goal was to locate the impact areas of shells being fired into the Upper Battery by the Federal fleet on April 29, 1863, and therefore through a study of their trajectory to establish the approximate location of the vessels. The discovery of certain types of shells would possibly identify the vessel which fired them.

If one is to judge the success of an archaeological endeavor by the satisfaction of one's goals, then the excavation of the Upper Battery site at Grand Gulf was a successful venture. The exact position and size of the four guns within the Upper Battery were located and identified. A fifth gun position was located at the south side of the Battery, but appears not to have been used. Support facilities such as the hotshot furnace, cooking area, covered shelter, and magazine were located, although the magazine is now beneath the paved parking area. An undisturbed impact area of shell and solid shot was located by electronic metal detectors. The trajectory was easily established because the shells penetrated nearly solid sandstone, leaving a clear trail. The location of the vessels was simply established by a transit. No complete projectiles were found which were unique to a particular vessel as was hoped.
THE MILITARY STRUGGLE FOR GRAND GULF'S UPPER BATTERY
HISTORICAL BACKGROUND OF THE SITE AND OTHER FORTIFICATIONS

The French were the first Europeans to pay special attention to the Grand Gulf area. The expedition of Rene Robert Cavelier, Sieur de La Salle, passed Grand Gulf in 1682 on its voyage down the Mississippi River. Maps made after this voyage echo its chroniclers by the label "Grand Gouffre" used at this location to signify a large whirlpool. This whirlpool was a large eddy formed by the Big Black River entering the Mississippi River almost head-on against the latter's current flowing eastward from Coffee's Point. South of the confluence is a very large rock outcrop ("Point of Rock") which added velocity to the whirlpool.

The Grand Gulf area's first white settlers were certainly French, but no positive evidence of a French settlement on the east side of the river has been confirmed at this date; the Grand Gulf settlements mentioned in the documents lay to the west of it. If there were settlers to the east, they either fled or became victims of the Natchez-Yazoo uprisings in 1729. By 1795 American settlers were moving into the area in large numbers. Earlier settlers had acquired land grants from whichever government claimed control at the time. The French claimed the land from La Salle's exploration until 1763; the English from 1763 until 1781; and Spain from 1781 until 1798, when Georgia claimed the area as her territory to the 31st parallel and established the Mississippi Territory until 1817, when statehood was granted.

During territorial and early statehood years Grand Gulf was primarily a cotton shipping port on the Mississippi River. Its location between the Big Black on the north and Bayou Pierre on the south made for convenient transportation of goods from the interior. For this reason Grand Gulf handled more cotton at this time than either Vicksburg or Natchez. Grand Gulf survived fires, plagues, floods, and caving banks, but in spite of its enterprise and ideal location, it was seriously damaged by a tornado in 1853, and apparently the town had not yet recovered when it was totally destroyed by war nine years later.

Following the fall of New Orleans on April 24, 1862, the Federal fleet of Flag Officer David D. Farragut proceeded up the Mississippi River with impunity toward its objective: Vicksburg. Baton Rouge fell on May 8, and Natchez surrendered without hesitation four days later. This lack of resistance south of Vicksburg gave the Federal commander a false impression of Confederate strength along the Lower Mississippi. The demand upon the city of Vicksburg to surrender was
answered by both the civil and military authorities in a very negative tone.

...and that you may have a full reply to the said communication, I have to state that Mississippians don't know and refuse to learn how to surrender to an enemy. If Commodore Farragut or Brigadier-General Butler can teach them, let them come and try...

James L. Autry
Military Governor and
Colonel Commanding Post

A council of war was held between the gunboat captains and Brigadier General Thomas Williams, the commanding officer of the Federal troops aboard the fleet's transports. It was determined that the defenses were too strong for an assault.

There was a brief prologue to the role of Grand Gulf in the defense of the river passage. While the fleet was pondering the fate of Vicksburg, Captain James A. Hoskins, Brookhaven Light Artillery, masked his battery of four six-pounder guns on the bluff behind Grand Gulf and waited for the vessels to descend the river.

On May 26, the vessels appeared before Grand Gulf led by the Richmond and two transports. Hoskins allowed the transports to come within range in front of his guns before opening fire, striking the Laurel Hill several times, killing one and wounding two. The Brookhaven Light Artillery then limbered its guns and left Grand Gulf before the gunboats could get into position.

Captain Thomas T. Craven of the Brooklyn brought his vessel about to retaliate, with the Katahdin and Kineo close behind. As these vessels shelled the town, citizens began displaying white flags. A delegation of townspeople approached the Brooklyn led by a man claiming to be the chief magistrate, begging that the town be spared; that they were not responsible for the outrages. Craven wanted to burn the town, but after conferring with Williams it was decided to ransom the town with a levy of wood, poultry, beef, and pork.

While talking to the delegation General Williams learned that the Confederate camp was located a mile and a half behind the town. He ordered Major Fredrick A. Boardman with two companies of the Fourth Wisconsin Infantry to capture the guns and destroy the camp. The Federals reached the camp just as the rear guard was evacuating. A brief exchange of gunfire resulted in the mortal wounding of Williams' aide-de-camp, Lieutenant George De Kay.

The Confederate gunners returned to Grand Gulf almost immediately following the withdrawal of the Federal fleet to continue work on fortifications. The fleet had stationed seven gunboats on the Mississippi just south of Vicksburg's batteries to keep an eye on the
Confederates. After a week of not hearing from the rest of Farragut's squadron, and being well aware of the trouble at Grand Gulf, Captain James S. Palmer became apprehensive about the possibility of Confederates erecting more batteries along the Mississippi's bluffs. The Winona was sent downstream to open communications with the fleet and to investigate the bluffs as far as Natchez. On this trip Captain Edward T. Nichols warned the mayor of Rodney that should the fleet be fired into from the town it would not be held responsible for damage suffered by the town and its citizens. (10) Upon the Winona's return to Vicksburg, Nichols met with Craven and reported that workers were erecting fortifications at Grand Gulf. (11)

Captain Palmer ordered the Wassahickon and Itasca down to break up the work being done at Grand Gulf. At 4:30 a.m., June 7, the Wassahickon and Itasca fired a number of shells at the fortifications, but received no reply. Both of the vessels landed a boat under the flag of truce, advising the workers to abandon the work and evacuate Grand Gulf. After the boats returned, the two vessels fired a few shots at the works before moving upstream from Coffee's Point for the night. (12)

The two gunboats patrolled Grand Gulf the next day, throwing an occasional shot at the unfinished earthwork just to harass any workers who might still be there, but with no return action the boats anchored for the night. During the night the Confederates moved in a few six-pounders and at least one rifled gun and opened fire on the two gunboats at 4:10 a.m., disabling an 11-inch Dahlgren gun on the Wassahickon. After two hours the gunboats broke off the engagement and retired out of range. The Wassahickon had been struck seventeen times and the Itasca twenty-five. There were no Confederate casualties, but the gunboats had one killed and six wounded. (13)

On June 10 the gunboats returned, but the Confederate artillerists were not there, having withdrawn the night before. In a show of vengeance the town was shelled and then set on fire by two armed crews. (14)

The bluffs behind the town of Grand Gulf gave the Confederate gunners a natural advantage over the gunboats. The boats were unable to elevate their guns enough to reach the high bluffs when abreast of the town, and to move farther away, up or down stream, defeated their purpose, as the fortifications were shielded by the broken terrain. Palmer, in reporting the engagement between his two gunboats and the field batteries at Grand Gulf, told Farragut:

...They [the gunboats] were pretty roughly handled, as the commander of the Itasca will inform you, having been hulled, the one 25 times, the other 17. They, however, only lost one man killed and 6 wounded. This being rather too serious an obstacle to have
in our rear, I decided upon bringing the rest of the squadron down and breaking up this business before it got too formidable, but I fear we can not injure the batteries on the hill, and we have no remedy against their plunging shot....

P.S.---Evening. This afternoon I dropped down abreast of the town with the squadron, excepting the Itasca, on board of which I had already sent the sick and wounded. We shelled the town for an hour, but they deserted their batteries, and with the exception of a few rifle shots, manifested no resistance. The heights, however are filled with riflemen, and if they give us any more annoyance, I shall burn the town.(15)

For nearly two weeks the Federal fleet patrolled the Mississippi keeping a watchful eye on the bluffs along its eastern bank, making a particular effort to shell Grand Gulf as they passed, but the town was in ruins, and there was little or no activity along the hills back of the town visible to the lookouts.(16) Captain Craven, on board the Brooklyn, noted that the town was in ruins, the recently constructed earthworks and the town entirely deserted.(17)

The failure of the Federal fleet and army to open the Mississippi at Vicksburg was a real obstacle to Washington's grand plan to cut the Confederacy in two and stop the traffic in supplies from the west. At New Orleans Farragut received communications urging him to open the Mississippi at Vicksburg, the only point under complete Confederate control. A large mortar flotilla, consisting of sixteen vessels of Commander David D. Porter, was added to the fleet when it steamed upriver to make another try at taking Vicksburg.(18) The schooners, each armed with a huge 13-inch mortar, were convoyed up the Mississippi in-tow of the larger vessels.

As the Empire Parish arrived at Grand Gulf with two mortar schooners in tow on June 21, a day after Craven passed safely with the Brooklyn without seeing any life at Grand Gulf, it was fired into by a masked battery hidden in the bluffs. Although the vessel was temporarily disabled it managed to proceed on to Vicksburg.(19)

As the remainder of the fleet, escorting General Williams' infantry, moved up the Mississippi, they were alerted at Rodney to the hidden guns at Grand Gulf. In an attempt to capture these Confederates and their guns a boat was to go up the Bayou Pierre as far as the Port Gibson and Grand Gulf Railroad Bridge, disembark infantry, and move on Grand Gulf along the only routes capable of handling artillery, but the boats were halted by defensive rafts across Bayou Pierre several miles from their objective. The boats were forced to back down the bayou, as it was too narrow to turn
around, landing at Barry's Plantation on the Mississippi some four
miles below Grand Gulf. The Union infantrymen then marched toward
Hamilton's Plantation to the railroad, where they encountered a
locomotive and a freight car with a field piece. The train backed out
toward Port Gibson while exchanging shots with the Federals from the
field piece. The Confederates, a few artillerymen, cavalrymen, and
the engineer designing the Grand Gulf fortifications, Captain Thomas
J. Mackey, had sufficient time to abandon the camp and avoid
capture. (20)

The Federals, led by Colonel Halbert E. Paine, followed the path
taken by the Grand Gulf Confederates to Willow Springs, burned the
remains of another camp, and returned to Grand Gulf, where they burned
the few remaining structures, dismantled the fresh earthwork, and
reboarded the transports. (21)

While Williams' army was involved opposite Vicksburg in
evacuating a canal to divert the Mississippi, with the labor of
approximately 1,200 Negroes from Louisiana, the Confederates renewed
their work on fortifications at Grand Gulf. The Confederates at Grand
Gulf were local partisans under the leadership of Captain Joseph M.
Magruder, a local poet of some renown, and Hughes' Battalion of Wirt
Adams' Cavalry. The artillery was a battery from the Seven Stars
Artillery. On July 6 and July 22, this battery fired into Federal
vessels plying the Mississippi, accounting for numerous hits and
casualties aboard the boats. Following the action on July 22, Captain
Henry Bell of the Kennebec noted that there was not a single house
standing at Grand Gulf. He also mentions that the Confederate
artillery was firing "12-pounder bolts." (22)

The Federal fleet withdrew from Vicksburg on July 24, after being
humiliated by the makeshift Confederate gunboat, the Arkansas, which
had passed through the entire fleet without being sunk while doing
severe damage to the United States' finest river fleet. As the fleet
passed Grand Gulf, expecting to run a gauntlet of Confederate
artillery, it threw a few shells into the emplacements, but not a shot
was returned by the Confederates. The artillerists were there
watching as the twenty-eight boats passed in review, but held their
fire against such overwhelming odds. (23)

The Confederates remained at Grand Gulf until the end of
September with little activity. The Federal fleet was just as
inactive in the area, therefore nothing was done to strengthen the
earthwork or build additional fortifications at Grand Gulf. The
Federals now found enough to do in East Louisiana to occupy their
attention. In the fight to occupy Baton Rouge General Williams was
killed. (24)

The taking of Vicksburg and its environs was now left to a more
tenacious leader, Major General Ulysses S. Grant. This first attempt
was a complete failure at Chickasaw Bayou when an attack against the
bluffs immediately north of Vicksburg during the Christmas season
resulted in ten to one casualties for his trusted subordinate, Major
General William T. Sherman. The navy was also different. Instead of
oceangoing vessels they were using the new city class of ironclad
gunboats, designed for inland waters, mounting thirteen very large
caliber guns. The Confederates had already designed a formidable
weapon against these in the electronic torpedo (mine) in the smaller
streams like the Yazoo River where the Cairo was sunk in a very few
minutes on December 9, 1862.(25)

Grant, unlike Williams, did not sit on a navy transport and wait
for the Confederates to be intimidated into surrender. He formed his
army of midwesterners instead of the New Englanders like Williams',
and used these troops accustomed to the rigors of hard work all winter
in attempts to circumvent Vicksburg by the various streams. These
became known as the Bayou Campaigns. They were not successful, but
did serve a purpose in conditioning the men to the tropical weather
conditions of the Lower Mississippi, and by spring Grant was ready to
meet the Confederates head on.

One of Grant's projects had been an attempt to change the course
of the Mississippi to bypass Vicksburg. This was probably never
seriously pursued by Grant as it had been by Williams, but was
attempted to appease his superiors. The Confederate high command,
like Grant, finally realized that the attempt to cut a canal across
the neck of De Soto Peninsula would end in failure, and that the fleet
would have to run past the batteries and Grant would certainly make an
effort to land troops south of Vicksburg, or ascend the Yazoo in
another attack on the same area as Sherman had attempted in December
1862. This was something Williams had an opportunity to do, but never
attempted in earnest.

Major General Carter L. Stevenson wrote Lieutenant General John
C. Pemberton, on March 5, 1863, at Jackson, expressing a fear: "If we
do not occupy Grand Gulf the enemy will, and then be able to invest
us....I respectfully recommend that at least three or four guns from
here [Vicksburg] be put in position there as soon as possible; that at
least two of [Brigadier General John S.] Bowen's regiments, with his
two 20-pounder Parrots and field battery, occupy it at once."(26)
Pemberton concurred with Stevenson and authorized Stevenson to order
Bowen's Brigade to Grand Gulf from the Big Black River Railroad Bridge
near Bovina.(27) By mid-March Bowen's 1,500 troops, aided by numerous
slaves impressed from the surrounding plantations, were laboring
around the clock to restore the old works and construct elaborate
fortifications. The Lower Battery, where previous batteries had been
placed, were now manned by the fieldpieces of Guibor's and Wade's
Batteries. Since Wade's promotion to chief of artillery in Bowen's
Brigade his old battery was being commanded by Lieutenant Robert C.
Walsh. The heavy guns destined for Grand Gulf were en route down the
Big Black River from the railroad, but had not arrived before Bowen
was notified that the Hartford and Albatross had passed Natchez at
5:30 a.m. on March 18. He received another telegram the same day that
the Anne Perette was on her way, bringing his heavy guns.(28)

Bowen could not afford the loss of the heavy guns should the Anne
Perette be unloading when the gunboats arrived. He ordered Captain
John C. Landis, who had his battery at Winkler's Bluff on the Big Black, "...to allow no boats to pass into the Mississippi River without my order, and to warn all that arrive, while the gunboats are in this vicinity, to move further up [the Big Black]." Bowen also had his cavalry leader, Colonel Wirt Adams, scout for an overland route by which the siege guns on the Anne Perette might be transported from the Big Black to the Grand Gulf. (29)

As Hartford and Albatross approached Grand Gulf at 6:30 a.m. on March 19, "...several Negroes appeared on the levee [on the Louisiana side] waving their hands and pointing to the cliffs above. One old woman in particular attracted attention by the dramatic way in which she waved her bandanna." (30) Farragut, however, needed little warning of what was going on at Grand Gulf, for he could easily see the mounds of fresh earth from the river as he approached.

Colonel Wade had his gunners hold their fire with the 20-pounders until the vessels drew abreast of the muzzles. On Wade's signal the lanyards were jerked. Their primary target, Farragut's flagship Hartford, was struck several times, killing two and wounding six. The Albatross ran beneath the Hartford's bow to shield her. There were no casualties in the Confederate ranks. (31)

No sooner had the Federal vessels moved well upriver than the Anne Perette ran into the landing and unloaded her cargo of five guns, two 8-inch, one banded 32-pounder rifled, and two 32-pounder rifled, but not banded. The 8-inch guns and unbanded 32-pounder rifles were the property of the Confederate States Navy, destined for a vessel being prepared at Shreveport, Louisiana, but Pemberton had diverted them to Grand Gulf's defenses. (32)

Bowen's gunners found the use of naval gun carriages difficult without casement facilities. On March 25 Bowen wrote Pemberton:

> Two to four guns more needed for our batteries.  
> The navy carriages are very cumbersome. If possible, send us two chassis carriages for 42-pounders, and one 8-inch columbiad carriage and chassis. Can we get some tarpaulins? (33)

The work at Grand Gulf had taken great strides with the arrival of Bowen's Brigade. He sent a report to Pemberton on March 27, in which he describes the defenses.

> I have the honor to forward herewith a sketch [not found] of the defenses constructed at this place, prepared by the engineer officer in charge [Major Samuel H. Lockett]. The distance from the Point of Rocks Battery [Upper Battery] to the mouth of Big Black being too great for a certain blockade of that stream, I have located a battery of two 12-pounder guns and two 24-pounder howitzers at Winkler's Bluff (the first available point on the stream) for its
defense. This battery can be reinforced in good time by my Parrott guns if the enemy attempt to ascend that river. The Big Black at Winkler's Bluff is so narrow as to preclude its passage until our guns are taken or silenced. I have built huge piles of dry wood on the beach opposite our batteries, and have a detail ready to fire them if the enemy attempt to pass us under the cover of night. A signal station at Hard Times Landing, opposite and 5 miles above, provided with rockets for night alarms and with flags for daylight communication with the Point of Rocks battery, will give us timely notice of the enemy's approach, as they can see some 6 miles farther up, making in all 12 or 11 miles of river under immediate surveillance.

I have built one furnace, and have another under construction, for heating shot, or rather shell, as I have no guns to throw heavy round shot, and intend to experiment on shell stuffed with clay or brick dust. The guns on navy carriages cannot be handled with the facility of those on the chassis carriages, and I fear the firing will not be as rapid as desirable.

The covered way will be occupied by a regiment, and about 100 sharpshooters will be deployed as skirmishers along the bank (under cover), to prevent the Hartford from using the howitzers I understand she carries on her main truck, or to pick off any that may expose themselves on board. I am satisfied that if they attempt a bombardment they will be sorry for it, but fear they may be able to run by without material damage or injury.

Our camp is located on the only level ground in the neighborhood, and about one mile and a half from the batteries; the battery camps about a mile from the guns, all southeast of the town site; my headquarters immediately between the main camp and the batteries.

Bowen may have had grandiose ideas in constructing Grand Gulf's defenses; or it might have been that he had simply been given a job to do, and being the only Confederate general who fully understood the importance of Grand Gulf, he intended to do his best at making it impregnable. On March 31, he again wrote Pemberton outlining an
Sir: I have the honor to apply for authority to erect an iron casement or tower battery near the water-edge at this place. All necessary material may be procured from the old Grand Gulf and Port Gibson Railroad. If authority is granted, and the guns (four) can be furnished, I propose to erect it on the following plan: On a platform, similar to an ordinary locomotive turn-table, I would build a round tower about 10 feet high, capped with a truncated conical roof, and the upper circle of the cone covered with an iron grating. The exterior of the tower and cone to be plated with two thicknesses of railroad iron, on a heavy timber frame. The platform or floor, with the tower will revolve upon a large center pintle combined with a relieving circular railway, about midway between the pintle and outer circle; the whole to be turned by four cranks, with a wheel and pinion placed in the four angles between the muzzles of the guns and near the outer circle; the tower to be perforated with small circular ports, just sufficient to allow the guns to protrude. All horizontal movements of the guns will be given by revolution of the tower, and the gunners will each have a brake to check the motion when he has his aim. Each gun, upon firing, will by the revolution, be turned from the enemy and another brought to bear on them, and while three are firing successively, the first discharged will be reloaded and ready for action. It is almost unnecessary to add that the guns are on two diameters, crossing at angles. The only possible doubt I can imagine as to the feasibility of the plan would be in regard to revolving the tower; this I am satisfied, from my experience in constructing locomotive turn-tables, I can insure as practicable. I would, of course, build an embankment as high as the port-holes, around the tower, to add to the security of its base, where the mechanism for its movement is located. The light will be admitted through the grating at the top.(35)

March 31 was not one of the better days at Grand Gulf. Even Bowen's elaborate signal system to warn of approaching vessels was not foolproof. At 8:15 p.m., the garrison was suddenly awakened by musketry and heavy firing from the Upper Battery. Three vessels, the
Hartford, Albatross, and Switzerland, were suddenly spotted by the sentinel of the Upper Battery as they drifted silently down the current with just enough steam to avoid the whirlpools. The gunners hurried to load and fire their guns. Captain John B. Grayson's Louisiana's managed to fire about twenty shots at the darkened vessels. The Lower Battery and fieldpieces, even with more warning, only fired twenty-one shots. The Albatross escaped injury, the Hartford was struck once, killing one, and the Switzerland, which had been damaged by the Vicksburg batteries, was struck twice, but had no additional serious damage or casualties from its encounter with Grand Gulf's batteries. Bowen singled out the Upper Battery's firing in his report as being "excellent."(36)

The garrison of Grand Gulf suffered no casualties from the night engagement with the Federal vessels, but did as a result of an accident in the Lower Battery as one of Wade's 20-pounder Parrotts burst, probably from a shell being loaded without a fuse during the confusion of darkness and surprise. Two were killed, eight seriously wounded, and several suffered minor injuries.(37)

Bowen was faced with another problem. Major Isaac Harrison's Fifteenth Louisiana Cavalry had been in near-constant contact with the XIII Corps of Major General John A. McClernand moving southeast along the swamp roads of Louisiana. Bowen had been aware of the Federal vessels above Grand Gulf, but was waiting for their passage before sending Colonel Francis M. Cockrell with the First and Second Missouri and one section of field artillery over the river to assist Harrison and hopefully to discover the Federals' intentions. Cockrell joined the Louisianans with about 1,000 reinforcements on April 4, and by April 8, the Confederates were successfully holding the Federals north of Bayou Vidal.(38) Pemberton and Bowen exchanged the following telegrams on April 8:

If rumors of a heavy advance of the enemy's column into Tensas Parish prove true, shall I endeavor to prevent it, with my entire command?

    Jno. S. Bowen(39)

If you can occupy a position which cannot be turned, and can cover a sufficient front to successfully resist an assault, having made ample arrangements to withdraw your troops by telegraphs and signals, in event of enemy's vessels returning, you can, after leaving adequate force for your batteries and their defenses, move the remainder of your troops to resist his advance. I do not regard it of such importance as to risk your capture.

    J. C. Pemberton (40)
Bowen never sent additional troops into Louisiana, even though there was rumor of heavy Federal troop movement, for on the night of April 16, the Federal fleet ran past Vicksburg's batteries and was now lying several miles above Grand Gulf at Davis Bend. On the 17th, Bowen telegraphed Pemberton, "Shall I withdraw my troops from across the river, if possible, or leave them there?"(41) However, while the telegrams were being sent back and forth, Cockrell safely crossed the river with all his men except for seventy who crossed the next morning.(42)

Major-General Stevenson, Vicksburg April 17, 1863
What reinforcements have you sent Bowen? I have ordered from here Sixth Mississippi, First Confederate Battalion, and a field battery [Hudson's Battery]—about 800 men.
J. C. Pemberton(43)

Bowen's force was also strengthened by the arrival of Brigadier General Martin E. Green's Brigade from the Big Black River Railroad Bridge, ordered there by Pemberton and reluctantly agreed to by Stevenson. These troops were met at Rocky Springs by Bowen personally, where most of them were ordered along the Rodney Road a few miles southwest of Port Gibson, where Green was to select a suitable line of defense should the Federals land south of Bayou Pierre. With the addition of Green's men and the 800 from Jackson, Bowen's command was increased to approximately 5,000.(44)

The fleet was stationed upriver from Grand Gulf at Davis Bend repairing damage suffered while running the Vicksburg batteries, but Admiral Porter gave Grand Gulf little rest. From well up the river his boats could observe the Confederates hard at work fortifying the Upper Battery. On April 20, he wrote Grant that he had sent the Tuscumbia and Price down to Grand Gulf to reconnoiter and destroy the flatboats. The Rebels are at work fortifying. Three guns are mounted on a bluff 100 feet high, pointing upriver. Two deep excavations are made in the side of the hill (fresh earth); it can not be seen whether guns are mounted on them or not.(45)

Porter was impatient and determined to reduce the fortifications at Grand Gulf. After having his reconnaissance vessels fired on by the Upper Battery every time they came within range, he sent orders to Captain Henry Walker, of the Lafayette, on April 22, advising him of his planned attack on Grand Gulf scheduled for the next day:

If you see the squadron coming down to-morrow you may expect me to attack the batteries that fired at us to-day [Upper Battery], while the Benton and Tuscumbia will attack the battery
you were firing at to-day [Lower]. If the battery responds to us, you will be dropping down to enfilade it with your rifle guns. If it does not respond you will drop down until you can enfilade the other battery. Fire deliberately and get good range, and please be careful in giving the different elevations for different kinds of shells. Please look at the percussion rifle shot; not one exploded to-day. Fire good fuses tomorrow. (46)

Porter notified General McClernand the same day at his headquarters at Smith's Plantation:

I have been reconnoitering to-day. They have built extensive works and have guns in them. If left to themselves they will make this place impregnable. I drove them out of the principal work [Upper Battery], but the other was out of range, and I could not get at them without bringing on a general engagement, which I am not prepared for to-day. I shall attack the forts in the morning. (47)

The attack the next morning was more of a reconnaissance in force. Porter sent the following message to General Grant describing its results.

Feeling that something was going on at Grand Gulf that should be stopped, I went down with the whole squadron to reconnoiter. A strong fort [Upper Battery] (at present mounting three guns only) pointing up the river was a part of the extensive works now under way. I went down in the Lafayette and drove the workers out; that fort did not fire at us, but one below did; also the lower one still. Three rifled shots went over the Lafayette after I left. The rebels had a steamer (the Charm) down, bringing supplies. We drove her away before she had time to land them. These forts are only partly finished; in a week they will be formidable. ...There are four forts in all, well placed and mounting 12 guns. They have been preparing this move; expected it sooner. They have 12,000 men at Grand Gulf, and are throwing in more with all the rapidity they can. (48)

Porter was right about the Confederates' knowing what the Federals were planning— at least Bowen, at Grand Gulf, had that
OVERVIEW OF
GRAND GULF'S
UPPER BATTERY
BASED ON ARCHAEOLOGICAL
INVESTIGATIONS 1982

SCALE: 1 INCH = 20 METERS 
(50.8 FT.2)
insight. Porter was only partly right in his own observations. The
Upper Battery was unfinished; it would never be completely finished.
There were only two major forts. The other two he mentions were not
forts, but well emplaced guns below the Lower Battery and to the
south. He was surprisingly accurate in his total count of the guns,
since so many were fieldpieces, not heavy or siege artillery.
Actually, Bowen had thirteen pieces of artillery. Porter was totally
wrong in his estimation of troop number. The garrison within Grand
Gulf hardly numbered more than 2,500 on April 23, 1863. While Porter
was overestimating the strength of Grand Gulf's garrison, Pemberton,
back in Jackson, was underestimating the Federals. He was receiving
conflicting reports from Stevenson and Bowen. Stevenson was saying
that the Federals were moving north of Vicksburg, and Bowen was
claiming they were moving south through Louisiana. To add to the
confusion, Pemberton was being bombarded with reports of a strong
Federal cavalry column moving unmolested through the heart of
Mississippi from LaGrange, Tennessee. They had avoided major contact
with Confederate forces, barely halting at all until reaching the
Southern Railroad at Newton Station, about sixty miles east of
Jackson. Unable to cope with the confusion caused by this cavalry
under Colonel Benjamin Grierson, Pemberton ordered Bowen to send all
of Wirt Adams' Cavalry to intercept them near Hazlehurst,(49) while
Bowen's pleas for reinforcements were ignored. Without the scouting
capabilities of the cavalry, Bowen was now operating blind. Because
Bowen was unable to convince his superiors of the imminent attack upon
Grand Gulf or points south of Vicksburg, Stevenson was having little
trouble preventing Bowen from getting more troops from Vicksburg.(50)
On April 27, Bowen wrote his commander, outlining the probable moves
of Grant's army:

...all the movements of the enemy during the
last twenty-four hours seem to indicate an
intention on their part to march their army
still lower down in Louisiana, perhaps to
Saint Joseph, and then to run their steamers
by me and cross to Rodney. In view of this,
and from the fact that Port Gibson is almost
essential to this position, I have examined
myself and now have the engineers on a recon-
naissance selecting a line of battle south
of Port Gibson. Were it possible for me, with
my extended line and small force, to spare them,
I would recommend the sending of a regiment
and section of artillery to Rodney, which would
materially delay their crossing and advance. I
now feel quite sanguine of success in the event
they might make a direct attack upon my front,
or right, or immediate left and rear, continuing to
threaten my right and front, I must either imperil
my whole command by too great an extension of my line or else submit to a complete investment with Port Gibson in their possession. The gunboats, five in number, are still just above, firing occasionally at our batteries.(51)

Bowen's prognostication of the Federals' plans was right, with the exception of the landing site. Rodney had been the original alternate should Grand Gulf not be taken by naval bombardment, but the site was changed to Bruinsburg several days later when it was learned that there were two roads leading to Port Gibson. These plans became a reality on April 27, with Porter's orders for the attack on Grand Gulf:

In going into action with the forts at Grand Gulf the following orders will be observed:

It is reported that there are four positions where guns are placed in which case it is desirable that all four places should be engaged at the same time. The Louisville, Carondelet, Mound City, and Pittsburg will proceed in advance, going down slowly, firing their bow guns at the guns in the first battery on the bluff [Upper Battery], passing 100 yards from it, and 150 yards from each. As they pass the battery on the bluff [Upper] they will fire grape, canister, and shrapnel, cut at one-half second, and percussion shell from rifled guns. The leading vessel (Louisville) will round to at the next battery, keeping the bow presented, as if carried past by the current, come up again and engage it. The next vessel will engage the third battery, and the next the fourth, the last vessel preparing to double on what appears to be the heaviest of the lower batteries. The Benton and Tuscumbia will attack the upper batteries on the bluff, going down slowly and firing shell with 5-second fuses, one bow gun to be loaded and fired with canister. The Lafayette will drop down at the same time, stern foremost, until within 600 yards, firing her rifled guns with percussion shells at the upper battery. The Tuscumbia will round to outside the Benton, not firing over her while so doing; after rounding to, she will keep astern and inside of the Benton, using her bow guns while the Benton fires her broadside guns. The Tuscumbia and Benton will also fire their stern guns at the forts below them whenever they will bear, using shell altogether.
The Louisville, Carondelet, Mound City, and Pittsburg will also keep their stern guns trained sharp on the batteries on their quarter, firing deliberately and trying to dismount the enemy's batteries. The four vessels leading will take position 100 yards from the beach, or landing, firing 5-second shell, and one gun firing altogether with shrapnel cut at 2½-seconds, unless the commanders see that it is too long or too short.

If I find that the upper battery is soon silenced I will hoist the guard flag and blow a long whistle for the Lafayette to drop down and assist the four steamers at the lower batteries. I will blow long and continued whistles, without any flag, until the order is obeyed. The Lafayette and Tuscumbia must concentrate their fire on what appears to be the heaviest battery below, and obtain such a distance as will enable them to fire accurately at the guns of the enemy.

The stern, side, and bow guns must be used by all the vessels when practicable and when there is no possibility of firing into each other.

If a battery is silenced perfectly, each vessel must pick out the next one the commander thinks troublesome and gain a position where she will not interfere with anyone else; when it is practicable, form a line abreast and bring all the bow guns to bear on one place; that will soonest end the fight. (52)

Porter's plan, if feasible, was not totally practical. The currents peculiar to Grand Gulf were never mentioned in his instructions, no mention of the infantry in the earthworks between the forts was made, and there is a definite feeling that Porter mistakenly felt the Upper Battery was the weaker fort. All of these mistakes would haunt the Federals during the battle two days later. If Porter had overestimated both his own abilities and Grand Gulf's garrison, Bowen was making no mistakes in his understanding of the Federals' plans. Following the attack of April 27, Bowen once again pleaded with Pemberton:

Reports indicate an immense force opposite me. Harrison is fighting them now. Bowen (53)
CONFEDERATE FORTIFICATIONS
APRIL 29, 1863

MISSISSIPPI RIVER

MISSISSIPPI

L O U I S I A N A

Map adapted from O.R.N., I, 24, P. 268 (Enclosure).
Have you force enough to hold your position? If not, give me the smallest additional force with which you can.... Pemberton (54)

...I advise that every man and gun that can be spared apart from other points be sent here. Bowen (55)

Pemberton wired Stevenson at Vicksburg following Bowen's urgent request for more men and guns:

Hold 5,000 men in readiness to move to Grand Gulf, and on the requisition of Brigadier General Bowen move them.... (56)

Stevenson replied to Pemberton:

The men will be ready to move promptly. To cross the Mississippi, both gunboats and transports must pass the batteries at Grand Gulf. An army large enough to defend itself on this side should consume much time in crossing. As it is not known what force has been withdrawn from this front, it is not improbable that the force opposite Grand Gulf is there to lay waste the country on that side, and is a feint to withdraw [my] troops from a main attack here. I venture to express the hope that the troops will not be moved far, until further developments below render it certain that they will cross in force. (57)

Pemberton acquiesced to Stevenson's thinking, neither realizing or quite trusting Bowen's judgement. It is not hard to understand Bowen's disgust and frustration when he received this reply from Pemberton. It is not unlikely that he realized how the garrison at the Alamo felt in 1836.

I have directed General Stevenson to have 5,000 men ready to send on your requisition, but do not make the requisition unless absolutely necessary for the safety of your position. I am sending you 2,000 or 3,000 men from this direction in case of necessity. (58)

Thus Bowen's pleas fell on deaf ears. Stevenson could well spare the troops from Vicksburg, but didn't believe Bowen. Pemberton could have ordered Stevenson to get the troops moving, but didn't. Neither had any intention of aiding Bowen by depleting their own forces unless
"absolutely necessary." Perhaps nowhere else in the Vicksburg Campaign is such incompetence shown among the Confederate command. This is ironic in that the grand plan of Washington's military minds was to split the Confederacy in two by control of the Mississippi, a plan instigated at the very beginning of the war. Even the president of the Confederacy, Jefferson Davis, not only a Mississippian but a resident of the very area now in dispute around Grand Gulf, never fully comprehended the importance of holding the west. He caused or allowed the Department of East Louisiana and Mississippi to be commanded by officers judged to be either ineffective, inefficient, or troublemakers exiled from the Army of Northern Virginia.(59)

While the thousands of telegrams and reports of the various officers, both Union and Confederate, afford the researcher a wealth of information, it is the private soldier, fighting a war he knew little about, who gives the personal observations. Private William M. Cliburn, Company G, Sixth Mississippi Infantry Regiment, wrote classic words to his wife in his correspondence following his arrival at Grand Gulf:

Dier beloved wife through the murseys of god I am still on the land of the living. I am just able to get about hoping these few loins may find you all inJoining the best of health Dier wife thars been cannons firing every day since we bin hier & thars heavy firing below today 1 o'clock A'M' we air looking for a fight To come on evry day is at this place they is 6 or 7 gunboats Just above hier & the Yanks is landing on the other side of the river so times will bee warm hear soon it is thought that is G Banks & Curby smiths [General Nathaniel Banks and General Kirby Smith] troops fighting below my company is all gone out on picket now except the sick we hear that the Yanks is at Haselhurst & some of the boys believe it be so (60)

Even Private Cliburn could see what Pemberton could not understand and Stevenson could not believe. Grant had Major Generals John A. McClernand's XIII and James B. McPherson's XVII Corps moving rapidly down the Louisiana side, and had two divisions of the XIII Corps, Major Generals Eugene A. Carr's and Peter J. Osterhaus' almost 10,000 men, already aboard transports anchored upriver from Grand Gulf. The Federals' grand assault on Grand Gulf was planned for the morning of April 29, with these troops ready to go ashore as soon as the fleet silenced Grand Gulf's batteries.

Bowen, still without sufficient reinforcements, readied his garrison for the assault he knew would come. His artillery was positioned at two major fortifications, the Upper Battery in the side of Point of Rock and the Lower Battery in and around Fort Wade.
situated on the terrace behind the old town. The Upper Battery, manned by Captain Henry Grayson's Battery A, First Louisiana Heavy Artillery, had mounted one 8-inch navy Dahlgren, two 32-pounder rifles, and one 30-pounder Parrott rifle. (61)

A line of rifle pits extended from the Upper to the Lower Battery. A covered way following the base of the bluff line was behind the rifle pits, and allowed infantry to be shifted from one interior line to the next with relative safety. These lines were occupied by Colonel Finley M. Hubbell's Third Missouri (C.S.) Infantry Regiment. The ordnance at Wade consisted of one 100-pounder Blakely rifle, one 8-inch navy Dahlgren, one 32-pounder rifle, and the surviving 20-pounder Parrott rifle. Five additional fieldpieces were emplaced below and immediately south of Wade. These guns, making up the Lower Battery, were manned by Wade's and Guibor's Missouri (C.S.) Batteries. (62) The First Missouri (C.S.), with six fieldpieces, was on the approach from Bayou Pierre to Grand Gulf. The Second Missouri (C.S.) was in rifle pits along the waterfront south of the Upper Battery. The Fifth and Sixth Missouri (C.S.), with one section of Landis' Battery, were along the bluff ridge. Green's Brigade, Hudson's Battery, the First Mississippi Battalion, and the Sixth Mississippi with the exception of Company G, were on the Rodney Road southwest of Port Gibson. Company G, Sixth Mississippi, was guarding the approaches of Bayou Pierre on picket duty. Bowen posted the First Missouri Cavalry (C.S.; dismounted), Lieutenant Colonel Ras Stirman's Arkansas Sharpshooters, and the four guns of Captain William E. Dawson's Third Missouri Battery (C.S.) at Thompson's Hill four miles up the Big Black River. (63)

Major General Grant issued orders to McClernand for the attack on Grand Gulf after conferring with Admiral Porter.

The plan of the attack will be for the navy to attack and silence all the batteries commanding the river. Your corps will be on the river, ready to run and debark on the nearest eligible land below the promontory [Point of Rock] first brought to view passing down the river. Once on shore, have each commander instructed beforehand to form his men the best the ground will admit of, and take possession of the most commanding points, but avoid separating your command so that it cannot support itself. The first object is to get a foothold where our troops can maintain themselves until such time as preparations can be made and troops collected for a forward movement.

It may be that the enemy will occupy [such] positions back from the city, out of range of the gunboats, as to make it desirable to run past Grand Gulf and land at Rodney. (64)
Grant was worried that the 10,000 men already aboard the transports might be insufficient to take and hold Grand Gulf and had them disembark to await two more divisions under Brigadier Generals Alvin P. Hovey and Andrew J. Smith. As soon as these divisions arrived before daylight on April 29, he had three divisions loaded and a forth held in reserve. This brought McClernand's strength on board the transports to 17,000. (65)

With orders to attack the Grand Gulf batteries, the fleet moved downriver at 7:00 a.m., April 29, led by the Pittsburg, which had an experienced pilot used to the peculiar currents of Grand Gulf. (66) Behind the Pittsburg were the Louisville, Carondelet, and Mound City. The first shots at the Upper Battery were made at 7:50 a.m. as the fleet moved down, and fire was returned by the 8-inch gun and 32-pounders as the fleet came within range. When the gunboats passed the Upper Battery they were fired on by the 30-pounder fieldpiece and peppered with musket fire. They continued on to pass the Lower Battery, where they turned their bows upstream and began bombarding the Lower Battery and supporting fieldpieces. (67)

The warships Tuscumbia, Lafayette, and Porter's flagship Benton, following the gunboats, engaged the Upper Battery at 8:25 a.m., taking position below the whirlpool eddies south of the Upper Battery in an endeavor to enfilade the Upper Battery's guns. The Lower Battery's parapet was nearly knocked to pieces by the terrible fire from four gunboats following four hours of continuous bombardment. The Pittsburg, Louisville, Carondelet, and Mound City then moved up to assist in the destruction of the Upper Battery. The flagship Benton was disabled temporarily beneath the fort. Its place was taken by the Lafayette, moving from its place north of the Upper Battery. (68) The Tuscumbia, having been disabled earlier by several shots through the engine room and one through the pilot house, drifted helplessly past Grand Gulf to beach on the Louisiana side about two miles below the Batteries. (69)

Porter moved upstream with the Benton to confer with Grant. The consensus was that although several of the Confederate guns appeared to be silenced, they were just as capable of resisting an attack as when the battle first began some five hours earlier, and the Confederate infantry had not suffered at all. It was then decided to break off the attack, to disembark the troops from the transports and march them across to DeSharoon's Plantation about three miles below grand Gulf. Porter signaled his gunboats, with the exception of the disabled Tuscumbia, to join him upstream. All were safely anchored at Hard Times Landing by 2:30 p.m. It was then decided to send the Lafayette down to harass the batteries so as to prevent repairs to the parapets. At 9:00 p.m. the fleet moved down under cover of darkness with the empty transports protected by the ironclads while they again exchanged shots with Grand Gulf's batteries. After moving some three miles below the guns the fleet tied to the Louisiana shore for the night. (70)
Bowen had still not received word of the reinforcements he had requested the day prior to the attack on Grand Gulf's batteries, which Pemberton had led him to expect. While the attack was in progress Bowen wired Pemberton:

Six gunboats, averaging ten guns, have been bombarding my batteries terrifically since 7 a.m. They pass and repass at the closest ranges. I cannot tell the effect of our shots. Six transports in sight, loaded with troops, but stationary. My loss as yet only 2 killed. The batteries, especially the lower ones, are badly torn to pieces. I cannot tell the result, but think that reinforcements would hardly reach me in time to aid in the defense if they attempted to land (71)

Following the fleet's withdrawal upstream at 2:30 p.m., Bowen again wired Pemberton:

After six and a half hours of continued firing, the gunboats have retired. They fired about 3,000 shot and shell, temporarily disabling one gun....Col. William Wade, of the artillery, one of the bravest and best of my command, was killed at his post. The men behaved like veterans (as they are), and are now hard at work preparing for another attack.(72)

Pemberton had been trying to contact Stevenson throughout the day, April 29, to prompt him into action:

Is anything going on at Vicksburg or Grand Gulf? If General Bowen is attacked send on the column I directed as soon as possible. I will send more troops to Vicksburg.(73)

I have directed [Brigadier] General [Lloyd] Tilghman to move to Edwards Depot with two regiments infantry and one light battery.(74)

Hurry forward re-enforcements to Bowen tonight. Endeavor to send him ammunition for heavy guns. Troops on the way from here to re-place those sent away.(75)
Use every exertion to forward Bowen a supply of ammunition 32-pounder rifle and 8-inch naval guns. Acknowledge of dispatch.(76)

Finally, with no reply from Stevenson, Pemberton directed his wire to the next in command, Major General Martin L. Smith:

Send to-night to Grand Gulf projectiles and powder for 32-pounder rifle and 8-inch naval guns. Have telegraphed twice [four times] to General Stevenson. Received no reply; suppose he is not there.

Answer.(77)

The long-awaited replies finally came from Stevenson with no explanation for his not answering Pemberton's telegrams.

The line to Grand Gulf is broken. Heavy firing in that direction, under the circumstances, has prompted me to start a re-enforcement....(78)

Stevenson ordered the two brigades of Brigadier Generals Edward D. Tracy and William E. Baldwin to assist Bowen, but it was 9 p.m. before the brigades would move out of Vicksburg, and they would not reach Bowen until after the Battle of Port Gibson had commenced on the morning of May 1. (79)

With the cessation of bombardment Bowen took inventory of the damage and made the necessary repairs to the fortifications. Despite some 2,500-3,000 projectiles fired into Grand Gulf by the fleet on April 29, very little real damage was done. The fortifications, being made of earthen walls, were rather easy to repair. Nearly all of the fleet's guns outweighed those at Grand Gulf. Bowen's subordinates counted three dead and eighteen wounded; unfortunately, one of the dead was Bowen's chief of artillery, Colonel William Wade. When this number, combined with the successful repulse of the gunboats, is compared to the damage reports of the fleet, one must certainly consider the engagement between the Federal fleet and Grand Gulf's fortifications a Confederate victory regardless of how shortlived the success was.

**Casualties and damage suffered by the Federal fleet at Grand Gulf**

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Shots received</th>
<th>Killed</th>
<th>Wounded</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton</td>
<td>47</td>
<td>7</td>
<td>19</td>
<td>Temp.dis'ed</td>
</tr>
<tr>
<td>Carondelet</td>
<td>(No in-depth damage or casualty report found)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lafayette</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Louisville</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mound City</td>
<td>&quot;Several&quot;</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pittsburg</td>
<td>35</td>
<td>6</td>
<td>13</td>
<td>Disabled</td>
</tr>
<tr>
<td>Tusculumbia</td>
<td>81</td>
<td>5</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>
The number of shots received is misleading in the various reports, as most are damage reports and included only those shots that caused severe structural damage. An example of this is the Lafayette, which received six damaging shots and over forty into the non-structural members. (80)

On the morning of April 30, following the battle with the gunboats, Bowen sent the following message to Pemberton. At this time he appears confident that reinforcements would arrive from Vicksburg, for he does not mention them; or perhaps Bowen had simply given up hope of receiving them.

Send me cartridge bags, shot, and shell for Grayson's gun [probably the rifled 32-pounder at the Upper Battery]. Also 10-pounder Parrott ammunition. ... Wirt Adams has met the cavalry raid [Grierson's] near Fayette and drove them toward Brookhaven. Disposition for the morning perfected. Troops in fine spirits. (81)

Perhaps Pemberton was now beginning to appreciate Bowen's abilities. Bowen received a message from Pemberton written on April 29:

In the name of the army, I desire to thank you and your troops for your gallant conduct to-day. Keep up the good work by every effort to repair damages to-night. Yesterday I warmly recommended you for a major-generalcy. I shall renew it. (82)

These official reports, telegrams, and precise battle plans give the researcher an accurate insight into what was happening, but again we learn from Private Cliburn what witnessing this spectacle was like. On the day of the attack on Grand Gulf Cliburn wrote his wife Jane:

April 29 A.D. 1863 it is now 2 oclock in the evening thair hasbin havy fireing at this plase evry since 2 oclock this morning from boath sids I heard that one of our guns bursted & kilt 5 or 6 men I doo not know the result all is now sill it is now 6 oclock eavning our loss was 3 privats & one Cournal kilt and 20 wounded we doant but little damage To the boats from what I can lurn about it the boats went bak up the river but air still in sight & will renew the attack soon nodout I think it will abig fight heir soon wish could hier from you now & I hoap I will soon my wife & children farewell for the present. (83)
The prolific and descriptive Cliburn followed up his letter written in the heat of the attack with another the next day, April 30, with his observations:

this morning at three oclock this regiment was ordered to rise & get their guns & fall in & march off without any breakfast the gunboats & scanspoars all fell below us last night those fired five shots as the past some was niernuf yesterday to smell the powder & hear the balls strike the boats onseinawhile & I saw the smoke & I heard bawls wheels & roar & Howl & squal it now 12 oclock the cannon is roaring now up about vixburg & hasbing for the last 3 or 4 hours (84)

The Federal fleet below Grand Gulf began transporting infantry from the Louisiana side on the morning of April 30, to Bruinsburg, Mississippi in what would become the largest amphibious landing in the world prior to World War II. As soon as the Federals reached Bruinsburg they divided in two columns at Bethel Church, rapidly marching to the bluffs along two roads, each leading to Port Gibson.(85)

Bowen's loss of faith in his superiors' sending reinforcements is again expressed in his telegraph to Pemberton telling him of the landing. He never mentions reinforcements again.

Three thousand Federals were at Bethel Church, 10 miles from Port Gibson, at 3 p.m., advancing. They are still landing at Bruinsburg.(86)

Bowen's predictions of the Federals' intentions were now a reality. His pleas for reinforcements to prevent such a landing had gone unheeded. Bowen assigned the task of protecting the main batteries of Grand Gulf to the Second Missouri Infantry (C.S.) and Company G of the Sixth Mississippi. He then formed the remainder of his infantry and field artillery for the march west of Port Gibson. He advanced Green's Brigade along the road leading past Magnolia Church to Bethel Church. He had them stop at Magnolia Church, where shortly after midnight his pickets clashed with the Federal vanguard near the A. K. Shaifer house.

Baldwin's and Tracy's brigades from Vicksburg arrived on the field shortly after daylight in a terrible, exhausted condition from their forced march. Tracy was killed in the first hour his brigade was engaged, and his brigade was taken over by Colonel Isham W. Garrott of the Twentieth Alabama. After eighteen hours of continuous fighting with considerably less than 8,000 troops against 23,000
Federals at the onset, being constantly reinforced, Bowen's right was turned and his tired troops were forced to withdraw across Bayou Pierre, burning the two swinging bridges behind them. It was a simple matter of having too little, too late. (87)

If the implications of Grant's gaining a foothold by crossing the river were never fully appreciated by Pemberton, they were by his superior, General Joseph E. Johnston, several hundred miles away. Johnston gave Pemberton one of his typical ambiguous orders on that day:

If Grant's army lands on this side of the river, the safety of Mississippi depends on beating it. For that object you should unite your whole force. (88)

Was this telegram of Johnston's a direct instructional order, or was it a suggestion?

Private Cliburn, in the fortifications of Grand Gulf, took pencil in hand and from his vantage point wrote anxious words to his wife of what he could see in the distance:

May 1 1863...our men is now engaged no doubt I hear heavy fiering going on now not farbeau maney aman that wanted meat yesterday will want nomoar nor war will not boter him no moar owat anafult thing war is I bin heir 7 days & has hird fighting going evry day & night since I bin hier....ther hasbin heavy fireing kepup nearly is hasbin like harrican part of the time or like heavy cloud all arising the fight commest about one oclock last night about 3 miles below Poart gypson one of the boys shot himself in the hand & has come to camp he was shot last night. (89)

Having fallen back across Bayou Pierre and into Grand Gulf, Bowen wrote his commander, Pemberton:

The enemy, who have been threatening my front all day, have this afternoon bridged the Bayou Pierre, to the east of Port Gibson, and are moving on the Jackson Road. Should they reach the junction, before me, I will be completely cut off and invested, with scarcely any bread-stuffs, and no intrenchments in my rear. Grant's army is at least five times as large as my command, and I am satisfied I cannot give him battle in the open field to advantage. Regarding the safety, or rather the saving of the army as paramount, it being necessary to assist in the defense of Vicksburg or Jackson, I had determined
to abandon this position and fall back in the direction of Jackson or Vicksburg before the arrival of Generals Loring and Tilghman. Upon my laying all the facts in my possession before them, they are of the opinion that my only hope is in the proposed move. General Loring, having just arrived, has requested me to put the army in motion, when he will assume command and conduct the retreat. He requests that you will endeavor to communicate with him at Rocky Springs. From the fact that reinforcements are constantly arriving, I have been induced to delay this movement, and my only fear is that I may be too late. (90)

The few hours saved through Bowen's determination to abandon Grand Gulf and save his men, prior to receiving authorization from Pemberton, allowed him to save most of his stores, ammunition, and fieldpieces, by getting them out of Grand Gulf early, thereby preventing wagon blockage of the narrow roads by a last-minute evacuation. Pemberton's message to Bowen concurred with his decision:

If you are holding your position on the Bayou Pierre and your communication is open by the Big Black to this place, continue to hold it. I am informed that you have fallen back to Grand Gulf. If this is so, carry out my instruction, just sent in cipher.

(cipher)

You must endeavor to cross Big Black, abandoning Grand Gulf, and destroying guns, ammunition, and stores. (92)

Pemberton received a second telegram from Johnston on May 2 that sounded more instructional, but Pemberton took no action to obey his superior. Perhaps he considered the piecemeal reinforcements he had sent Bowen sufficient.

If Grant crosses, unite your whole force to beat him. Success will give back what was abandoned to win it. (91)

This ambiguity, so typical of Johnston's orders, left too much up to Pemberton's interpretation. Instead of acting immediately to meet Grant in the field with a unified army, he began to concentrate his troops more tightly around Vicksburg, where he moved his headquarters and began preparing defenses.
Private Cliburn wrote his wife on May 2, the day following the Battle of Port Gibson:

...the fight on yesterday was a boad one on our part our men was badly whipt 2 of our company was killed dead on the field & sevrel of them wounded & taken prisners booth of the simmons was wonded Wn simmons lost 1 arm & david was [s]hot through the thigh & privits the inmy has got poart gypson thir is 60 thousand strong we look for anther attack soon 8 oclock the fight commest there was about 30 men of our company went into the fight 13 kilt wounded & missing we may have To run soon from this plase I doant kow meven you will (93)

During the night of May 2 and early morning of the 3rd, Bowen successfully evacuated his garrison from Grand Gulf, spiking the heavy guns which he was unable to remove and blowing the magazines. (94)

From their camp on Clear Creek near Bovina, Private Cliburn wrote the last known letter of his life to his wife Jane, describing the evacuation of Grand Gulf and the march to Bovina:

dier wife we hav just arrived at this place we bin on the retreat for the last 3 days from grandgulf our loss was grait our men burnt boath of those swinging bridges across biopier & blew up the magizeen at the sunday morning Mr Chadwick sais that he helped all off at lest one hundred & fifty thousand pounds of bacon & this the enemy got besides lots of guns & amenershion I am so tired I cant hardly right honey I marched with the company yesterday til nite come on & I was completely broke down so I went in the woods & lay under a tree till day To day I come by my self so I will cloas my letter for the present Omay god bless you honey is my prair & 0 how bad I want To see you all no man cant tell.(95)

Eleven days later Cliburn died in the Battle of Champion Hill.

When the fleet heard the magazines exploding at Grand Gulf, the Benton, Lafayette, Carondelet, Pittsburg, and Mound City steamed upriver and began shelling the once formidable and now deserted batteries that had so successfully denied them victory five days earlier. At daylight crews cautiously approached their quarry like a young boy who had just bagged his first deer--scared, in awe, and yet respectful of something that had evaded him earlier. (96)

In Admiral Porter's report to Gideon Welles, Secretary of the Navy, Washington, D.C., he gave an "as found" description of Grand Gulf:
...The enemy had left before we got up, blowing up their ammunition, spiking the large guns, and burying or taking away the lighter ones. The forts consisted of 13 guns in all. The works are of the most extensive kind, and would seem to defy the efforts of a much heavier fleet than the one which silenced them.

The forts were literally torn to pieces by the accuracy of our fire

Colonel Wade, the commander of the batteries, was killed; also his chief of staff. Eleven men were killed that we know of and many wounded, so our informant says.

One fort on Point of Rocks [Upper Battery], 75 feet high, calculated for 6 or 7 guns mounting 2 7-inch rifles [32-pounders] and 1 8-inch and 1 Parrott gun [30-pounder] on wheels (carried off).

On the left of this work is a triangular work, calculated to mount 1 heavy gun.

These works are connected with another fort by a covered way and double rifle pits, extending three-fourths of a mile, constructed with much labor, and showing great skill on the part of the constructor.

The third fort [Lower Battery at Fort Wade] commands the river in all directions. It mounted 1 splendid Blakely 100-pounder and 1 8-inch. Two 32-pounders [rifles] were lying burst and broken on the ground.

The gunboats had so covered up everything with earth that it was impossible to see at a glance what was there.

...This is by far the most extensive-built work, with the exception of those in Vicksburg, I have yet seen, and am happy to say that we hold....(97)

Porter certainly took some liberties in claiming to have silenced the guns of Grand Gulf. In fact he told a plain lie in saying that his fleet had accomplished such a feat, but what commanding officer has not tried to cover defeat by stretching a later event until it
overshadows his initial failure? Porter would later be embarrassed by Grant's report, in which Grant stated that when Grand Gulf was being evacuated at 1 a.m., May 2, his advance was 15 miles past there and he saw no reason to march his men back, but rode back himself with an escort of 15 or 20 men. (98) Grant's publicity, which had spiraled by causing the evacuation of Grand Gulf, caused one navy lieutenant commander to tell Porter "...I am happy to report that three newspaper reporters...were either killed or taken prisoners." (99)

Porter's resentment of the army's receiving commendatory accolades from Washington and the northern press resulted in his writing Rear Admiral Andrew H. Foote:

...We have been too hard fighting (to take what might have been prevented by one of Farragut's gunboats) to permit more such works to be made.... When we get through, and the army marches into Vicksburg, you will scarcely hear of the Navy. Our own Department gives us no credit for the hardest kind of work; calls it flanking operations, not to be compared to Farragut's brilliant dash and sinking of the Mississippi [a Confederate vessel at New Orleans]. If anybody else can do better, and keep this big squadron going on--niggers and soldiers--better than I have, let them come.

Had I been general and admiral at the same time I could have entered Vicksburg three months ago. (100)

With the abandonment of Grand Gulf by the Confederate garrison the back door to Vicksburg was now open. The Federals occupied the old town immediately, Sherman crossed his XV Corps at Grand Gulf, and Grant was supplied from Grand Gulf until a link could be made with the Federal fleet on the Yazoo River north of Vicksburg, where Pemberton had finally "united" his forces.

Grand Gulf would again be abandoned once Vicksburg was taken, following a forty-seven day siege until the Confederates finally surrendered, were paroled, and marched out. The hero of Grand Gulf, John S. Bowen, did receive his major generalcy, effective from May 25, 1863. He arranged the surrender terms when Pemberton and Grant could not agree on terms and marched out of Vicksburg a sick and debilitated man. He died of dysentery nine days after the surrender as his men marched near Raymond. (101)

On July 16, some of the same partisans who had occupied Grand Gulf in 1862 had a brief but sharp skirmish with a Federal cavalry patrol at Grand Gulf. During a sudden tornado on the night of December 30, 1864, the infamous tinclad Rattler, which had fired into the Presbyterian Church at Rodney a year earlier and whose crew had burned a number of fine homes along the Mississippi, was sunk while serving guard duty at Grand Gulf. The Rattler was thrown against the
bank, where it snagged. The crew saved much of the property except for two 30-pounder Parrott rifles which they loaded and spiked before boarding the Magnet for Natchez. Along the river the Magnet met the Forest Rose. After the captain of this vessel had been informed of what had happened, the Forest Rose steamed toward Grand Gulf. Lieutenant A. N. Gould of the Forest Rose reports:

...When about 5 miles from the Rattler I discovered her to be on fire. I soon afterwards opened fire on the river bank, expending four 30-pounder, 15 sec. shells to prevent the enemy from carrying off any property they might have gotten from the wreck. In thirty minutes from the first discovery of the fire she had burned to the water's edge....After the heat had discharged the guns left on board, one of which was trained down river, I steamed in near the wreck....Her engines and boilers remain with the wreck, nearly covered with water, and the river rising rapidly. (102)

Perhaps the last shot by a big gun was from the dying Rattler's Parroths as they cooked off. Grand Gulf would see no more action for the remainder of the war. The fickle Mississippi River eventually moved away from Grand Gulf, leaving the wreck of the Rattler beneath the silt. The town never rebuilt.

Nearly 60,000 of the 78,000 men and boys furnished by Mississippi to the Confederacy were casualties of the war. Cruel economic reconstruction policies deprived Mississippi of the means to rebuild. The slaves were gone from the large plantations and many once prosperous men now found themselves unable even to pay the taxes on their property, yet Mississippi would not be allowed to return to the Union until 1870, and then was suppressed by congressional reconstruction until 1876, which taxed and exploited the little the state had of real value.

Little recognition was afforded the very important role Grand Gulf had played in the defenses of Vicksburg during the American Civil War until 1958, when the Mississippi Legislature created the Grand Gulf Military Monument Commission. The purpose of the Commission was to purchase and develop the site into a military park, preserve its integrity, and operate it for public edification. To a limited extent this has been accomplished, but much of its historic significance has been lost, ignored, or misunderstood; and little appreciated. Many of the markers are wrong or incorrectly placed. The magnificent earthworks, made impregnable by Bowen and his engineers, are relegated to a low priority in favor of non-related structures and picnic facilities. Many of the old town's streets, with their crosshatched pattern, are still in use, but are on private property. The graveyard, which surely contains the remains of those who died or were
killed in Grand Gulf's defenses, as well as the graves of Grand Gulf's early inhabitants, is in disarray. Surprisingly, graves of Federal U.S.C.T. (United States Colored Troops) are there instead of in the National Cemetery at Vicksburg.

The wreck of the Rattler is somewhere along the original river bank, but unknown at this time. Unfortunately, the river is moving rapidly back to its original bed in spite of attempts to build rip-rap revetments. If the Rattler is not found before the river reaches it again, it will be lost like other bits of Grand Gulf's real history.

Grand Gulf signifies Mississippi's brightest moment in the 1863 Vicksburg campaign. Its Upper Battery site exemplifies a military engineering feat unmatched in Mississippi, but this significance has not been recognized. Its earthworks are a fitting memorial to John S. Bowen and his gallant command; to the gunners of Grand Gulf; and to its guns, from the 6-pounders of 1862 to the monster siege guns of 1863. Had it not been for these meager troops the Union would have had possession of Vicksburg months, perhaps a year, before its surrender on July 4, 1863.

NOTES


The Federal fleet had been criticized for shelling private citizens at Grand Gulf on May 16, 1862. The fleet did have reason for concern. A small, but very formidable earthwork was erected on the bluff behind the cemetery.
Bowen's Brigade consisted of the following units: First and Fourth Missouri Consolidated, Second, Third, Fifth Missouri Infantry Regiments; Battery A., First Louisiana Heavy Artillery (attached); Wade's, Guibor's, and Landis' Missouri Batteries. Pemberton originally authorized Stevenson to send Brigadier General Winfield S. Featherston's brigade, but Featherston had been sent to Fort Pemberton, on the Tallahatchie River near Greenwood. John Stevens Bowen was born at Savannah, Georgia, October 30, 1830. He graduated from West Point in the class of 1853. Three years after graduation and service with the United States Engineers, Bowen resigned his commission to become an architect in St. Louis, Missouri. When the Civil War broke out Bowen was serving as a captain of Missouri Militia. He was appointed colonel of the First Missouri Infantry Regiment (C.S.), first seeing action at Columbus, Kentucky. He was promoted brigadier general March 14, 1862, and attached to Breckinridge's Division at Shiloh (Pittsburg Landing), Tennessee, where he was wounded. Bowen was the instigator of charges being brought against Major General Earl Van Dorn (ironically from Grand Gulf and Port Gibson) following the Confederates' failing to capture Corinth, October 3-4, 1862. Bowen was appointed major general, effective May 25, 1863, during the Siege of Vicksburg, but died nine days after the city's surrender.

There appears to be quite a bit of confusion in the Albatross' also being called the Monongahela in Confederate correspondence. Pemberton notified Bowen that the guns would be aboard the Fulton, but they were shipped on the Anne Perette. The Fulton, also heading down the Big Black River, was going to Hard Times, Louisiana for commissary supplies.

If an overland route could be found it would negate the possibility of capture should a Federal gunboat catch the Anne Perette at Grand Gulf unloading the ordnance.


Ibid., I, 24, pt. 3, pp. 714, 720.

Ibid., p. 689. The 42-pounder was an army caliber often used by the navy and usually in seacoast defenses. The carriage was better.
suited, being more mobile, in earthworks than the naval carriage on the 32-pounders Bowen had at Grand Gulf.

34 Ibid., pp. 693-94. The inferred sketch noted as "not found."


37 Ibid., p. 486.


39 Ibid., p. 724.

40 Ibid.

41 Ibid., p. 755.

42 Ibid., p. 753, 755.

43 Ibid., p. 756.

44 William Candace Thompson, reminiscences of his war services, "From Shiloh to Port Gibson," Civil War Times Illustrated, October, 1964. At the time of the Battle of Port Gibson, Thompson was a lieutenant in Co. H, Sixth Mississippi Infantry Regiment. He was severely wounded during that battle; H. Grady Howell, Jr., Going to Meet the Yankees, A History of the "Bloody Sixth" Mississippi Infantry, C.S.A., (Jackson, Mississippi: Chickasaw Bayou Press, 1981), pp. 151-53.


46 Ibid., p. 602.

47 Ibid., p. 603.

48 Ibid., pp. 605-06.


50 Ibid., p. 792.

51 Ibid., pp. 237, 702.

52 O.R.N., I, 24, pp. 607-09.
Several of the Confederate officers of high rank serving during the Vicksburg campaign were either troublemakers from other departments or through an earlier consequence were over ranked for their capabilities. Johnston had been transferred from the A.N.V., following a deep-rooted disagreement with President Jefferson Davis and other officers. Pemberton's prior service in the Department of South Carolina, Georgia, and Florida hardly warranted his rapid rise in rank. His problem during the Vicksburg campaign stemmed from not being able to analyze situations against confusion caused by conflicting orders. Even the principal in this report, John S. Bowen, was involved in bringing charges against Earl Van Dorn, following his failure to capture Corinth.

William M. Cliburn, letters to his wife, Jane. Originals located in the personal papers of Mr. Donald Colmer of Jackson, Mississippi. His company, Co. G, Sixth Mississippi Infantry Regiment, had arrived with the reinforcements sent Bowen, but were on detached duty in the picket line operating from Bayou Pierre to Grand Gulf. The "G. Banks and Curby Smith" are Major General Nathaniel P. Banks, Federal commander at Baton Rouge and Lieutenant General E. Kirby Smith, the Confederate commander of the forces operating in the Trans Mississippi Department.


The damaged guns were the deliberate work of the Confederates and not the result of the fleet's shelling.

66 Edwin C. Bearss, "Grand Gulf's Role in the Civil War," reprinted from Civil War History, published quarterly by the State University of Iowa, March, 1959, p. 23.


68 Ibid., p. 622.

69 Ibid., p. 620.

70 Ibid., pp. 610, 622.


72 Ibid.


74 Ibid.

75 Ibid.

76 Ibid.

77 Ibid., p. 803.


79 Ibid., pp. 657-61, 675, 678.


81 O.R., I, 24, pt. 1, p. 576. The requisition for cartridge bags, shot, and shell for Captain Henry Grayson's gun does not mention size. Grayson's Battery A, First Louisiana Heavy Artillery, were using three different size guns. The ammunition was probably for the rifled 32-pounders.


83 Cliburn Letters, April 29, 1863.

84 Ibid., April 30, 1863.

85 O.R.N., I, 24, p. 684. Abstract from log of gunboat Benton, entry of April 30, 1863, "At 8:20 a.m. proceeded down the river, 9:30
landed troops at Burnsville [Bruinsburg], and here we found a rebel with two negroes."

86 O.R., I, 24, pt. 1, p. 658. Pemberton would later blame Bowen for not notifying him of the Federals' successful landing earlier. Bowen's message was dated April 29, but Pemberton would later claim it was the 30th. The message was evidently sent in code as Bowen's next message reads, "Please answer my last cipher [coded] dispatch."

87 O.R., I, 24, pt. 1, p. 663.
89 Cliburn Letters, May 1, 1863.
90 Claiborne County Mississippi, pp. 100-01; O.R., I, 24, pt. 3, p. 816. There were two swinging bridges over Bayou Pierre. one on the north of Port Gibson on the Vicksburg Road and the other on the Grand Gulf Road. These bridges were built 1848-1850, by James Carothers, and originally operated as toll bridges. They were suspended on cables of fourteen layers of Swedish steel flat bands 3/8 x 2½-inch clamped and welded. The flooring, which the Confederates set on fire, was wood.

92 Ibid.
93 Cliburn Letters, May 2, 1863.
95 Cliburn Letters, May 2, 1863. This letter, written from the camp on Clear Creek, near Bovina and the Big Black River Railroad Bridge, is the last known letter Cliburn wrote Jane. His very descriptive and colorful observations were ended with his death on the battlefield at Champion Hill, May 16, 1863. O.R., I, 24, pt. 3, p. 827.

97 Ibid., pp. 626-27.
98 O.R., I, 24, pt. 1, p. 49.
100 Ibid., p. 678.

THE UPPER BATTERY SITE

The site of the Upper Battery is on the western face of Point of Rock, a large Catahoula clay and sandstone outcrop overlain by loess near the mouth of the Big Black River. Although the Big Black empties into the Mississippi approximately a half-mile north of the Point of Rock today, it flowed at the northern base of the outcrop during the 1860s. The turbulence created by the two rivers meeting at Point of Rock caused the whirlpools which gave the town of Grand Gulf its name. Point of Rock rises to an elevation of approximately 170 feet above the normal level of the Mississippi. The manmade terrace which was excavated into its western side for the earthwork fortifications of the Upper Battery is approximately 70 feet above the river. In addition to the Upper Battery's historical importance to Mississippi's past, it represents an extraordinary military engineering feat in the annals of America's history that has been neglected and little understood in the interpretation of the site's significance.

When Admiral David D. Porter visited the fortification following the Confederate abandonment, he recognized and complimented General Bowen's abilities when he reported that the earthwork fortifications were "...constructed with much labor, and showing a great skill on the part of the constructor."(1) Bowen's engineering abilities are only surpassed by his fighting qualities during the Vicksburg campaign. The choice of sending Bowen to Grand Gulf with his brigade and two 20-pounder Parrott rifles instead of a less competent officer is the one bright ray of brilliance evinced by the Confederate high command in this campaign.

Bowen realized that if he hoped to hold Grand Gulf he must have more, and larger, guns than the two 20-pounders and he must have additional batteries constructed. He impressed the necessary labor from the plantations of the Grand Gulf/Port Gibson area to supplement that of his soldiers. He recognized the logistical importance of Point of Rock, and took advantage of a narrow shelf along the western face by extending it some fifty to sixty feet into the broken sandstone of Point of Rock to form a base for his Upper Battery. This feat was, as Porter said, accomplished with much labor.

The earth and stone was evidently removed by hand and mule power, as there is no mention in the known records of blasting. Surely, if the Confederates had used blasting to remove the burden the explosions would have been noted by the Federal navy. Besides, it must be realized that powder of all grades was in short supply in the Confederacy while labor, shovels, and mules were rather abundant.

The earth and stone debris removed from the side of Point of Rock was used to construct a massive parapet wall facing the river. This wall appeared to be nearly forty feet thick at the base, but only about
twenty feet was actually on firm foundation. The other twenty was earth that had been discarded over the side. The height was probably close to twelve feet above the inner surface of the fort. A firing platform along the inside of the parapet was approximately four feet above this level. The inside face of the parapet wall was backed by horizontal planking with vertical supports, and supported by knee braces where necessary. Actual construction of this fort took only two weeks.

Beginning the description on the south side, the fort had a well-protected magazine in its southeast corner. From the magazine a wall extended to the west wall. In the southwest corner a parapet allowed the 30-pounder Parrott rifle to cover approximately ninety degrees. Its field of fire was the river to the front and the river toward the south. A divider, or protective wall, intersected the west wall immediately north of the 30-pounder's position and extended approximately twenty feet to the east; enough to cover the crews should an explosion occur at either the 30-pounder or the 32-pounder rifle to the north of the Parrott.

A second and larger partition wall joined the west wall and extended nearly to the sheer escarpment on the back side or east side of the fort. This wall separated the two 32-pounder rifles. A gap was left in the wall, instead of its joining at the east face, to allow easy movement along the back side of the fort. The west wall continued unbroken to the extreme north end of the fort. At this point a parapet was constructed to facilitate the use of an 8-inch naval gun. This gun was almost against the sheer cut into the northern face which formed a near right angle against the escarpment on the east. This gun's primary target was the boats traveling the Mississippi as it approached from the west. It was this gun that fired on the boats at long range prior to the battle on April 29, 1863. These four guns formed the Upper Battery's armament. They were manned by Battery A, First Louisiana Heavy Artillery, commanded by Captain Henry Grayson.

Along the rear, or against the escarpment just south of the 8-inch naval gun, was a dugout shelter with a floor of rock. The exact purpose of this structure is unknown. It was probably a secondary magazine for the 8-inch naval gun, since it was so far from the main magazine of the fort. The next feature that can be identified is the location of the hotshot furnace, which probably never saw the use for which it was intended. Directly behind the north 32-pounder rifle but on the back side of the fortification was a cooking facility made of brick, earth, and sandstone, with a chimney made of barrels with the ends knocked out. There were probably other cooking areas; in all likelihood the hotshot furnace was used more for cooking pork than for heating shot. From the cooking area to the magazine in the extreme southeast corner there appears to have been no work activity.

There is a wall of undisturbed earth which formed a protective barrier on the west side of the magazine. A passageway to a gun position recessed into the bluff line at the southeastern base of Point of Rock is also partially protected by this barrier. The covered way which ran from the Lower Battery to the Upper Battery
enters the rear of this gun position. The gun position, while not actually a part of the Upper Battery, appears not to have been used during the battle of April 29, but probably served as a river battery while the fortification was being constructed above it in the side of Point of Rock. (4)

The Upper Battery was the strongest fortification at Grand Gulf. It has been abused by picnickers, lovers, sightseers, relic hunters, and the Grand Gulf Military Monument itself when it paved over the magazine area, thinking the flattened area was ideal for a parking lot. This was done prior to strict cultural environmental regulations to protect historic sites in Mississippi. Perhaps the greatest injustice to the site is caused by ignorance of the site's history and the realization of what a feat it was just to construct such a magnificent fortification. On top of this abuse and misguided but well-intended modern day alterations, the site has been tagged with a name that seems to have no Confederate legitimacy. It has been called "Fort Cobun," a name given by its enemy, since 1864.

NOTES

1 O.R.N., I, 24, p. 627.
2 Ibid., pp. 605-06.
PROCEDURES AND METHODS OF THE ARCHAEOLOGICAL INVESTIGATIONS

The datum used for the Upper Battery archaeological investigations was the northwest base of the brick marker which is near the southern end of the parapet wall. The marker is in recognition of the individuals who donated the Upper Battery site to the Grand Gulf State Military Monument Commission.

The goals were primarily to conduct investigative archaeology to establish the locations and identity of the various structures, gun positions, and sites of the activity which took place within the fort's walls, and to trace the trajectory of any remaining whole projectiles which had been fired at the battery from the boats below. To accomplish these objectives with a very small crew in the two months allotted necessitated selecting suspect areas based on a metallic survey with very sophisticated metal detectors operated by two able volunteers, Mr. Robert Keyes and Mr. Tommy Presson, both of Vicksburg and members of the Vicksburg Artifact Preservation Society. The readings within the fort were flagged for organized and controlled excavation so as not to disturb existing features. In addition to this shotgun approach most suspicious depressions and likely gun positions were investigated. All of this work was in conjunction with many days' research in known records and manuscripts dealing with Grand Gulf.

The first area to be investigated was the extreme north end of the fortification, where it was certain a gun had been placed. Unfortunately most of the parapet had long ago eroded over the side of the hill, and had long been used as a Boy Scout hiking trail. It was also part of the original trail which led to the top of Point of Rock. Even with these disturbances and intrusions, the gun position was verified and the inside base of the parapet wall was easily discernable. The gun's plank platform rested on the exposed rock surface left by the original construction. The position of the 8-inch gun, being a depression, naturally deteriorated into a bowl, holding rainfall and runoff. Artifacts were few in this area, but considering the conditions it is understandable. The only artifacts of military origin were two percussion cap remnants, such as a naval gun would use, and possibly several pieces of can. A portion of a friction primer wire was found, but was probably dropped there since this type of primer was not normally used by naval guns; no other pieces of friction primers were found. The largest number of artifacts was made up of fragments of green bottle glass. Three two-by-two meter squares and two two-by-one meter pits were excavated at the 8-inch gun position.

The metal detection survey indicated a fairly large reading near the center of the fort against the rear escarpment. This area was the beginning of a series of eight two-by-two meter squares beginning with
square 4 and extending due west to square 10. Square 4 was the most productive, as this square contained most of the remains of the chimney in the form of barrel bands, burned pork bone, pieces of cans, bottle glass, ceramics, and nails. A railroad spike was found supporting a can over the bed of charcoal and ash. The continuation of the squares to the west resulted in many pieces of charcoal, nails, ceramics, and glass, but very few military items. This area seemed to be entirely devoted to eating, as many pieces of pork bone were uncovered.

Salt preserved pork was the principal meat ration among both the Federal and Confederate armies during the Civil War. The garrison at Grand Gulf was on one of the direct routes by which this meat, commonly called bacon although it included all cuts of pork, was brought into Mississippi from Louisiana. Food supplies were obtained through purchasing agents of the Confederate Subsistence Department, who scoured the countryside to buy from individuals all surplus commissary stores. Much of the subsistence being supplied to Grand Gulf was being brought in from Louisiana and then up the Big Black River to the railroad bridge at Bovina. When Bowen abandoned Grand Gulf he carried out with him 100,000 pounds of bacon. Cliburn said it was 150,000, and that the enemy captured it, but this statement appears to be an error unless the difference, 50,000 pounds, was left at Grand Gulf to be destroyed.

Somewhat disappointed with not finding more evidence of military significance, the crew moved to the southwest corner of the fort in hopes of establishing the gun positions. Eight squares, 11 through 18, were placed between the northern edge of the parking lot and the south partition wall. The parking lot covers the southern parapet wall, but seems to terminate with the wall line. The partition wall separated the 30-pounder Parrott rifle from the southern 32-pounder. When compared to the previous pits these were bonanzas for military activity. The bottom of the pits roughly followed the rock floor level, approximately 1.1 meters below the present surface of this area. These squares confirmed one of Lieutenant General John C. Pemberton's complaints in a telegram he sent to Colonel Josiah Gorgas, Confederate Chief of Ordnance, Richmond, Virginia, on the day of the battle with the fleet at Grand Gulf:

Daily complaints are made of friction primers sent to this department. Usually three out of five fail. It is worse than useless to send tin ones here. Send at least 10,000 copper ones by special messenger with all haste. (J. C. Pemberton, Lieutenant General, commanding. O.R. I, 24, Pt. 1, p. 318.)

In the squares 11 through 18, which encompassed the area of the 20-pounder Parrott rifle, fifty-two friction primers made of tin, fragmentary or complete, show indications of failure, while the copper primers and fragments reveal that these were nearly all fired. This condition must have been very frustrating: to have a vessel lined
up in the sights and not to have the gun fire because of defective primers. In addition to the friction primers, many pieces of charcoal, more pork remains, pieces of shrapnel, and many nails were found. In two of the squares, 13 and 15, what appeared to be sacks, containing 73 and 52 nails respectively, were unearthed. These appear either to have been left from building the wall's wooden backing or were set aside for cannister for the 30-pounder should the Federal army attempt to land. The assemblage of other scrap metal makes it probable that the gunners of the Upper Battery were preparing impromptu cannister. The metal detector survey revealed several piles of deliberately broken wrought iron, nails, bars cut in short lengths, and railroad spikes. Also included were small fragments of shells which had exploded over the fort and were gathered up in the pile.

After confirming the location of the 30-pounder Parrott, the excavations continued into the suspected position of the southernmost 32-pounder rifle, just north of the Parrott rifle's position and between the two partitions. This area was covered with three squares, 19, 20, and 21, which was all the crew could complete within the week remaining when these were begun. Unfortunately these squares were too close to the west, but it was too late to change directions once the error in judgment was revealed. The pit furthest from the wall remnant contained a large shell fragment from a 9-inch ball, one minie ball (.58 caliber, 3-ring), several nails, a harness buckle, and a lead drain cover which probably came from a steamer. Its purpose at the Upper Battery is merely conjecture—were the gunners planning on cutting it up in small pieces for cannister? Square 21, closer to the wall, was full of nails among burned wood. These were probably from the timber backing of the wall. Two personal items came from this square, though: a broken clay tobacco pipe and one .36 caliber pistol ball.

Most of the artifacts which were related to the fortification were on the original rock surface and at a reasonably shallow depth. Over half of the overburden has occurred since the mid-fifties when the park personnel nearly denuded the site of trees and underbrush, allowing erosion to blanket the battery floor.

Records reveal that the Federal gunboats failed to knock out the Upper Battery, although there are Federal reports stating that all but one gun were silenced. It is likely that since the vessels were mainly near the bank south of the fort, trying to enfilade it from south to north, only the 30-pounder was able to return the fire. The remainder of the guns had little opportunity to fire on the vessels.

When Bowen's Confederates abandoned Grand Gulf following the Battle of Port Gibson, the guns of the Upper Battery with the exception of the 30-pounder were spiked. The 30-pounder, since it had wheels, was carried off with the troops to fight again at Vicksburg.

There has been unauthorized digging all over the Grand Gulf site over the past three decades. Usually this is done with little regard for research and the site is attacked in a shotgun approach. The relic is carelessly dug out and usually the hole is left open by those
of unscrupulous character. These craters are all over Grand Gulf, even on state property as well as that of private individuals. Knowing this, we also knew that the chance of locating an undisturbed impact area was rather slim. However, a transit was set up to sight the most advantageous position for the gunboats to fire with effect on the fort, and then backshot to where any low or high projectiles should strike. The high rounds raking the fort from that position would sail completely over due to the fort's curve around Point of Rock. These would strike well north of Point of Rock, and across the Big Black. If they struck a glancing blow on the rock they would probably continue on, but if they struck an irregular surface there should be projectiles still there, provided a relic hunter had not discovered them. The endeavor was somewhat successful in locating a limited number of unexploded shells and solid shot in line with the suspected position of the gunboats. The line of trajectory could be traced through the broken rock in a line from the gunboat position to the south side of the fort.

The Upper Battery survived the bombardment at Grand Gulf on April 19, 1863, not because of superior firepower—they only mounted four guns—but because of General Bowen's brilliant engineering capabilities, causing Admiral Porter to claim that "...Grand Gulf is the strongest place on the Mississippi."
CONCLUSION

Four organized archaeological investigations have been conducted within Grand Gulf. Three of these have been at Fort Wade's Lower Battery, one general, and two with near total concentration on the magazine. The Mississippi Department of Archives and History has conducted three of these projects: in 1980 entirely, and jointly with the Grand Gulf State Military Monument Commission during the summers of 1981 and 1982.

Grand Gulf State Military Monument is truly a monument; a monument to its occupants of 1862-1863, and especially to the capabilities of Brigadier General John Stevens Bowen. The site exemplifies the resourcefulness of the south during the trying years of the American Civil War. However, it also might be a tribute to the West Point training Bowen received as a military engineer, Class of 1853.

This study of Grand Gulf's intricate fortifications, consisting of two major forts connected by trenches and a protected passageway from one fort to the other, allowing troops to move rapidly from one interior line to the next and designed to permit a large area to be defended by relatively few men, reveals that the work was accomplished by a brilliant military engineer. As mentioned earlier in this report, Bowen's innovations in building Grand Gulf's defenses were nearly unique in the nineteenth century. His idea of a land based revolving turret had only been used by the Federal navy the year previous. Unfortunately the turret was never built. The use of the old town's jail cell as an underground magazine at Fort Wade, to this writer's knowledge, was not repeated elsewhere. The standard procedure of constructing hotshot furnaces at the two major forts was given token compliance by Bowen, but he had no solid shot, causing him to report that if necessary he would fill the shell with brick dust and clay, but Bowen knew how useless this would be against ironclad gunboats. This is probably the reason a hotshot furnace was never built at Fort Wade...and the one improvised at the Upper Battery served as a cooking facility.

The excavation of the magazine in 1980-81 offered a rare opportunity to study a Confederate magazine in situ, since it was so totally covered by earth at the time of its destruction. The excavation at the Upper Battery certainly did not yield the same vast amount and variety of artifacts as was uncovered at the magazine, but the site of Fort Wade's Lower Battery was utilized for almost a year, while the Upper Battery was occupied by troops for less than a month. The Lower Battery was situated on a natural terrace of a loess bluff. The Upper Battery site is manmade and carved from a sandstone outcrop with a hard, but broken surface, a condition which did not permit
artifacts to be pressed into the ground and thus partly buried during occupancy. The Magazine, housed within an iron cell at Fort Wade and positioned deep in the ground, contained many artifacts even when it was blown up by the Confederates at the abandonment of Grand Gulf on the morning of May 3, 1863. The magazine at the Upper Battery was made of timber and tarpaulins and perhaps not blown up, but its location is now beneath the parking surface and lost to investigation for the time being.

The excavation of the Upper Battery was not an endeavor to add to the Grand Gulf Museum's collections. It was intended as a study to learn more about the Upper Battery only. The questions to be answered were: exactly where were the guns; what size guns were where; where were the support facilities; and most of all, to gain a better understanding of the task undertaken in the construction of such a fortification.

If a better understanding of the Upper Battery and the tremendous effort which went into its construction is conveyed to the public and exploited by the Grand Gulf State Military Park Commission by changing incorrect markers and incorrect names such as "Fort Cobun," then the archaeological effort, both in labor and cost, will have served its purpose.
Fragments of rocket
Probably fired from signal station on Point of Rock.

Half size

Tin friction primers typical of those found at 30-pounder Parrott rifle position.

A. Complete specimen
B. Broken from tube
C. Friction wire failure

Full size
BORMANN TIME FUSE

From nine and eleven-inch balls

Fuse not drawn punched for clarity.
SEACOAST OR WATER CAP DRIVE IN FUSE PLUG

From eight and nine-inch balls (shell)

Scale: Full size
A. Safety cover
B. Healed powder
C. Powder composition
D. Brass bushing
E. Brass fuse body
F. Paper time fuse
G. Lead plug

Section A - A

NAVY TIME FUSE WITH WATER CAP

From nine-inch ball (shell)
S sabot imprinted with rifling of the gun when fired.

PROVENANCE: U.S. Navy
PATTERN: Dyer
WEIGHT: Approx. 82 lbs. (37.15 kg.)
DIAMETER: Approx. 7 in. (17.8 cm.)
SABOT: Lead (four flame grooves)
GUN: Rifled 42-pounder
TYPE: Common shell
LENGTH: 13½ in. (33.7 cm.)
FUSING: Wooden fuse plug
SYSTEM: Expansion cup
ARTIFACT INVENTORY

Square No. 1:
Construction material: 7 cut nails
Domestic materials: 4 fragments of can
Ordnance or munition materials: 1 friction primer wire (copper)

Square No. 1A:
Construction material: 3 cut nails in very decayed timber

Square No. 2:
Construction material: 2 cut nails

Square No. 2A:
Construction material: 2 cut nails

Square No. 3:
Construction material: 12 cut nails
Domestic material: 6 fragments of can

Square No. 4:
Construction material: 44 cut nails
1 railroad spike
1 iron bar 1" x 1" x approx. 6"
8 shards clear window glass
Square No. 4 (continued):

**Domestic material:**
- 1 ration can (top missing)
- 24 fragments of can
- 3 iron barrel (cooper's) bands
- 46 shards dark green bottle glass
- 2 shards whiteware ceramic

**Floral material:**
- 19 significant fragments of burned wood in charcoal

**Faunal material:**
- 11 pieces pig bone (food ration showing evidence of saw)

Square No. 5:

**Construction material:**
- 23 cut nails
- 99 shards clear window glass

**Domestic material:**
- 1 picket pin
- 10 fragments of can
- 22 shards dark green bottle glass
- 5 shards whiteware ceramic
- 1 center of writing pencil
- 1 porcelain pants button

**Ordnance or munition material:**
- 2 buckshot approximately 00 size

**Floral material:**
- 17 significant fragments of burned wood and charcoal

**Faunal material:**
- 13 pieces pig bone (food ration)
- 3 pieces deer bone (femur)

**Miscellaneous:**
- 197 pieces of coal

Square No. 6:

**Construction material:**
- 4 cut nails
- 43 shards of clear window glass

**Domestic material:**
- 6 shards of green bottle glass
- 3 shards of whiteware ceramic

**Floral material:**
- 5 significant fragments of burned wood in charcoal
**Square No. 6 (continued):**

Faunal material: 2 pieces pig bone (food ration)

Miscellaneous: 37 pieces of coal
numerous pieces of small brick

**Square No. 7:**

**Construction material:** 7 cut nails
1 square head bolt 3/4" x 7"
5 shards of clear window glass
12 brick fragments

Domestic material: 1 shard dark green glass

Floral material 3 significant fragments of burned wood

Faunal material: 1 piece pig bone (food ration)

Ordnance or munition material: 1 fragment of 8-inch spherical shell

Miscellaneous material: 6 pieces of coal

**Square No. 8:**

**Construction material:** 12 cut nails
4 shards of clear window glass
5 brick fragments

Domestic material: 2 shards green bottle glass
4 shards whiteware ceramic

Floral material: 1 piece very deteriorated plank, charcoal deposit

Faunal material: 4 pieces pig bone (food ration)
*Didelphis marsupialis* (Opossum) skeletal debris (intrusive)

Ordnance or munition material: 1 one-inch cannister ball
Square No. 9:

Construction material: 3 cut nails
3 shards of clear window glass

Domestic material: 3 shards of clear bottle glass
1 shard of green bottle glass
1 fragment of can

Square No. 10:

Construction material: 1 cut nail
1 shard of clear window glass

Domestic material: 1 shard of green bottle glass
8 shards of clear bottle glass

Square No. 11:

Construction material: 20 cut nails
1 railroad spike
1 brass tack
1 wood screw

Domestic material: 3 shards of clear bottle glass
1 shard of green bottle glass
3 fragments of can
1 mother of pearl button

Floral material: Very deteriorated timber fragments (possibly parapet backing)

Faunal material: 1 piece pig bone (food ration)

Ordnance or munition material: 2 friction primers (copper)
2 friction primers (tin)
2 friction primer wires (copper)

Miscellaneous: 3 fragments unidentified iron scrap
**Square No. 12:**

- **Construction material:**
  - 1 square iron bar 1" x 1" x 4"
  - 1 wrought iron (ornamental)
  - 4 cut nails

- **Domestic material:**
  - 3 fragments of can
  - 1 white glass button
  - 2 shards green bottle glass
  - 4 shards clear bottle glass

- **Floral material:**
  - Very deteriorated timber
  - fragments (possible parapet backing)

- **Faunal material:**
  - 35 pieces pig bone (food ration)

- **Ordnance or munition material:**
  - 18 friction primers (tin)
  - 26 friction primers (copper)
  - 5 friction primer wires (iron)
  - 25 friction primer wires (copper)

**Square No. 13:**

- **Construction material:**
  - 83 cut nails (appear to have been in a canvas bag)
  - 1 square iron bar 1" x 1" x 2"

- **Domestic material:**
  - 6 shards green bottle glass

- **Faunal material:**
  - 16 pieces pig bone (food ration)

- **Ordnance or munition material:**
  - 2 friction primers (tin)
  - 1 friction primer (copper)
  - 1 friction primer wire (iron)
  - 1 friction primer wire (copper)

**Square No. 14:**

- **Not Opened**

**Square No. 15:**

- **Construction material:**
  - 52 cut nails (appear to have been in a canvas bag)
  - 1 railroad spike
<table>
<thead>
<tr>
<th>Square No. 15:</th>
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<tbody>
<tr>
<td>Domestic material:</td>
<td>5 shards green bottle glass</td>
</tr>
<tr>
<td>Floral material:</td>
<td>Evidence of very deteriorated</td>
</tr>
<tr>
<td></td>
<td>timber (possible parapet wall</td>
</tr>
<tr>
<td></td>
<td>backing)</td>
</tr>
<tr>
<td>Faunal material:</td>
<td>2 pieces pig bone (food ration)</td>
</tr>
<tr>
<td>Ordnance or munition</td>
<td>1 friction primer (tin)</td>
</tr>
<tr>
<td>material:</td>
<td>1 friction primer wire (tin)</td>
</tr>
<tr>
<td></td>
<td>1 friction primer wire (copper)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Square No. 16:</th>
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</thead>
<tbody>
<tr>
<td>Construction material:</td>
<td>2 cut nails</td>
</tr>
<tr>
<td></td>
<td>1 railroad spike</td>
</tr>
<tr>
<td>Domestic material:</td>
<td>6 shards green bottle glass</td>
</tr>
<tr>
<td></td>
<td>3 shards whiteware ceramic</td>
</tr>
<tr>
<td>Floral material:</td>
<td>Postmold from parapet backing</td>
</tr>
<tr>
<td>Faunal material:</td>
<td>4 pig bones (food ration)</td>
</tr>
<tr>
<td></td>
<td>2 pig tusks</td>
</tr>
<tr>
<td></td>
<td>1 pig front tooth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Square No. 17:</th>
<th></th>
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<tbody>
<tr>
<td>Construction material:</td>
<td>6 cut nails</td>
</tr>
<tr>
<td></td>
<td>1 iron bar 1&quot; x 1&quot; x 2&quot;</td>
</tr>
<tr>
<td></td>
<td>2 railroad spikes</td>
</tr>
<tr>
<td>Domestic material:</td>
<td>7 shards green bottle glass</td>
</tr>
<tr>
<td></td>
<td>2 shards clear bottle glass</td>
</tr>
<tr>
<td></td>
<td>2 shards whiteware ceramic</td>
</tr>
<tr>
<td>Floral material:</td>
<td>Very deteriorated timber</td>
</tr>
<tr>
<td></td>
<td>fragments (possibly parapet</td>
</tr>
<tr>
<td></td>
<td>backing)</td>
</tr>
<tr>
<td>Faunal material:</td>
<td>4 pieces pig bone (food ration)</td>
</tr>
<tr>
<td>Ordnance or munition</td>
<td>1 two-inch grapeshot</td>
</tr>
<tr>
<td>material:</td>
<td>2 friction primers (tin)</td>
</tr>
<tr>
<td></td>
<td>1 friction primer (copper)</td>
</tr>
<tr>
<td></td>
<td>1 friction primer wire (iron)</td>
</tr>
<tr>
<td></td>
<td>2 friction primer wires (copper)</td>
</tr>
</tbody>
</table>
### Square No. 18:

**Construction material:**
- 21 cut nails
- 1 railroad spike

**Domestic material:**
- 8 shards green bottle glass
- 11 shards clear bottle glass

**Floral material:**
- Very deteriorated timber fragments and one post mold (possibly parapet wall backing)

**Faunal material:**
- 7 pieces pig bone (food ration)
- 1 pig mandible
- 2 pig front teeth

**Ordnance or munition material:**
- 3 friction primers (iron)
- 4 friction primers (copper)
- 2 friction primer wires (copper)
- 3 fragments of signal rocket

### Square No. 19:

**Construction material:**
- 19 cut nails
- 1 lead perforated drain cover (probably from a river boat)

**Domestic material:**
- 1 harness buckle

**Floral material:**
- Very deteriorated timber fragments (possibly parapet wall backing)

**Ordnance or munition material:**
- 1 fragment of 9-inch spherical shell
- 2 .58 caliber 3-ring minie ball

### Square No. 20:

**Construction material:**
- 8 cut nails
- 3 complete brick
- Numerous brick fragments

**Domestic material:**
- 1 shard green bottle glass
- 4 shards clear bottle glass

**Ordnance or munition material:**
- 1 fragment of 9-inch spherical shell
**Square No. 21:**

**Construction material:**
- 193 cut nails (appear to have been in a canvas bag)
- numerous brick fragments

**Domestic material:**
- 1 shard green bottle glass
- 4 shards clear bottle glass
- 5 fragments of clay smoking pipe

**Faunal material:**
- 1 piece pig bone (food ration)
- 2 pieces rabbit bone (*Sylvagus floridanus*)

**Ordnance or munition material:**
- 1 .36 caliber revolver ball
- 1 fragment of 100-pounder Parrott shell

**Miscellaneous:**
- 4 unidentified iron scrap pieces

*Artifacts recovered during a metallic survey of the Upper Battery*

**Ordnance or munition material:**
*(Complete specimens only)*

**From southwest glacis**
- 1 7-inch Dyer
- 6 6-pounder solid shot
- 1 9-inch spherical shell *(naval fuse)*

**From lower gun position**
- 1 9-inch spherical shell *(watercap fuse)*

**From forward glacis**
- 2 9-inch spherical shells *(Bormann fuse)*

**From north glacis**
- 1 11-inch spherical shell *(Bormann fuse)*
- 1 8-inch spherical shell *(watercap fuse)*

**From upper center escarpment**
- 1 32-pounder spherical shell *(wood fuse)*
REFERENCES


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