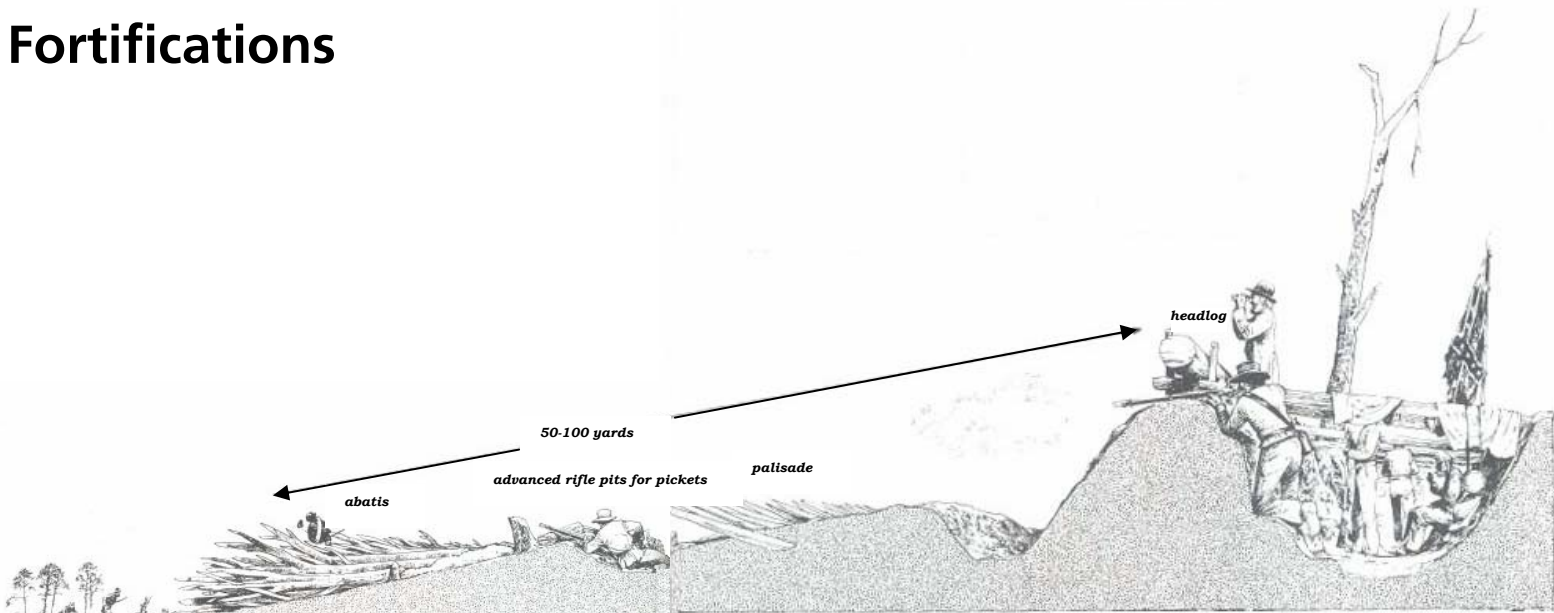




## Fortifications



### Constantly Improved With Axe and Spade



**Sap:** A zigzag trench constructed perpendicular to an enemy line for the purpose of pushing closer to the enemy lines without being assaulted.

The use of fortifications was widespread during the Civil War, even without the suggestion of a siege. Officers and soldiers alike seemed to believe their positions truly secure only if improved with spade and axe. Conversely, armies were often intimidated by an enemy line that had been heavily fortified.

The purpose of field fortification is threefold: 1) to provide protection against incoming fire; 2) to place obstacles in the path of an attacker so he will be unable to get close too quickly; and 3) to provide a cleared field of fire, 50-100 yards wide, in which the defenders could fire upon the attackers.

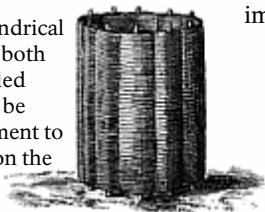
Fortifications took on many forms, and included trenches, rifle pits, and gun batteries in their design. These formations were enhanced with various obstacles such as abatis, chevaux-de-frise, and entanglements, constructed of the locally available materials - branches, logs and telegraph wire to name a few.

### 'If You've Dug In, You're Pretty Well Fireproof'



**Parapet:** A protective wall of logs, sandbags, or gabions, usually about four feet high with a shallow ditch behind it and dirt packed against the exterior side.

**Gabion:** A cylindrical basket, open at both ends. When filled with dirt, it can be used as a revetment to form parapets on the trenches.



Trench construction progressed in stages. A shallow, simple pile of earth or lumber would be quickly thrown up while under enemy fire. Then came the more laborious work of scooping out the trench, and if possible, a ditch fronting the earthwork or parapet. To protect the soldiers from enemy fire while digging saps (zigzag trenches), large woven cane baskets filled with dirt, called sap rollers, were rolled in front of the digging crew (often referred to as 'sappers'). Within the trenches would be rifle pits, with room for a man to stand without exposing more than his eyes and rifle barrel beneath a lumber head-log.

After this basic entrenchment was complete, improvements would be made continually to

strengthen the fortification - raising the parapets, deepening the ditches, reinforcing the walls and building traverses against enfilading artillery fire. Smaller dirt-filled cane baskets, called gabions, were often placed against the earthen walls to build revetments (facings used to support an embankment), and add protection against artillery fire. Tightly bound bundles of brushwood, called fascines, were used as revetment material and foundation and crowning material for fixing the slope of and solidifying gabion revetments.



Sap Rollers

## Preparing the Defense

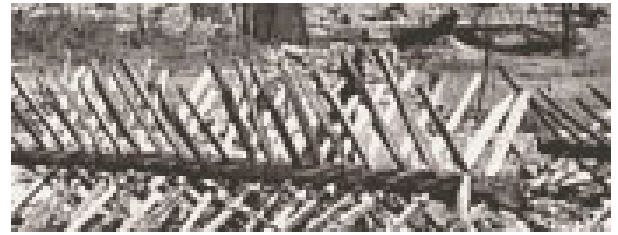
Obstacles used to reinforce the parapets included:

*Abatis* - trees felled with their tops facing the enemy with branch tips sharpened into spikes;

*Chevaux-de-frise* - horizontal beams pierced by two diagonal rows of sharpened lances that were about 2 inches in diameter and 10 feet long;

*Entanglements* - obstacles placed before the parapet ditches consisting of strong vines or wires stretched between tree stumps or small pickets, in order to trip the leading ranks of attacking troops.

*Abatis*



*Chevaux-de-frise*

## Fearsome Firepower

Gun batteries were more difficult to build since they required planking on the floor and plenty of protected space for the crews to serve each piece. Sandbags or gabions could be used to build up the

shoulders of the opening cut in the parapet, called the gun embrasure, enabling artillery to fire while still under protection of the parapet.



*Embrasure*: An opening cut in a parapet to enable artillery to fire while still under the protection of a parapet.

## Protection Against Enemy Attack

Fortifications were constructed in three basic shapes around Vicksburg. As you drive through the park you will encounter:

*Redoubts* - enclosed square or rectangular earthworks with four fronts and four angles;

*Redans* - triangular earthworks used to cover points to the rear such as bridges or river fords, that had two fronts and three angles;

*Lunettes* - crescent-shaped earthworks with three or more angles and the rear open to interior lines.

The parapet next to the Visitor Center recreates one of the major fortifications found at nine strategic points along the Confederate defense line, incorporating a gun battery, rifle pit and bivouac area. As you drive through the park, try to imagine the trenches near the Shirley House, deep and wide enough for soldiers to move cannon without being exposed to enemy fire, or abatis 200 feet thick in front of the Stockade Redan - enough to discourage the spirit of any attacking Yankee soldier.

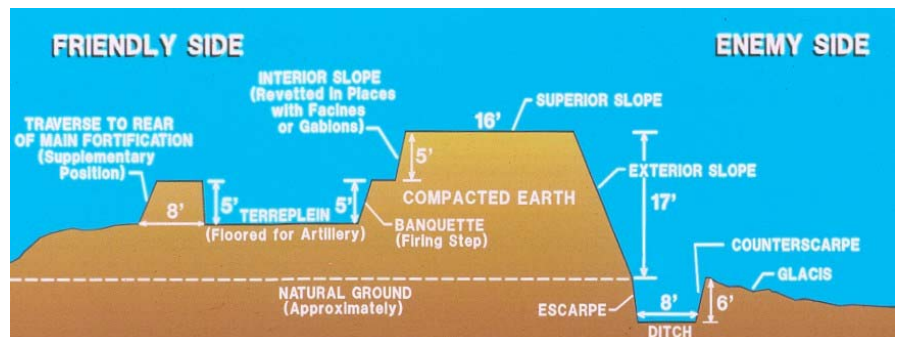
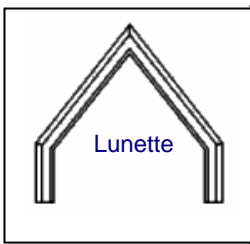
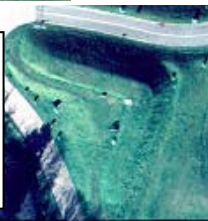
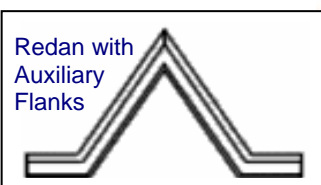
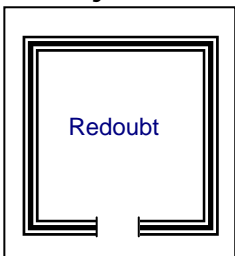


Diagram of Confederate Fortification