Historic Preservation Groups Come Out Swinging Against Wilderness Crossing Mega-Development

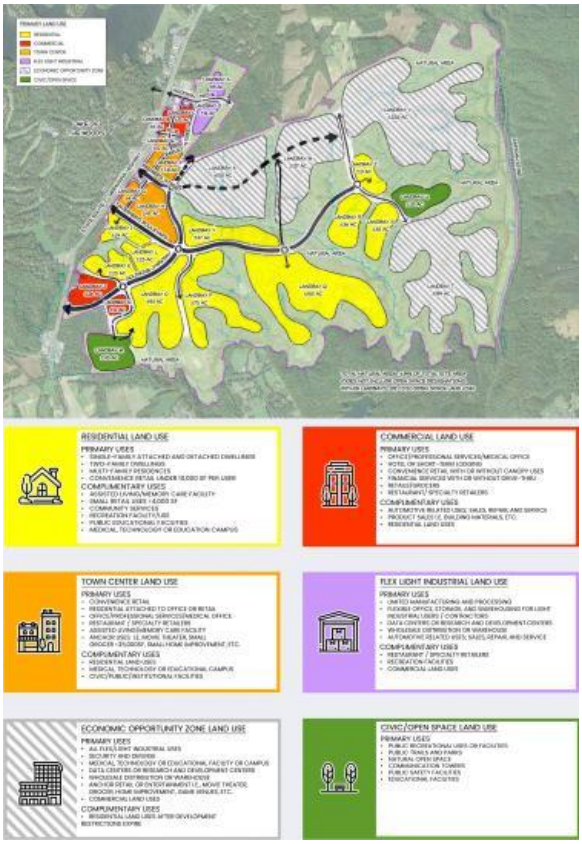
Non-profits and local residents resist approved mega-development sited on doorstep of Wilderness Battlefield in Orange, Virginia

Jared Herr, Jim Campi, ABT
February 24, 2025

(Orange, Va.) — In a legal brief filed Friday, the American Battlefield Trust and other plaintiffs urged the Circuit Court of Orange County to allow their lawsuit against the Wilderness Crossing project, a 2,600-acre mega-development at the gateway to the Wilderness Battlefield, to advance. They argue that Orange County's approval violated state and local law in numerous ways. Further, the Wilderness Crossing project threatens irrevocable harm to the Wilderness Battlefield and other historical and cultural resources.

The Trust is joined in the lawsuit by two other nonprofits, Central Virginia Battlefields Trust Inc. and Friends of Wilderness Battlefield, all three of which own or steward historic properties near the Wilderness Crossing project and stand to suffer significant adverse impacts. Private citizens who live next to the Wilderness Crossing site also joined as plaintiffs to protect their homes.

In May 2023, the Trust and other Plaintiffs challenged Orange County's hurried and haphazard approval, which permits thousands of acres of residential, commercial and industrial development, including data centers and distribution warehouses, to mar the viewshed and bring tens of thousands of vehicles past and over the hallowed grounds where the Battle of the Wilderness was fought.



The Wilderness Crossing mega-development is poised to bring huge swaths of development across multiple categories – from single-family homes to data centers, distribution warehouses and other light-industrial uses.

"The public should be able to have confidence that its representatives in government will conduct a good faith, transparent, and thorough process in making such consequential decisions. That did not happen here," remarked David Duncan, president of the American Battlefield Trust. "Repeatedly, the Board of Supervisors put the interests of a single developer over those

of its constituents, acting without regard for legal limits or historic and cultural resources. This secretive and haphazard rezoning process deserves to be brought to trial. There is simply too much at stake."

Ahead of its hurried vote, the Board ignored repeated requests from the preservation community and the NPS to discuss the project and further study its impacts. By far the largest rezoning in Orange County history, the Wilderness Crossing mega-development could add up to 5,000 residential units, and over 800 acres of commercial and industrial development, including nearly 750 acres of which could be data centers and distribution warehouses, just across Route 3 from where 160,000 Union and Confederate soldiers clashed in May 1864. This project was approved over near unanimous public opposition.

"This project is unprecedented in such a historically significant area," stated Central Virginia Battlefields Trust President Tom Van Winkle. "Orange County did not adhere to correct procedures and failed to respond to multiple inquiries from the National Park Service and other public entities.

Additionally, they disregarded substantial opposition from local residents." CVBT, alongside its partners, will continue to advocate for the appropriate course of action for this region and the preservation of our nation's history."

Robert Lookabill, president of the Friends of the Wilderness Battlefield, echoed Van Winkle's comments: "The brave men that fought and died on this hallowed ground in 1864 demonstrated immense bravery and sacrifice. We are proud to continue the fight to protect the Wilderness Battlefield, and ensure that our elected officials act responsibly in the best interest of Orange County residents."

The defendants - Orange County, its Board, and the owners of the Wilderness Crossing site - have asked the judge to dismiss the case. A hearing is scheduled for March 21st on those motions.

In addition to the filings by plaintiffs, the National Parks Conservation Association, National Trust for Historic Preservation, and the Coalition to Protect America's National Parks filed an *amicus curiae* brief in support of the Wilderness Crossing lawsuit, emphasizing the irreparable harm the Wilderness Crossing development will have on the Wilderness Battlefield Unit of the Fredericksburg and Spotsylvania National Battlefield Park.

The Wilderness, Spotsylvania and Orange Counties, Va. Buddy Secor

The *amicus* brief read in part: "The Board's hasty decision to approve the Rezoning

threatens the irreparable desecration of the natural and cultural resources that serve as a testament to the sacrifices and bitter struggles that forged our Nation.

Therefore, *Amici* respectfully join Petitioners in urging this Court to deny the Demurrers filed by the proponents of the Wilderness Crossing and put them to their proof, at trial."

The Wilderness Battlefield, site of a key Civil War battle in 1864, was named one of the country's 11 Most Endangered Historic Places by the National Trust for Historic Preservation in 2024. The area that was rezoned for development includes hundreds of acres identified by the National Park Service as within the historic boundaries of the battlefield.

From a grassroots organization started by historians 30 years ago, the American Battlefield Trust has grown into one of the most successful private heritage land preservation organizations in the nation. The Trust is dedicated to preserving America's hallowed battlegrounds and educating the public about what happened there and why it matters today. The nonprofit, nonpartisan organization has protected nearly 60,000 acres associated with the Revolutionary War, War of 1812 and Civil War, including 473 acres associated with the historic Wilderness Battlefield. Its 350,000 members and supporters believe in the power of place and the continued relevance of history as a means to fully understand our rights and responsibilities as Americans. Learn more at www.battlefields.org.

0-0

National Park Service seeks public input on the development of an updated management plan for the Civil War Defenses of Washington

Image of an anniversary event commemorating the Battle of Fort Stevens.

NPS

News Release Date: March 13, 2025

WASHINGTON— The National Park Service (NPS) invites the public to share comments on the development of a Management Plan (Plan) update and a corresponding Environmental Assessment (EA) for the Civil War Defenses of Washington (CWDW) located in the District of Columbia; Fairfax County, Virginia; and Prince George's County, Maryland. The plan will serve as an amendment to the 2004 Fort Circle Parks General Management Plan (GMP), which placed park areas into management zones focused on cultural (historic) resource protection, recreation, natural resource protection, and visitor services, among others.

Historically, 68 forts and 93 batteries armed with more than 800 cannons encircled Washington, D.C. Today, you can visit 18 of

the original sites, which make up the Civil War Defenses of Washington, now managed by the National Park Service. These include Fort Bunker Hill, Fort Bayard, Fort Stevens, Battery Ricketts, Battle Kemble, the 150th Ohio National Guard Infantry Monument, 122nd New York Volunteer Infantry Monument and Fort Chaplin. The NPS needs to update how different zones within the Civil War Defenses of Washington are managed. The NPS cares for 18 historic fort sites across 130 acres. As part of this Plan, NPS will review how these areas are used to improve access to the sites and protect the landscape. Alternative management zones may be offered to provide more flexibility to meet changing community needs and goals. The 45-day public comment period is the first step in the EA process that the NPS is conducting in accordance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

How to comment: Public participation is vital to the planning process. There are several ways to get involved. Provide comments and identify any issues or concerns about the project from **March 26, 2025, through May 9, 2025**. **A virtual public scoping meeting will be held on March 26, 2025, from 6 p.m. until 7:30 p.m.** Join meeting on your mobile device or computer. **Meeting ID: 228 378 697 110 Passcode: p6ck9Jz2**

You can also dial into the call: **877-286-5733 (Conference ID: 974241009#).** Meeting presentation materials and a video recording of the meeting will also be available at https://parkplanning.nps.gov/CWDWplan after March 26, 2025. An ASL interpreter and live captioning will be available upon request.

Please contact e-mail us by March 17, 2025, to request an ASL interpreter and live captioning. Written comments may be submitted electronically at the NPS Planning, Environment and Public Comment (PEPC) https://parkplanning.nps.gov/CWDWplan website, (the NPS preferred method) or mailed to: Superintendent, Attn: CWDW MGMT Plan Update, National Park Service, 3545 Williamsburg Lane NW, Washington, DC 20008**. Mailed comments must be postmarked by May 9, 2025, to receive consideration.**

Please be aware that the entire comment submitted, including Personally Identifiable Information (PII), such as address, phone number, and email address may be made publicly available. Requests to withhold such PII from public release will be considered, but there is no guarantee it will be withheld.
###

ABOUT THE NATIONAL PARK SERVICE More than 20,000 National Park Service employees care for America's more than 430 national parks and work with communities across the nation to help preserve local history and create close-to-home recreational opportunities. Learn more

at www.nps.gov, and
on Facebook, Instagram, X, and YouTube.

0-0

America Unfinished: Appomattox at 160 - April 7-13, 2025

The Liberty Rifles and 1st Section, in partnership with Appomattox Court House National Park will be providing U.S. Army, Confederate, and civilian living history impressions on April 12 and 13.
Liberty Rifles

News Release Date: March 10, 2025,
Contact: Brian Miller, NPS

Appomattox, Va.— Appomattox Court House National Historical Park will commemorate the 160th anniversary of the victory of Lt. General Ulysses S. Grant, which forced the surrender of General Robert E. Lee's Army of Northern Virginia. Special anniversary programs and activities will take place April 7-13, 2025.

The weeklong commemoration will include guided walks and talks, living history programs, family activities, firing demonstrations, and new trail dedications. The event will kick off on April 7 at 1 p.m. with presentations about the Battles of Sailor's Creek and the Battles of Cumberland County.

The park will dedicate two new hiking trails during the anniversary week. The dedication of the United States Colored Troops (USCT) Approach Trail will take place at 11 a.m. on April 9. This trail traces the advance of USCT and other Federal units towards the Confederate battle line near the current North Carolina Monument. The park will dedicate the Coleman House Trail on April 10 at 2 p.m. The Coleman Trail marks Federal and Confederate battle lines, taking hikers to the epicenter of the Appomattox Court House Battlefield. Guided tours of each trail will take place immediately after the dedications.

An evening program and concert will take place on April 11 at 6 p.m. at Galilee Baptist Church (4248 Old Courthouse Rd, Appomattox, VA). In 1867, freed people of Appomattox County founded the church, the first for an African American congregation in the area.

Programs on April 12 include first-person presentations by Generals Grant and Lee, small arms and artillery firing demonstrations, horse programs, a re-creation of the Stacking of Arms and more. An evening program will feature a performance by Grammy Award-winning musician Dom Flemons who will examine the African origins of the banjo and sing songs of celebration and freedom. The evening will conclude at dusk with a luminary event to honor the nearly 4,600 enslaved African Americans of Appomattox County.

See the full program schedule on the park's event page (https://go.nps.gov/Appomattox160). All programs subject to change.

—NPS—

About Appomattox Court House National Historical Park: *On April 9, 1865, the surrender of the Army of Northern Virginia in the McLean House in the village of Appomattox Court House, Virginia signaled the end of the nation's largest war. The stories of Appomattox Court House go far beyond the final significant battles of this nation's Civil War. Learn more at www.nps.gov/apco.*

0-0

USS Monitor's Turret Tank Drained for the First Time in Years

The Drained Tank Provides Rare Opportunity to View the Turret Up Close

Civil War News
Feb 20, 2025 Updated Feb 20, 2025

NEWPORT NEWS, Va — The tank that holds the iconic revolving gun turret from the ironclad warship USS *Monitor* is drained for the first time since 2019 while undergoing conservation at The Mariners' Museum and Park. The tank will remain drained through the first week in March so that Mariners' conservators can assess the progress of its treatment. The turret is typically underwater, and the public's ability to see it is limited. However, through March 8, visitors will have a rare opportunity to get an unobstructed, close-up view of the historical artifact.

Monitor's turret has been an object of intrigue for decades. The first of its kind to be used in combat, the 115-ton revolving gun turret represents a major technological advancement that changed the course of naval warfare. The turret spent nearly 140 years on the ocean floor after the ironclad tragically sank in an 1862 storm off Cape Hatteras, North Carolina.

The warship's wreckage was discovered in 1973 and designated as the nation's first National Marine Sanctuary in 1975 under the management of the National Oceanic and Atmospheric Administration (NOAA). In 1987, The Mariners' Museum and Park was selected by NOAA to be the principal repository for recovered USS *Monitor*-related materials, establishing what has become an incredible 38-year partnership. The turret was raised from the Atlantic Ocean in August 2002, through the collective expertise of divers, archaeologists, engineers, the US Navy, NOAA, Mariners' personnel, and countless others. Once recovered, the massive artifact was transferred to The Mariners' via barge, launching a conservation journey that continues today.

The primary goal of the conservation treatment is to remove corrosion-inducing ocean salts before the artifact can be dried and put on display. To achieve this, the turret is submerged in 90,000 gallons of an alkaline solution. Periodically, this solution needs to be changed; a multi-step process that results in the addition of 7,500 pounds of sodium hydroxide to the tank.

Presently, while the turret tank is empty of solution, The Mariners' Conservation Team

is visually inspecting the massive artifact to evaluate its treatment progress. The draining also presents an opportunity to advance the planning process for flipping the turret, which is expected to take place in the future. The turret has been upside down since its discovery.

Mariners' Director of Conservation Will Hoffman is deeply affected by his involvement in the turret's conservation: "Every time we drain the tank, the turret remains as impressive as the first time I saw it! To be able to see its scale and know the impact that it had on world history makes being part of its conservation and preservation both extremely rewarding and humbling."

The best time to see the drained turret tank will be during The Mariners' annual Battle of Hampton Roads Commemoration Day on **March 8 from 10 a.m. to 2 p.m.** The tank will remain empty during the event, and the Museum will hold a Wet Lab Open House for visitors to see the turret up close before it is submerged again. The draining coincides with the 50th anniversary of the *Monitor* wreckage site's designation as a National Marine Sanctuary.

0-0

Basic Facts on Artillery

by Jack W. Melton Jr.. History.net
May 5, 2022 Updated Dec 21, 2024

Union troops occupying one of the abandoned Confederate forts in Atlanta, Ga.
Library of Congress

Civil War Cannon

The American Civil War has been called the last of the ancient wars and the first of the modern wars. It was a war which introduced the first metallic rifle and pistol cartridges, the first repeating rifles and carbines, the first ironclad ships, and many other inventions which herald a change in warfare. But the military still relied on the old tried and trusted means of smoothbore muskets, paper cartridges, and troops marching in military precision across the battlefield towards the enemy. More innovations and experimentation took place during the Civil War than during all other previous wars combined. This mix of technology was very evident in the ordnance department.

Prior to 1860, the United States government offered little encouragement to, and even less interest in, the inventions and experiments being offered by various ordnance experts. The general opinion of the U.S. Ordnance Department was that smoothbore cannons had won the previous


wars, and nothing further was needed. Many of the Ordnance Department employees were elder military officers who resisted any changes or departures from these smoothbore field guns, Napoleons, howitzers, and Columbiads. As a result, American inventors were subjected to years of expensive experimentation, field trials, and political bickering just to be able to introduce their ideas to the government. Many of these inventors invested their own money into their projects and faced financial ruin if the government turned their invention down.

Meanwhile, in Great Britain inventors were encouraged by their government to implement the rifling system in both small arms and artillery. Rifling was a system of lands and grooves in a barrel which caused a projectile to turn as it exited the muzzle, thereby improving trajectory and accuracy. The grooves were cut into the smoothbore gun and the lands were the original diameter and spaces left after the rifling process. Rifled weapons had to be stronger than smoothbore because a greater stress was inflicted on the gun by a tighter seal (less windage) necessary for the projectile to take the rifling, resulting in vastly greater pressures in the breech to overcome the friction between the projectile and the rifled bore. The pre-war years saw many patents granted to British inventors. These weapons would render important service to the opposing armies in the Civil War.

During this pre-war period, Englishman Bashley Britten patented the Britten projectile on August 1, 1855. Britten pioneered a method which cast a lead sabot onto the iron shell. Upon being fired the sabot expanded and took the rifling in the cannon barrel. Variations of this system were used on a multitude of projectiles during the Civil War. Britten continued to experiment with, and patent rifled projectiles and lead sabots for several years.

The reluctance of the United States Government to entertain improvements in artillery ended when, on April 12, 1861, at 4:30 a.m., Confederate Army Lieutenant Henry S. Farley pulled the lanyard on his mortar at Fort Johnson, South Carolina. The shell he fired arched high over Charleston harbor and exploded above Fort Sumter, thus beginning the first sustained artillery duel of the Civil War.

Although this was not the first hostile shot fired (the unarmed Federal supply ship, *Star Of The West*, was fired on by Confederates in Charleston harbor on January 9, 1861), it did, for all intent and purposes, signal the beginning of four years of bloody conflict. The Blakely projectile was one of the first rifled projectiles to be fired at Fort Sumter. Although the Confederates forced the surrender of Fort Sumter, the new nation found itself woefully short of ordnance and other military weaponry. Most of the artillery in the South came from the local Federal forts and armories captured by the Confederates shortly after hostilities commenced. This inventory consisted of


quite a number of heavy siege and seacoast artillery pieces but only a small number of field pieces. The Confederacy also had a handful of antique and worn-out smoothbores which had been relegated to local militia and home guards' years before. Since the South had only one working cannon foundry at the beginning of hostilities (Tredegar Iron Works in Richmond, Virginia), it was imperative to quickly start the political and business maneuvering essential to establishing import trade from Europe. Over the next four years, Great Britain would prove to be the most productive exporter to the South. But business being business, the British were not hesitant to trade with the Federal government, although on a restrictive basis.

The Federal forces began the war with over 4,000 pieces of artillery, but field artillery accounted for less than 165 of these weapons. With the distinct advantage of having several foundries able to shift over to wartime production, the North could rely on the raw materials to produce a formidable artillery arm and augment it with a few imports and captured Southern weapons. This was an advantage the South was never able to overcome and, with the tightening of the Federal blockade of Southern ports, the Confederacy had to rely more on the fortunes of battle to capture Union artillery and ammunition. By the end of the war, the South still had only a handful of armories and foundries compared to those in the North.

While the focus of this work is on projectiles, a brief discussion of the different artillery weapon systems is appropriate at this time. The reader should keep in mind that this is introductory material, and many variations and types of artillery weapons exist which are not presented here.

Cannons can be divided into several categories according to their basic design, weight (heavy or light), barrel length, maximum effective elevation and range, and type of projectiles employed. For ease of identification and discussion, weapons will be grouped under guns and howitzers, mortars, and Columbiads. Weapons identified by the inventor's name will be grouped separately.

In addition to these categories, most artillery can be further divided into the type of service performed: field (light and easy to maneuver through difficult terrain); mountain (quickly broken down for transportation on horseback); siege and garrison (heavy but could be transported to different positions on siege lines or mounted in fortifications); and seacoast (heavy, cumbersome weapons which were usually mounted in forts or other areas along river banks and coastal waterways).

The reader will also encounter size designations of weapons in two variations. Many weapons were classified by the weight of the projectile fired and were known by "pounder" (i.e., 10-pounder, 20-pounder, 30-pounder, etc.). This should not be confused with the weight of the cannon itself but


refers to the weight of the solid shot projectile intended for that particular cannon. Other weapons were classified by the diameter of the bore of the tube (barrel) such as the 3-inch wrought-iron rifle known as the wrought-iron rifle or ordnance rifle. On occasion a weapon may be listed by both designations.

Guns And Howitzers

Guns and howitzers are the weapons most people think about when Civil War artillery is discussed. These weapons were usually formed in batteries - that is, a group of six weapons (at least in the Union Army). At the beginning of the war, a battery contained four guns and two howitzers. A 6-pounder battery usually contained four 6-pounder guns and two 12-pounder howitzers, and a 12-pounder battery would be made up of four 12-pounders and two 24-pounder howitzers. Four-gun batteries were also common, especially in the Confederate Army.

Several batteries were often placed together in line to form a deadly defensive position. As the enemy troops advanced towards these batteries the guns would belch forth case shot (shells with lead or iron balls inside) and shrapnel shells. The prospect of being wounded or killed caused many soldiers to run or try to find a hiding place. Many veteran troops would throw themselves to the ground just as the weapons to their front fired. Once the weapons had been discharged, these troops would rise up and rush towards the guns hoping to capture the crew before they could reload. Since most proficient crews could fire two rounds per minute, the troops could find themselves hugging the ground several times.

Guns and howitzers differed in several aspects. A gun was a long-barreled, heavy weapon which fired solid shot at long range with a low degree of elevation using a large powder charge. A howitzer had a shorter barrel and could throw shots or shells at a shorter range but at higher elevation with smaller powder charges. Howitzers were lighter, more maneuverable weapons than guns.

At the outbreak of the Civil War, most artillery guns were smoothbore. Soon after hostilities opened the two forces began the task of re-boring and rifling the old smoothbores to accommodate the new ammunition being developed.

Guns and howitzers were usually designated by the year in which a particular model was designed or improved. Thus, a particular weight weapon may have many different model designations.

The Federals produced bronze 6-, 9- (fewer than thirty 9-pounders were produced), and 12-pounders for field use; iron 12-, 18-, and 24-pounders for siege and garrison use; iron 32- and 42-pounders for seacoast defense; and iron 32-, 42-, and 64-pounders for navy use. The Confederates produced iron 6-pounders and bronze (later iron when bronze became scarce) 12-pounders, both for field use.

Union 12-pounder Napoleon, bore diameter 4.62-inches.

The most popular and dependable gun was the Model 1857, commonly called Napoleon (named after the French emperor Louis Napoleon who supported development of the design). This 12-pounder smoothbore was effective, reliable, and easily maneuvered. It had a range of 1,600 yards at five-degrees elevation and for best effect was probably around 1,200 yards. The Confederate army used many captured Napoleons as well as developing their own copy. When bronze became scarce in the South, the guns were cast of iron. Although the Napoleon is listed here as a gun, it was also classified as a gun-howitzer because of its shorter barrel and light weight.

Other guns considered as standard, or common, weapons for the Civil War were the Model 1841 6-pounder field gun; Model 1841 32-pounder seacoast weapon; and the Model 1841 42-pounder seacoast gun. Howitzers were originally developed in the near the turn of the 18th century. Most howitzers were smoothbore weapons, although many were rifled during the war as in the 3.4-inch Dahlgren Boat Howitzer. Howitzers produced by the Federals included bronze 12-, 24-, and 32-pounders for field use, iron 24-pounders and 8-inch for siege and garrison, and iron 8- and 10-inch for seacoast defense. The Confederates also produced iron 12-pounder and bronze 24-pounder field guns, and an iron 8-inch siege and garrison weapon.

The Model 1841 12-pounder was the standard field howitzer used in the Civil War. Because of its higher trajectory at which it was typically fired, it could fire a shell over 1,000 yards with less than one pound of powder.

"Whistling Dick"

One of the most famous guns of the war was "Whistling Dick," a banded and rifled 18-pounder Confederate siege and garrison weapon. "Whistling Dick" began life as an iron smoothbore Model 1839 which had been rifled. Because of some erratic rifling all shells fired from the gun made a peculiar whistling sound, thus the name "Whistling Dick." The gun was part of the river defenses at Vicksburg, Mississippi, in 1863, and is credited with the sinking of the Union gunboat *Cincinnati.* "Whistling Dick" disappeared after the surrender of Vicksburg and remains unaccounted for today.

Mortars

Mortars were stubby weapons which fired heavy projectiles in a high arc. Only a small powder charge was needed to project the shot or shell to its maximum elevation. When a mortar shell exploded, fragments weighing as much as ten or twenty pounds

could fall with extreme velocity on the enemy. Combatants and non-combatants alike, became adapt at constructing bomb-proofs to protect themselves from fragments and solid shot. Bomb-proofs were shelters dug into the side of a bank, away from the enemy, or constructed inside breastworks as small huts with heavy layers of dirt on the top side. The morale of a besieged city or of troops waiting to go into battle was severely affected by a mortar attack.

At night, the lighted fuses of the shells were easily observed and the path of the shell could be traced during flight. During the day, the muzzle fire of a was difficult to detect since the weapons were masked from view of the opposing forces by the topography (ravines, woods, hills, etc.) of the battlefield.

Mortars were most beneficial when the target was above or below the level line of sight. These conditions caused elevation problems for the long-barreled weapons but allowed the short mortars to operate with efficiency. Elevation adjustments were accomplished by means of a ratchet and lever mechanism. Occasionally mortars were mounted on the decks of ships, on special barges, or on railroad flatcars.

Most mortar projectiles can be recognized by tong holes, or tong ears, which are cast into the metal on either side of the fuse hole. This allowed the ball to be centered properly in the short tube.

Seacoast mortars were designated as 10- and 13-inch and were made of iron. Also known as heavy mortars, these weapons were primarily used for the defense of the rivers and coastal waterways. These mortars had a lug cast over the center of gravity to aid in mounting the heavy weapon.
Siege and garrison mortars were constructed to be light enough to be transported by an army on the march. They were also used in the trenches at sieges and in defense of fortifications. These 8- and 10-inch weapons were made of iron.

U.S. 24-pounder Coehorn mortar manufactured by Ames. No. 56, dated 1863.
Photograph copyright Jack W. Melton Jr.

The familiar bronze Coehorn mortar was classified as a siege and garrison weapon. Named after its Dutch inventor, Baron Menno van Coehoorn (1641–1701), it was usually designated as 5.8-inch, but referred to as a 24-pounder. The Coehorn was light enough to be carried by two men along the trench lines. The Confederates also produced a 12- and 24-pounder size made of iron.

The "Dictator"
Perhaps the most famous mortar used during the war was the "Dictator."

The "Dictator" 13-inch mortar at Petersburg, Va. Library of Congress

This weapon was a 13-inch Model 1861 seacoast mortar which was mounted on a specially reinforced railroad car to accommodate its weight of 17,000 pounds. Company G of the 1st Connecticut Heavy Artillery served the "Dictator" at the siege of Petersburg, Virginia, in 1864. The mortar could lob a 200-pound explosive shell about 2 ½ miles. The "Dictator" was usually positioned in a curved section of the Petersburg & City Point Railroad and was employed for about three months during the siege.

Columbiads

A Columbiad was a heavy iron artillery piece which could fire shot and shell at a high angle of elevation using a heavy powder charge. Columbiads were usually classified as seacoast defense weapons and were mounted in fortifications along the rivers and other waterways.

The original Columbiad, a 50-pounder, was invented in 1811 by Col. George Bomford and it was used in the War of 1812. Shortly afterwards it was considered obsolete and retired.

The weapon was produced again in 1844 in 8- and 10-inch models. In 1858, a version was produced which eliminated the chamber in the breech, which strengthened the gun. In 1861, Lt. Thomas J. Rodman, of the U.S. Ordnance Department, contracted with the Fort Pitt Foundry in Pittsburgh, Pennsylvania, to produce Columbiads using a special casting method he had developed in 1844. His process, which caused less stress on the gun during casting thereby preventing cracks from forming, was a success and the Columbiad became widely known as a Rodman gun.

Columbiads were produced in 8-, 10-, 12-, 13-, 15-, and 20-inch models and were primarily smoothbore even though a few rifled models were turned out. The Confederates continued to produce their Columbiads by the old method and experimented with banding and rifling the weapon. Under this method, a Confederate Columbiad was capable of firing a 225-pound shot a distance of 1,800 yards. Compared to guns, howitzers, and mortars, the Columbiads saw very little action. By the end of the Civil War these heavy weapons were obsolete, replaced by more effective weapons which had been developed during the war.

Other Cannon

As has been stated earlier, the pre-Civil War era saw a great deal of experimentation and

innovation both in the United States and in Great Britain. With the interest of the government renewed in obtaining the best possible weapons, many inventors were able to step forward and convince the ordnance department to give their weapons a fair trial. The Confederacy also shared this sense of immediacy.

The following weapons are those which were produced or used in large quantities during the conflict. Many other weapons were also developed but were produced in small numbers or were not commonly used and, therefore, are not included here.

Parrott Cannon

One famous U.S. inventor was a former West Point graduate and ordnance officer named Robert Parker Parrott.

Robert Parker Parrott.
Photograph copyright Jack W. Melton Jr.

In 1836, Parrott resigned his rank of captain and went to work for the West Point Foundry at Cold Spring, New York. This foundry was a civilian operated business and Parrott, as a superintendent, was able to dedicate some forty years perfecting a rifled cannon and a companion projectile. By 1860, he had patented a new method of attaching the reinforcing band on the breech of a gun tube. Although he was not the first to attach a band to a tube, he was the first to use a method of rotating the tube while slipping the band on hot. This rotation, while cooling, caused the band to attach itself in place uniformly rather than in one or two places as was the common method, which allowed the band to sag in place.

The 10-pounder Parrott was patented in 1861 and the 20- and 30-pounder guns followed in 1861. He quickly followed up these patents by producing 6.4-, 8-, and 10-inch caliber cannons early in the war. The Army referred to these as 100, 200, and 300-pounder Parrotts respectively. By the end of the conflict the Parrott gun was being used extensively in both armies. Parrott's name is also associated with the ammunition fired by his cannon. The elongated Parrott projectile employed a sabot made of wrought iron, brass, lead or copper that was attached to the shell base.

When the projectile was fired, the sabot expanded into the rifling of the tube. In 1861 Parrott patented his first projectile with the sabot cast on the outside of the projectile. A controversy arose after the war between Dr. John B. Read, who had invented this expansion system, and Parrott, who contended he had brought the 1856 and 1857 patents from Read before the war. As a

result, these shells are often referred to as Read-Parrotts.

The "Swamp Angel"

In preparation for the bombardment of Charleston, South Carolina, in August 1863, Major General Quincy A. Gillmore ordered the construction of a battery in the swampy marsh near Morris Island. An 8-inch, 200-pounder Parrott siege gun was mounted, under fire from the Confederates, and promptly began firing incendiary shells into the city. This gun, named the "Swamp Angel" continued firing for two days until, on the thirty-sixth round, the gun exploded. But it had caused a tremendous amount of moral damage in Charleston and went into history as the most famous Parrott gun.

The Swamp Angel after it exploded.
Library of Congress

3-Inch Wrought Iron Rifle (Also Called The Ordnance Rifle)

The Model 1861 3-inch wrought iron rifle, sometimes called an ordnance rifle, was also a common weapon. The original design was patented in 1855 and was not quite what we know as the ordnance rifle; there was an evolutionary process both in achieving the final smooth profile of the piece, and the wrought iron, wound and welded in criss-crossing spirals in the original patent, was apparently done in sheets or plates for the final form of the gun. The ordnance rifle was manufactured at the Phoenix Iron Company in Phoenixville, Pennsylvania. It was adopted by the Federal Ordnance Department in early 1861. Other versions of this weapon were produced in 1862 and 1863 by different companies, but this is the only weapon officially known as the Ordnance gun. The Confederates also produced their own version of this gun.

3-inch Ordnance Rifle at Chickamauga National Battlefield Park.
Jack W. Melton Jr.

This weapon could accurately fire Schenkl and Hotchkiss shells approximately 2,000 yards at five degrees elevation, using a one-pound charge of powder. The Hotchkiss shell was the most common projectile fired from the 3-inch ordnance rifle. The Hotchkiss projectile was designed by Benjamin and Andrew Hotchkiss as a three piece shell – nose (containing the powder chamber), sabot (soft lead band fitting into an intention in the middle of the shell), and an iron forcing cup

at the base (which forced the lead sabot to expand into the rifling grooves upon firing).

The other shell for this rifle was the Schenkl. This was a cone shaped projectile which employed ribs along the taped base. The sabot was made of papier-mâché' which was driven up the taper by the force of the gas produced upon firing. The sabot then expanded and caught the rifling in the tube.

This gun is sometimes erroneously referred to as a "Rodman." The process used by Thomas Rodman in casting the Columbiads was not used in producing the wrought iron barrel of the ordnance gun. As far as can be determined, Rodman had nothing to do with the design or production of this gun.

Blakely Rifle

A British army officer, Captain Theophilus Alexander Blakely, pioneered a banding system for his rifled cannon. With each experiment of his design a different cannon was developed with the end result of at least five, and possibly as many as ten, distinct types of Blakely cannons were manufactured.

Blakely cannon were also photographed in the foreground of the Charleston Arsenal's Library of Congress collection.

Widow Blakely in Vicksburg, Miss.
Photograph copyright Jack W. Melton Jr.

The 3.5-inch caliber, 12-pounder Blakely weapons were developed in nine varieties, with a tenth variation being a 10-pounder mountain piece. Most of these weapons were iron. Blakely rifles were also manufactured in 3.75-, 4.5- and 6.3-inch, and 100-, 120-, 150-, 200-, 250-, 375-, and 650-pounder sizes. Most were of iron, with the exception of the 375-pounder, which was made of semi-steel.

One famous Blakely rifle was "The Widow Blakely" that was used by the Confederates during the defenses of Vicksburg, Mississippi, in 1863.

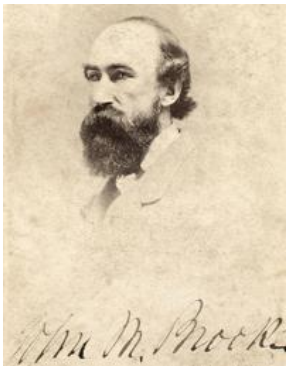
Whitworth

12-pounder Whitworth Rifle in Richmond, Va.
Library of Congress

Sir Joseph Whitworth.

In Manchester, England, in the late 1850's, Sir Joseph Whitworth patented a system for cannons (and small arms) which used a hexagonal bore design instead of the usual rifling methods. The ammunition also carried the hexagonal design in order to follow the bore, thus allowing for better range and accuracy. Sir Whitworth manufactured his cannons in both breech-loading and muzzle-loading models. If the Whitworth breech-loader malfunctioned, it could very simply be used a muzzle-loader on the battlefield.

Brooke Gun



John M. Brooke.

Early in the war, John M. Brooke, late of the U.S. Navy and now an ordnance officer in the Confederate Navy, designed a banded cannon which was similar in appearance to the Parrott, but was different in the number of bands wrapped around the breech. The Brooke band consisted of several rings which were not welded together. Its rifling was similar to the Blakely gun and came in a number of calibers, including 6.4-inch, 7-inch, 8-inch, and 11-inch. John Brooke's other claim to fame was the key role he played in designing the armor plating used by the CSS *Virginia* (Merrimac) in the famous battle with the USS *Monitor*.

Dahlgren Gun

Dahlgren weapons are usually divided into three groups – bronze boat howitzers and rifles, iron smoothbores, and iron rifles. The designer, John A. B. Dahlgren of the U.S. Navy, developed the weapons primarily for use on small boats that patrolled the waterways. The necessity for these weapons was demonstrated by the Navy's experience during the Mexican War when small launches and other craft were assigned to patrol close to river and creek banks.

Charleston Harbor, S.C. Rear Admiral John A. Dahlgren standing by a Dahlgren gun on deck of USS Pawnee. Library of Congress

Dahlgren was a Lieutenant when he was assigned to the ordnance department at the U.S. Navy Yard. The first weapon systems were adopted by the Navy in 1850. These bronze 12- and 24-pounder pieces were specially designed for use on the small launches but were also included on most naval vessels during the Civil War. His iron smoothbores were adopted in 1850 (9-inch gun) and 1851 (11-inch gun). Although these guns were designed for use against wooden ships, the iron-clad Monitor class ships carried two of these in their turrets. These weapons were later replaced by the 15-inch Dahlgrens in 1862.

By the end of the Civil War, John Dahlgren, now a Rear Admiral, was responsible for the development and design of 12-pounder boat howitzers in several weight classifications (small, medium, and light), 20- and 24-pounder howitzers (some, including the 12-pounders, were rifled); 30-, 32-, 50-, 80-, and 150-pounder rifles; and 8-, 9-, 10-, 11-, 13-, 15-, and 20-inch rifles.

Conclusion

The importance of the artillery service cannot be overstated. Because artillery fire was apt to produce mass casualties when fired into an advancing line of enemy, it could also be used as a psychological weapon. A soldier advancing against artillery was often unnerved by the prospects of encountering canister, case shot, and shrapnel. Shot and shell fired into fortifications, besieged cities, or the reserve areas behind the battle lines could be quite uncomfortable for soldiers and civilians alike. Many first-person accounts of battles speak of the screams of the Parrott, James, and Hotchkiss shells produced by damaged or hanging sabots. The Whitworth projectile, by its very design, made an eerie whining sound during flight.

Besieged writers often commented on the unusual sound of the large projectiles fired by siege weapons. During the sieges of Vicksburg, Atlanta, and Richmond, the terms "wash kettles" and "wood stoves" were used quite often in describing the flight and impact of these heavy projectiles.
New tactics using artillery weapons were developed during the American Civil War which herald the beginning of modern warfare. "Flying batteries", first used by Confederate artillery Major John Pelham, were effective in deluding the enemy into believing a greater artillery force opposed them than was actually present. Using a four-gun battery, Pelham had his crews unlimber, fire, limber back up and quickly move to a new position to repeat the tactic. This tactic was particularly effective when the terrain could be used to mask this movement. Pelham's "flying batteries" tactics would be refined and used effectively in future wars as the military became more mobile.

THE OLD LINER

Capt. Quincy A. Gillmore.
Library of Congress

A new era dawned on April 10-11, 1862, when Federal Captain Quincy A. Gillmore forced the surrender of Fort Pulaski off the coast of Savannah, Georgia. Gillmore used land-based mortars, smoothbores and, most importantly, rifled guns to breach a wall in the masonry fort within thirty hours of commencing fire. Because of the possibility of shells reaching the main powder magazine, the Confederate commander, Colonel Charles Olmstead, was forced to lower his flag. Gillmore repeated this tactic in Charleston, South Carolina, in July 1863, when he reduced Fort Sumter to a pile of rubble. This tactic spelled the end for masonry forts designed to withstand smoothbore bombardments of the ancient wars.

The Civil War era inventors and their inventions changed the face of war forever. The improvements and innovations in the artillery field were mirrored in the changes that took place in the infantry, cavalry, medical, and naval departments. Many of the same basic principles developed or theorized during the Civil War are still present in modern warfare. Thus, the Civil War can live up to its billing as "the last of the ancient wars and the first of the modern wars."

0-0