

## **Leading the Nation**

West Point Foundry helped America emerge as an industrial superpower. It also played an important role in reuniting a divided United States.

In 1860, foundry Superintendent Robert Parker Parrott developed a cannon, known as the Parrott gun, whose long range and accuracy would give the North a decisive advantage in the Civil War. Figuring in every major battle, these cannons were deemed so vital to the war effort that President Abraham Lincoln visited West Point Foundry in 1862. Foundry employees worked 24/7 to meet demand, eventually manufacturing more than 2.500 Parrott guns—some weighing 13 tons!—and 3 million projectiles.

Along the Yellow Trail, you can trace the step-by-step process—a forerunner of Henry Ford's assembly line—of creating these "game-changing" weapons. The trail sits atop the rail line that linked the buildings (turntables made it possible for railcars to enter them). The line also brought raw materials to the foundry and delivered finished goods to a loading dock on the river (now Scenic Hudson's Foundry Dock Park).

The Hudson Valley offered an abundance of materials critical for producing iron, especially iron ore and trees to make charcoal for heating a blast furnace. Under temperatures around 2,700°F, the iron liquefied, separating from the rocks' other components, and was channeled into molds, called pigs. The blast furnace at West Point Foundry shut down in 1844. Iron to make Parrott guns came from furnaces in Orange County.

Skilled laborers in the foundry's pattern shop crafted exacting wooden replicas (or patterns) of the Parrott guns, which ranged in size from 10 to 300 pounds (according to the weight of projectile they shot). In the nearby casting shop, these patterns were pressed into wet sand and carefully removed. Molten iron from reheated pigs was poured into this mold.

Once the metal cooled, the cannons were separated from the mold and delivered to the boring mill. Here the 36-foot-diameter water wheel powered machinery for drilling out the guns' interior. Parrott guns featured a rifled bore—spiraling grooves that caused projectiles to spin when fired, enhancing their accuracy.

At the blacksmith shop workers attached a band of wrought iron slipped over the cannons' breech (the point furthest from the muzzle) that tightened as it cooled. Providing reinforcement, the band prevented the cannons from breaking apart when fired, and allowed for larger powder charges that increased their range. A 30-pound Parrott gun could shoot a projectile nearly four miles.

Finished Parrott guns were taken to the gun platform and test-fired at targets painted on Crow's Nest Mountain, across the Hudson River.



Top left: Parrott gun on Morris Island, SC;
Above: Michigan Tech student excavating the boring mill.

#### Rules

- Vehicles permitted only in designated parking area
- Commuter parking is prohibited
- Stay on marked trails and within posted property boundaries
- Be considerate of park visitors and adjoining property owners
- Pets must be leashed (6 ft. maximum); clean up their waste
- All natural, cultural and archaeological resources are protected and must not be removed or disturbed
- Relic hunting is prohibited; possession and use of a metal detector is prohibited
- . Geocaching and Letterboxing are prohibited
- Commercial transactions are prohibited
- No smoking
- No possession or consumption of alcohol
- No fires or barbecues
- No swimming
- No boat launching, docking or beaching
- No drones
- No bicycling on Red and Yellow trails

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# West Point Foundry Preserve

In 1996 Scenic Hudson acquired this wooded ravine in the historic Village of Cold Spring, protecting the remains of the West Point Foundry. A pacesetter in the Industrial Revolution, it manufactured some of the first U.S. locomotives and steamships, pipes for New York City's water system and cannons that helped win the Civil War.

Today, exciting interpretive elements in the 90-acre preserve allow visitors to explore the foundry's history, its role in the Civil War and the land's remarkable ecological renewal.





### **Merging Nature & History**

West Point Foundry Preserve tells two important stories—one about the site's industrial heritage, the other about nature's amazing powers of restoration.

From 1818 to 1911, one of the country's most important ironworks filled nearly every inch of this ravine. Following West Point Foundry's closure and a period of use by other industries, the buildings began to disappear, their stones and bricks salvaged for construction projects elsewhere. Gradually, trees reclaimed the land and birdcalls replaced the roar of machinery.

In the mid-1990s, this was the staging area for a massive cleanup of adjacent Foundry Cove, severely polluted by toxic metals from a nearby battery factory, and one of the U.S. Environmental Protection Agency's first Superfund sites. The project removed 189,000 tons of contaminated sediment and replaced it with clean fill, ushering in a return of healthy wildlife habitat. A mandatory archaeological investigation prior to the cleanup uncovered more than 100,000 artifacts related to West Point Foundry, highlighting the need to protect its substantial remains.

In 1996, Scenic Hudson acquired this land to prevent its planned development. We removed truckloads of garbage, stabilized the 1865 office building (the only intact foundry structure) and blazed trails that connect visitors with the site's history and natural beauty. Later, we sponsored eight years of field research by teachers and students in Michigan Technological University's Industrial Archaeology Program. Their discoveries formed the basis for the preserve's interpretive features, designed to bring the past to life while showcasing the tranquil forest that surrounds them.

#### Scenic Hudson's

West Point Foundry Preserve 68 Kemble Ave, Cold Spring, NY Accessible from Cold Spring Metro-North station • Park open year-round, dawn to dusk.



### Yellow Foundry Trail

0.5 mile

The journey that begins here takes you to many of the preserve's key sites. The trail is lightly graded.



#### Red Trail More to Explore

1 mile

Heading upstream from the boring mill and water wheel, this trail leads to additional foundry ruins as well as related sites in Cold Spring. It follows a steeper elevation; special care should be taken around unstabilized archaeological ruins.



# Blue Trail Foundry Cove and Cold Sprin

1.2 miles

This trail loops through downtown Cold Spring, passing "worker houses" and other foundry-era buildings along Main Street.





For a unique audiovisual tour of West Point Foundry Preserve, visit www.foundrytour.org. For optimal enjoyment, headphones are recommended. You can begin the tour at any of the 15 designated stops.

# **More to Explore**

Don't miss these nearby sites related to West Point Foundry.

Foundry Dock Park: Once the foundry's loading dock—where a 600-foot pier stretched into the river—it's a great place to enjoy Hudson Highlands views and launch a kayak.

The Chapel Restoration: Next to Foundry Dock Park, this church was built by the foundry for its Roman Catholic workers. Lovingly restored, it hosts concerts and other events.

Putnam History Museum: Located in the school for foundry apprentices and employees' children, it features an excellent permanent display about the ironworks.

Main Street: Well-preserved buildings that once housed businesses serving the foundry's considerable labor force now feature an enticing array of shops and restaurants.