

THE NATIONAL  
**IRON & STEEL**  
HERITAGE MUSEUM

*COATESVILLE STEEL:  
THE PEOPLE, PROCESS, AND PRODUCT*



*SELF-GUIDED WALKING TOUR*

# NATIONAL IRON & STEEL HERITAGE MUSEUM



## NISHM Walking Tour

Welcome! Did you know that the Coatesville steel site is the longest, continuously operating iron and steel site in the United States? This walking tour will introduce you to the people, process, and product of the Coatesville steel site, a prime example of the American steel industry.

What you will see – the exteriors of one office building, three family homes, and a rolling mill complex; two full-size steel products; and one early twentieth-century locomotive.

The Walk – the tour should take approximately 45 minutes. The walk covers about three-quarters of a mile and approximately 1,400 steps.

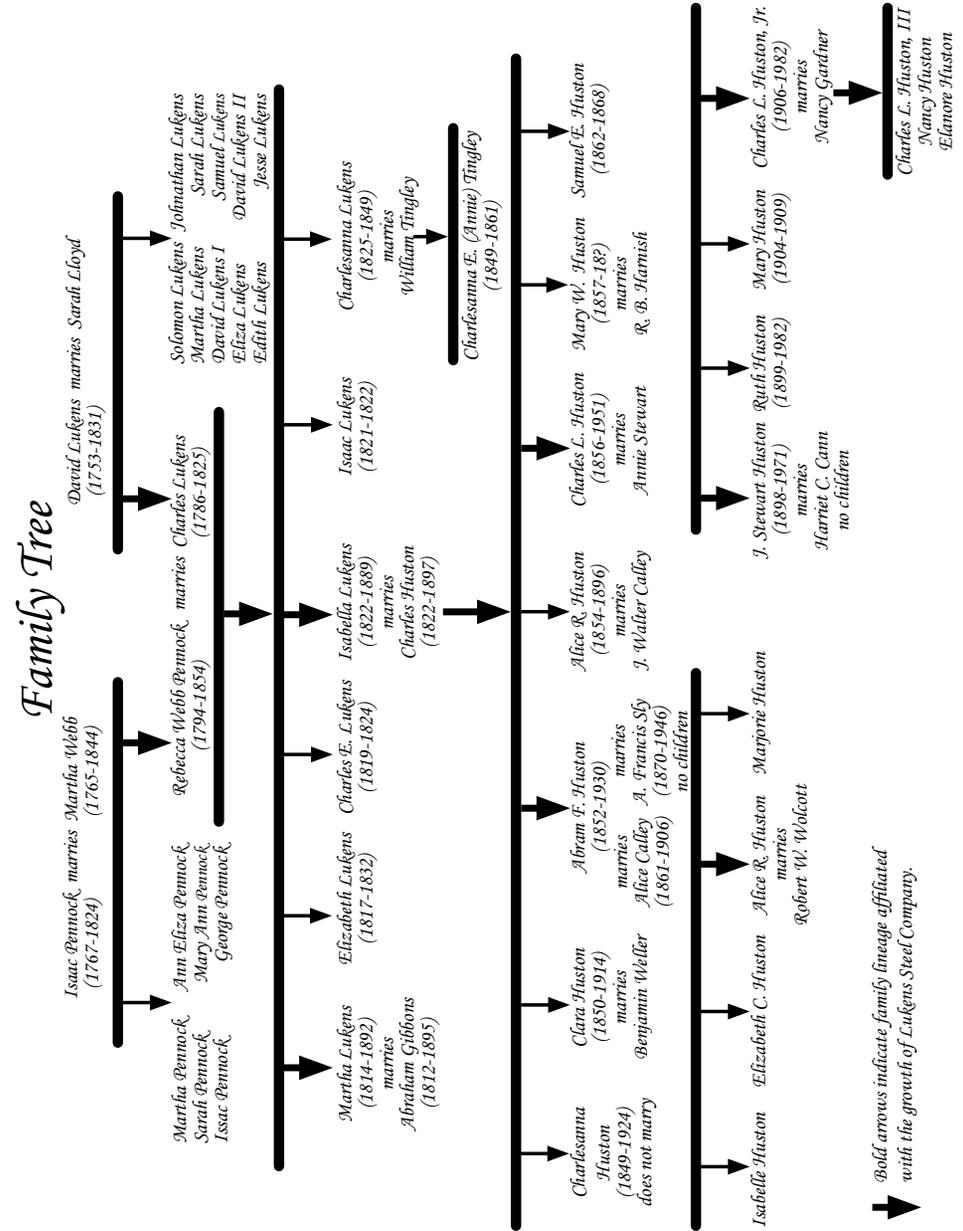
## Walking Tour Rules

Visiting inside Museum buildings is not included in the walking tour.

Please watch your step. The walk includes some steps and grassy/gravel areas.

Restrooms are not available during the walking tour.

For assistance call 610-384-9282 or visit us at the Lukens Executive Office Building.



## STOP 1: LUKENS EXECUTIVE OFFICE



Phones are ringing. Typewriters are clicking. Financial decisions are being made for Lukens Steel Company. This was the main office building for Lukens – it is where the company President, Vice Presidents, financial department, and administration worked. Built in 1902/1916, the building is an example of the Georgian style of architecture.

The building was Lukens' executive center until the 1990s. Today, it is home to the museum and other local businesses and organizations. From the side of the building, can you spot where the addition was made in 1916? Hint: look for the difference in brick color and size.

*Want to know about one President who worked here? Head to Stop 2! Walk to the front of the office building and cross the street. Please cross where the two driveways meet and be careful of moving vehicles!*



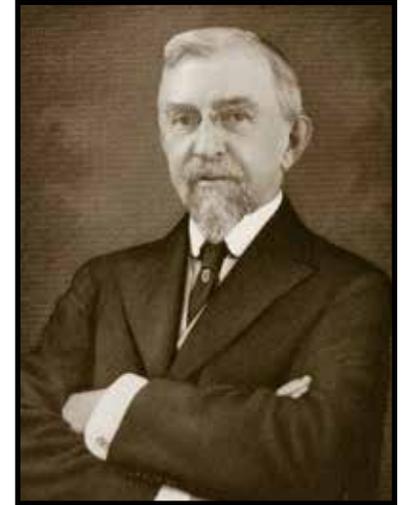
## STOP 2: GRAYSTONE MANSION



Wow, what a beautiful gray stone building!

This was home of Abram Francis Huston, President of Lukens Steel Company from 1897 to 1925. He worked in the main office building across the street. Graystone Mansion was built in 1889 and is an example of the Collegiate Gothic style of architecture.

In 1939, the mansion became Coatesville City Hall, and remained so until 1992. Today, it is both a house museum and a venue for local events. Feel free to walk around the home and take a close look at the stonework. In the back is the Carriage House. Can you see the bars on the small windows? It was once the city jail!



*To learn more about the Huston family, proprietors of the steel company here, head to Stop 3. Please walk down the right side of the driveway and cross where the two driveways meet. Be careful of moving vehicles! Then turn left down the sidewalk and pause in front of Terracina.*



## STOP 3: TERRACINA



Lukens Steel Company had generations of Huston leadership, which began with the man and woman who lived here. Home of Isabella and Dr. Charles Huston, this building is an example of the Country Gothic style of architecture. Notice the lattice (or “gingerbread”) woodwork running along the porch and roofs.

Isabella was the daughter of Rebecca Lukens, owner of Brandywine Iron Works. Her husband, Charles, took over the iron business in 1849. He helped establish Lukens Iron & Steel Company in 1890, and was elected the company's first president.

Fun fact: this home was a wedding gift from Rebecca Lukens to her daughter and son-in-law. What a gift, huh?



*You can learn more about Rebecca at Stop 4! Please head up the steps, turn left, and walk along the sidewalk until you can see Brandywine Mansion, which will be on your left.*

## STOP 4: BRANDYWINE MANSION



You are standing in front of one of the oldest homes in the area, Brandywine Mansion (1739/1788). Isaac Pennock (L) purchased Brandywine from Moses Coates in 1810 and he established the Brandywine Iron Works & Nail Factory, predecessor of Lukens Steel Company.

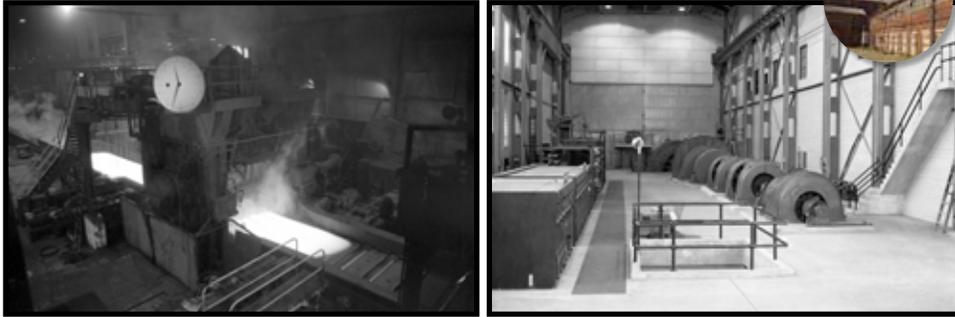
Isaac's daughter, Rebecca, married Dr. Charles Lukens (R) in 1813 and they moved into the mansion. Dr. Lukens operated the Brandywine Iron Works, leading the site to roll America's first boiler plate (the iron used to make steam boilers) in 1818. Upon his death in 1825, Rebecca took over the business.

Rebecca Lukens operated the Brandywine Iron Works successfully from 1825 to 1850. She became America's first female industrialist when she owned and operated the iron works, supply depot and warehouse, tenant housing, stables and wagons, and more. Rebecca died in Brandywine Mansion in 1854.

*For Stop 5, continue on the sidewalk, (watch your step down!) head across the grass toward the 120" Mill complex, and pause in front of the fences.*



## STOP 5: 120" ROLLING MILL COMPLEX



From the people of the steel industry, to the process! This complex of buildings was home of the 120" rolling mill. Like a rolling pin and pizza dough, this machine flattens and thins hot, large pieces of steel. But instead of rolling dough on a kitchen counter, mills roll steel wide and long enough for bridges and skyscrapers.

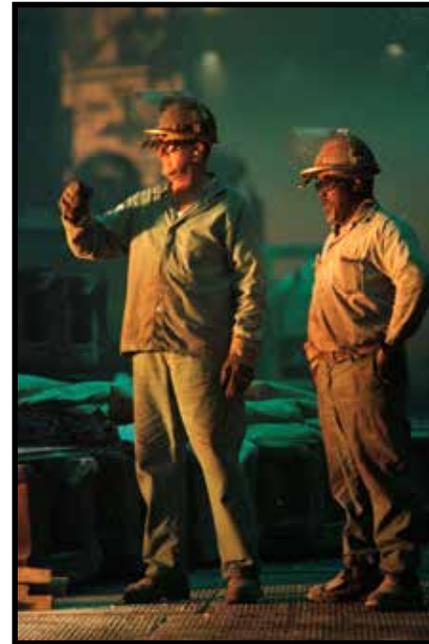
The 120" (120 inches wide) rolling mill was built by the U.S. Navy in 1943 to roll steel for American ships and submarines. It operated in Coatesville until 1983. The building sat vacant for years and the museum acquired the property in 2016.

Lukens Steel Company had many other rolling mills: most notably the 206" rolling mill, built in 1917, and once the largest in the world. Today, Cleveland-Cliffs Coatesville still uses the 206" mill in addition to rolling on its 140" mill.



*Want to see full-size products made with steel rolled on Coatesville's mills? Head to Stop 6! Walk down the pathway, turn left after passing the white garage, and the Steelworkers Memorial will be on your left.*

## STOP 6: STEELWORKERS' MEMORIAL



Let's take a moment to pause and reflect. Steelmaking was, and still can be, a very dangerous job... the lack of safety equipment years ago, large, heavy machinery and product, extremely hot metal, and more. Accidents, injuries, and deaths did and can happen. That is why safety is so important to the steel industry.

This is the Steelworker's Memorial. It honors men and women (listed on the granite slab) who lost their lives because of accidents and

injuries while working at the Coatesville steel site.

The centerpiece is a World Trade Center steel trident. Lukens Steel Company made the steel for the first nine floors of the Twin Towers' outer walls.

If you walk to the left side of the Memorial... notice how thick the steel is. It's almost three times as thick as the average plate! To learn more about the tridents, please take a look at the panels on the garage.

*Your next stop is not far! Please walk the short distance to the big, dimpled steel ball.*



## STOP 7: SONARSPHERE



This big, dimpled steel ball helps submarines detect sound in the ocean. Called a sonarsphere, this 27-ton steel ball and many hydrophones (underwater microphones placed in each of the holes) detect sound in the ocean, alerting the crew to what is in the surrounding water.

Rather than flat steel, sonarspheres are made with spun heads, or bowl-shaped plates. For a century Lukens Steel Company made steel heads, which were manufactured into water towers, submersibles, and more. This sonarsphere was made with four spun heads,



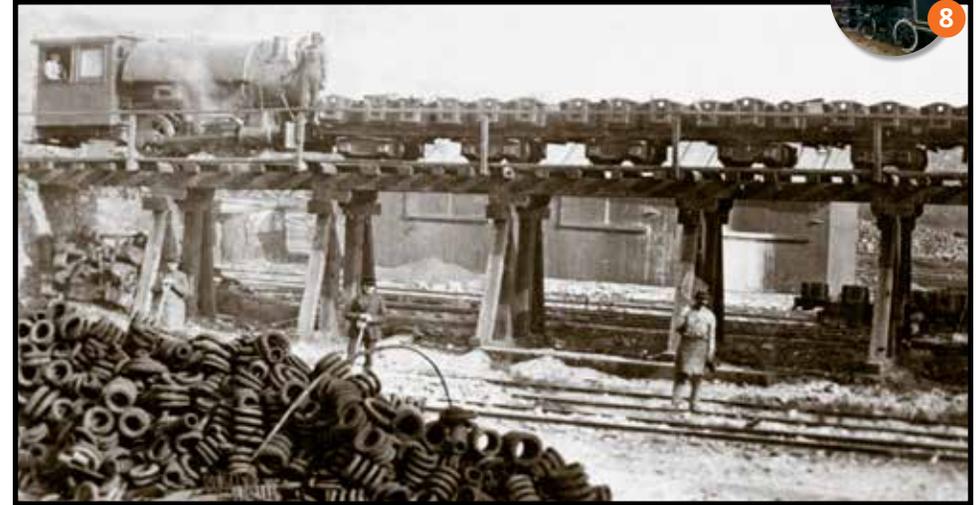
in two layers. Can you see them?

Just imagine... if a sonarsphere is this big, and it is located in the bow (front) of submarines, how big those submarines actually are!

*You are almost done. Just one more stop! Please walk across the parking lot toward the locomotive on the other side. Keep an eye out for moving vehicles!*



## STOP 8: NARROW-GAUGE LOCOMOTIVE



Yes, this is a locomotive. And yes, it looks very different from the locomotives you see today. This locomotive is a narrow-gauge, Porter steam engine and was manufactured in the 1910s. It has been restored.

Lukens Steel Company had almost a thousand acres, with buildings very spread out. The company had its own railroad system and crew to transport scrap metal, ingots, and more from place to place. In the early 1900s, Lukens used a version of the locomotive in front of you. Narrow-gauge tracks still exist throughout the present steel site.



## The End...Or Not!

Thank you for taking the National Iron & Steel Heritage Museum Walking Tour! Today, you learned about the people, process, and product of the Coatesville steel site. You saw numerous historic buildings, including homes, an office building, and a rolling mill complex, and steel products, too, like the sonarsphere and the World Trade Center steel trident. We hope you enjoyed the tour!

Want to learn more? Please visit the National Iron & Steel Heritage Museum or our website, [steelmuseum.org](http://steelmuseum.org). For questions or comments, please call us at 610-384-9282 or email us at [admin@steelmuseum.org](mailto:admin@steelmuseum.org). We look forward to hearing from you!

## We Invite You - Become a Member

We hope you enjoyed your tour of the National Iron & Steel Heritage Museum!

Being a member of the National Iron & Steel Heritage Museum comes with great benefits:

- Newsletter and Program Calendar
- Free admission to lectures and discounts on other programs and events
- Advanced notification of events and exhibitions
- Free gift (Household Member level and higher)
- 15% Discount in the museum store
- And more!

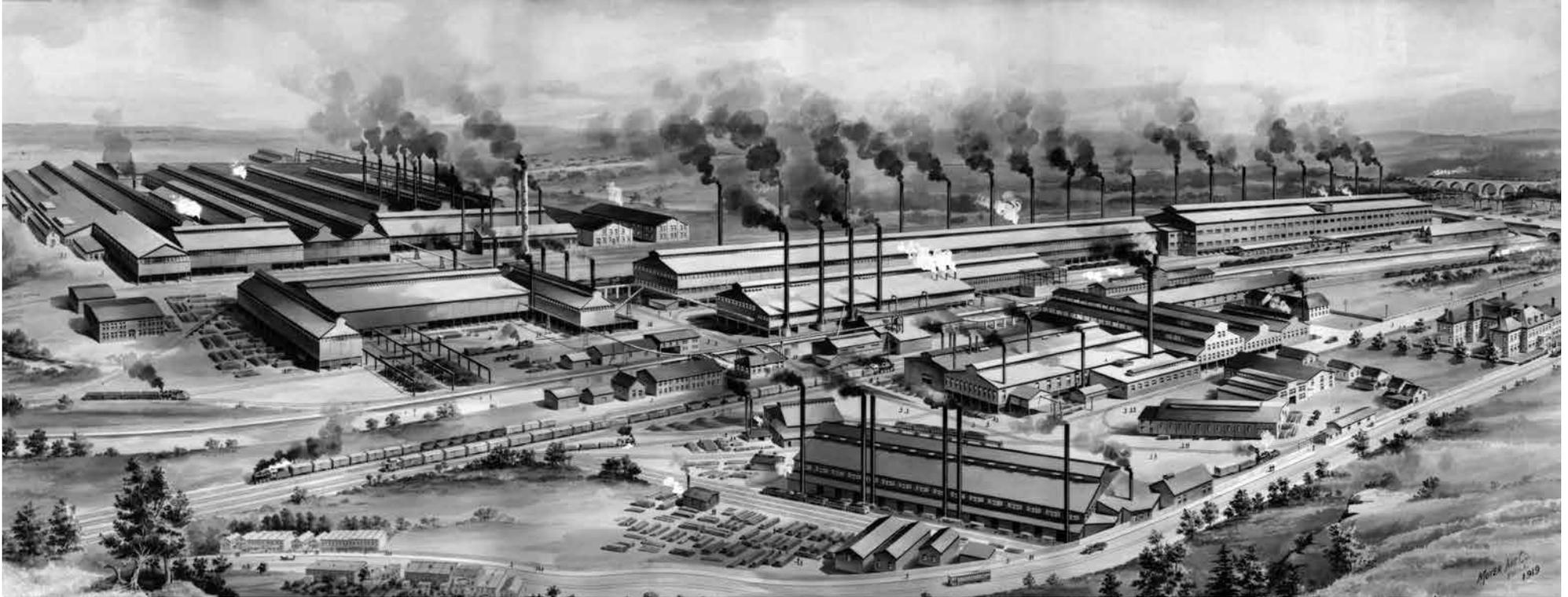
Museum events throughout the year include:

- Lectures
- Rebecca Lukens Award Ceremony
- Trips to other historical sites
- Holiday Open House
- And more!

To become a member please visit [steelmuseum.org/join](http://steelmuseum.org/join) or use this QR code to take you there.



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