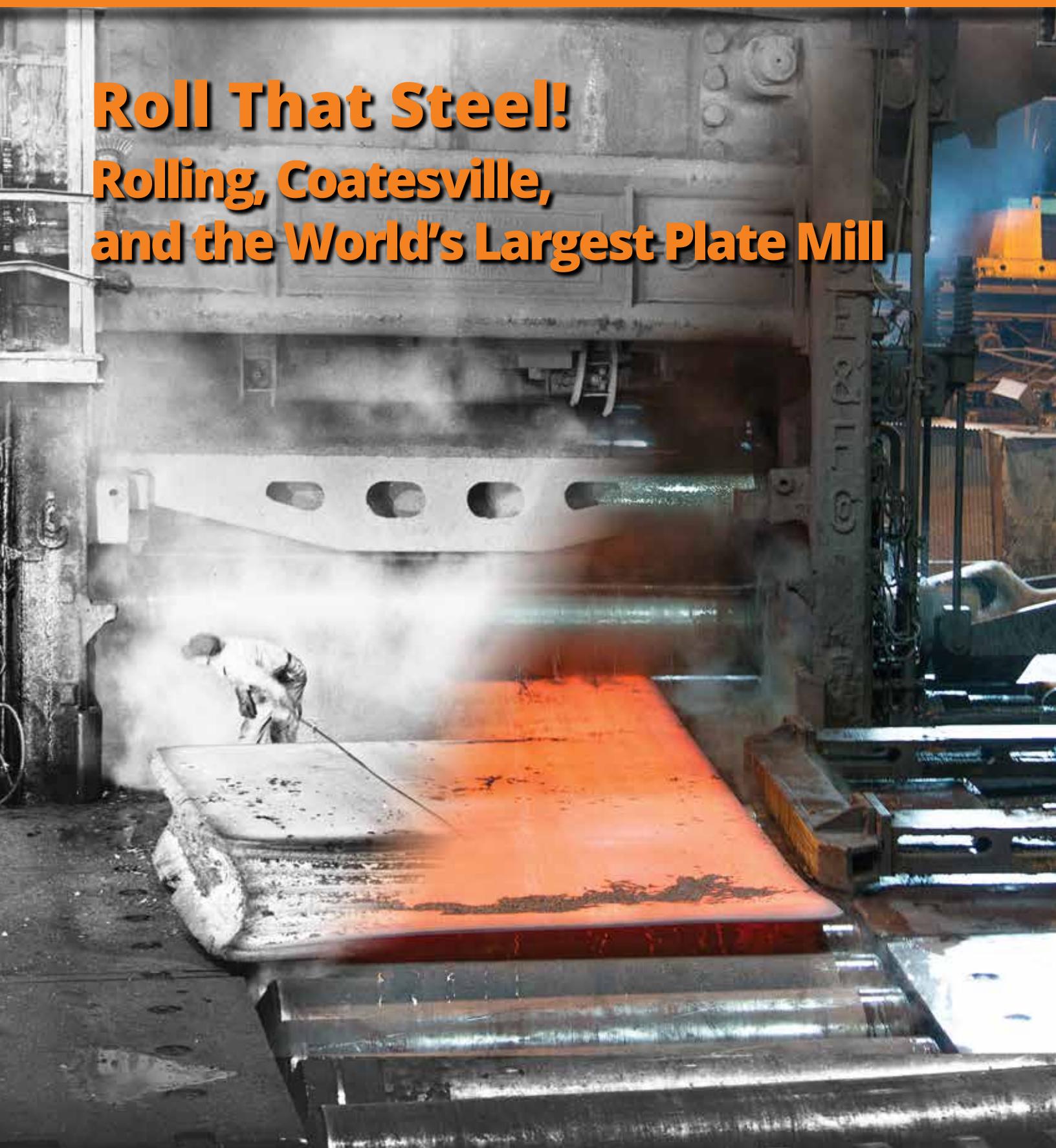


**Roll That Steel!  
Rolling, Coatesville,  
and the World's Largest Plate Mill**



# PRESIDENT'S MESSAGE

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## Our Mission

The National Iron & Steel Heritage Museum is a not-for-profit educational institution whose mission is to promote an understanding of the iron and steel history of Coatesville, Chester County, Southeastern Pennsylvania and the region to audiences of all ages and interests by collecting, preserving, exhibiting and interpreting iron and steel's history and its relationship to the region and nation beyond.

Front Cover:  
Celebrating 100  
years of operations  
on Coatesville's 206'  
Rolling Mill.

My message in this issue of Boilerplate focuses on a very significant piece of technology: Coatesville's 206" Rolling Mill. It is hard to imagine, that in 2018 we have a 100-year old piece of technology operating. And not only does it still operate, but it makes some of the most important steel for our nation's defense and infrastructure industries.

Built in 1917, operating by May 1918, and enlarged in 1919, the 206" Rolling Mill stood as the largest mill in the world for more than forty



Jim Ziegler

# EXECUTIVE DIRECTOR'S REPORT

The National Iron & Steel Heritage Museum is filled with stories about steel process, product, and people, and their lives in steel.

Our three primary themes of People, Process & Product organize stories in ways that visitors will quickly and easily grasp.

NISHM is blessed with beautiful Victorian architecture set beside steel mills and workers' housing, creating as complete a picture of America's industrial age as found anywhere. They interlock to tell the whole steel story.

According to McKelvey Museum Services, the chief aim of NISHM is to reveal and provoke.

- What is steel? Where does it

years. Today, it remains the widest in the United States. Many products of note were and are made with steel from the 206" Rolling Mill, including the Twin Towers in the World Trade Center and the U.S. Navy's battleships, submarines, and aircraft carriers.

I hope you will join me in honoring this historic piece of technology, and I encourage you to stop by and see the "Roll That Steel!" exhibit.



Scott G. Huston

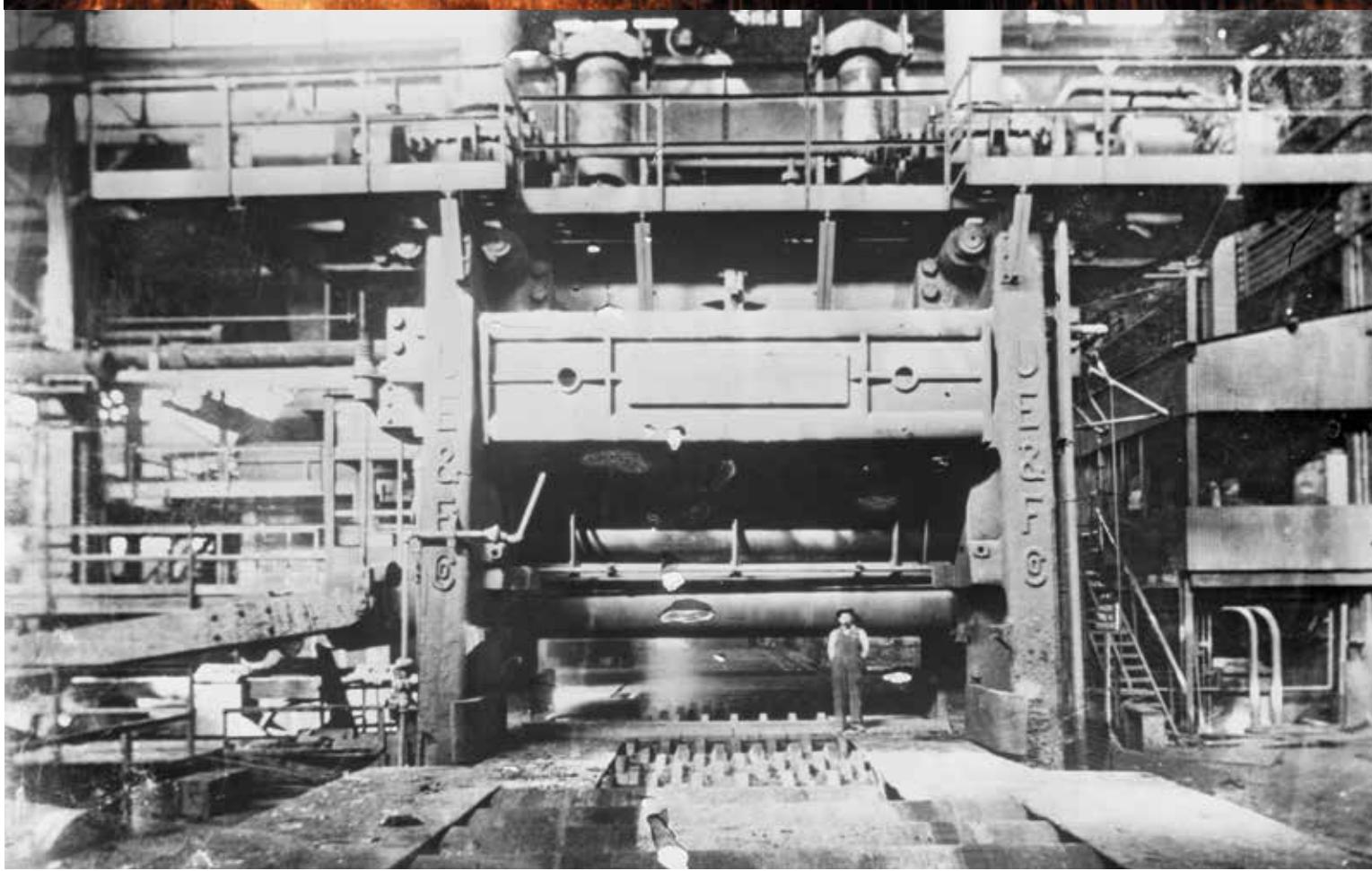
come from and how is it made and used?

- What would Coatesville and America be like if it hadn't been for steel?
- Who was Rebecca Lukens? Why is she considered a pioneer of American business?
- What was it like to live in a steel town 150 years ago? Or 50 years ago?
- How does it feel to work next to tons of hot metal? What skills does it take?
- Imagine being in charge of a large steel company. What were the challenges? What were the successes and defeats?
- How does the past reveal the present?

Please enjoy this issue of the Boilerplate and discover something new!

The National Iron & Steel Heritage Museum is a project of the Graystone Society, a 501(c)3 public charity registered with the Pennsylvania Bureau of Charitable Organizations.

Contributions are tax deductible to the extent permitted by law.



Hagley Museum and Library

## ROLL THAT STEEL! ROLLING, COATESVILLE, AND THE WORLD'S LARGEST PLATE MILL

Rolling is one of the world's most important manufacturing processes. The large majority of all metal products produced today are subject to rolling at one point in their manufacture. So, what is rolling? What is its history? And why is Coatesville important? This exhibit reveals the answers to those questions.

In rolling, work materials are passed between spinning rolls and the force applied reduces the thickness of the material. Both the metals' shapes and internal structures are changed. You can compare this process to rolling dough with a pin.

Hundreds of years ago, the first rolls were small, hand-driven and were used to flatten gold and silver in the manufacture of jewelry and art. Rolling machines first appeared

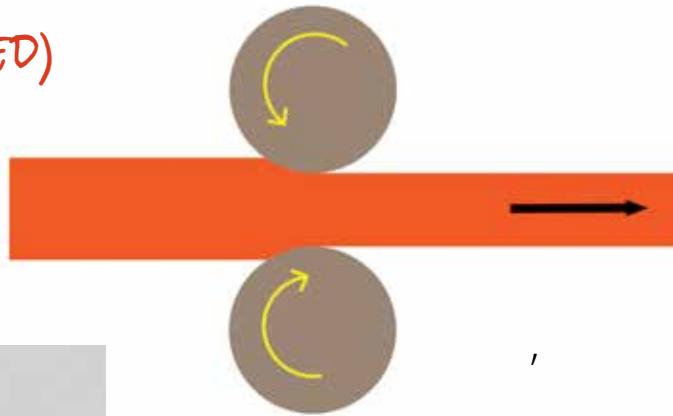
in the 1600s and iron became a popularly rolled material in the late-1700s. Today, rolling mills make metals for our cars, bridges, skyscrapers, ships, food cans, home appliances, and more.

In 1917, Coatesville's Lukens Steel Company built a 204" rolling mill, which rolled its first plates on May 22, 1918. The mill was widened to 206" and stood as the world's largest plate mill for more than 40 years. The 206" Rolling Mill still operates in Coatesville today, 100 years later, rolling wide and thick plate for our nation's ships, bridges, buildings, and other products.

We hope you will stop by and see this exhibit, which will be on display beginning in December. Thank you to ArcelorMittal for sponsoring this exhibit and supporting the National Iron & Steel Heritage Museum!

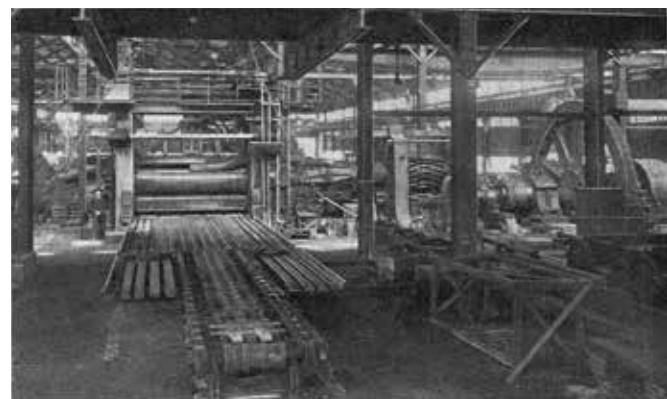
## ROLL THAT STEEL! (CONTINUED)

In rolling, metals are passed between spinning rolls and the force applied reduces the thickness of the material.



Brandywine Iron Works & Nail Factory, established in 1810, had Coatesville's first rolling mill, which was possibly 36" wide.

Worth Brothers Company, located in Coatesville, competed with Lukens Steel Company for the widest mill in the United States. Shown is Worth Brothers' 152" mill in 1907, the widest in the U.S. at that time.



Wide plates, like those rolled on the 206" Rolling Mill, are put into U.S. Navy ships. Wide plates mean less welding and failure areas. Shown is the USS Nimitz (CVN 68). Coatesville makes steel for the decks and hulls of America's aircraft carriers.

The 206" Rolling Mill operates in Coatesville today, one hundred years after it was built, and rolls steel for American ships, bridges, buildings, and more.





## ART, MAPS, AND MORE!

Thanks to Don & Jessie Stollenwerk, the National Iron & Steel Heritage Museum's collection of artwork by Klaus Grutzka has just grown by one. While NISHM already owns nearly 2,000 of Klaus Grutzka's works, this piece was not previously included in the collection. The painting depicts a building on Main Street in Mountville, Pennsylvania; and that building has a fascinating history. The building is on property owned by Robert Keck. Keck was a German immigrant who worked at the Grinnel Foundry in Columbia, Pennsylvania. The building was built as a meeting hall for the Junior Order United American Mechanics. It also served as the Mountville Town Hall, and as a sewing factory. In the early 1950's it was purchased by Reese Hall Post 8757 Veterans of Foreign Wars and continues to serve as a VFW post to this day. NISHM is very grateful to the Stollenwerks for their donation of the painting and the historic

research they did on the painting's subject matter.

Another notable recent donation was a framed map of the Lukens Steel Company donated by Sally Clinton. The map was from the collection of her late father William Clinton. Mr. Clinton had been a Sales Manager for Lukens until he retired. An avid map collector, it is very appropriate that Bill's antique map of the Lukens Steel property became a part of the collection of the Iron & Steel Heritage Museum.

Some other items received within the last month include:

- "Gold" hard hat given to long-time Lukens employee Harold Zipse at his retirement- donated by Doris Zelina
- Early 20th-century Coatesville baseball uniform- donated by Greg DePedro

## PROGRAMS



### FALL EVENTS A HIT!

So far this fall, our events calendar included bus trips and lectures. The bus trips have featured Quaker history and visits to Primitive Hall. Chester County's history cannot be told without mentioning Quakers and Primitive Hall, built in 1738, is a local Quaker historic home that still retains much of its original characteristics. In September we gave a behind-the-scenes tour of our own Brandywine Mansion (1739/1788) and the November trip included a visit to Brinton 1704 House, also a Quaker family home.

The lectures featured brand new speakers and topics. In the October lecture, James Stuber discussed the American economy's recent history and offered solutions for how consumers can keep jobs and products, including steel, made in the U.S.



In November, Clayton Ruminski, archivist at Hagley Museum in Delaware, spoke about America's "Iron Valley," and how Ohio's Mahoning Valley transformed from a small iron-producing region to a major steel center. You can view both presentations in the "Explore" "Videos" area of our website.

Major upcoming events include the annual Holiday Open House and more lectures. Please look to the next page for our events calendar.

# UPCOMING EVENTS

**December 7, 2018**

Holiday Open House —  
Santa, Trains & Music

3:30pm - 8:30pm | Free Admission



**December 18, 2018**

"A Local Christmas Tour" —  
Primitive Hall, Brandywine River Museum  
9:00am - 3:30pm | \$75, Members \$70



**December 13, 2018**

Lecture: 206" Rolling Mill — 100 Years  
6:00pm - 8:00pm | \$5, Members Free



**January 10, 2019**

Rebecca Lukens Birthday Celebration  
6:00pm - 8:00pm | \$5, Members Free



**February 7, 2019**

Black History Month Lecture  
6:00pm - 8:00pm | \$5, Members Free



## MUSEUM DISPLAYS – ON THE MOVE

Change has recently come to the National Iron & Steel Heritage Museum. As you may know, NISHM is located in Coatesville's Lukens Executive Office Building, which was built in 1902/1916 and was home to the upper executives and administration of Lukens Steel Company. Today the building is home to various small businesses and local organizations, including the museum.

NISHM moved its indoor exhibits from a smaller, cramped location, to a more

spacious area, within the office building. The new space provides a better opportunity to tell the story of the people, process, and products of the American steel industry.

The move also brings our museum store to a more accessible location. Please be sure to stop by for a visit... and take a look at the last page of this issue of Boilerplate to get a glimpse of items in our store, perfect for holiday shopping!

## 2018 SPONSORS



Peter & Ruth Nunn



## SYDNEY TUSHER

Sydney, a NISHM intern, is a senior Anthropology student at Temple University in Philadelphia graduating this December. She will be graduating a year and a half early with honors, and is aiming to attend graduate school at Johns Hopkins in the Fall for Museum Studies. Originally from Ohio, she has lived in Coatesville with her family for the past 13 years. She is a member of several organizations for her field, including American Antiquity, the Society for American Archaeology, and the Temple University Anthropology Undergraduate Association.

Her current interests lay in Viking Archaeology, which is the focus of her senior thesis, and upcoming graduate work. She also enjoys traveling, mainly to Europe for the historical sites, where she participated in several excavations.



## LISA DOAN-HARLEY

Please join us in welcoming Dr. Lisa Doan-Harley to the National Iron & Steel Heritage Museum's Board of Directors. Lisa is a life long citizen of Coatesville (East Fallowfield Township) and graduated from Coatesville Area Senior High School.

Dr. Doan-Harley began teaching at South Brandywine Middle School. This year she moved to the high school, where she teaches a historic preservation curriculum. Lisa's secondary education includes a Bachelors of Science degree from West Chester University, a Masters of Science from Wilkes University, and a Doctorate of Education Leadership/Supervision from Neumann University.

Lisa is a long-time volunteer at NISHM as a member of our Program Committee. Her educational experience will serve her well as she serves on the Board.

THANK YOU TO ALL OF OUR MEMBERS  
WHO JOINED OR RENEWED FROM  
JUNE 1, 2018 TO OCTOBER 31, 2018

### NEW MEMBERS

Paul Key

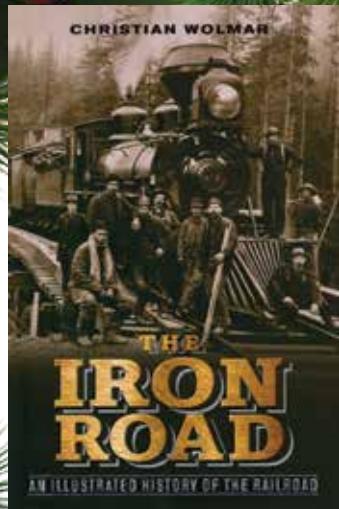
### RENEWING MEMBERS

(\* DONATES 5+ CONSECUTIVE YEARS, BOLD DENOTES 120" MILL CLUB MEMBER & ABOVE)

David Baker	Kermit Good	Ira Needham
Douglas Blount*	Alan Grubbs	Karen Neuhauser*
Martha Boyd	Gus Gustin	Christopher Parks
Lewis & Geraldine Branson*	Thomas Hanna	Irene Pashesnik*
<b>Chip &amp; Maureen Breuninger</b>	Donald & Joan Harrop	Carol Poinier*
Tony Buck*	Bettina Heffner*	Dana Purvis*
Jay Byerly*	Timothy Hennessey*	Michael Racz
<b>Gregory Cary</b>	<b>Lowman Henry</b>	James Sacco
Charles Collings	<b>Charles Huston</b>	William Schmidt
Jack Conner*	<b>Stockton &amp; Eleanor Illoway</b>	<b>Ted &amp; Martha Skiadas*</b>
Greg & Dorrie DePedro*	William Keen Jr.	Sam & Joan Slokom
Clyde Deck	Leon Kerr	Robert & Illaria Steele
Sherry Deets	Ross Kershley*	Ronald Stoudt*
<b>Eugene DiOrio*</b>	Peggy & Ken Kistler	Edith Sylvester*
Lisa Doan-Harley*	Clair & Charlene Leaman	Lewis Thayer
Joseph & Lindsay DuBarry*	Rodney & Mary Linderman	Donna Trace
<b>Patricia Edge*</b>	<b>Louis Mandich</b>	James Turtle
Patricia Fisher*	Marguerite Martin*	Greg Vietri*
Charlotte Fiske*	<b>Robert &amp; Jennifer McNeil</b>	Trudy Wendt*
<b>James &amp; Bonnie Friedman</b>	Arthur Moore*	Howard & Christine Wright*
James Fulton	Pat Morroney	William & Elva Wright*
Al & Tina Giannantonio*	David Moser	Shirley Yuzwiak
Gary Gill*	Barry Mowday	

WE ARE GREATLY APPRECIATIVE OF ALL OF OUR  
MEMBERS' SUPPORT!

WE COULDN'T DO IT WITHOUT YOU!

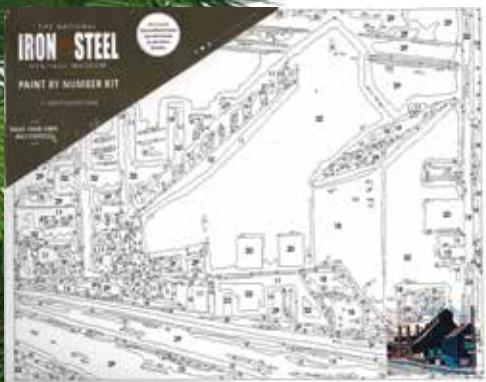
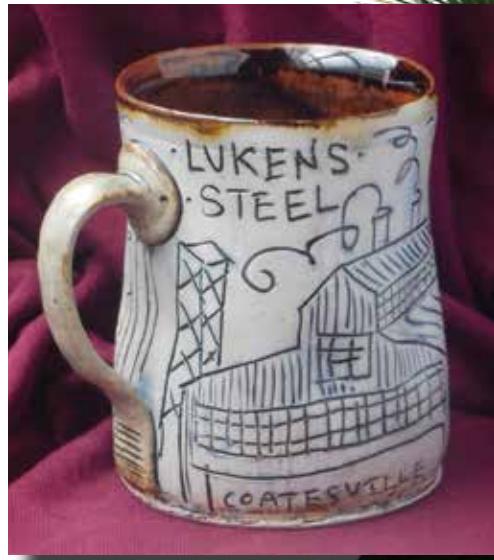


## THE IRON ROAD

A detailed history of the rise of railroads across the world. The history begins in 1830, when the first train ran between Liverpool and Manchester, England, and ends with the high speed trains that now span Asia and Europe. This book is a must-have for any steel industry or train enthusiast. \$29.95

## LUKENS STEEL MUGS BY MATTHEW WREN

Limited Edition clay mugs featuring hand-crafted images of Lukens Steel Company, in Coatesville. Each is unique in shape, color, and lines, and was hand-made by local artist Matthew Wren at the Chester Springs Studio. These mugs were thrown on the wheel, brushed with a white slip, lines were drawn using a wooden tool, inlaid with a glaze, and fired in a kiln. \$25.00



## GRUTZKA PAINT BY NUMBERS KIT

A perfectly-sized custom paint by number kit that includes everything you need for hours of fun.

- Genuine artist canvas
- Frameless
- Acrylic paint set
- (2) Artist detail brushes
- Instructions and tips

THE NATIONAL  
**IRON & STEEL**  
HERITAGE MUSEUM



Fall was beautiful in the museum grounds. Trees of red and mums of yellow could be found throughout the historic district.  
Photos by: LeAnne Zolovich, October 31, 2018.