



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

Volume 50

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Number 2

POURING IRON IN BETHLEHEM AGAIN *THE LAST CAST, 25 YEARS LATER*

The National Museum of Industrial History (NMIH, a partner for the upcoming 2021 SIA Conference), located on the site of the former Bethlehem Steel plant, honored the 25th anniversary of the “Last Cast” in Bethlehem by firing up a mini-cupola on site and pouring iron again on Nov. 14, 2020. Bethlehem Steel Corp. had five foundries in its original plant in Bethlehem, Pa., and was the largest foundry group in the area, making iron castings up to 220 tons. The iron foundry operated a total of 3 cupolas in its time: two 84-in. and one 60-in., the last removed in 1972 with the installation of a 6-ton induction melting furnace. The other foundries were the brass, ingot mold, roll, and steel foundries. The plant also had a total of seven blast furnaces at one point in their operation and

employed over 30,000 people. The main products were structural steel and steel forgings.

Ironmaking began in Bethlehem in the latter half of the 19th c., and after several changes at the plant along the Lehigh River, Bethlehem Steel was incorporated in 1904. The last operating blast furnace at the Bethlehem plant went cold on Nov. 18, 1995, when the company shuttered the “hot end” of the plant. They transitioned to bringing in steel made at other locations to be rolled into beams, rather than continuing the integrated process used in Bethlehem for over 100 years. The integrated process—making steel from scratch—involved coke ovens to make coke from coal, to then be used as fuel for the blast furnaces to refine iron ore from their mines into molten iron, to be used at the Bessemer,

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Trevor Shelhammer all photos

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- IA in Art: Akron's Rubber Industry
- Bowstring Arch-Truss Bridge Relocated
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- Remembering Ed Grusheski

Tapping the cupola: we ran a test melt a few weeks before the event and everything worked well on the cupola's inaugural campaign. For the Nov. 14 anniversary, there were 3 taps, and when the bottom was dropped it was no less spectacular than a normal cupola bottom drop for those there who had never seen one, albeit on a small scale.

BETHLEHEM *(continued from page 1)*

then open hearth, then, BOF (basic oxygen) furnaces to make steel, to be poured into ingots, to be used to finally make beams at the rolling mills. While most of this process at Bethlehem passed into history, many structures, including blast furnaces, remained on site.

The NMIH, a Smithsonian Affiliate, is located in a former electrical repair shop of the Bethlehem Steel works. It holds a significant collection of industrial machinery on loan from the Smithsonian's National Museum of American History, as well as documents, machinery, photographs, and other archival material from Bethlehem Steel. The 25th anniversary commemoration of Bethlehem's "Last Cast" was one of many educational programs offered at the museum.

While it was not 3,000 tons like the former blast furnace could make in a day, the small but still significant amount of iron melted was cast into 6-in. medallions to commemorate the occasion. Modifications were made to the original pattern used for commemorative castings of the Last Cast made 25 years ago. In 1995, the plant's pattern shop, coincidentally located across the street from the museum's location today,

The *SIA Newsletter* is published quarterly by the Society for Industrial Archeology. It is sent to SIA members, who also receive the Society's journal, *IA*, published biannually. The SIA through its publications, conferences, tours, and projects encourages the study, interpretation, and preservation of historically significant industrial sites, structures, artifacts, and technology. By providing a forum for the discussion and exchange of information, the Society advances an awareness and appreciation of the value of preserving our industrial heritage. Annual membership: individual \$50; household (joint) \$55; full-time student \$20; institutional \$75; contributing \$100; sustaining \$150; corporate \$500. For members outside of North America, add \$10 surface-mailing fee. Send check or money order payable in U.S. funds to the Society for Industrial Archeology to SIA-HQ, Dept. of Social Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295; (906) 487-1889; email: sia@siahq.org; website: www.sia-web.org.

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The *SIA Newsletter* welcomes material and correspondence from members, especially in the form of copy already digested and written! The usefulness and timeliness of the newsletter depends on you, the reader, as an important source of information and opinion.

TO CONTACT THE EDITOR: Marni Blake Walter, Editor, *SIA Newsletter*, 11 Esty Rd., Westmoreland, NH 03467; sianeditor@siahq.org.

made the master pattern depicting the outline of the blast furnace, and the iron and brass foundries, also located next to the museum, made the molds and poured the castings from blast furnace iron. These original medallions were given to workers in the plant, most of whom would be losing their jobs after the "hot end" shut down.

A change to the new medallions was to add "25th Anniversary" to the wording around the furnace image. Using a small cupola built by a local craftsman, a group of volunteers made several casts and poured memorial medallions. There were many other anniversary events scheduled in addition to the cupola run. The museum was open to visitors, tours were offered of the blast furnace's Hoover-Mason Trestle (which had been closed due to Covid-19 restrictions), and speakers reminisced about the company and the Last Cast. The museum served "overtime lunches" to former steelworkers,



Charging coke: the latest technology for charging coke into a cupola using a Rubbermaid charging bucket.

2021 SIA Slate of Candidates

The SIA Nominations Committee is pleased to present the following slate of candidates for the 2021 SIA elections:

Directors (3-year term)

You will vote for two

Scott See
Erik Nordberg
Christopher Fennell

Nominations Committee Member (3-year term)

You will vote for one

Rebecca Burrow
Mary Alfson Tinsman

TICCIH (3-year term)

You will vote for one

Paul White

SIA bylaws state that the Nominations Committee shall notify the membership of the proposed slate at least 70 days in advance of the Annual Business Meeting. This slate is also sent to members via email (or mail for those without an email address). Additional nominations may be made in writing over the signatures of no fewer than 12 members in good standing (dues paid for the 2021 calendar year) and delivered to the Nominations Committee chair at the address below no later than July 14, 2021. Candidates must have given their consent to be nominated and must also be members in good standing. Ballots will be mailed in late July. Members must have paid their dues for the 2021 calendar year in order to vote.

The 2021 Nominations Committee is Ian Hay, Diana Bouchard, Marc Belanger, and Christopher Marston, SIA Past President (ex officio). Please direct all nominations and other correspondence to: SIA Nominations Committee, c/o Ian Hay, Chair, 17 Churchill Dr., Shad Bay, NS B3T 2B7, Canada; 617-519-1150 (mobile); ianahay@gmail.com. ■

consisting of items that came in the bagged lunches the company furnished when employees worked double shifts. Nothing like a couple sandwiches, a hard boiled egg, chips, and a soda when you're hungry while melting iron!

The event was a huge success. Volunteers made sand molds during the day, and no-bake molds were made ahead of time, to pour off a number of medallions. Thanks go to the following for their generous support: Tom Behler and Behler Patterns of Deer Lake, Pa., for taking the 1995 vintage Bethlehem Steel master pattern and modifying it for the anniversary; Greg Witmyer and Kore Mart, Hamburg, Pa., for furnishing a fiber pouring ladle, for old-school pouring; Pete Pendergast and Hamburg Mfg., Hamburg, Pa., for mounting the pattern

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Mold lineup. No-bake molds made by Hamburg Mfg. Inc. were poured along with several made by volunteers on site. To save sand, copes were made in Petrobond silica sand and drags in olivine green sand. Original green hard hat worn by the author for the Last Cast, Nov. 1995.



A view of the casting event, held among buildings of the former Bethlehem Steel.



These cast iron medallions came out like most castings, perfect! On the left is an original made from the Last Cast of C Blast Furnace in Nov. 1995, and on the right is one of the commemorative 25th Anniversary Last Cast medallions made in Nov. 2020.

Longest Bowstring Arch-Truss in U.S. To Be Relocated, Preserved

Minnesota's historic Kern Bridge, which traversed the Le Sueur River in Blue Earth County from 1873 to 2020, will be relocated to the city of Mankato and rehabilitated as part of a pedestrian trail.

The wrought-iron, bowstring arch-truss had been a local landmark since it was erected in 1873. It is one of the oldest bridges of any type in Minnesota and is the only bowstring arch-truss bridge remaining in the state. At 189 ft. in length, it's also the longest span of this type in the U.S. Wrought-iron bridges from this era also are rare, as bridge builders after 1890 increasingly used steel.

The Ohio-based Wrought Iron Bridge Co. built the bridge, which was named for John Kern, whose farm was nearby. Using a prevalent fabrication and erection detail of its time, it was built with pins holding the pieces together, rather than rivets, expressly to make it easier to preassemble in a factory

and ship the pieces to the bridge site for erection. This also makes it easier to disassemble and relocate the bridge since it is designed like a kit of parts.

The bridge closed to vehicular traffic in 1991. Last year, two cranes hoisted the bridge from its perch above the river. The bridge was then disassembled and now sits in four storage containers, waiting for its new home. The Minnesota Department of Transportation (MnDOT) took proposals from cities and counties for repurposing the bridge, and a steering committee selected the city of Mankato as the new owner of the historic bridge.

Mankato's winning plan is to place the Kern Bridge less than five miles downstream from the original site over the Blue Earth River, connecting Land of Memories Park to Sibley Park, fulfilling a strong need identified in the Minnesota River State Trail Master Plan as well as other local and re-



Kern Bridge in its original location, prior to dismantling.



Dismantling the bridge.



Kern Bridge after removal.



Kern Bridge awaits disassembly on the bank of the river.



Details of the bridge prior to removal from its original location over the Le Sueur River.

gional trail plans, according to the MnDOT.

The criteria used to evaluate four competing proposals for this bridge included consideration that the proposed rehabilitation would meet the Secretary of the Interior's Standards for the Treatment of Historic Properties and be re-listed on the National Register of Historic Places; how the proposed location/setting was similar to its original setting; connection with existing trail systems; how much the bridge would be used and viewed; perceived risks in deliverability; and commitment to future maintenance. The applicant's project team, support, and planned funding sources were also important factors in the selection process. The Mankato project team includes an engineering firm and historian consulting firm with demonstrated historic bridge rehabilitation experience, according to MnDOT.

Although Mankato is urban, the future setting is wooded, crosses a large river, and is a similar context to the original site. The Kern Bridge will become an asset to the existing trail system and many users are anticipated. The bridge will be seen from the north via a scenic overlook and from the south via U.S. Highway 169. Though the proposal included use of extensive approach spans to meet the river's width, MnDOT says the choice of a streamlined and minimal-in-appearance girder will allow the arch to be visually prominent, an important consideration in re-listing the bridge.

Additional information about the bridge is on the MnDOT website for historic bridges (featured in *SIAN* Vol. 49, No. 4, Fall 2020) at <https://www.dot.state.mn.us/historicbridges/L5669.html> and <https://www.dot.state.mn.us/historicbridges/available-bridges.html>.

Minnesota DOT and Star Tribune, Jan. 30, 2021

FALL TOUR TO MAINE POSTPONED

With regrets, I must announce the postponement of our planned Fall Tour to Maine. Matt Mueller had done a fantastic job of organizing this for 2020, and, ironically, was ready well ahead of schedule. Then the pandemic forced its original postponement. While conditions on the ground might make a tour possible, the pandemic disrupted the lives of his local organizing team to the extent that a Fall 2021 tour is not practical. We now expect to visit Maine in the fall of 2022. We are also restarting the planning process for our Spring Conference in Portland, Ore. in 2022 and will update you as work continues.

Saul Tannenbaum, President

On Hybrid Conferencing *From the SIA Executive Secretary*

It goes without saying that the current pandemic has greatly altered our world, and conferences are no exception. They have been cancelled, postponed, modified, and hybridized. On the positive side, delivering content through virtual conferencing has the potential to alleviate cancellations due to in-person assembly limitations, as well as participants' hesitation to travel and congregate. As the success of our IA Online monthly seminar series has shown—with anywhere from 70 to 100 attendees on any given program—there is both an appetite and a willingness to “virtual conference.” The likelihood of it continuing is a long-term positive outcome of this situation.

We are aware that there is a huge desire to return to in-person conferences, and especially tours, which are such a crucial element of SIA. The question arises, however, of whether and/or how the paper sessions (Wed. this year due to our shift to Aug.) could be provided virtually for those who are unable or choose not to travel to Bethlehem. As we have seen with IA Online, streaming out a session of paper presentations is relatively easy. However, IA Online is a single stream run from SIA headquarters using the Michigan Tech Zoom account. A conference venue in a hotel assumes an in-person presence where all, or at least some of the speakers, deliver their presentation to a live audience; others might be pre-recorded and need to be played to the audience. The virtual element for conference paper sessions, however, is a different matter, requiring more A/V equipment, personnel, and simultaneous Zoom licenses to operate the multiple, simultaneous sessions as we would normally have in our paper sessions (we are planning four parallel sessions as usual). To be

clear: putting on a hybrid conference is considerably more expensive than an in-person conference, adding tens of thousands of dollars to the total cost.

It is also worth noting that the use of hotel facilities are “paid for” by attendees' lodging nights at the hotel—that is, if too few conference attendees attend in person or too few stay at the conference hotel, there will be a \$3,000 surcharge to the SIA for using hotel facilities such as the meeting and breakout rooms. And for what it is worth, we would face an \$11,000 penalty for breaking the hotel contract entirely in the event of a cancellation of the in-person conference. All of this is a reminder of the importance (beyond convenience) for staying at the conference hotel, but in the case of a hybrid conference, and/or if in-person attendance is low, the SIA would be hit with both the costs for hosting the hybrid component and for use of meeting spaces.

So, what do we do? The SIA conference committee is considering various scenarios and will announce our plans, fee structure, and capabilities in the coming weeks. We would remind you that adding a hybrid component to our conference is not simply an add-on, like moving from a 25-person to a 52-person bus or adding muffins and bagels to the refreshment table between sessions. We are committed to providing the best, safest conference experience that we can under these conditions, and we are all learning new lessons that will benefit us now and at future gatherings.

*Steven Walton, SIA Executive Secretary,
and the conference planning committee*

Important Updates from SIA HQ

Watch Your Email Inbox for Information about 2021 SIA Conference Registration and Board Elections

As with so many other aspects of event planning and preparation, the Covid-19 pandemic has compelled the SIA to take a different approach to advertising registration for the SIA's 49th Annual Conference, scheduled to take place Aug. 24–27, 2021 in Pennsylvania's Lehigh Valley and also online.

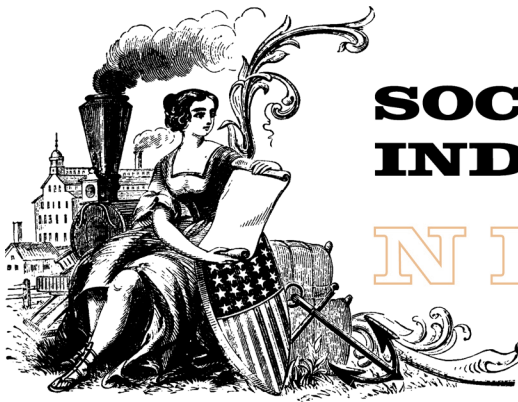
In addition, voting for the 2021 SIA Board of Directors election will follow the same procedure as last year, with online voting as the primary means of casting ballots.

This year the SIA will not mail printed brochures describing the conference and associated activities except to the small number of SIA members who have no email address on file. The vast majority of SIA members will receive information about the conference, including notification of the opening of registration, exclusively via email, and this information will be reproduced on the SIA website.

Members who do not have an email address on file will receive a printed mailer with basic information about the conference and a mail-in registration form. If you do not have an email address on file, we encourage you to contact SIA headquarters (sia@siahq.org or 906-487-1889) to get your email address added to our member database to make sure you receive the most complete and timely information about the conference.

While the truncated planning timeframe and continued uncertainty brought on by the pandemic have prompted this change in standard SIA practice, this change in procedures does make our approach more closely in tune with members' recent patterns of conference registration. For the past several years, the overwhelming majority of registrations for SIA conferences and fall tours have been completed using

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SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

PUBLICATIONS OF INTEREST

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COMPILED BY

Mary Habstritt, New York, N.Y., Patrick Harshbarger, Wilmington, Del., and Marni Blake Walter, SIAN editor, Westmoreland, N.H.

GENERAL INTEREST

- ◆ S. Victor Fleischer. **The Goodyear Tire & Rubber Company: A Photographic History, 1898–1951.** Univ. of Akron Pr., 2020. 286 pp., \$49.95 hardcover, \$49.99 ePub. Chronicles the history of Goodyear (founded in Akron in 1898), highlighting the products that helped make Goodyear a household name and Akron the “Rubber Capital of the World” (see article in this issue on Akron’s new commemorative rubber worker statue). Illustrates tires in the first Indy 500s; blimps that advertised Goodyear; figure balloons in the Macy’s parades; conveyors used to build the Shasta and Grand Coulee dams; and balloons and airplane components that were critical assets in both world wars.
- ◆ Jack Howell [SIA]. **Faded Texas Industries: A Photo Essay, 2nd ed.** Amazon Kindle self-pub., 2018. \$14.50 ebook. Texas has seen the rise, fall, and eventual loss of many industries including the production of lime and charcoal, steam passenger railroads, cotton and peanut industries, breweries, and many others. Photographs of some remaining artifacts are used to illustrate their former place in the Texas economy. This book examines the reasons why these have failed or faded, and the lessons that can be learned from them. And, **The Technical Traveler: World Travels for the Technically Inclined.** Createspace/ Amazon Kindle self-pub., 2018. 182 pp., \$12.99 ebook, \$34 paperback. A travel companion for people interested in science and technology, this book provides historical information, photos, and contact information of sites across the world. This guide is an idiosyncratic (not exhaustive) listing of places of historical technical and scientific interest, especially those which reflect the author’s personal bias (lots of steam!).
- ◆ Lindsay Schakenbach Regele. **Manufacturing Advantage: War, the State, and the Origins of American Industry, 1776–1848.** Johns Hopkins Univ. Pr., 2019. 280 pp., \$58.95 hardcover. Shows how the U.S. government promoted the development of the textile and weapons industries to defend the country from hostile armies and imports. Moving from the late 1700s through the Mexican-American War, the author argues that both industries developed as a result of “national security capitalism.”
- ◆ Thomas Rinaldi. **Patented: An Unprecedented History and Field Guide to More Than a Century of Fascinating Product and Industrial Design Told through 1,000 Design Patents.** Phaidon Pr., 2021. 1,056 p., illus. \$39.95. A curated list of 1,000 items, both familiar and obscure, that sheds new light on the objects that make up our daily lives. Rev.: *Untapped New York* (<https://untappedcities.com>), May 12, 2021.
- ◆ **TICCIH Bulletin 92** (2nd Quarter, 2021) includes Edoardo Currà and Jacopo Ibello, *Lingotto: Test Track or Roof Garden*; Florian Fichtner, *How to Assess a Place Which Is Unique—Sayner Hütte Ironworks*; Z.P. Liollo, *The Railroad Grip Bag and its Roving Legacy*; Ana J. Mejía Robledo, *Pre-Fabricated Coffee Plantation Houses*; Dora Chatzi Rodopoulou, *The Stakeholders of Industrial Heritage Reuse*; Felicia Söderqvist, *Perspectives and Memory Making in Hydropower Communities*; Edoardo Currà and Antonio Monte, *Concrete Grain Silos at Risk from ‘Façadism’*; Toni Häfliger, *Swiss Railway Conference*; Miles Oglethorpe, *Barwon River Aqueduct*; Jéssica Aparecida de Paula and Vinicius Martins de Oliveira, *Restitution of Historic Mortar and Color Coatings*; Ana B. Berrocal Menárguez and Clara Zamorano Martín, *‘RailToLand’ Cultural Landscapes of Railways*; and calendar and organizational news, including a note that the TICCIH 2021 Montréal conference is now TICCIH 2022.

TEXTILES

- ◆ Tim Murphy. **Dyed in the Wool.** *Brown Alumni Magazine* (Jan. 9, 2019). www.brownalumnimagazine.com. How an alumna who’d been in and out of the

textile industry for decades and represents the fourth generation of her family in the industry, was brought in to re-open the American Woolen Co. mill in Stafford Springs, Ct. after Loro Piana closed it to consolidate manufacturing in Europe.

- ◆ Suzanne Spellén. **The Hudson River's Fortress of Shoddy in Troy.** *New York Almanack* (Nov. 16, 2020). www.newyorkalmanack.com. A brief history of the United Waste Mfg. Co. in Troy, founded in 1899, and overview of the shoddy industry. This company was one of 88 shoddy mills across the country by 1909; the industry employed over 2,000 people. The fortress-like building was placed on the National Register of Historic Places in 2013.

IRON & STEEL

- ◆ Ron Donoughe. **Brownsville to Braddock: Paintings and Observations of the Monongahela River Valley.** Univ. of Pittsburgh Pr., 2021. 136 pp., \$35 hardcover. With Pittsburgh's rich industrial history in mind, Donoughe explored and painted the towns of Brownsville, California, Donora, Charleroi, Monessen, Monongahela, Clairton, Duquesne, McKeesport, Braddock, and the Monongahela River itself over a 12-month period. Mills, factories, parks, and homes are featured in the post-industrial landscapes of this 40-mi. stretch where iron, steel, brass, tin, and glass production formerly flourished.

For an interview with the artist, see: **Ron Donoughe's Art Highlights the Mon Valley in His New Book,** *Pittsburgh Post-Gazette* (Mar. 12, 2021), www.post-gazette.com/ae/art-architecture.

MINES & MINING

- ◆ Jim Bacon. **Exploring the Booher Branch & Mines, Part II: The Death March.** *TT* Vol. 32, No. 4 (Winter 2020), pp. 4–9. Continued explorations of the Booher Branch area (near Rockhill Furnace, Pa.), hiking the “mystery tram” and continuing to the top of Blacklog Mountain, viewing mine areas and other industrial features along the way.
- ◆ Jeff E. Newman and Josh Box. **Underground Birmingham: Images from Birmingham's Iron Ore Mines.** Arcadia Pub., 2020. 96 pp., \$23.99 paperback. Underground photographic tour of the Birmingham (Ala.) Red Mountain iron ore mining district, which included more than 60 mines, from open-cut and drift mines to slope and shaft mines. It was from these mine excavations that the red hematite iron ore was obtained, which drove 100 years of iron production in the “Magic City” of the South.

LUMBER & PAPER

- ◆ John G. Franzen. **The Archaeology of the Logging Industry.** Univ. Pr. of Fla., 2020. 258 pp., \$85

hardcover. Surveys archaeological studies of logging sites across the U.S. from the 19th and 20th c., demonstrating how material evidence found at these locations illustrates key aspects of the American experience during this era.

WATER TRANSPORT

- ◆ Michael Bernstein [SIA]. **Staten Island's Illusory Shipyard.** *Nautical Research Journal*, v. 66, no. 1 (Spring 2021), pp. 8–18. Traces a Tottenville shipyard that likely never was, beginning with an iffy stock offering, examining maps and directories of ship builders, and ending with the colorful criminal career of the broker who issued the stock.
- ◆ Margaret Flanagan. **Women of the Waterfront: Mary Habstritt.** *Waterwire* (Mar. 25, 2021). waterfrontalliance.org. An interview with Mary Habstritt [SIA] about her work as Museum Director and President of the Lilac Preservation Project. The *Lilac* is the oldest and most intact lighthouse tender of only three that survive in the U.S., and the only one with her original steam plant, which the organization is restoring. As a ship museum, *Lilac* is a unique place to learn about the system of aids to navigation and about steam propulsion.
- ◆ John Warren. **Train Ferries: The Hudson River's Most Unusual Steamers.** *New York Almanack* (Apr. 7, 2021). www.newyorkalmanack.com. Vessels that carried rail cars across the Hudson River are mostly gone. This outlines their history, noting some of the remnants. Links to online photo albums and other resources.

RAILROADS

- ◆ Michael Hiltzik. **Iron Empires: Robber Barons, Railroads, and the Making of Modern America.** HMH Books, 2020. 448 pp., \$30 hardcover. Spanning four decades, tells the story of the battle between America's railroad titans that sparked stock market frenzies, provoked strikes, and transformed the nation's geography, culminating in a two-man battle that shook the nation's financial markets to their foundations and drove the country into the 20th c.

AUTOMOBILES & HIGHWAYS

- ◆ Hilda Parks. **The Mayer Special.** Blue Earth County [Mankato, Minn.] Historical Society (blueearthcountyhistory.com), May 12, 2021. The first V-8 engine in the U.S. was built by Charles Eckman in Mankato, Minn. He also designed the first internal combustion handcar for the Omaha Road RR.

AGRICULTURE & FOOD PROCESSING

- ◆ Jack Howell [SIA]. **The Lost Cotton Gins of Central Texas.** Amazon Kindle self-pub., 2018. 150 pp., \$22.50 ebook, \$29 paperback. Full-color photographic review of more than 40 abandoned cotton gins in

Central Texas examines the area's history of cotton production and its rise and fall as an economic driver in the region. Includes short histories of controversies, attempted monopolies, and technical advances in cotton production, with discussions of how these have continued into the present.

BUILDINGS & STRUCTURES

- ◆ Tony Dunnell. **Thomas Edison's Concrete Houses, Montclair, New Jersey.** *Atlas Obscura* (n.d.). www.atlasobscura.com. Among his many other inventions, Edison also founded the Portland Cement Co. in 1899 and patented his idea for building homes out of cast-in-place concrete in 1917. Although a forerunner to today's 3D-printed housing innovations, the idea did not become very popular. Nevertheless a few of Edison's concrete homes remain standing in Gary, Ind., and in N.J., including several blocks in Phillipsburg that were built for workers at Ingersoll-Rand.

BRIDGES

- ◆ Nick Nemec. **Preserving Historic Arches While Replacing the Superstructure.** *Aspire: The Concrete Bridge Magazine* (Spring 2021), pp. 26–28. The San Antonio Street Bridge over the Comal River in New Braunfels, Tex., a five-span, open-spandrel, concrete-arch bridge of 1923, was rehabilitated in 2019–20. Investigations determined that the concrete of the arches had higher strength than specified in the original plans, allowing them to be repaired; however, the entire deck system above was too weak and narrow for present-day needs and replaced with precast, prestressed-concrete box beams with a wider deck. The new deck was keyed into precast-concrete frames added to the arch bases.

WATER CONTROL & RECLAMATION

- ◆ Kevin Duggan. **City Must Build Gowanus Stormwater Holding Tanks by 2029: EPA.** *Brooklyn Paper* (Mar. 31, 2021). <https://www.brooklynpaper.com>. The latest phase in the Gowanus Canal (SIA conference tour site 2002) Superfund clean-up includes requiring NYC to build holding tanks to prevent combined sewer overflows. Also included in requirements is preservation of part of the historic NYC water department's Gowanus Station on Butler St.
- ◆ Mike Prescott. **Hudson River Dam History: The Big Hadley and Glen Dams.** *New York Almanack* (Nov. 16, 2020). www.newyorkalmanack.com. A history of dam proposals on the Hudson from the mid 1800s through mid 1900s, ending with the New York State Legislature's passage of the Smith-Lane Act in 1969. Also includes info about paddling the river from the Warren County canoe access (Thurman Station / Warrensburg) to Hadley.

POWER GENERATION

- ◆ **Windmillers' Gazette.** Vol. 40, No. 1 (Winter 2021) includes T. Lindsay Baker, *Alternative Structures to Support Windmills* and Garnet O. Brooks: *A Pioneer Windmill Collector*; A. Clyde Eide, *Humorous Windmill Vignettes*; and other news and notes. Avail: \$20/yr., published quarterly. Christopher Gillis, Editor, P.O. Box 788, Buckeystown, MD, 21717; www.windmillersgazette.org.

OIL & NATURAL GAS

- ◆ Rebecca Ponton. **Breaking the Gas Ceiling: Women in the Offshore Oil and Gas Industry.** Modern History Pr., 2019. 271 pp., illus. \$25.95. The untold story of the women who have been among the first to inhabit the "old boys' club" of the international offshore petroleum industry.

MISC. INDUSTRIES

- ◆ Stephen Blank. **New York's Whaling Industry: Some History.** *New York Almanack* (Apr. 10, 2021). <https://www.newyorkalmanack.com>. Why did whaling ports develop in New York? Why did they disappear?
- ◆ Ron Pearson, Ric Case, and Hank Inman. **Stanton Ganister Rock Tipple.** *TT* Vol. 32, No. 4 (Winter 2020), pp. 15–26. History of several silica brick companies around Mount Union, Pa. Ganister is a high-silica, thermally-stable rock that is ideal for manufacturing brick for high-temperature environments, such as open-hearth furnaces and coke ovens. Includes maps, drawings, and photos of historic and current conditions.

ABBREVIATIONS

- NYT = New York Times
- TICCIH = The International Committee for the Conservation of the Industrial Heritage, ticcih.org.
- TT = Timber Transfer. Published by Friends of the East Broad Top. Avail. with membership. \$30/yr. www.febt.org.
- WSJ = Wall Street Journal

Publications of Interest are compiled from books, articles, and digital media brought to our attention by you, the reader. SIA members are encouraged to send citations of new and recent books, articles, CDs, DVDs, etc., especially those in their own areas of interest and those obscure titles that may not be known to other SIA members. *Publications of Interest*, c/o Marni Blake Walter, Editor, SIA Newsletter, 11 Esty Rd., Westmoreland, NH 03467; sianeditor@siahq.org. ■

and making several no-bake molds for the pour; John Mentzer and Lancaster Foundry Supply, Lancaster, Pa., for furnishing Petrobond sand for volunteers to make extra molds; museum workers and volunteers, including Mike Pierza and Andria Zaia (NMIH), and Bill McCarthy (Mr. Cupola), and their helpers, making molds, breaking up radiator scrap, charging the furnace, and more. The author, a metallurgist who worked the Last Cast 25 years ago at C Blast Furnace, was also involved in the 2020 anniversary, assisting with pattern and mold production, and as a speaker at the event.

The Last Cast 25th Anniversary was so successful for the NMIH that they are thinking of having an annual casting event. The outdoor area where this event took place is now known as Foundry Park, and the museum plans to develop it further as an exhibit area for various types of melting furnaces, ladles, and other industrial equipment. See nmih.org for more information.

Trevor Shellhammer



Pouring molds.

SITES & STRUCTURES

Historic Steel Truss Bridge Survey. Scenic Hudson received a 2020 NYSCA-funded Preserve New York grant to fund a cultural resource survey of 12 historic steel truss bridges that were built to provide access to the Hudson River over the Hudson River line railroad tracks. The survey (Historic Steel Truss Bridges Cultural Resource Survey [2021]) examined 12 bridges between Hyde Park and Clermont. Of those, nine are located within and contribute to the Hudson River National Historic Landmark District. Constructed between 1911 and 1928, the bridges created connections to the Hudson River at estates with important historic and cultural significance. To have such a collection of 100-year-old steel truss bridges is extremely rare, and represents a vanishing element of the golden era of railroading. As a result of the Survey, the remaining three bridges—at Crum Elbow, Coal Dock Lane, and the former Dominican Camp—have been deemed as eligible for listing on the National Register of Historic Places. Now all 12 bridges are protected under the National Historic Preservation Act of 1966. Info: hudson-riveraccess.org.—Preservation League of NYS, Mar. 22, 2021

The Burn—local news for Ashburn, Va. (www.theburn.com)—announced the planned restoration of the **John G. Lewis Memorial bridge**, an 1889 Pratt truss bridge built by Variety Iron Co. Originally carrying Va. Route 7, Leesburg Turnpike, across Goose Creek, the one-lane bridge was moved to its current location in 1932. The bridge was listed in the National Register of Historic Places in 1974. According to the Loudoun County Preservation and Conservation Coalition, the bridge is “a rare surviving example of a wrought iron truss bridge—one of only five still standing bridges built by the Variety Iron Co.” In 2015, it was renamed in honor of John Lewis, a major figure in Loudoun County historic preservation. Rehabilitation work, including a new pier and abutments and a new timber deck, is expected to start in early 2021. However, the historic truss structure will be preserved.—Joel Shprentz

The **Shuangliu cement plant** in Zhuantang Town, Xihu District in Hangzhou, has been renovated for reuse by Jiang Jie Design as a retail display center. In the 1970s, the plant was an important manufacturer of building materials in the area. The factory was closed down in 1999, but now the cement plant has been transformed into a cultural and creative artistic park. The clinker storage area of the Shuangliu cement plant, consisting of four huge cylinder structures arranged in one line, form the main body of the building and are transformed into a modern showcase featuring the original cement structure as the backdrop. See ArchDaily (Dec. 10, 2020) for a photo gallery and specs: www.archdaily.com/952854/evenbuyer-jiangjie-design.—Heinz Schwinge ■

IA in Art

Akron Rubber Worker (2020)

by Alan Cottrill

For nearly a century the “Rubber Capital of the World,” Akron, Ohio, was the center of an industry that included the B.F. Goodrich Co. (1869), the Goodyear Tire & Rubber Co. (1898), the Firestone Tire & Rubber Co. (1900), and General Tire (1915). The industry was closely aligned with the early years of airships (Zeppelins, dirigibles, and blimps), automobiles, and trucking. But the tire jobs disappeared by the 1980s, and only Goodyear continues to maintain its corporate headquarters in the city where it began. It is an all too familiar story of corporate mergers and Rust Belt decline.

More recently, there has been strong interest in reclaiming that history for future generations. Steve Love and David Giffels published *Wheels of Fortune* in 1999, which chronicled Akron’s rubber industry. In May 2021, the city has installed a larger-than-life sculpture by Ohio artist Alan Cottrill. Placed in a new roundabout downtown, it is part of the city’s Main Street Reconstruction Project.

The bronze statue of a rubber worker holding a finished tire honors the tire builders, who were well-paid, highly skilled operators. While the many processes involved in achieving a finished tire became thoroughly automated, in

the early years the labor performed by the tire builders was a craft involving considerable hand work. A single individual was responsible for producing a single tire in a large room packed with other men simultaneously doing exactly the same task with the same degree of precision.

The sculpture stands 12 ft. tall on a 5.5-ft.-tall, three-tiered granite base, which includes one piece in the shape of the city of Akron, and another in the shape of Summit County where it is located. While Akron was home to noted industrialists, the mayor explained that “instead of honoring a historical leader,” they wanted a work that would “pay tribute to the lives of Akron rubber workers and their families. Without the sacrifices of these workers, Akron would not be the city it is today. Such ordinary people are often forgotten. These men and women—who served as janitors, engineers, office staff, and laborers—became the bedrock of the Akron community, and helped our nation win two world wars. These workers built and sustained our city for generations, and their stories and legacies live on in us.” The artist agreed: “This statue represents all the men and women who worked in the rubber factories and who helped Akron grow and prosper.”

The commemoration includes the Akron Stories Project (akronstories.com), archived in the University of Akron’s Rubber Industry Archives. In 2017, singer and songwriter Scott Marshall wrote “When Rubber Was King” to honor the legacy of his grandfather and other workers (he had purchased a brick in support of the project):

It’s funny, but it’s the smell... that I remember most of all
From when I was a kid and we’d be drivin’ into town
That putrid acrid odor could peel the paint right off a wall
And with no ac in the cars back then we had the windows down.

I asked my daddy what it was... and he smiled and told me son
That’s the smell of money... and tires being made
When it comes makin’ things with rubber this town is number one
And those workers are finally bringin’ home a decent wage.

Some of the stories and archival footage will be available for public viewing on an interactive kiosk across the street from the sculpture, near the downtown library.

Also of interest to industrial archeologists are the artist’s two coal mining memorials. The first, installed in 2005 in Somerset County, Pa., honors the dramatic rescue of nine miners who were trapped underground in the Quecreek Mine for more than three days in 2002. The second, in Byesville, Ohio, was completed in 2012, and honors the more than 400 men who lost their lives in the region’s deep mines.



Mac Love

The Akron Rubber Worker statue, installed in May 2021.

Betsy Fahlman

Edward Francis Grusheski (1946–2020)



Ron Hovey

Ed Grusheski.

Ed Grusheski, president of the Oliver Evans Chapter of the SIA since 1996, passed away on Dec. 23, 2020 at the age of 74. Ed contributed to so many programs and institutions in Philadelphia yet he always had time for the Oliver Evans Chapter. He led the chapter with grace and spirit despite several major health setbacks in recent years. He was a gallant, brave gentleman. We will be diminished without benefit of his caring, generous heart.

Ed was born in Boston, the son of Marian Grusheski. Ed graduated from Boston Latin School, Georgetown University, and earned a master's degree in American Civilization at the University of Pennsylvania. He also was stationed in Asia while serving in the U.S. Army as a voice intercept operator.

Ed's most proud accomplishment was leading the development of the historic Fairmount Water Works into the region's premier urban environmental education destination, dedicated to fostering stewardship of our shared water resources. The Fairmount Water Works was a featured site at the SIA's annual conferences in 1990 and 2007; Ed was the conference chairperson for the 2007 conference. He continued his relationship with the Fairmount Water Works through the rest of his life when he became a consultant, educator, and speaker, giving voice to environmental issues. An article he wrote on his beloved Fairmount Water Works in 2004 and posted on Watershapes, a website on the water environment and its structures, can be found here: <https://watershapes.com/travelogues-history/historic-treatments.html>.

Ed exuded enormous optimism and enthusiasm throughout life as a constant learner, world traveler, and art collector. He was active in and a contributor to countless programs and institutions in Philadelphia including serving on the boards of the Global Water Alliance, the Fund for the Water Works, and as the president of the local chapter of the SIA.

He leaves behind many loved cousins and cherished friends. Ed was a joyful and generous gentleman who enjoyed a life well lived. Donations in his memory may be made to Old Saint Joseph's Church, 321 Willings Alley, Philadelphia, PA 19106; or the Fairmount Water Works Interpretive Center, 640 Waterworks Dr., Philadelphia, PA 19130.

Muriel Kirkpatrick, Oliver Evans Chapter News

CONTRIBUTORS TO THIS ISSUE

Nancy Banks, New York, N.Y.; Marc Belanger, Reno, Nev.; Michael Bernstein, Chalfont, Pa.; Diana Bouchard, Montreal, Que.; James Bouchard, Montreal, Que.; Alice Cable, Windsor, Vt.; Arlene Collins, Calumet, Mich.; Betsy Fahlman, Tempe, Az.; Bob Frame, St. Paul, Minn.; Mary Habstritt, New York, N.Y.; Patrick Harshbarger, Wilmington, Del.; Ian Hay, Shad Bay, N.S.; Neill Herring, Jesup, Ga.; Don Heron, Calgary, Alberta; Jack Howell, Austin, Texas; Muriel Kirkpatrick, Philadelphia, Pa.; Christopher Marston, Washington, D.C.; Bode Morin, Mountain Top, Pa.; David Peterson, Gainesville, Va.; Ron Petrie, Lakewood, Ohio; John Reap, Sun City West, Az.; Alyssa Rubenstrunk, St. Paul, Minn.; Heinz Schwinge, Evanston, Ill.; Daniel Schneider, Lake Linden, Mich.; Trevor Shellhammer, Lehigh, Pa.; Joel Shprentz, Reston, Va.; Saul Tannenbaum, Cambridge, Mass.; Dave Verzi, Lakewood, Ohio; Robert M. Vogel, Washington, D.C.; Steven Walton, Hancock, Mich.; Suzanne Wray, New York, N.Y.

With Thanks.

CHAPTER NEWS

On Sat. March 27, the **Northern Ohio Chapter** (NOCSIA) held its first meeting after a 12-month pandemic hiatus. The group toured an open-pit mine and related processing facility in the Cleveland suburb of Independence, Ohio. We respected health guidelines by holding the meeting outdoors with masks and distancing. The mine and processing facility were decommissioned in 2019, after about 100 years of producing haydite, a lightweight stone aggregate used to lighten concrete, among other applications. Haydite is produced by cooking crushed shale in a kiln, so that it “bloats” and becomes less dense—similar to the way popcorn expands when it is popped, and thus becomes lighter for a given volume. The tour of the mine and kiln was led by Ray Wiecek, who managed the operation for DiGeronimo Aggregates until it was decommissioned in 2019. In addition, a thorough explanation of rock strata was provided by NOCSIA member Joe Hannibal, Curator Emeritus of Invertebrate Paleontology at the Cleveland Museum of Natural History. The haydite mine area is currently closed to the public, but it is adjacent to the Cuyahoga Valley National Park, which is in the process of acquiring the property. NOCSIA members were most impressed by the gigantic rotary kiln which remains on the site. The kiln is a metal tube, 100 ft. long

and 15 ft. in diameter, which is suspended horizontally some 100 ft. in the air on four concrete piers. When it was in operation, the kiln ran constantly, rolling like a cement mixer on a slight tilt. Raw crushed shale was fed continually into the slightly higher end of the kiln, and rolled through the kiln for an hour before falling out the other end, transformed into haydite.

Ron Petrie



Operation of this open-pit haydite mine in suburban Cleveland was discontinued at the end of 2019. It is gradually filling with water, which currently stands about 90 ft. deep.



Members of the Northern Ohio chapter stand on the rim of the abandoned open-pit haydite mine in suburban Cleveland.

This rotary kiln is some 100 ft. long. Raw crushed shale was fed in one end, and due to the constant rotation of the kiln would roll through the kiln in about one hour, and then fall out the other end. Heated to well over 1000 degrees F, the shale would expand like popcorn to become haydite, an ultralight artificial gravel.

Dave Vergi all photos

IA EXHIBITS

Alloy Pittsburgh 2021, a visual and performing arts initiative developed for the Carrie Blast Furnaces National Historic Landmark and administered by Rivers of Steel, will be open to the public Aug. 28 through Sept. 25, 2021. Through a three-month artist residency with local organizations, the program seeks to examine the history, current condition, and possible future of the Carrie Blast Furnaces without permanently transforming the site's characteristics, and while offering regional artists a unique exhibition opportunity. Info: riversofsteel.com/experiences/exhibitions/.

Drive Through History: Artifacts of Industry from the Columbia County Historical Society is more of a DIY tour day than an exhibit, but of interest to anyone taking a N.Y. road trip. From Linlithgo in the south to Valatie in the north, this itinerary features 11 stops in western Columbia County, featuring remains of ore and iron, cement, textiles, planing, ice harvesting, and other industries. Includes brief site descriptions as well as directions and rest stop suggestions. Info: www.cchsny.org/drive-through-history.html.

UPDATES FROM SIA HQ (continued from page 6)

our online payment system rather than mail-in registration forms.

We expect to be able to open registration for the 49th Annual Conference by mid- to late June. Please watch your email for updates and notifications about the conference.

Also please note that in order to protect the health of all participants, registration for and attendance at the Conference will require proof that you are fully vaccinated. The SIA will adhere strictly to CDC definitions of full vaccination which are:

People are considered fully vaccinated:

- 2 weeks after their second dose in a 2-dose series, such as the Pfizer or Moderna vaccines, or
- 2 weeks after a single-dose vaccine, such as Johnson & Johnson's Janssen vaccine

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html#vaccinated>

If you don't meet these requirements, regardless of your age, you are NOT fully vaccinated. There will be no exceptions.

Members should also watch their email inboxes for information about the 2021 SIA Board of Directors election, including links to the online ballot. Here again, only those few SIA members who do not have an email address on file will receive a printed ballot in the mail. Voting for the 2021 election will begin in late July.

As always, please feel free to contact SIA headquarters with any questions you may have: sia@siahq.org; 906-487-1889. ■

Good news! The exhibit **Machines of Interest: The Selected Works of Stephen Mallon**, at the National Museum of Industrial History, is extended through Aug. 29, 2021. This means that SIA 2021 Conference attendees and guests will have an opportunity to view it during the conference currently scheduled for late Aug. The exhibit includes over two dozen original prints from the New York-based photographer. *Machines of Interest* highlights Mallon's most recent projects in a celebration of beauty and function intersecting with the natural world. The exhibit features photos from the artist's collection spanning life on the rails, deconstruction in the recycling yard, and unique perspectives of human-made machines. Info: www.nmih.org.

Made by Hand to Made by Machine is a major renovation for the 2021 season at the American Precision Museum (Windsor, Vt.), illustrating the transition from gunsmithing to machine tools. Displays of early machinery are integrated into the broad story of American industrial history, enabling visitors to learn more of the important role the manufacturing industry continues to play in shaping American culture and society. The new display will feature updated lighting and media, a new hand-tool display, and much more. As a way to show visitors how far machine tools have come, a new Advanced Manufacturing display is also under construction that will feature the industrial purposes of 3D printing, advanced sensors, and electrical discharge machining (EDM). Info: americanprecision.org.

Pandora by Design: Sweaters from the Millyard is an exhibit in the Henry M. Fuller State Theatre Gallery in the Millyard Museum, Manchester, N.H., through Aug. 31, 2021. In 1940 Pandora Industries relocated to Manchester from New York City, and for the next several decades became one of the city's major employers with as many as 1,000 people working for the company. Pandora was a major sweater and sportswear maker, producing as many as 60,000 sweaters per week, and was one of the last textile manufacturers to operate in Manchester's Millyard. The exhibit showcases a recently acquired collection of Pandora sweaters and designs as well as part of the iconic sign that stood atop the Pandora Mill building for approximately 50 years. Suzanne Wray [SIA] was the sweater designer for Pandora for many years, and her donation of sweaters and other material is part of this exhibit. Info: www.manchesterhistoric.org/millyard-museum.

The exhibit **Seeing Coal: Time, Material, Scale**, at the Library Company of Philadelphia through Aug. 28, 2021, examines Pennsylvania anthracite coal, and raises questions about the significance of its visible and invisible presence in our world. Through historic images, material specimens, poetry, and visual art, coal is presented as a material that can help us rethink our relationship with nature and time. A digital exhibition is also available. Info: librarycompany.org/seeing-coal.

(continued on page 15)

IA ON THE WEB

Capital Crossings (<https://www.washingtonpost.com/arts-entertainment/interactive/2021/washington-dc-bridges-new-and-old/>). A digital feature about both the great and terrible bridges in Washington, D.C., with historical and modern photos, construction details (including graphics that show inner structural engineering), and other facts about many of the city's bridges.

Cornish Engine Database (<https://industrial-archaeology.org/Verbruggen/>). Originally compiled by Ken Brown and Jan Verbruggen and now hosted by the Association for Industrial Archaeology. The authors aimed to bring together data on all non-rotative pumping engines working on the Cornish cycle, with data on all the sites where they worked. The database has entries for 1,656 engines, 102 engineers, 58 foundries, 2,308 sites, and 1,821 cross-reference records for engines working at sites.

Early Engine Database (<http://coalpitheath.org.uk/engines/>). Concentrates on early steam engines starting with a Savery engine in Staffordshire in 1706 and continuing, via Newcomen and Boulton and Watt engines, up to 1803. Compiled by John Kanefsky and now hosted by Knowledge Hub at the Cultural Heritage Institute (CHI).

East Texas Oil Museum Online Collection (<https://etom.pastperfectonline.com>). The museum in Kilgore announced the launch of its new digital photograph archives, which makes available to the public more than 1,100 images, with additional photos being added daily. Images uploaded so far include family photographs, pictures of downtown Kilgore and its oil derricks, and photos of businesses and residents.

Erie Railroad Depots (<http://freepages.rootsweb.com/~sponholz/genealogy/depots.html>). A collection compiled by Jim Hutzler of more than 1,000 prints of ca. 1909 glass plate negatives of Erie RR depots. Erie RR employee J.E. Bailey was assigned by

the company to photograph all four quadrants and sketch a floor plan of each depot. The photos show much detail of how local goods were shipped and received—there are barrels everywhere, and nary an internal combustion vehicle. This collection covers depots on the East end of the RR.

Hot Dip: Galvanizing Steel with Zinc (<https://graphics.wsj.com/glider/zinc-e4813d9c-2e3d-4f3d-aff8-cfa8892ce061>). A behind-the-scenes slideshow of the hot-dip galvanizing process, photographed at V&S Amboy Galvanizing in Perth Amboy, N.J. Mary Habstritt [SIA] notes that V&S Amboy is galvanizing parts for the *Lilac* lighthouse tender.

Pa. Geological Survey: Historical Photographs (digitalarchives.powerlibrary.org, search on Geological Survey). Collections with photos of abandoned coal and iron mines, derricks, coke ovens, quarries, and various related industrial and geological features.

Potteries of Trenton (<https://potteriesoftrentonsociety.org/research/>). The website of the Potteries of Trenton Society (POTS) has recently undergone a major overhaul and now hosts the Trenton Potteries Database. This database contains historical information and stories about the pottery industry and associated history. Organized by geographic location, each entry includes information on a pottery's location, owners, products, and years in operation. Where available, historic maps, advertisements, maker's marks, photographs, and engravings are included.

Rivers of Steel: Bly's Tour of the Machine Shop (www.youtube.com, search on Bly's Tour). A tour of the W.A. Young & Sons Foundry and Machine Shop in the historic district of Rices Landing, Greene County, Pa. Built in 1900, the shop produced parts for steamboats, coal mines, railroads, and supported local small businesses. When it closed in 1965, the building was locked and all of its tools and equipment were left in place—perfectly preserving its line shaft driven, 25-machine network.

Slack Shoddy Mill, Springfield, Vt. (<http://www.slackshoddydymill.com/index.htm>). The Slack Shoddy Mill (originally Slack & Ellison) was started in 1871 by W.H.H. Slack and C. Ellison, and by the 1930s was one of the largest shoddy mills. The company closed in 1952. This collection includes historic photographs, correspondence, patents, drawings, and more related to the company's mill, machinery, and people.

IA EXHIBITS (continued from page 14)

When Practice Becomes Form: Carpentry Tools from Japan is an exhibit on view through July 11, 2021 at the Japan Society (New York City). The exhibit celebrates Japanese architecture and craftsmanship through woodworking tools, architectural patterns, and models. It features a variety of hand tools and wooden models reflecting joinery techniques that have been used for hundreds of years to build Japan's wooden architectural masterpieces (from temples and shrines to bridges). The site-specific design introduces major themes from the exhibition and is in dialogue with the gallery's spaces, highlighting an enduring connection between traditional Japanese wooden construction and modern architecture. Info: japansociety.org. ■

IA on the Web is compiled from sites brought to the editor's attention by members, who are encouraged to submit their IA Web finds: sianeditor@siahq.org. ■

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

Department of Social Sciences
Michigan Technological University
1400 Townsend Drive
Houghton MI 49931-1295

Non-Profit Organization
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CALENDAR

Please be advised to confirm all events and dates due to the coronavirus pandemic. All information was current, as best as could be determined, at the time of publication.

2021

TBD: Preserving the Race for Space: Small Steps and Giant Leaps Symposium, Cape Canaveral, Fla. Postponed until future notice. Info: www.ncptt.nps.gov/events/preserving-the-race-for-space/.

Aug. 23–27: SIA 49th ANNUAL CONFERENCE, LEHIGH VALLEY, BETHLEHEM, PA. Info: www.sia-web.org.

Aug.–Sept.: Assn. for Industrial Archaeology, Annual Conference. In-person conference canceled; virtual conference to be held during Aug.–Sept. 2021. Info: www.industrial-archaeology.org.

Oct. 19–21: Railway & Locomotive Historical Society Annual Meeting, College Station, Texas. Info: www.rlhs.org.

TBD: Society for Preservation of Old Mills (SPOOM) Conference, eastern Mass. Oct. 2020 conference rescheduled to 2021. Stay tuned for further info: www.spoom.org.

Nov. 2–5: National Trust for Historic Preservation. PastForward National Preservation Conference. Info: savingplaces.org/conference.

Nov. 14–17: Australasian Engineering Heritage Conference 2021: The Future of the Past (with pre-

conference tours Nov. 11–14), Dunedin, NZ. Postponed from fall 2020. Info: www.engineeringnz.org/programmes/heritage/.

Nov. 18–21: Society for the History of Technology (SHOT) Annual Meeting, New Orleans, La. Postponed from fall 2020. Info: www.historyoftechnology.org.

2022

Jan. 5–8: Society for Historical Archaeology Annual Conference, Philadelphia, Pa. Info: www.sha.org.

Apr. 27–May 1: SAH 2022 Annual International Conference, Pittsburgh, Pa. Info: www.sah.org.

TBD: Society for Commercial Archeology Summer Tour: NYC, The Golden Age of Air Travel, New York, N.Y. Postponed to summer 2022. Check back for updates. Info: sca-roadside.org.

TBD: SIA FALL TOUR, CENTRAL AND MID-COAST MAINE. Postponed from 2020. Info: www.sia-web.org.

Aug. 28–Sept. 3: TICCIIH International Conference: Industrial Heritage Reloaded. New Territories, Changing Culturescapes, Montréal, Qué. Rescheduled from 2021. Info: patrimoine.uqam.ca/evenements/ticcih2022/. ■