



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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INDUSTRIAL SITES ADDED TO U.S. WORLD HERITAGE GAP LIST

A number of SIA members were among the hundreds of professionals and experts who provided feedback to the U.S. National Committee of the International Council on Monuments and Sites (US/ICOMOS) on the development of a list of potential properties to help guide future World Heritage Site nominations. The study was undertaken with the support of the National Park Service (NPS), which makes official nominations to the World Heritage Tentative List on behalf of the United States. The U.S. Tentative List was last updated in 2008.

The purpose of the “gap” report was to identify themes or clusters of property types that are underrepresented on the World Heritage Tentative List and which could better represent the breadth of U.S. heritage. Pat Martin [SIA Executive Secretary] served on the US/ICOMOS Thematic Consultation Subcommittee.

The theme of “Innovation, Invention, Technology, Modernist Legacy and Recent History” encompasses about a dozen sites of IA interest that might move onto the World Heritage Tentative List. Skyscrapers, bridges, mining and industrial complexes, and space exploration sites emerged as areas of particular interest. Sample properties recommended for consideration include the “Chicago cluster” skyscrapers, the Chrysler Building, the Empire State Building, the Kennedy Space Center (Cape Canaveral), the Ford Piquette Avenue Plant, and the Brooklyn Bridge.

The full gap report is available from Issuu (www.issuu.com) as a digital on-line document; search on “US/ICOMOS Gap Report.” Information on the multi-step World Heritage Site listing process can be found at www.usicomos.org/about/u-s-world-heritage-tentative-list-update-resource-center/.

NPS has indicated that it will be working on a short

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Library of Congress, engraving c. 1915



Brooklyn Bridge (tour site—1973 and 2002 Annual Conferences, Brooklyn).
Potential World Heritage Site listing is being considered.

In This Issue:

- 2016 Fall Tour, Fox Valley, Wis., Oct. 28–30
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- C&D Canal Feeder Bridge
- Job Opening: *SIAN* Editor

U.S. WORLD HERITAGE (continued from page 1)

list of gap candidate sites for recommendation in late 2016. Thereafter, the NPS will narrow the list to about ten candidates to be officially placed on the U.S. World Heritage Tentative List. The World Heritage Tentative List is maintained by the United Nations Educational, Scientific and Cultural Organization (UNESCO) through the World Heritage Convention. Gaining official listing requires being on a nation's tentative list followed by a successful vetted nomination that meets World Heritage guidelines and criteria. The process is, frankly, complex and challenging. It may be particularly so from a U.S. perspective, where historic preservation is often decentralized and where "All Historic Preservation is Local!" is an oft-repeated rallying cry. The current U.S. World Heritage List is dominated by national parks best known for their natural wonders, although there are historic sites including Taos Pueblo, Independence Hall, and the Statue of Liberty. World Heritage listing comes with benefits including media attention, international visitors, and access to UNESCO's preservation fund.

Patrick Harshbarger

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; couple \$55; full-time student \$20; institutional \$50; 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; e-mail: SIA@mtu.edu; 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: Patrick Harshbarger, Editor, *SIA Newsletter*, 305 Rodman Rd., Wilmington, DE 19809; (609) 695-0122, ext. 115; e-mail: phsianews@aol.com.



Richard K. Anderson, Jr., 2006

The Model T Design Room at Ford's Piquette Avenue Plant (tour site—2005 SIA Fall Tour, Detroit), a potential candidate for the U.S.'s World Heritage Tentative List.



Carol M. Highsmith's America, Library of Congress, Prints and Photographs Division, 2007

Chrysler Building. Another potential World Heritage Site candidate.

Wanted: Local SIA Coordinators & Leads

We need your help! SIA Annual Conferences and Fall Tours are exciting and dynamic settings for our members to meet new and old friends who share a passion for the physical presence of past industry and technology. SIA events are held in cities and areas across the U.S. and Canada that have a significant legacy of industrial activity. One of the most popular activities are field trips to industrial and engineering sites of interest, including process tours of still-active plants not normally open to the public.

But we can't make that happen without you. Our diverse membership is our greatest asset. It includes architects, archeologists, engineers, industrialists, museum specialists, planners, historians, preservationists, teachers, students, retirees, and many non-professionals for whom industrial archeology is an exciting avocation.

That's where you come in. We rely on your familiarity with your home turf for the connections that make our conferences and tours so memorable.

Are you part of a local cultural or historical group? Involved in community heritage management? Work for a company that shares SIA values? You can help us connect and explore the industrial legacy of your

hometown and region by engaging your group as a local coordinating partner for an SIA event.

We're in this together. You won't go it alone. Local event partners receive assistance and support from SIA national headquarters every step of the way. Event coordinator Julie Blair will work closely with you through the entire process, from the planning phase to the event itself. We've developed an effective template for action and provide personal guidance to ensure that our events are consistently successful.

If you've ever been to an SIA event, whether it's an annual conference or a fall tour, you know how rewarding it can be. Consider sharing a stimulating exploration of the industrial heritage of your locale with other members of the SIA.

To find out how, or to suggest a potential partner, contact Julie. She'd love to help you share the unique elements of the industrial archeology of your locale. You can get in touch with Julie at siaevents@siahq.org or (906) 487-1889

Let's make it happen!

Julie Blair

SIA NEWSLETTER EDITOR Position Opening

The SIA is seeking an editor for the *SIA Newsletter*. The editor is one of our organization's key positions. The editor oversees the publication of the quarterly newsletter and is responsible for the quality and timeliness of its content. The newsletter notifies the membership of SIA activities and initiatives, and it also serves as a means for our members to communicate their IA interests and passions with one another. The editor also is an *ex officio* member of the SIA Board and regularly attends Board meetings, conferences, and tours.

The *SIAN* currently has a strong support network. It has a base of members who make regular contributions of newsworthy items and listings to popular columns such as Publications of Interest. There is a corps of volunteer reviewers who assist the editor with fact checking and copy-editing. SIA headquarters at Michigan Tech provides graphic design, printing, and mailing

services. The current editor has served for over 20 years and is available to assist the successful applicant in making a smooth transition.

Currently, the editor receives a small quarterly editorial fee to compensate for time and expenses. Terms are open to negotiation.

Applicants for the position should submit a letter of interest and resume to the *SIAN* Editor Search Committee. Ideally the successful candidate will be a member of the SIA and have editorial or publications experience. Members of the Search Committee are Patrick Harshbarger, Chair; Nanci Batchelor, Marc Belanger, and Julie Blair. Digital applications will be accepted until the position is filled. To apply or for more information, please feel free to contact Patrick at (302) 764-7464 (home); (609) 695-0122, ext. 115 (work); pharshbarger@hunterresearch.com.

Casting the First Boxpok Driver in Nearly 70 years

The Pennsylvania Railroad (PRR) T1 Steam Locomotive Trust is a non-profit organization with an unusual goal. Through hard work, dedicated volunteers, and the financial support of many generous donors from around the globe, the T1 Trust is reconstructing from scratch a PRR T1 locomotive. On Feb. 26, 2016 the PRR T1 Trust reached a major milestone in this effort when it cast the first boxpok (box spoke) driver wheel the U.S. has seen in nearly 70 years. A video of the casting can be found at <https://prrt1steamlocomotivetrust.org/store/driver.php>. Unlike a typical spoked driver, a boxpok driver is almost entirely hollow allowing for better counterbalancing. This design promotes a favorable strength-to-weight ratio and allows the fine-tuning necessary for high-speed operation.

Many consider the PRR T1 class the pinnacle of steam-locomotive design in the U.S. These locomotives had the capability of achieving speeds in excess of 120 mph, and anecdotal reports indicate that speeds of up to 140 mph were attained. The T1 also combined a stunning Art Deco design with a unique 4-4-4-4 wheel arrangement. In all, 52 class T1 locomotives were produced: two prototypes (#6110-6111) in 1942, and 50 production models (#5500-5549) in 1945-46. Production was about evenly split between the PRR's Altoona shops and the Baldwin Locomotive Works in Philadelphia. Sadly, not a single example of this magnificent machine escaped the scrapper's torch. The reconstructed locomotive will be dubbed #5550, the next number in the T1 production sequence.

The reproduction of PRR T1 #5550 will fill a large gap in the population of operating steam locomotives. The goals are simple: to provide mainline steam excursion service and to set the world speed record for a steam locomotive. The effort is strictly speaking historic preservation through "re-construction," depicting a vanished locomotive through accurate fabrication with minimal conjecture. Perhaps more importantly, this locomotive will inject new life blood into an aging heritage fleet. Most U.S.-built steam locomotives operating today are over 60 years old. Wear and tear is taking its toll. Efforts such as this one, to create a powerful new machine, will become increasingly important if steam excursion service is to be present in another 60 years.

The PRR T1 Trust was founded in the fall of 2013. The Trust's business plan calls for a 17-year project lifespan with an expected completion date of 2030. The estimated price tag is \$10 million. The Trust has drawn inspiration from a group of railway enthusiasts in Great Britain who in 2008 reproduced LNER Peppercorn Class A1 #60163 Tornado, the first mainline steam locomotive built in the U.K. since 1960. The success of the Tornado project provided inspiration and a framework for the PRR T1 Trust.

The first step in the driver casting process was to obtain the original drawings from the Pennsylvania State Archives in Harrisburg. Members of the Trust spent countless hours pulling old drawings and scanning them into digital format. This is painstaking work; over 1,200 PRR T1 mechanical drawings and blueprints have been located and scanned thus far.



A painting of the #5550 by transport artist Jonathan Clay offers a glimpse of the finished T1.



3D Rendering of the locomotive boxpok driving wheel.



The T1's boxpok driver during the air-cool phase of the heat-treating cycle. The entire heat-treating process takes about two days with peak temperatures around 1,300°F.

Once the Trust obtained scans of the original driver drawings they were sent to CAD (computer-aided design) draftsmen. Over the next three months, the 2D drawings were transformed into 3D digital models. Every measurement was meticulously checked and rechecked. Once everyone was confident that the CAD model was an exact duplication of the original blueprint, the next phase began and it was decided to cast the boxpok driver wheel as the first part of the new locomotive.

Finding a foundry capable and willing to take on the boxpok casting was a challenge. The PRR T1 Trust wanted to stay close to Pennsylvania for casting the first components, but also wanted to include several highly qualified foundries outside of the region. A Request for Proposal was created which included the material specifications and CAD model as well as quality-control requirements. With the help of the

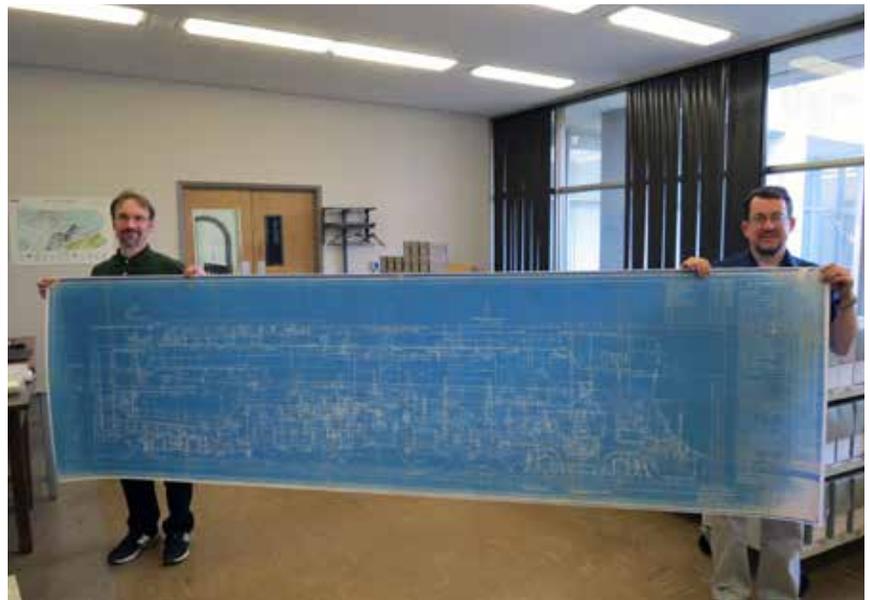
group's membership more than 60 foundries were located and requests submitted. Several foundries responded with quotes and the Trust began the selection process.

Each foundry's capabilities, time frame for task completion, number of years in business, price, and customer satisfaction were considered. Beaver Valley Alloy Foundry in Monaca, Pa. emerged as the front-runner. It has been in business nearly 100 years and was very interested in the #5550 project.

The next step in the driver-casting process involved creating a wooden pattern. Liberty Pattern in Youngstown, Ohio, which has been making patterns since 1917, was selected by Beaver Valley Alloy. The team at Liberty studied the CAD model of the wheel set provided by the Trust. It is also worth mentioning that the pattern shop's owner stated that the Trust's CAD model was some of the best work of

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PRR blueprint A433857, Revision H (Elevation) was donated to the Pennsylvania State Archives by the T1 Trust and one the Trust's supporters from the U.K. This supporter was enamored with the T1 as a boy, and in 1961 he wrote to the PRR. What he received back was the original copy of the arrangement drawing shown right.



BOXPOX DRIVER (continued from page 5)

this type that he had ever seen. Liberty Pattern then went about converting the CAD model into a casting pattern. It was decided to make the counterweight as a dry-fit so that three-quarters of the pattern could be used for all eight drivers. This will save a tremendous amount of money.

Liberty Pattern was able to use the Trust's CAD model to design core boxes that were used to form the sand cores that preserve the internal cavities of the cast wheel. This is a very complicated and precise art. Once all the cope (outside surface of wheel), drag (inside surface of wheel), and core boxes (inside cavities) were complete, they were mounted on large 96 in. x 96 in. boards and sent to the foundry. The steel wheel-center casting weighs nearly 2,500 lbs. and measures 6 ft. in diameter. The application of the 4-in.-thick steel tire brings the total wheel diameter to 80 in.

Originally specified by the PRR to use General Steel Castings' nickel steel, the boxpok drivers were really the "magic carpet" of their day. Through old-fashioned detective work, the Trust was able to identify the chemical and material properties for this formula of nickel steel. However the exact annealing process remained a trade secret and a mystery until now. Working with Beaver Valley Alloy and a national materials-testing laboratory, the Trust has used 21st-century technology to successfully replicate General Steel Castings' nickel steel.

Over the next few years, engineering work will continue and simulation testing will be conducted. More components will be built and the Trust will proceed with its fundraising efforts. It will be through the support of volunteers, railfan donors, foundations, grant makers, corporate donations, and legacy giving that PRR T1 #5550 ultimately will come to life.

As part of its 2015 "Kickstarter" campaign the PRR T1 Trust offered bronze keystone number plates cast with the



The boxpok driver mold, showing the cope half of the driver pattern with risers, aka feeders. The risers feed molten metal back into the casting as the steel cools and contracts. The use of the risers helps to prevent defects from forming in the casting.

T1 #5550 pattern. The keystones were offered as premiums for donations of \$5,000. The Trust is pleased to continue this premium gift for interested supporters. If you would like more information on how to receive a full-sized bronze keystone, please send an email to info@t1trust.com. For additional information on the project, giving opportunities with a range of thank-you gifts, and how to become a member of the 5550 Keystone Society with access to special events and a quarterly newsletter: <https://prrt1steamlocomotivetrust.org>.

Jason Johnson and Bradford Noble



Casting the boxpok driver at Beaver Valley Alloy Foundry.

Announcing 2016 SIA Fall Tour

Fox River Valley, Wis. • Oct. 28–30



Library of Congress, Detroit Publishing Co.

Mark your calendars for an informative visit to east-central Wisconsin where we will be touring industrial sites that developed along the lower Fox River, a historic center of the paper industry. Our headquarters will be in the Great Lakes port city of Green Bay. Photograph: Green Bay harbor, c. 1890.

NOTES & QUERIES

Records from the **DuPont Company's Technical Libraries** for the Experimental Station and Chestnut Run laboratories have been opened for research at the Hagley Museum & Library, Wilmington, Del. These libraries were maintained for the use of company chemists and researchers. Both closed in recent years due to corporate downsizing. The Experimental Station, established in 1902, was one of the earliest industrial laboratories in the U.S. and its library one of the largest corporate research libraries. Chestnut Run was a corporate research campus built in the mid-1950s with specialties in textiles, electrochemicals, Freon products, pigments, elastomers, and plastics.—*Hagley Collections & Research News* (Mar. 2016) ■

IA EXHIBITS

The new **Postal Museum** in central London is set to open to the public in early 2017. A highlight of a visit will be **The Mail Rail**, an underground railway that began operation in 1927 and was the world's first driverless electric railway. It delivered mail to eight postal sorting offices along 22 miles of track, stretching six miles across London between Paddington and Whitechapel. The railway closed in 2003. It is set to reopen with trains that will carry passengers on a 15-min. ride along a mile-long loop 70-ft. underground. The Postal Museum will feature exhibits covering the full 500-year history of Britain's postal network, from the first Postmaster General appointed by Henry VIII to the present. Info: <http://postalmuseum.org>. ■

C&D Canal Feeder Bridge

A small stone-arch bridge, located in northeastern Maryland, just southeast of Route 273 where it crosses the Big Elk Creek, is a survivor of the first attempt to build the Chesapeake & Delaware Canal (1803-05). The canal's engineer, Benjamin Henry Latrobe (1764-1820), was born in England and educated in Germany. He took up the engineering profession while in Germany, studying under a leading hydraulic engineer, and when he returned to England first worked under the eminent engineer John Smeaton (or so he claimed) and then under architect Samuel Cockerell. Latrobe had roles in at least two waterway projects and had several architectural commissions before emigrating.

Arriving in the Norfolk, Virginia in 1796, Latrobe was one of the first English-trained architects to practice his profession here. After almost two years in Virginia, he moved to Philadelphia in 1797 and was quickly hired to plan and carry out two major projects: the Bank of Pennsylvania and the Philadelphia Waterworks (1799-1801). A group of Philadelphia financiers then selected him to realize their long-held dream of a waterway that would connect the Chesapeake Bay and the Delaware Bay, and which would—they hoped—divert more of the traffic from the interior of Pennsylvania to their city rather than to upstart Baltimore.

Latrobe persuaded the canal's investors to begin the project by digging a 5.5-mi. feeder to bring water to the proposed summit level of the canal. Just south of where the feeder began, a bridge was needed to carry a local road over the new waterway. In 1804 Latrobe called on mason Thomas Vickers to construct the bridge, using stone quarried adjacent

to the site. Vickers had worked on the Philadelphia Waterworks (for which he constructed a 6-ft.-diameter, 580-yd.-long brick tunnel) and recently had built the piers for the Schuylkill Permanent Bridge, and thus had experience using the kind of hydraulic (waterproof) cement then being imported from Europe and the West Indies.

The canal's finances failed in 1805, and when the Chesapeake & Delaware Canal was reinitiated in the 1820s it followed an alignment further south that did not require the completion of Latrobe's feeder for a water supply. But the feeder bridge is still there, evidence of Latrobe's preference for so-called permanent construction (something that alienated him from some of his American patrons who preferred cheaper construction) surviving today as a result of the skill of the mason and the use of hydraulic cement. The bridge (and three culverts that still carry water underneath the line of the feeder) is one of the earliest surviving American examples of the use of hydraulic cement.

It is worth noting that Latrobe took Thomas Vickers and three other masons from the abortive canal project to his work on the U.S. Capitol (1803-1812 and 1815-1817), Latrobe's best-known accomplishment. The little feeder bridge, now over two centuries old, has historical significance belied by its size and neglected condition.

SIA members who want to know more about Latrobe's career and his architectural and engineering accomplishments may turn to the ten volumes of *The Papers of Benjamin Henry Latrobe*, published by Yale University Press (1977-1994).

Darwin Stapleton



C&D Canal Feeder Bridge (1803-05), vine-covered and largely forgotten in 2016.



Detail of feeder bridge masonry.



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

PUBLICATIONS OF INTEREST

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COMPILED BY

Mary Habstritt, New York, NY., Justin M. Spivey, East Windsor, N.J., and Patrick Harshbarger, SIAN editor, Wilmington, Del.

GENERAL INTEREST

- ◆ Thomas F. Army, Jr. **Engineering Victory: How Technology Won the Civil War.** Johns Hopkins Univ. Pr., 2016. 384 pp., illus., maps. \$49.95. A comprehensive history of military engineering, which offers a fresh view of why the North prevailed.
- ◆ Robert J. Gordon. **The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War.** Princeton Univ. Pr., 2016. 784 pp. \$39.95. After the Civil War, an economic and technological revolution improved the American standard of living in ways previously unimaginable. Electric lighting, indoor plumbing, home appliances, motor vehicles, air travel, air conditioning, and television transformed households and workplaces. Life expectancy between 1870 and 1970 grew from 45 to 72 years. Provides an in-depth account of this momentous era but concludes that it is naïve to assume it can be repeated.
- ◆ Keach Hagey. **Startups Develop in Kodak's Space.** WSJ (Jan. 6, 2016), pp. A13-14. After emerging from its 2012 bankruptcy, Kodak kept its 1,200-acre campus in Rochester, N.Y., and is now leasing space and equipment to smaller manufacturers while it maintains a reduced operation on-site.
- ◆ Peter Kirby. **Child Workers and Industrial Health in Britain, 1780-1850.** Boydell Pr., 2013. 212 pp. \$29.95. Makes the case that child workers were viable earners in their own right and that poverty was the overarching factor in their illness and mortality not industrial labor *per se*. High mortality rates largely are attributed to pollution, overcrowding, poor sanitation, and poor-quality housing typical of industrializing towns where the children lived. Rev.: *AHR* (Dec. 2014), pp. 1770-71.
- ◆ Nelson Schwartz and Julie Creswell. **A Global Chill Hits Home.** NYT (Oct. 25, 2015), SundayBusiness, pp. 1, 4-5. Examines how a sudden plunge in worldwide demand for commodities, including crude oil, iron ore, and soybeans, has impacted the economy of America's heartland. Featured is the US Steel Granite City works outside St. Louis [tour site—2006 SIA Annual Conference].
- ◆ Rachel Sturman. **Indian Indentured Labor and the History of International Rights Regimes.** *AHR*, Vol. 119, 5 (Dec. 2014), pp. 1439-65. Describes the system created by the imperial government to recruit and contract Indians to provide regular, assured, and cheap labor on colonial

plantations after slavery was abolished in the British Empire in 1834. In spite of criticism, the indenture system continued until 1917.

WATER TRANSPORT

- ◆ Joseph Alexiou. **Gowanus: Brooklyn's Curious Canal.** New York Univ. Pr., 2015. 400 pp. \$29.95. From tidal creek to busy commercial canal to cesspool and Superfund site, the history of the Gowanus Canal mirrors that of Brooklyn itself. Features biographies of the movers and shakers whose ambitions and activities contributed to the building of both. Also, Juan-Andres Leon. **The Gowanus Canal, the Fight for Brooklyn's Coolest Superfund Site.** *Distillations*, Vol. 1, No. 4 (Winter 2015), pp. 26-35. Published by the Chemical Heritage Foundation, www.chemheritage.org. The canal is considered one of the most polluted water bodies in the U.S. It has been the subject of a protracted cleanup effort. The canal's working-class neighborhood, once an industrial center that later attracted artists, is becoming gentrified with predictable tensions between developers and local residents. The article includes a link to a narrated tour video tracing the natural history and hidden environment of the canal (tour site—2002 SIA Annual Conference).
- ◆ Nathaniel Philbrick. **Quakers with a Vengeance.** *Smithsonian* (Dec. 2015), pp. 18-31, 98-99. The bloody business of whaling based on Nantucket Island created a unique culture revealed through firsthand accounts, literature, and the artifacts of shipwrecks.
- ◆ Frederick Stonehouse. **The Last Laker: Finding a Wreck Lost in the Great Lakes' Deadliest Storm.** Duluth: Lake Superior Port Cities, 2015. 213 pp., maps, photos. \$19.95. Recounts the Great Lakes Storm of 1913, the most destructive in the region so far, which killed hundreds and sank dozens of ships, and the long search for the ore freighter *Henry B. Smith*, finally found in 2013 in more than 500 ft. of water in Lake Superior off of Marquette, Mich.
- ◆ **Yardlines** (Special Edition, 2016) celebrates the 130th anniversary of Newport News Shipbuilding. The firm was incorporated as the Chesapeake Dry Dock & Construction Co. in 1886. 28 pp., illus. Avail: <http://nms.huntingtoningalls.com/employees/pub/yardlines>.

RAILROADS

- ◆ Dana Martin Batory. **A Dynamite Story.** *Timeline* (April-June, 2015), pp. 42-53. A massive explosion in the Crestline, Ohio, Pennsylvania RR yard in 1903 led to federal regulation of rail transportation of explosives and inflammables. Avail.: www.ohiohistorystore.com, search on article title.
- ◆ Preston Cook. **Selling the Diesel.** *RRH* 213 (Fall-Winter 2015), pp. 64-81. In contrast to its competitors that originated as steam-locomotive builders, General Motors' Electro-Motive Division put together a unified marketing effort to promote diesel locomotives through advertising, models, training centers, traveling exhibits, and even children's books.
- ◆ David W. Dunlap. **Park's Stone Wall Is Vestige of Manhattan's Rail History.** *NYT* (Aug. 27, 2015), p. A21. Stones from an 1847 embankment supporting the tracks of the Hudson River RR were unearthed and installed in a park in 1994. They have finally received appropriate interpretive signage.
- ◆ H. Roger Grant. **The North Missouri: A St. Louis Railroad.** *RRH* 213 (Fall-Winter 2015), pp. 90-101. Extending across its namesake state and north into Iowa, the North Missouri had strong local support and interstate ambitions from its founding in 1851. The line survived destruction during the Civil War and played a major role in the struggle between St. Louis and Chicago for dominance of the region.
- ◆ John Gruber [SIA] and J. J. Sedelmaier. **Chicago: Colorful, Creative Posters and a 1920s Multimedia Campaign.** *RRH* 213 (Fall-Winter 2015), pp. 48-63. Overview of advertising by the Second City's elevated and suburban railroads includes capsule biographies of the artists who created striking images for posters, brochures, and billboards.
- ◆ Peter A. Hansen. **From Golden Spike to Silver Screen: The Improbable Story of a Central Pacific Railroad Business Car.** *RRH* 213 (Fall-Winter 2015), pp. 26-47. Built for travel by the CP's directors and brought to the Golden Spike ceremony in Promontory, Utah, this passenger car subsequently survived Hollywood film shoots and attack by woodpeckers during an incredible journey to its current home at the Nevada State RR Museum.
- ◆ Teresa Leonard. **Development of Electricity, Street Cars in Raleigh Took a While.** *Raleigh (N.C.) News & Observer* (Apr. 7, 2016). Brief article summarizes the history of the city's streetcars, including some vintage photos.
- ◆ Richard W. Luckin. **Ponce de Leon: A Flagler Hotel.** *RRH* 213 (Fall-Winter 2015), pp. 82-89. One of the Florida East Coast Ry.'s luxurious associated hotels, in St. Augustine, has been preserved as part of the Flagler College campus.
- ◆ David Perlmutter. **Piece of Charlotte's Transportation History Moved to Spencer Museum—For Now.** *Charlotte (N.C.) Observer* (Mar. 12, 2016). Trolley #85, which last operated on Charlotte's streets in 1938, was moved to the N.C. Transportation Museum in Spencer. The trolley, which has been restored, was rediscovered in 2005 as part of a condemned house. There is hope that the trolley can one day be returned to Charlotte.
- ◆ Marc Pitanza. **Staten Island Rapid Transit.** Arcadia, Images of Rail series, 2015. 128 pp., illus. \$21.99. The first book on Staten Island's railroads in over 50 years. It offers a complete study of the system's various lines and facilities, not just the "rapid transit" aspect but including obscure branches and lesser-known customers. Most of the photos, which are informatively captioned, come from the collections of the author, his friends, or archives, so most have never been published before. Photos cover equipment, industries, and some rare views of long-gone stations. Coverage includes current operations.
- ◆ Ted Rafuse. **Rails Across the River: A History of the Rail Car Ferry Service on the St. Lawrence River Between Prescott, Ontario & Ogdensburg, New York.** Steampower Publishing, 2015 (www.steampowerpublishing.org). 75 pp., indexed and extensively illus. \$29.95. This service operated with various vessels for about 100 years, ending in 1970. In the final years it connected the Canadian Pacific with the New York Central using a diesel-electric tug/barge combination. The tug was electrically controlled from the bridge on the barge. Some of the famous Canadian silk trains traveled this route to the New York area.
- ◆ Tony Reeve. **The Railroad Photography of Jack Delano.** Indiana Univ. Pr., 2015. 204 pp., illus. \$60. Delano worked for the Farm Security Administration (FSA) and the Office of War Information (OWI). This remarkable collection features his photographs of railroad operations and workers taken for the OWI in the winter of 1942/43 and during a cross-country journey on the Atchison, Topeka, and Santa Fe Ry., plus an extensive selection of his groundbreaking color images. The introduction provides the most complete summary of Delano's life published to date.
- ◆ Robert L. Reid. **CSX Plan Will Double and 'Double-Stack' D.C. Tunnels.** *CE* (Dec. 2015), pp. 22-26. Freight railroad CSX will replace the single-track 1904 Virginia Ave. Tunnel beneath southeastern Washington, D.C., with a new double-track facility, retaining a fragment of the original tunnel wall as excavation support.
- ◆ Eric A. Sibil. **Meeting an Emergency: The Pennsylvania Railroad and the Broad Street Station Fires of 1923 and 1943.** *RRH* 213 (Fall-Winter 2015), pp. 4-25. PRR relied on its organizational strengths to quickly and effectively recover from two disastrous fires at its stub-end terminal in Philadelphia's Center City, since replaced by through-track operations.
- ◆ Ralph Vartabedian. **Why Are So Many Oil Trains Crashing? Track Problems May Be to Blame.** *Los Angeles Times* (Oct. 7, 2015). The growing number of trains hauling crude oil from Canada and the Northern Plains is one of the suspected causes of an increase in derailments. The rise in track failures may be due to increases in the number of cars hauled per train and the increased weight of the trains, which can exceed 19,000 tons.

AUTOMOBILES & HIGHWAYS

- ◆ Jeff L. Brown. **Road with a View: The Blue Ridge Parkway.** *CE* (Dec. 2015), pp. 42-45. The National Park Service's first long-distance parkway, planned in 1933 and largely completed by 1966, features civil engineering innovations such as spiral transition curves and rigid-frame reinforced-concrete bridges. A 7.7-mile gap at Grandfather

Mountain was closed by the Linn Cove Viaduct, a unique double-curved precast, post-tensioned, concrete, box-girder structure completed in 1987.

- ◆ Teresa Leonard. **New Bern Horseless Carriage Inventor Was an Ingenious Failure.** *Raleigh (N.C.) News & Observer* (Sept. 16, 2015). An excerpted article from the newspaper's archives, dated Sept. 23, 1928, on the career of buggy-maker Gilbert S. Waters, who designed gasoline-engine automobiles in 1900 and 1906 but was unable to interest local investors.
- ◆ Charles C. Mann. **Riding Rubber's Boom.** *National Geographic* (Jan. 2016), pp. 118-37. A boom in rubber production is enriching Southeast Asia but creating an agricultural monoculture at risk of becoming an ecological disaster like Henry Ford's Fordlandia plantation in Brazil, destroyed by fungus. Scientists caution that if South American leaf blight reaches the Asian plantations, the worldwide automobile industry could be impacted.
- ◆ Robert L. McCullough [SIA]. **Old Wheelways: Traces of Bicycle History on the Land.** MIT Pr., 2015. American bicyclists were explorers, cycling through both charted and uncharted territory in the latter part of the 19th century. These wheelmen and wheelwomen became keen observers of suburban and rural landscapes, and left copious records of their journeys — in travel narratives, journalism, maps, photographs, and illustrations. They were also instrumental in the construction of roads and paths ("wheelways") — building them, funding them, and lobbying legislators for them, laying the ground work for the development of modern state highway systems.
- ◆ Avery G. Wilks. **Archaeologists Find Historic Roadway Uncovered by October Flooding.** *The Columbia (S.C.) State* (Feb. 3, 2016). A section of 150-yr.-old, wood-plank road was discovered at the McGrady Army National Guard Training Center in lower Richland County.

AERONAUTICS & AEROSPACE

- ◆ Jeff Clark. **Historic Airplane Hangar in Gulfport Getting \$2M-plus Facelift.** *Biloxi (Miss.) Sun Herald* (Aug. 26, 2015). A military hangar of 1944 at the Gulfport-Biloxi International Airport, formerly Keesler Air Force Base during WWII, will be restored and used as an Air National Guard Combat Readiness Training Center.
- ◆ Jonathan Glancey. **Concorde: The Rise and Fall of the Supersonic Airliner.** Atlantic Books, 2015. 320 pp. \$25. Traces the development of the famed airliner from archival material and interviews with those who were involved from its conceptualization in the late 1940s to the last commercial flight in 2003.
- ◆ Alan Meyer. **Weekend Pilots: Technology, Masculinity, and Private Aviation in Postwar America.** Johns Hopkins Univ. Pr., 2015. 328 pp., illus. \$44.95. Drawing on public and private papers, interviews, trade association journals, etc., Meyer creates a narrative of the post-WWII world of private aviation, with special attention to its overwhelmingly masculine cultural aspects.
- ◆ David Murray. **Montana Beacons Shine Light Back to Flying's First Days.** *Great Falls Tribune* (Oct. 8, 2015), pp. 1L, 3L. The last 17 electrically lighted airway beacons

remaining of a national system that once numbered 1,550 are in Montana, where the first designated airway was completed between Great Falls and Salt Lake City in 1927. The beacon atop McDonald Pass is on the National Register of Historic Places. Article delineates the history of beacons in the U.S., particularly in the West.

- ◆ Naomi Shavin. **Appreciating the Art and Architecture of the World's Airport Towers.** *Smithsonian.com* (Nov. 10, 2015). Interview with photographer Carolyn Russo who documents airport towers and has a new book, *The Art of the Airport Tower* (Smithsonian Books, 2015).

POWER GENERATION

- ◆ Jonathan Clarke. **20th-Century Coal- and Oil-Fired Electric Power Generation.** Historic England, 2015. Available as free pdf download at www.historicengland.org.uk, search for power generation. This short guide provides an introduction to the history and development of power-station buildings and structures.
- ◆ Katherine Flynn. **Students Let Off Steam at the Amherst Powerhouse.** National Trust for Historic Preservation (<https://savingplaces.org>, search on title). Amherst College's brick steam plant, designed by McKim, Mead & White and in operation from 1925 until the 1960s, has been re-used as space for student organizations to hold events.
- ◆ Quentin Hardy. **Out With the Coal, and In With a New Google Campus.** *NYT* (June 25, 2015), p. B3. Google plans to re-use a 1952 Tennessee Valley Authority power plant for a data center.
- ◆ Steve LeVine. **The Powerhouse: Inside the Invention of a Battery to Save the World.** Viking, 2015. 308 pp. \$28.95. Explores the multi-faceted race to develop an advanced battery for the automotive industry's drive to develop commercially viable electric vehicles. The writing is "something like a thriller" describing the personal struggles and triumphs of a motley crew of scientists and businessmen. Rev.: *WSJ* (Mar. 14, 2015).

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With Thanks.

- ◆ Sean O'Hagan. **Gasworks Wonders.** *The Guardian* (June 14, 2015). Overview of various reuses for Britain's architecturally ornate, Victorian-era gasometers and gasholder houses.
- ◆ Jonathan O'Connell. **What \$30 Million Gets You in Georgetown: An Abandoned Heating Plant and the Permitting Headache of a Lifetime.** *Washington Post* (Dec. 18, 2015). The 1948 West Heating Plant, one of few National Register-listed industrial buildings in the District of Columbia, remains unused despite multiple schemes to redevelop it into condominiums.
- ◆ David Salanitri. **Full Steam Ahead: 60-Year-Old Turbines Power Eielson AFB.** *Airman* (Apr. 27, 2015). Nicely illustrated article documents how the Air Force has maintained the power plant at Eielson AFB in Alaska, one of the few bases remaining with its own coal-fired power plant.
- ◆ David A. Simmons [SIA]. **Peddling Petroleum.** *Timeline* (April-June 2015), pp. 22-27. Inspired by the discovery of an early 20th-c. bulk kerosene tank, traces the story of an auto mechanic in Versailles, Ohio, who sold kerosene to farmers to run everything from tractors to refrigerators.
- ◆ Chuck Williams. **Work Begins on Powerhouses in Anticipation of Sale.** *Columbus (Ga.) Ledger-Inquirer* (Aug. 26, 2015). Two small hydro-electric powerhouses, once used to power nearby textile mills in downtown Columbus, are being cleaned and rehabilitated for use as retail stores or restaurants.

MINES & MINING

- ◆ Stephen Castle. **Lights Out in Britain for the Coal Industry.** *NYT* (Oct. 31, 2015). Kellingley colliery, Britain's last deep coal mine, is scheduled to close for good. It marks the end of an era for what was once a leading sector of the world's first industrial nation. Article focuses on the once mighty National Union of Mineworkers, which failed 30 years ago in its efforts to confront the anti-labor policies of Margaret Thatcher, who then proceeded to push through her government's plans to close down unproductive mines. Also, Scott Patterson, **England Closes Its Last Coal Mine.** *WSJ* (Dec. 14, 2015).
- ◆ Veronica Di Grigoli. **Sulphur, Sicilians, and the Exodus to the USA.** *Times of Sicily* (Aug. 9, 2015), www.timesofsicily.com. Brief article and some historic photos of Sicily's famous sulfur mines and the hardships faced by workers, many of whom emigrated to the U.S.
- ◆ Ian Maitland. **The Sons of Gwalia Goldmine.** *Engineering Heritage Australia*, Vol. 1, No. 8 (Oct. 2015), pp. 14-17. A brief history of the mine in western Australia and the survival of its timber headframe, incline, and steam winder engine. The Fraser & Chalmers engine of 1912 is the largest of its type in Australia, and one of only three remaining.
- ◆ **Oldest-Known Quarry in the Southern Levant Found.** *Archaeology News* (Mar. 29, 2016); www.archaeology.org/news/4299-160329-israel-oldest-quarry. An 11,000-year-old flint and limestone quarry has been discovered in central Israel.

WATER CONTROL & CONSERVATION

- ◆ Clif LeBlanc. **Cost to Repair Columbia Canal: \$100 Million.** *Columbia (S.C.) State* (Nov. 19, 2015). The canal,

built in the 19th century as a transportation and power canal, now supplies water to about 188,000 customers.

- ◆ Rick Sinnott. **Death to a Deadbeat Dam on the Eklutna River.** *Alaska Dispatch News* (Aug. 2, 2015). The lower Eklutna Dam, built in 1929 near Anchorage as part of a hydroelectric diversion, will be removed, mainly in the name of restoring fish habitat. This article is not so much of interest for historic content as for the one-sided environmental arguments in favor of removing dams, which paint the owners of the water rights as self-interested, and give no consideration at all to historic preservation. An estimated 1,150 dams have been removed nationwide in the past 20 years.

AGRICULTURE & FOOD PROCESSING

- ◆ Debra Bruno. **On Santorini, the Indigenous Tomato Paste Gets Its Own Historical Museum.** *Washington Post* (Jan. 28, 2016). The Tomato Industrial Museum on the Greek island of Santorini is inside a former tomato-processing plant with displays featuring late-19th-century equipment illustrating the processes of washing, cooking, peeling, boiling, and finally canning the paste.
- ◆ Winnie Hu. **At United Pickle, Preserving the Standards of a Deli Staple.** *NYT* (Feb. 14, 2016). United Pickle makes nearly 50 million pounds of pickles and pickled condiments for restaurants worldwide. The Bronx-based company traces its roots to the 1890s and the Jewish neighborhoods of Manhattan's Lower East Side.
- ◆ Charles D. Perry. **Conway's Peanut Warehouse Could Reopen by March.** *Columbia (S.C.) State* (Dec. 22, 2015). The 115-year-old, clapboarded, timber-frame warehouse features a clerestory and railroad loading platform. It has been leased to a local nursery, which plans to use it for weddings and events.
- ◆ Frank Reddy. **Efforts to Restore Historic Healan's Mill Moving Forward.** *Gainesville (Ga.) Times* (Nov. 15, 2015). The 170-year-old gristmill near the village of Lula is now in the hands of a preservation trust working to restore it.
- ◆ Daniel Strum; trans. by Colin Foulkes, Roopanjali Roy, and H. Sabrina Gledhill. **The Sugar Trade: Brazil, Portugal and the Netherlands (1595-1630).** Stanford Univ. Pr., 2013. 537 pp., illus. \$100. Canvasses the world of the merchants and seafarers involved in the sugar trade in thematic chapters, detailing the habits and procedures they devised to keep the trade humming. It does not cover tax regimes, the slave trade, or refining. Printed on heavy stock, includes full color images, numerous graphs, timelines, sidebars, and tables. Rev.: *AHR* (Dec. 2014), pp. 1631-34.
- ◆ David W. Tarbet. **Grain Dust Dreams.** SUNY Pr., 2015. 122 pp., illus. \$16.95. A history of terminal grain elevators, from their invention in Buffalo, N.Y., to interviews with workers at an elevator in Thunder Bay, Ont. Describes how various cities are attempting to repurpose these giant structures, including Buffalo, where empty elevators are being transformed into artistic and athletic centers. Also, Carolyn Thompson, **Buffalo Silos Get Revival.** *Newsday* (Oct. 5, 2015), p. A34.

MISC. INDUSTRIES

- ◆ Stacy Cowley. **Setting a Made-in-the-U.S.A. Table: Yes, Do Stick a Fork in It.** NYT (Oct. 21, 2015). Sherrill Mfg. continues to make silverware in Oneida, N.Y., under the Liberty Tabletop brand. Staying in business has been a struggle; at one point in the early 2010s, the firm was scrapping drop hammers just to make payroll. A direct-sales business model aimed at customers willing to pay more for American-made products appears to be paying off.
- ◆ Tom Jackson. **Chilled: How Refrigeration Changed the World and Might Do So Again.** Bloomsbury, 2015. 272 pp. \$27. An overview of technological efforts to harness cold for useful purposes from Persian ice pits to modern-day superconductors. Rev.: NYT (Oct. 11, 2015).

LUMBER & PAPER

- ◆ William Boyd. **The Slain Wood: Papermaking and Its Environmental Consequences in the American South.** Johns Hopkins Univ. Pr., 2015. 376 pp., illus. \$55. A sophisticated and empirically rich account of the creation and evolution of the Southern pulp and paper industry.
- ◆ Robert Penn. **The Man Who Made Things Out of Trees.** W.W. Norton, 2016. 240 pp., illus. \$26.95. Explores the many products made from ash trees—axe handles, canoe paddles, baseball bats, bowls, furniture, wheels, and bows and arrows. Presented as a travelogue, the perspectives of foresters, artisans, and manufacturers across the English-speaking world are shared, as is their anxiety due to the emerald ash borer that is killing off the ash forests.

BRIDGES

- ◆ Justine Christianson and Christopher H. Marston [SIA], eds. **Covered Bridges and the Birth of American Engineering.** Historic American Engineering Record, National Park Service, Washington, D.C. 2015. 234 pp. Digital version available from www.woodcenter.org. Includes Christopher H. Marston, *Portfolio of Covered Bridge Trusses Recorded by the Historic American Engineering Record*; Richard O'Connor [SIA], *HAER and the Documentation of Covered Bridges*; Sheila Rimal Duvadi, *Overview of the National Historic Covered Bridge Preservation Program*; Lola Bennett, *History of Covered Bridges in the United States*; Dario Gasparini, Rachel Sangree, and Jim Barker, edited by David A. Simmons [SIA] and Michael R. Harrison, *Engineering Design of Covered Bridges*; Dario Gasparini, Rachel Sangree, and Matthew Reckard, edited by David A. Simmons, *The Development of the American Truss*; Joseph D. Conwill, *Builders and Practices*; Justine Christianson and Christopher H. Marston, *The Preservation and Future of Covered Bridges in the United States*.

BUILDINGS & STRUCTURES

- ◆ Doug Childers. **Netherwoods: An Ambitious Renovation Project Is Set to Rejuvenate a City Block in Church Hill North.** Richmond (Va.) *Times-Dispatch* (May 2, 2015). Richmond developer rediscovers the architectural work of James Netherwood, a stonemason who owned a granite

quarry. He contributed significantly to the rebuilding of the city after the Civil War. This article focuses on the restoration of a series of brick row houses with massive granite foundations that will be named Netherwoods after their builder. Netherwood also supplied granite for the Lee Monument, Old City Hall, and the Byrd Park Pump House.

- ◆ Ronda Kaysen. **Breaking Ground Where Echoes of Edison Linger in New Jersey.** NYT (Apr. 5, 2016). After decades of delay, rehabilitation of the Edison Storage Battery Factory in West Orange has begun. The daylight factory complex of 1914 will be transformed into a mixed-use residential and commercial “village.” It is adjacent to the Thomas Edison National Historical Park comprising Edison’s labs and his Llewellyn Park home.

ARMS & AMMUNITION

- ◆ Jeff L. Brown. **Secret Weapon: The Hanford B Reactor.** CE (Nov. 2015), pp. 40-43. With a reputation earned from building the Pentagon, Brig. Gen. Leslie R. Groves managed construction of the plutonium-producing reactor in Richland, Wash., built in secret by DuPont in 1943-44. The reactor included 2,004 process tubes in a graphite block shielded by steel and, surprisingly, Masonite.

TEXTILES

- ◆ Andrea Feeser. **Red, White and Black Make Blue: Indigo in the Fabric of Colonial South Carolina Life.** Univ. of Ga. Pr., 2013. 140 pp., illus. \$69.95; \$24.95 paper. Places indigo production in the context of the history and economy of the colony, as well as its importance to the British textile industry. Rev.: AHR (Dec. 2014), pp. 1683-84.

ABBREVIATIONS:

AHR	= American Historical Review
CE	= Civil Engineering, published by the American Society of Civil Engineers
NYT	= New York Times
RRH	= Railroad History, published by the Railway & Locomotive Historical Society
Timeline	= published by the Ohio Historical Society, \$40/yr. Info: (614) 297-2315
WSJ	= Wall Street Journal

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SITES & STRUCTURES

The **S.S. United States Conservancy** announced in February 2016 that it had made a deal with Crystal Cruises, a luxury cruise line, to study the possibility of returning the famed ocean liner to passenger service (*SIAN*, Fall 2014). Crystal indicated during a press conference at the Manhattan Cruise Terminal in New York City that it was committed to covering all costs of preserving the ship at its berth in Philadelphia while undertaking a technical feasibility study. Late last year, it was reported that the Conservancy had been forced to consider scrapping the ship due to the enormous costs involved with maintaining her in mothballs, estimated at over \$60,000 per month. Crystal will pay the berthing fees and undertake a study to determine if she can be brought into compliance with present-day standards. The *S.S. United States* was launched in 1952 and still holds the transatlantic speed record. Info: www.ssusc.org.

The **St. Nicholas Coal Breaker** in Mahanoy Township, Pa., continues to slowly come down. As reported in *SIAN* (Fall 2013 and Spring 2014), the “St. Nick” became the last of Pennsylvania’s surviving coal breakers with the demolition of the Huber Breaker in Ashley in early 2014. Both breakers suffered years of neglect but while the Huber Breaker was taken down within a few months, the St. Nick has been in the process of dismantling for at least three years. A contractor has been removing it semi-truck load by semi-truck load. Recent photos show that the breaker is close to being stripped down to its steel frame.—*Press Enterprise* (Feb. 4, 2016)

The **Yarloop Workshops Museum** in Western Australia was destroyed by a wildfire in January 2016. Considered a major industrial archeology site, Yarloop was the historic

headquarters of Millars, Karri & Jarrah Forests Ltd. From 1901 to 1978, the firm operated 26 sawmills and an extensive network of railways reported to be the largest private railroad system in the southern hemisphere. The museum complex, which opened to the public in the mid-1980s, housed sawmill equipment, 39 locomotives, and rolling stock once used in the logging operations.

Redevelopment of the **Richmond Shipyards** (tour site—2008 SIA Annual Conference, San Jose, Calif.) has moved forward with renovations of the Riggers Loft warehouse, a 27,140-sq.-ft. building that once housed the shipyards’ WWII-era assembly plant. The Alameda-based R&B Cellars has opened a new waterfront winery in a portion of the warehouse. Outdoor seating features beautiful views of the bay, but to make these views possible the *S.S. Red Oak Victory*, the last of the surviving Victory ships built at Kaiser Richmond Shipyards, had to be moved to new berth at a nearby basin. There has been some concern that the new berth may not be as welcoming to the floating museum’s visitors.—*The Richmond Standard* (Mar. 1, 2016)

The **Chamberlin Mill** in West Woodstock, Conn. (tour site—2011 SIA Fall Tour, Quinebaug River Valley) reports recovery of a grist millstone associated with the site. The site is recognized today as a remarkably intact 19th-century sawmill, but research confirms that before the sawmill there had also been a gristmill. Volunteers were excited to discover that a millstone that had been recovered from the site and sold at auction in the mid-1990s had turned up in a local antique store. The store’s owner graciously offered to donate the stone to the Chamberlin Mill for a future display. The Chamberlin Mill is a non-profit organization formed in 2013 to preserve and sustain the mill. The organization was a recipient of an SIA Industrial Heritage Preservation Grant that assisted with funding of restoration planning documents (*SIAN*, Summer 2015).—*Jean McClellan*

The Preservation League of New York named two IA sites to its “Seven to Save” list for 2016-17. The **Wildroot Company** in Buffalo was established in 1911 and became one of the largest hair-care product manufacturers in the world. In the 1940s, the company built a new headquarters and daylight factory on Bailey Avenue in east Buffalo. Although the factory has been vacant for years, a grassroots preservation group is advocating for its re-use. The **Adirondack Scenic Railroad** faces loss of 34 miles of track between Lake Placid and Tupper Lake. A New York State draft management plan calls for turning the right-of-way into a trail for walking, biking, snowmobiling, and cross-country skiing. A group of railroad enthusiasts saved the railroad from abandonment in the early 1990s and now help to operate the scenic railroad. They have joined with other preservation groups



Shuvaev, from Wikimedia.

St Nicholas Breaker, August 2015.

and municipal leaders to present alternatives that would maintain rail service.—*Preservation League of New York State* (Mar. 3, 2016)

Scenic Hudson has been making great strides improving public accessibility to the **West Point Foundry** site in Cold Spring, N.Y. A new trail system allows visitors to explore on their own and learn about the manufacturing process — especially the production of Parrott guns, which were so vital to the Union cause that President Abraham Lincoln visited the foundry in 1862. Scenic Hudson acquired the 86-acre West Point Foundry Preserve property in 1996 to safeguard the foundry's archeological remains from proposed development. Located within a dramatic forested ravine crossed by Foundry Brook, the preserve is listed on the National Register of Historic Places. Scenic Hudson has also created an online mobile tour that allows visitors or anyone browsing the Web to experience the foundry. Available at www.foundrytour.org, the tour features sound effects and videos, engaging narration, and historic photographs of the foundry and its workers. Scenic Hudson also offers periodic guided tours. Info: www.scenichudson.org.—*Scenic Hudson* (Mar. 14, 2016)



Jack E. Boucher, HAES, 1986

St. Louis Union Station.

Both the Ohio and Michigan legislatures have adopted resolutions calling on the federal government to proceed with planning to upgrade the **Soo Locks** for larger ships. They are also calling on neighboring Great Lakes states to adopt similar resolutions. Only one of the four Soo Locks is currently large enough to accommodate the vessels that commonly traverse the Great Lakes. Seventy percent of cargo is carried on ships that can only pass through the Poe Lock. Approximately 10,000 vessels travel through the locks annually, carrying 80 million tons of iron ore, coal, grain, and other cargo. Nearly 80 percent of domestic iron ore travels from the Upper Great Lakes through the Soo Locks.—*Michigan Senate Republicans News Release* (Feb. 18, 2016)

St. Louis Union Station will be undergoing renovations to renew its popularity as a tourist destination. The grand Romanesque Revival-style station was constructed in 1894 and stopped receiving passengers when Amtrak ended service in 1978. It reopened in 1985 as a hotel and shopping center, but after an initial burst of popularity visitation has dropped to 20 percent of its peak level. New attractions will include a light and sound show in the station's Grand Hall, 3-D animation on the side of the building, a 200-ft.-tall Ferris wheel, and outdoor food stands located in refurbished rail cars. Also see, www.stlouisunionstation.com.—*St. Louis Post-Dispatch* (Jan. 11, 2016)

The **Steamship Phoebe** is at the center of a controversy over where to store the historic boat while expansion construction occurs at its current home at the Pump House Steam Museum in Kingston, Ont. *Phoebe* was built in 1914 by the Davis Dry Dock Co. of Kingston. The 48-ft., wood-hulled pleasure craft was commissioned by Dr. John Brashear, an astronomer and instrument maker who invented the "Brashear process" of silver-coating mirrors. Brashear was from Brownsville, Pa., and summered on Canada's Lake Muskoka. The *Phoebe* is currently stored on a wooden cradle with protective shelter behind the museum. One alternative the museum explored was a long-term loan to the National Museum of the Great Lakes in Toledo, Ohio. Friends of the *Phoebe* who donated over 35,000 hours restoring the boat opposed the move. The Kingston City Council voted to keep the boat in Kingston, at a location that is still to be determined.—*KingstonRegion.com* (Mar. 28 and Apr. 21, 2016)

The **Wolverine Bridge** over the North Fork of the Kentucky River in Breathitt County, Ky. is a late-19th-century, Whipple, metal, through truss. Originally a railroad bridge, it was converted to highway use in the early part of the 20th century. The Kentucky Transportation Cabinet and the Kentucky Heritage Council have coordinated the bridge rehabilitation including deck replacement, structural repairs, cleaning, and painting. A video describing the project: <https://goo.gl/fklU37>. ■

IA ON THE NATIONAL REGISTER

The following is a compilation of industrial heritage and related sites listed on the National Register of Historic Places (U.S.) from Jan. 1 to Mar. 27, 2016.

Albion Carpet Mill, Philadelphia, Pa. Brick mill and warehouse in the Kensington neighborhood was established by James and George Bromley, c.1882.

Allouez Pump House, Allouez, Wis. Small-town pump house of 1925 in the Mediterranean Revival style.

American Furnace Co., St. Louis, Mo. Warehouse of 1950 recognized as an “excellent example of a Streamlined Moderne-style” building. The company, established in 1900, made oil-burning and electric furnaces for residential and commercial heating.

Baldwin Piano Co. Building, Cincinnati, Ohio. Completed in 1921, the 8-story factory was once the largest manufacturer of pianos in the U.S.

Bridge No. 90646, Edina, Minn. Listed under Iron and Steel Bridges in Minnesota (Multiple Property Submission (MPS)). A multi-plate steel arch erected in 1937 by the WPA carries Wooddale Ave. over Minnehaha Creek.

Cashier, Commercial Twp., N.J. Two-mast oyster schooner, launched in 1849 and currently sunk at Bivalve on the Maurice River.

Central Manufacturing District—Original East Historic District, Chicago, Ill. Planned industrial district near the Chicago Junction Ry. and the South Branch of the Chicago

River. Includes 62 contributing industrial and commercial buildings from 1902 to 1965.

Colorado Sanitary Canning Factory, Brighton, Colo. Concrete-block cannery of 1908 was used to house German prisoners of war during WWII.

Durant Illinois Central RR Depot, Durant, Miss. Spanish-revival style, brick depot of 1909.

Falls Stamping and Welding Building, Cuyahoga Falls, Ohio. Foundry building of 1928.

The Great Atlantic & Pacific Tea Co. Warehouse, Buffalo, N.Y. Reinforced-concrete warehouse constructed in 1917 as a regional distribution center for the retail grocer.

Globe Woolen Co. Mills, Utica, N.Y. Complex consists of a 4-story brick mill, company office, and two storehouses from 1872 to 1886.

Hickman Mill Historic District, Graniteville, S.C. One of the South’s earliest textile-mill villages, established in 1849 as the Graniteville Mfg. Co. President Hamilton H. Hickman had a paternalistic attitude and built churches, an academy, and a magnificent clubhouse for the workers.

Inman Mills, Inman, S.C. Textile mill complex of 1901 founded by industrialist James A. Chapman. Listed under Textile Mills designed by W.B. Smith Whaley MPS.

Klotz Confectionary Co., Louisville, Ky. Brick candy factory of 1937.

La Crosse Plow Co. Bldg., La Crosse, Wis. Factory complex, constructed in phases 1914-38, produced plows, rakes, and other agricultural equipment. Acquired by Allis-Chalmers in 1929.

Louisiana Superdome, New Orleans. The 76,000-seat stadium, opened in 1975, is the largest single-span dome in the nation. Listed as a significant example of Modernist architecture and a shelter of last resort for New Orleanians during hurricane Katrina.

Morehead Chesapeake & Ohio Ry. Freight Depot, Morehead, Ky. Constructed about 1881 by the Elizabethtown, Lexington & Big Sandy Ry.

Mueller Electric Co. Building, Cleveland, Ohio. Brick building, dating to 1922, headquarters of the company founded by Ralph S. Mueller, who co-invented the alligator clip in 1908.



Inman Mills, S.C. 2013.

Herdingtheupstate, from panoramio.com.



Baldwin Piano Co. Bldg., Cincinnati, converted to office space in 1987.

Paso Robles Almond Growers Association Warehouse, Paso Robles, Calif. Reinforced-concrete warehouse was built in 1922 to handle and shell local almond crops.

Pilot Butte Canal Historic District, Bend, Ore. Irrigation canal of 1903-05 encouraged the development of farming in Deschutes County.

Pittsburgh Brass Mfg. Co. Bldg. Four-story brick factory of 1903 in downtown Pittsburgh. Firm specialized in products for industrial customers, including a patented ball pipe joint.

Sac City Chicago & North Western Depot, Sac City, Iowa. Brick depot of 1879. Listed under the Advent & Development of Railroads in Iowa MPS.

St. Louis Post-Dispatch Rotogravure Printing Plant, Mo.

Santa Fe Trail Mountain Route Trail Segments, Bloom and Timpas, Colo. Listed under Santa Fe Trail MPS.

Springfield Metallic Casket Co., Ohio. Founded in 1884, grew to one of the nation's largest manufacturers of metal caskets and burial vaults.

U.S. Army Supply Base New Orleans, La. Consists of three six-story, reinforced-concrete warehouses. One of three such bases constructed at the end of WWI; the other two in South Boston and Brooklyn.

Wilbur-Campbell-Stephens Co. Cuff and Collar Factory, Troy, N.Y. Six-story brick factory of 1899, when Troy was a center for detachable cuffs and collars. ■

IA on the National Register is compiled from the National Register Weekly List supplemented by information gleaned from other sources.

CHAPTER NEWS

Oliver Evans (Greater Philadelphia). In February, glass historian Mary Mills gave a presentation on the history of Philadelphia's colonial and mid-19th-century glassworks, showcasing artifacts unearthed over the past few years by archeologists working in advance of an I-95 widening project north of downtown Philadelphia. In March, the chapter met at the Fairmount Water Works for an illustrated presentation on the Schoenhut Toy Companies by historian Carol Corson. The toymaker was founded in Philadelphia in 1872 by Albert Schoenhut, whose father and grandfather were toy makers in Germany. By 1912, the company was considered America's largest toy maker.

In April, Joel Spivak offered an illustrated lecture on the history of the Fairmount Park Trolley, which opened in 1896 with 16 stations, a bridge over the Schuylkill River, a car barn, and a power station. There are many remnants of the trolley system in the park today.

Roebling (Greater New York City) held its annual meeting at the Rogers Locomotive Storage Building in Paterson, N.J. Prior to the meeting, members had an opportunity to tour Hinchliffe Stadium and the newly re-opened Mary

Ellen Kramer Park at the Paterson Great Falls National Historical Park. The meeting featured several presentations including an update on the new furnace walkway at Bethlehem Steel in Bethlehem, Pa.

The Roebling Chapter's spring itinerary of tours continued a long-standing tradition of exploring and supporting sites of IA interest. In March, the chapter had a guided tour of the architecture of Princeton, N.J.; took a walking tour of Oreland, an iron-mining ghost town in Morris County, N.J.; and enjoyed a guided tour of the Elevator Museum in Long Island City, N.Y. In April, the chapter visited Split Rock Iron Furnace (Morris County's only standing furnace); walked a section of the Morris Canal Greenway in Clifton, N.J.; and had a behind-the-scenes guided tour of the NYC Transit Museum in Brooklyn. ■

Support Your Local Chapter. For info on a chapter near you or to start one, contact Ron Petrie, SIA Director, Local Chapter Chair (ron@siahq.org) or check out the local chapters section of the SIA website (www.sia-web.org).

IA ON THE WEB

Boeing Centennial (www.boeing.com/boeing100/). On July 15, 2016, Boeing, the world's largest aerospace company, will celebrate its 100th anniversary. Boeing's centennial website details events, activities, resources, and commemorations. The section called *Boeing Archives Presents* offers a selection of photos, films, documents, and artifacts. There are also sections on Boeing's "heritage" companies such as McDonnell Douglas, North American Aviation, Hughes, Jeppesen, and Stearman.

CG36500, Gold Medal Boat (www.cg36500.org). The Orleans (Mass.) Historical Society has preserved and restored a 36-ft. wooden motor lifeboat used by four Coast Guardsmen to rescue 32 crewmen from the tanker *Pendleton* after it broke apart off Cape Cod on Feb. 18, 1952. The four received the Gold Life-Saving Medal. Their story was the subject of the recent feature film *The Finest Hours*. The website includes historical photographs and background, as well as an appeal for donations to assist with the lifeboat's continuing upkeep. The official Coast Guard history of the rescue is on-line at www.uscg.mil/history/articles/Pendleton_Webster.asp.

Denton FarmPark (<http://dentonfarmpark.com>). Denton FarmPark (Denton, N.C.) is a family-owned historical park with 15 restored buildings including a gristmill and a blacksmith shop. There is also a steam railway operating with a 0-4-0 Porter switching locomotive of 1942. It is also the site of the Southeast's Old Threshers' Reunion (July 1, 2016).

Gramercy Typewriter (www.youtube.com, search on "A New York Story—Gramercy Typewriter"). A 5-min. documentary tells the story of Paul Schweitzer, who has been repairing typewriters for the past 52 years in a shop established by his father. Customers come in daily to purchase refurbished typewriters. There is also a steady stream of service calls.

Indiana Historic Bridges Inventory (www.in.gov/indot/2530.htm and [2532.htm](http://www.in.gov/indot/2532.htm)). Indiana has inventoried all of its bridges and has a Programmatic Agreement which stipulates that historic bridges meeting certain criteria must be preserved or relocated if they cannot continue to be used as part of the transportation system. A list of bridges currently available for reuse is on the Historic Bridge Marking Program page.

Industrial Heritage Assn. of Ireland (<http://ihai.ie>). The IHA has launched a website with information about events, membership, and publications. There is also a long list of links to Irish IA sites that are open to the public.

Ingenious Design of the Aluminum Beverage Can (www.youtube.com, search on title). Bill Hammack, "engineer guy," explains in an 11-min. video why a can is cylindrical, outlines the manufacturing steps, notes why a can narrows near its lid, shows the double-seam that holds the lid on, and explains the deceptively complex operation of the tab that opens the can.

Living New Deal (www.livingnewdeal.org). This website's goal is to offer a national database of New Deal sites and resources. So far, there are over 10,000 entries on the interactive map. There is also a self-guided tour of New Deal sites in the San Francisco area. Developed cooperatively with the Dept. of Geography, University of California, Berkeley.

Maine Memory Network (www.mainememory.net). The Maine Historical Society's website includes much of IA interest. For example, under the category of "Exhibits" are slideshows of historic images on Aroostook County Railroads; Biddeford, Saco and the Textile Industry; Big Timber, the Mast Trade; Blueberries to Potatoes, Farming in Maine; Canning, a Maine Industry; a Celebration of Skilled Artisans; Early Fish Canneries in Brooklin; Eastern Fine Paper; a Field Guide to Trolley Cars; History in Motion, the Era of the Electric Railways; Ice, a Maine Commodity; Jay & Livermore Falls, Pioneers in Paper Making; Laboring in Maine; Moosehead Steamboats; Powering Pejepscot Paper Co.; Silk Manufacturing in Westbrook; The Swinging Bridge, Walking across the Androscoggin; a Tale of Two Sailmakers; The Waldo-Hancock Bridge; Wired! How Electricity Came to Maine; and Yarmouth, Leader in Soda Pulp.

Masinda's Button Shop (www.facebook.com, search on "Masinda's Button Shop"). A water-powered shop in rural Willington, Conn. is being restored to operation by a grandson of a Czech immigrant who made shell buttons there from 1903 to 1938. Facebook offers a selection of photographs. There is also a short article in the *New York Times*, Art & Design Section (Dec. 4, 2015).

MidAmerican Energy Co.—From the Ground Up (www.youtube.com, search on title). Erection of a giant wind turbine is documented through time-lapse photography. The video is 5 minutes long, the actual construction took 3 weeks.

Park-o-Mat (<http://greatergreaterwashington.org>, search on "driverless parking garage"). A brief article with a 44-sec. newsreel clip details the operation of a garage at K Street NW in Washington, D.C. in 1951.

MEMBER NEWS

Tax Incentive Case Studies—Industrial Properties (www.nps.gov/tps/tax-incentives/case-studies.htm). The National Park Service features case studies highlighting projects across the country that successfully used the 20% historic preservation tax credit. Case studies include the Kansas Fruit Vinegar Co. Building (now an art gallery), Richmond (Va.) Locomotive & Machine Works (movie theater complex), Milwaukee Gas Light Co. West Side Gas Plant (offices), American (ex-Wiesener) Brewery in Baltimore (social services), Cheney [Silk] Mill Dye House in Manchester, Conn. (housing), and Sioux City (Iowa) Linseed Oil Works (offices).

Turk Island Salt Works (<http://californiahistoricalsociety.blogspot.com/2015/07/turk-island-salt-works-alvarado.html>). Historical background on one of the Bay Area's better known salt works. Includes bibliography.

Vintage Volkert (www.al.com, search on Volkert). A brief history and selection of 29 photographs document major Gulf Coast infrastructure projects designed or constructed by Volkert, Inc. Founded in New Orleans in 1925, Volkert moved to Mobile, Ala. in 1946.

Virtual River Tours of the Chesapeake (www.chesapeakeconservancy.org/riverview). Users of this application are offered unprecedented virtual access to the Potomac, James, Susquehanna, and Nanticoke rivers. 360-degree panoramic views were taken every 50 feet from a small watercraft. The Potomac section features Mallows Bay and its ship graveyard.

Weaving the Bridge at Q'eswachaka (www.youtube.com, search on title). A Peruvian community rebuilds an ancient reed suspension bridge each year using traditional techniques. Produced by the Smithsonian.

Correction: In the *SIAN* (Winter 2016), the IA on the Web entry "100 Year Old Technology of the New York City Subway" included an incorrect web address (URL). The URL should have been <http://devour.com/search/100+year+old+subway/>. The description was also misleading; the video discusses the antiquated West 4th St. interlocking then leads to an info-commercial for the replacement of such systems. ■

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: phsianews@aol.com.

Robert M. Frame III received the biennial David Stanley Gebhard Award from the Minnesota Chapter of the Society of Architectural Historians. The award was for *Constructing Suburbia: The Hidden Role of Prestressed Concrete*, co-authored with Richard E. Mitchell, which appeared in the Winter 2014-15 issue of *Minnesota History*. The award recognizes an outstanding article that focuses on some aspect of the built environment. The citation states that Frame and Mitchell "celebrate Minnesota's prestressed-concrete pioneers who stepped up in the years following World War II to produce structures ranging from a small prestressed-concrete picnic shelter to major parking ramps and the elevated roadways at Minneapolis-St. Paul International Airport." Bob writes, "I've been regularly surprised by the interest shown in prestressed concrete, including two presentations for the Construction History Society of America. I think it's just odd enough, and mysterious enough, that it generates interest and attention."

Noel L. (Jack) Dixon of Carnegie, Pa. succumbed to lung cancer on Sept. 19, 2015. Jack was a frequent attendee of SIA meetings over the past 15 years or so, and also at some B&O Railroad Historical Society and Railroad Industry Special Interest Group (RRISIG) meetings. Jack attended the Standard Steel tour at the Pennsylvania RR Technical & Historical Society meeting in State College, Pa. in April 2015. We knew he was having some medical problems due to his absence at subsequent rail-enthusiast activities later in the year but didn't know the extent. Stan Knotts recalls a ride on the Chicago "L" with the RRISIG during which Jack generated some anxiety on the part of non-RRSIG passengers. As a joke, Jack started talking about his space alien buddy Zircon who rode on his shoulder, feeding on the third-rail power. Our SIA meets will never be the same.—*John Teichmoeller* ■



"Maybe we drank more beers than we should have..."
Jack Dixon (center) and Kathy Farnsworth (left) at the Youngstown Center for Labor & Industry during the 2006 SIA Fall Tour. James Bouchard looks on patiently.

John Teichmoeller

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CALENDAR

2016

July 28–31: Petroleum History Symposium, Casper, Wyo. Paper sessions and field trips to the Black Gold Byway, Salt Creek oil field, and Teapot Dome. Info: <http://petroleumhistory.org>.

Sept. 4–14: Assn. for Industrial Archaeology Annual Conference, Telford, England, U.K. Tours include Grange Colliery, Wappenshall Canal basin, Iron Bridge, and Ditherington Flax Mill. Info: <http://industrial-archaeology.org>.

Sept. 14–22: World Canal Conference, Inverness, Scotland, U.K. Info: <https://wccscotland.com>.

Sept. 30–Oct. 2: Workshop for the History of Environment, Agriculture, Technology & Science (WHEATS), New Brunswick, N.J. Info: www.wheats2016.wordpress.com

Oct. 20–22: Society for the Preservation of Old Mills (SPOOM) Annual Conference, Dayton, Ohio. Info: www.spoom.org.

Oct. 28–30: SIA FALL TOUR, FOX RIVER VALLEY, WIS. Based out of Green Bay. Info: www.sia-web.org [tour registration materials will be sent to members over the summer].

Oct. 30–Nov. 2: Assn. for Preservation Technology International Annual Conference, San Antonio, Texas. Info: www.apti.org.

Nov. 15–18: National Trust for Historic Preservation Conference, Houston, Texas. Info: <http://pastforwardconference.org/pastforward2016/>.

2017

Jan. 4–8: Society for Historical Archaeology Annual Conference, Fort Worth, Texas. Info: <http://sha.org/conferences/>.

Apr. 19–22: National Council on Public History Annual Meeting, Indianapolis, Ind. Info: <http://ncph.org/conference/2017-annual-meeting/>.

June 7–11: Society of Architectural Historians Annual Conference, Glasgow, Scotland, U.K. Info: www.sah.org/conferences-and-programs/2017-conference-glasgow. ■