



# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

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Number 1

## PETTY'S RUN

### *Significant IA Site to Be Preserved and Displayed in Trenton*

In 2008-09 large-scale archeological excavations in Mahlon Stacy Park adjacent to the New Jersey State House in downtown Trenton uncovered extensive remains of several 18th- and 19th-century water-powered industrial facilities ranged along a minor tributary of the Delaware River known as Petty's Run. Chief among these remains are the foundations of the cementation furnace and furnace house of the Trenton Steel Works, ca. 1745-84, which represent the first archeologically documented evidence of a colonial and Revolutionary War-era steel manufacturing site in North America. Also found were traces of the Harrow/Yard plating mill, ca. 1731-77, and a short-lived cotton mill, ca. 1814-20, as well as rather more substantive remnants of the Front Street paper mill, ca. 1827-76.

The Petty's Run Archeological Site, as these remains are now collectively termed, is concentrated within a roughly 100-foot-square area and contains a complex sequence of

masonry footings and cultural deposits extending to depths as much as 20 ft. below grade. An especially strong visual element within the site is the channelized stream of Petty's Run, which exists today as an abandoned brick-arched culvert within Trenton's city-wide storm sewer system, descending the bluff edge in a series of three long steps. The run's 18-ft. drop over a linear distance of around 85 ft. is the reason this spot in the landscape emerged as a focus of waterpower development.

The survival of industrial archeological remains at this location had been suspected for many years. Archival research and occasional subsurface testing since the mid-1980s had offered glimpses of what lay hidden beneath the park lawn. The ongoing design of the new Capital State Park, an ambitious scheme that seeks to upgrade the State House surroundings and reconnect downtown Trenton to the Delaware River waterfront, provided an opportunity for fuller exploration of the Petty's Run site with a view to its

*(continued on page 2)*



Hunter Research, Inc., all photos

*View of Petty's Run excavation site from State House roof.*

### **In This Issue:**

- Cincinnati Conference Preview
- 2012 SIA Election Slate
- General Tools Award, Call for Nominations
- Vogler Mill
- Hojack Bridge

ultimate display and interpretation for the benefit of visitors to the state capital.

Almost a century and a half of water-powered industrial history is encapsulated at the Petty's Run site, extending from the early 1730s into the mid-1870s. The initial mill development was an iron forge established between 1731 and 1733 by local blacksmith Isaac Harrow. Waterpower was used to operate a trip hammer and perhaps also a bellows. Most often referred to as a plating mill, this facility processed local bar iron into plate-metal goods such as kettles, pans, shovels, and edge tools such as axes and knives. The plating mill was acquired by another local blacksmith, Benjamin Yard, in 1745, remaining active into the early years of the Revolutionary War. In 1776 Yard produced muskets, bayonets, and scabbards for the Continental Army, but in the following year, as the British advanced up the Delaware to take Philadelphia, American troops disabled the mill to

prevent its capture and use by the enemy. No evidence has been found for the plating mill operating after 1777. Archeological excavation found traces of the plating mill foundations deeply buried at the base of the site, but most of the building appeared to have been removed to make way for the later cotton mill.

Shortly after Yard acquired the plating mill, he erected a steel furnace on the opposite side of the run. In 1750, when Parliament, through the Iron Act, sought to protect the British metalworking industry and restrict late-stage metal fabrication in North America, Yard's furnace was inventoried as one of only five steel works in the colonies. While no new steel works were allowed to be built, these facilities were grandfathered in and permitted to stay in operation. All five made use of cementation furnaces in which bar iron inter-bedded with charcoal was heated in a stone or brick chest until sufficient carbon was absorbed to form "blister steel." In the case of the Trenton Steel Works, the furnace probably did not draw power from Petty's Run, but the furnace house is suspected to have also contained a water-powered refinery forge in another section of the building that was subsequently destroyed. The steel furnace likely worked in concert with the plating mill, supplying the metal for edging tools and for the manufacture of other specialized items.

In 1762, Benjamin Yard sold the steel works to a pair of prominent Philadelphia merchants, Owen Biddle and Timothy Matlack, both of whom probably viewed steel making as an investment opportunity at a time when American disregard for British regulation of colonial metalworking was mounting. Owen Biddle, a trained clock and watchmaker, budding scientist, and founding member of the American

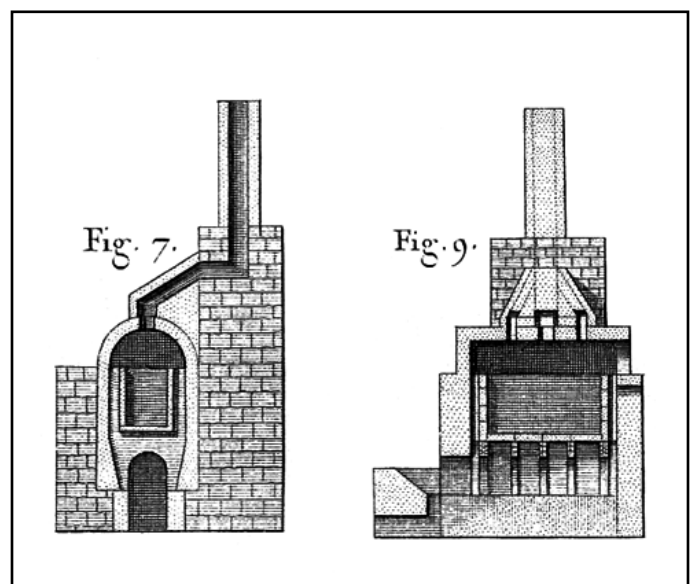
(continued on page 4)

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](mailto:SIA@mtu.edu); Website: [www.sia-web.org](http://www.sia-web.org).

Mailing date for Vol. 41, No. 1 (Winter 2012), Feb. 2012. ISSN 0160-1067. If you have not received an issue, apply to SIA-HQ (address above) for a replacement copy.

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 Road, Wilmington, DE 19809; (302) 764-7464; e-mail: [phsianews@aol.com](mailto:phsianews@aol.com).



*The Trenton Steel Works furnace was probably similar to this small single-chest furnace located in Sheffield, England and drawn in 1765-66 by G. Jars. Source: Voyages Metallurgiques (Lyons, 1774).*

# 41st SIA Annual Conference

CINCINNATI, MAY 31–JUNE 3, 2012

Plans are progressing rapidly for the SIA's Annual Conference in the Queen City. Three days of tours and a full day of paper sessions are planned. Registration materials will be mailed to all SIA members in the upcoming weeks. Additional information can be found on the SIA's website ([www.sia-web.org](http://www.sia-web.org)).

Since the SIA last met in Cincinnati in 1978, the skyline has changed, and much of the heavy industry is gone, but many IA attractions remain. Cincinnati has an unusual stock of 19th-century commercial buildings, a surprising amount of industrial activity, and Art Deco masterpieces such as Carew Tower, the Hilton Cincinnati Netherland Plaza (conference headquarters), Union Terminal, and Lunken Airport. The vast Union Terminal complex now contains three museums, including the Cincinnati History Museum where our Saturday banquet will be held. In addition to Cincinnati and its Ohio suburbs, tours are planned to include sites in Kentucky and as far north as Dayton. The area's industrial heritage includes many examples of water, rail, and air transportation infrastructure and component manufacturing, food processing, and production of parts for motor vehicles.

## CALL FOR PAPERS

The SIA invites proposals for papers and poster displays to be presented at the Conference on Sat., June 2. Poster displays can be works in progress. Presentations on all topics related to industrial archeology, technology, social change related to industry, and bridges are welcome. Papers about regional industries and transportation are encouraged. All papers and poster displays should offer interpretation and synthesis of data. Paper sessions will be held at the Hilton.

**Presentation Formats:** Proposals may be for individual papers, 20 minutes in length, a group of themed papers filling a 90-minute session, or organized 90-minute panel discussions (formal commentator optional).

**Proposal Formats:** Proposals should be submitted electronically (Microsoft Word.doc, or OpenOffice Open Document Text.odt) unless other arrangements have been made. Each proposal must include: 1) title; 2) a 300-500 word abstract with a detailed discussion of points, findings, or conclusions; 3) brief résumé(s) for the presenter(s), including postal address, telephone/fax numbers, and e-mail; 4) a list of visual-aid requests. Facilities for media formats



*Warehouses and factories line the Miami & Erie Canal, Cincinnati, ca. 1900. Images of America Lantern Slide Collection, Library of Congress*

other than Microsoft PowerPoint.ppt or OpenOffice Open Document Presentation.odp may not be available.

For 90-minute sessions, a panel organizer should submit all paper proposals as a group, accompanied by a title and a brief description of the theme or purpose. If any of these items are missing, the proposal cannot be considered.

Presenters are encouraged to consider transforming papers into an article for *IA: The Journal of the Society for Industrial Archeology*. No conference proceedings are published.

Deadline for paper proposals: Mar. 31. Send proposals or questions to: [secretary@siahq.org](mailto:secretary@siahq.org); Justin M. Spivey, SIA 2012 Paper Sessions Chair, 405 N. Main St., Hightstown, NJ 08520; (609) 751-6915.

## TRAVEL SCHOLARSHIPS

The SIA awards travel scholarships to help full-time students and professionals with less than three years of full-time experience to attend annual conferences. Scholarships are a cash stipend that typically covers some, but not all, of the costs of travel and lodging. Those interested in applying for a travel scholarship to attend the 2012 Annual Conference in Cincinnati should submit a concise letter outlining their demonstrated interest in and commitment to industrial archeology or a related field, and one letter of reference. Deadline for applications is Mar. 31, 2012. Apply to Patrick Harshbarger, SIA Scholarship Committee, 305 Rodman Rd., Wilmington, DE 19809; (302) 764-7464; [phsianews@aol.com](mailto:phsianews@aol.com). ■



## **PETTY'S RUN** *(continued from page 2)*

Philosophical Society, would also have appreciated steel as a material from which to make specialized items such as springs, files, and precision instruments. From the early 1760s until the early years of the American Revolution the Trenton Steel Works was owned by a succession of Philadelphia merchants and investors and operated by a number of different ironmasters. Trenton steel was advertised for sale in Philadelphia and New York newspapers and claimed to be of a caliber comparable to that imported from England. In actuality, production was intermittent, and the quality of the steel was often questionable, as revealed by the correspondence of one of the plant's principal owners, John Pemberton.

The works supplied steel to the Continental Army during 1776, but the facility may have shut down in the fall of 1777 following the British occupation of Philadelphia. Unlike the plating mill, however, the furnace resumed operation in the waning years of the war. In 1781-82, after it was acquired from Pemberton by local Trenton merchant and entrepreneur Stacy Potts, the furnace produced steel through the firm of Potts & Downing. This proved to be the steel works' last hurrah. The new owners and operators were unable to deliver on a potentially lucrative government contract during the war and could not compete with cheaper, better quality British steel imported after the war. Potts & Downing defaulted on payments to one of their bar-iron suppliers and soon was taken to court. The works ceased operation in 1784.

Archeological excavation found the base of a roughly 10-foot-square furnace set within the northeastern quadrant of a 30 × 34-ft. furnace house, the existence of which was documented in a sale advertisement of 1765. Bracing walls linking the furnace base to the exterior of the building were also found. No steel was recovered, but the site yielded ample quantities of high-fired and glazed furnace brick. Robert Gordon [SIA] and Colin Thomas of the Yale University Archaeometallurgy Laboratory identified several fragments of metal as cast-iron grate bars from the furnace fire box.

Interestingly, glazed brick and pottery wasters suggest that the furnace may also have been briefly used as a pottery kiln, probably in the mid-1780s after the steel works closed down.

Substantial remains of the 19th-century cotton mill and paper mill overlie the traces of the plating mill and steel works. In addition to mill-building walls that stand more than 12 ft. high in places, there is the massive wheel pit of the paper mill immediately adjacent to Petty's Run. In its original form, this 10-ft.-deep stone-lined pit measured more than 20 × 10 ft. and contained a 20-ft.-dia. overshot wheel. The paper mill hydrosystem underwent at least two phases of modification, the final one in the late 1860s when the waterwheel was replaced by a turbine. Although the turbine itself had been removed, timber traces of the water box and adjoining forechamber survive in the bottom of the wheel pit.

Current economic conditions have led to the temporary shelving of plans for the Capital State Park. For a brief period it seemed that the revealing excavations at Petty's Run might be unceremoniously backfilled and the site returned to its earlier lawn-like condition. A public outcry ensued, led by local, state, and national preservation groups (with SIA in the vanguard). With some well-timed support and a commitment of additional funding from the County of Mercer, the State of New Jersey has now resolved that the site will be stabilized, interpreted, and displayed as a unique educational feature of the historic State House complex. The Petty's Run preservation project is currently nearing the end of the design process; in a year or so the area will be opened as an outdoor exhibit that is part of a visit to the State House and downtown Trenton. Richard W. Hunter and Ian Burrow of Hunter Research, Inc., a Trenton-based cultural resources management firm, have been the project's principal investigators. For more detail on the Petty's Run excavations, visit [www.pettysrun.org](http://www.pettysrun.org).

*Richard W. Hunter*



*Paper mill wheel pit.*



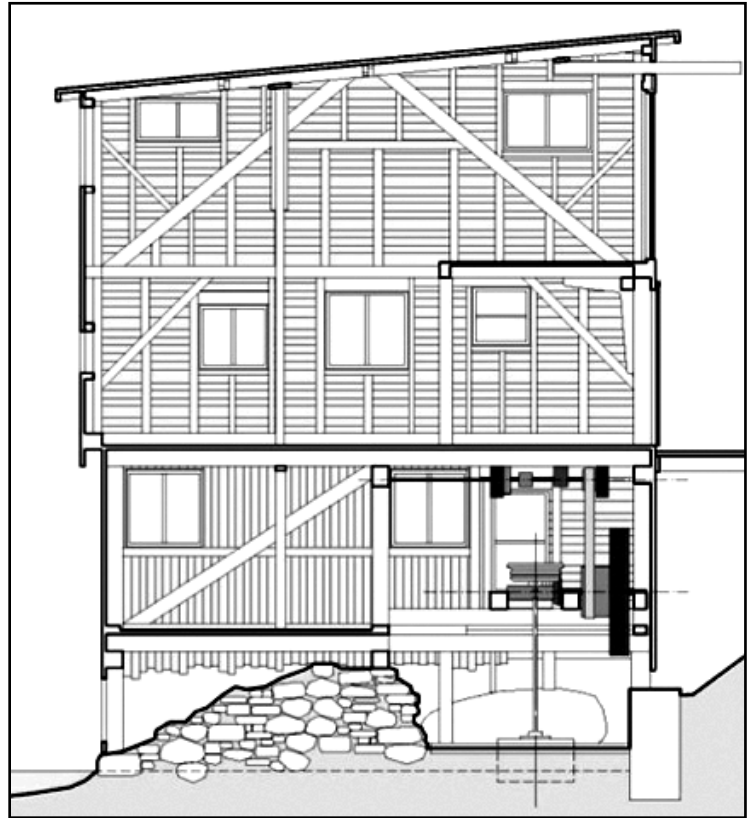
*Furnace base and furnace house.*

# Vogler Mill

Industrial Heritage Nova Scotia (IHNS) recently completed recordation of the Vogler Oar & Handle Mill in Crousetown. The mill on the Petite Riviere was set up as a shingle mill in 1839. In the late 1800s George Vogler and his son Rupert turned to making oars, canoe paddles, and tool handles, and the operation became known as Vogler Oar & Handle Mfg. Ltd. The mill closed after the death of Rupert in 1933 but was briefly revived in the 1980s.

The two-story, timber-frame mill is built over the river with support from a concrete bearing wall on the river edge and large rocks in the river. The waterpower system consists of a low-head turbine fabricated by the Bridgewater Foundry (Manchester, England) in the late-19th century. The associated dam is an example of a cribwork splash dam, common in North America from the mid-19th century. The mill retains some machinery, including an Ober duplicating lathe for producing tool and axe handles. The Voglers also built their own special cutters and shapers to rough out the oars and paddles.

IHNS members Laura deBoer, David Quinn, David Rollinson, and Donald Wyllie [SIA] worked on the Vogler Mill documentation project, which included measured drawings, recordation photographs, and a poster. The mill's future is uncertain due to structural failures that have placed it in a dangerous, unstable condition. Info: [Donald.Wyllie@smu.ca](mailto:Donald.Wyllie@smu.ca); [www.industrialheritagens.ca](http://www.industrialheritagens.ca).



Cross-section of the mill on turbine shaft. Overall height = 29 ft.



River elevation of the Vogler Mill. Length = 27 ft.

## SIA Becomes SAH Partner

In an effort to reach out to organizations with like interests, the SIA is pleased to announce that it has become an official Partner Organization of the Society of Architectural Historians (SAH). This allows the SIA and SAH to enter into a more formal relationship to participate in, and share news about, organization activities and to advocate for the preservation of important sites. SAH will offer occasional benefits or discounts to SIA members, including the ability to participate in SAH study tours. SIA members are invited to register at the SAH member rate for their upcoming Study Tour to Saxony, Germany, July 11-25, 2012. Info: [www.sah.org](http://www.sah.org).



# 2012 GENERAL TOOLS AWARD

## Call for Nominations

The General Tools Award Committee invites and encourages SIA members to submit nominations for the Society for Industrial Archeology General Tools Award for Distinguished Service to Industrial Archeology.

The General Tools Award is the highest honor the SIA can bestow. The award recognizes individuals who have given sustained, distinguished service to the cause of industrial archeology and is presented at the SIA's annual business meeting.

Criteria for selection are as follows: (1) The recipient must have given noteworthy, beyond-the-call-of-duty service, over an extended period, to the cause of industrial archeology. (2) The type of service for which the recipient is recognized is unspecified, but must be for other than academic publication. (3) It is desirable but not required that the recipient be, or previously have been, a member of the SIA. (4) The award may be made only to living individuals. Teams, groups, agencies, firms, or any other collective entities are not eligible.

The nomination, which should not exceed three double-spaced typed pages, should address the specific accomplishments that qualify the nominee for the award.

Supplementary material (the candidate's resume, for ex-

ample) may be appended to the nomination. Nominations must also include the name, address, telephone number(s), and e-mail of the nominator. Any SIA member in good standing may make a nomination.

The General Tools Award was established in 1992 through the generosity of Gerald Weinstein [SIA], chairman of the board of General Tools & Instruments Company, LLC of New York City, and the Abraham and Lillian Rosenberg Foundation. The Rosenbergs founded General Hardware, the predecessor to General Tools. The award consists of a citation, a commissioned sculpture known as The Plumb Bob, and a cash award. Previous recipients are Emory Kemp (1993), Robert Vogel (1994), Edward Rutsch (1995), Patrick Malone (1996), Margot Gayle (1997), Helena Wright (1998), Vance Packard (1999), Eric DeLony (2000), Robert Merriam (2001), Charles Parrott (2002), Alex Barbour (2003), Charles Hyde (2004), Lance Metz (2005), Patrick Martin (2007), Christopher Andreae (2008), Carol Poh (2009), Robert Gordon (2010), and Richard Anderson (2011). There was no award in 2006.

Nominations, **which must be received on or before Apr. 16**, should be submitted to: Michael Raber, Chair, General Tools Award Committee, 81 Dayton Rd., P.O. Box 46, South Glastonbury, CT 06073; (860) 633-9026; [mrsaber@aol.com](mailto:mrsaber@aol.com). ■

## SIA Slate of Candidates—2012

The Nominations Committee is pleased to present the following *draft* slate of candidates for the 2012 election:

<b>President</b> (2-year term) <i>Vote for one</i>	Duncan Hay
<b>Vice President</b> (2-year term) <i>Vote for one</i>	James Bouchard Amanda Gronhovd
<b>Director</b> (3-year term) <i>Vote for two</i>	Gianfranco Archimede Dennis Furbush David Hayes Anthony Meadow Erin Timms
<b>Nominations Committee</b> (3-year term) <i>Vote for one</i>	Susan Appel Lee Maddex

SIA by-laws 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 is that notice; it is not a ballot.** Additional nominations may be made in writing over the signatures of no fewer than 12 members in good standing (dues paid for the 2012 calendar year) and delivered to the Nominations Committee chair at the address below no later than **April 15, 2012**. Candidates must have given their consent to be nominated and must also be SIA members in good standing. Ballots, which will include a biographical sketch and photograph of each candidate, will be mailed in late April. Members must have paid their dues for the 2012 calendar year in order to vote.

The current Nominations Committee includes Rachael Greenlee (*chair*), Kevin Pegram, Tim Mancl, and Mary Habstritt (*ex officio*). Please direct all nominations and other correspondence to: SIA Nominations Committee, c/o Rachael Greenlee, Chair, SIA Nominations Committee, 113 South U Street, Apt. 44, Lompoc, CA 93436; (812) 344-3657; [rhfctr@gmail.com](mailto:rhfctr@gmail.com). ■





# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

### PUBLICATIONS OF INTEREST

Vol. 41, No. 1

Winter 2012

COMPILED BY

Mary Habstritt, New York, N.Y., Justin Spivey, Hightstown, N.J., and Patrick Harshbarger, SIAN editor, Wilmington, Del.

#### GENERAL INTEREST

- ◆ Stephen Bitgood. **Social Design in Museums: The Psychology of Visitor Studies.** MuseumsEtc, 2011. 2 vols. 928 pp. £95. Collection of essays offers theory and practical advice for designing effective exhibits and improving visitor experience.
  - ◆ Victoria Lambert. **John Caudwell: 'I Can't Stand By and See Our Wedgwood Heritage Shattered.'** *The Telegraph (UK)*. Dec. 24, 2011. Millionaire English businessman John Caudwell, owner of Phones4u, is purchasing the Wedgwood Museum's magnificent collection in order that it may remain on public display in Stoke-on-Trent, his hometown. In a complicated legal case, the pottery collection had been forfeited by the museum to be sold to cover an approximately \$250 million pension deficit stemming from the collapse of the Waterford Wedgwood firm in 2009. Although Wedgwood family members had donated the collection to the museum over the past 100 years, a British court found that the museum lacked legal documentation that the donations had been placed in trust.
  - ◆ Tod Newcombe. **Linear Parks Are Reshaping Urban Landscapes.** *Governing Magazine* (Oct. 2011). Government officials are taking note of successful projects adapting urban viaducts and bridges into linear parks including: the High Line in New York City; Walkway-over-the-Hudson in Poughkeepsie, N.Y.; and the Bridge of Flowers in Shelburne Falls, Mass. Parks in planning stages include the Reading Viaduct in Philadelphia and the Bloomingdale Trail in Chicago. The parks have a good track record attracting commercial re-development to former industrial districts. Also, Tyler B. Silvestro. **Rolling Out: Philly's Elevated Railway Is Struggling to Become the High Line.** *The Architect's Newspaper* (Dec. 15, 2011). Planning and financial challenges to converting the Reading Viaduct into a linear park.
  - ◆ Robert O'Harrow, Jr. **Montgomery Meigs's Vital Influence on the Civil War—and Washington.** *Washington Post Magazine* (July 1, 2011). Feature-length article on the life and works of the engineer who built the U.S. Capitol rotunda and the Potomac River aqueduct, and served as quartermaster general of the Union Army. Also namesake of the SIA's local chapter.
  - ◆ **TICCIH Bulletin**, No. 52 (2Q 2011) includes John Little, *Save the Dome of the Dounreay Nuclear Reactor* (the spherical blast-proof vessel, located in Scotland, built in 1955-59); Anja Borck, *Solutions for the Re-use of Contemporary Industrial Heritage: Confronting Obstructions at the Local Level*; Meisha Hunter, *Historic Waterworks Infrastructure: Adaptive Use Challenges and Opportunities* (advocates for adaptive re-use of waterworks structures with examples of Roman aqueducts and the New Croton Dam). No. 53 (3Q 2011) includes Steven Hughes, *What Should Be TICCIH's Role in Conserving 20th Century Heritage?*; Rama Lakshmi, *The 'Docent' Interpretation Program at the National Rail Museum of India* (a fast and effective program to remedy challenges of educating the public at a large and popular museum); Anders Houltz, *Motown Europe? Large-Scale Automobile Enterprises in Local and National Identity Building—Gothenburg and Turin* (impact of Volvo and Fiat companies); plus a round up of industrial heritage news from around the world. Info: [www.mnactec.cat/ticcih](http://www.mnactec.cat/ticcih)
- #### RAILROADS
- ◆ Joanne Anderson. **Ingalls-built Locomotive Served for 21 Years.** *Mississippi Press* (June 5, 2011). History of a one-of-a-kind, prototype switching locomotive built by the Ingalls Shipbuilding Corp. in 1944. The locomotive was tested by a number of railroads but produced no orders, and Ingalls quietly decided not to pursue locomotive manufacture as a new product line. It was eventually sold to the Gulf, Mobile & Ohio and operated in Mississippi, and briefly Illinois, before being scrapped in 1966.
  - ◆ Evan Brandt. **Railroad Enthusiast Finds a Perfect Place to Revive the Past.** *Pottstown (Pa.) Mercury* (Feb. 20, 2011). Ross Rowland is a commodities trader with a passion for railroads and is best known for organizing the American Freedom Train for the bicentennial. His newest project is to refurbish passenger cars creating luxury parlor cars to service the Greenbrier resort in W.Va. He has set up a shop in the former Bethlehem Steel fabricating plant off Keim St. in Pottstown.
  - ◆ Will Eglund. **From Russia with Ease.** *Washington Post* (Dec. 15, 2010). The Moscow subway has been using escalators since the 1930s and even has its own escalator parts warehouse and workshop set up to make repairs within minutes or hours.
  - ◆ Michael M. Grynbaum. **For the C Train's Ricketty and Rackety Cars, Retirement Will Have to Wait.** *NY Times* (Aug. 25, 2011). The MTA has announced that the R32 cars used on the C line will have to remain in service until at least 2017 when they will be 53 years old. They are among the world's oldest subway cars still in regular service.
  - ◆ Valerie Knowles. **From Telegrapher to Titan: The Life of William C. Van Horne.** Indiana Univ. Pr., 2010. 504 pp. \$29.95. Biography of Van Horne, who directed the construction of the Canadian Pacific around Lake Superior and over the Rockies from 1881 to 1885. Rev.: *NRHS Bulletin* (Summer 2011), p. 38.
  - ◆ Debbie Messina. **HRT's \$57M Bus Complex Finished on Time, On Budget.** *The Virginian-Pilot* (May 27, 2011).

Hampton Roads Transit recently opened a new maintenance facility replacing a collection of trolley and bus barns, some of which were more than 100 years old. The original blacksmith shop was preserved for use as an exhibit space and museum.

- ◆ Charles Oliver. **Historic Railroad Rail Found.** *Dalton (GA) Daily Citizen* (Sept. 2, 2011). Three rails, approximately 18 ft. long, were recovered from Swamp Creek near Tilton. Union soldiers probably threw them there during the Civil War in an attempt to disrupt the Western & Atlantic RR.
- ◆ Amanda Petrusich. **Once a Fast Track, Now a Real Hike to the Top.** *NY Times* (Sept. 8, 2011). Directions for hiking and exploring the IA of the Mount Beacon (N.Y.) Incline Ry., a funicular built by Otis in 1902 and in operation until 1978. A local group is advocating for its restoration.
- ◆ **Railway Museum Quarterly/Trainline**, No. 5 (Summer 2011). Includes: *Where the Heck Is French Lick?* (Historic railroad sites and museum near French Lick, Ind.); *The Rebuilding of Southern #401* (details of rebuilding the 1907 Baldwin locomotive at the Monticello (Ill.) Ry. Museum); *Designing Interpretive Posters for Railroad Museums* (tips on producing posters for exhibits and displays); *Online Ticketing—Customer Benefits* (promotes electronic ticketing systems); plus a round-up of railway museum news from across the U.S.
- ◆ Jeff Sturgeon. **Train Mystery at Bottom of New River Goes Back Years.** *Roanoke (Va.) Times* (Oct. 9, 2011). Recent investigations for work on the I-81 bridge came across the remains of boxcars at bottom of the New River. Research uncovered that the cars had been used during the construction of the Claytor Lake Hydroelectric Dam and parked on a temporary construction bridge when the bridge was washed out by a flood in Aug. 1940.
- ◆ Gerry Warner. **Historic Perry Creek Steam Shovel Gets New Home.** *Cranbrook (B.C.) Daily Townsman* (Aug. 5, 2011). Heritage Town in Fort Steele, B.C., has rescued a steam shovel that was used by the Great Northern Ry. to construct its line between Jennings, Mont. and Swinton, B.C., after which it was purchased by the Perry Creek Placer Mining Co. and abandoned near the Perry Creek logging road in 1902.
- ◆ Richard White. **Railroaded: The Transcontinentals and the Making of Modern America.** Norton, 2011. 660 pp. \$35. A denunciation of Gilded Age transcontinental railroad-building as an “extravagance that rent holes in the political, social, and environmental fabric of the nation, creating railroads as

## CONTRIBUTORS TO THIS ISSUE

Nancy Banks, New York, N.Y.; Sandy Carter, W. Linn, Ore.; Arlene Collins, Houghton, Mich.; Reese Davis, West Chester, Pa.; Don Durfee, Houghton, Mich.; Thomas Fehring, Milwaukee, Wis.; Robert Frame, Minneapolis, Minn.; Dennis Furbush, Jackson Heights, N.Y.; Rachael Greenlee, Lompoc, Calif.; Mary Habstritt, New York, N.Y.; Neill Herring, Jesup, Ga.; Richard Hunter, Trenton, N.J.; Richard Margolis, Rochester, N.Y.; Steve Muller, Troy, N.Y.; Art Peterson, Greenville, N.C.; David Poirier, Hartford, Conn.; Michael Raber, Glastonberry, Conn.; Tom Rinaldi, New York, N.Y.; Joe Seely, Chicago, Ill.; Mo Spaulding, Northfield, Mass.; Justin Spivey, Hightstown, N.J.; Lloyd Tepper, Villanova, Pa.; Bill Trout, Edenton, N.C.; Tyler Turpin, Richmond, Va.; Robert M. Vogel, Washington, D.C.; Mark Watson, Edinburgh, Scotland; John Willis, Crofton, U.K.; Suzanne Wray, New York, N.Y.; Helena Wright, Washington, D.C.; Donald Wyllie, Bedford, N.S.

*With Thanks.*

mismanaged and corrupt as they were long.” Rev.: *NY Times Book Review* (July 17, 2011).

- ◆ **Working on the Railroad.** *Classic Trains Magazine*, Special Edition 9 (2010). Features a full-page photo of a Pennsylvania RR power plant interior in the 1920s, the machine shop of the C&O in Huntington, W.Va. in the 1940s, a description of the operation of a refrigeration car icing platform, and photos of the equipment at an aggregate quarry in Oxford, Mich.

## AEROSPACE & AERONAUTICS

- ◆ Tim Benbow, ed. **British Naval Aviation: The First 100 Years.** Ashgate, 2011. 248 pp. \$114.95. Drawing on much new historical research, the collection of essays takes a broadly chronological approach to the key themes in the history of British naval aviation. Subjects include long-standing controversies over the control of naval air power, crucial turning points within British defense policy, the role of naval aviation in limited war, and campaigns of World War II.
- ◆ James R. Chiles. **HindenPunk.** *I&T* (Winter 2010), pp. 8-14. Travel by dirigible proved too dangerous in the 1930s, but that didn’t stop science fiction authors from imagining worlds where transportation was dominated by giant airships.
- ◆ Tom Huntington. **Historic Aircraft, Winged Survivors.** *I&T* (Winter 2010), pp. 46-54. Spotlight on engineers and enthusiasts who have restored and brought back to life vintage aircraft. Case studies of a Curtis JN-4D “Jenny,” Douglas DC-3, PB5A Catalina, and B-29 Superfortress.
- ◆ David Majumdar. **4 Last F-22 Raptor Rolls off Lockheed Line.** *Air Force Times* (Dec. 13, 2011). The last F-22 was assembled in Marietta, Ga.
- ◆ Nicholas de Monchaux. **Fashioning Apollo.** MIT Pr., 2011. 250 pp., illus. \$34.95. A look at the intense competition for the contract to design and produce the spacesuits worn for the first Apollo mission to the moon. NASA eventually hired International Latex Corp., the maker of Playtex bras, a firm that outperformed engineering companies that had difficulty producing a suit that was both comfortable and met NASA’s safety specifications. Rev.: *WSJ* (Apr. 2, 2011).

## IRON & STEEL

- ◆ Clare Ansberry. **Left for Extinct, A Steel Plant Rises in Ohio.** *WSJ* (Aug. 2, 2011). France’s Vallourec & Mannesman Holdings, Inc., one of the world’s largest makers of steel tubes, is building a massive new mill in Youngstown. The tubes are to supply the boom in natural gas drilling in the Marcellus shale formation.
- ◆ Bryan Gentry. **Sun Sets on Lynchburg Foundry with Archer Creek Closing.** *Lynchburg (Va.) News & Advance* (Dec. 26, 2009). Includes timeline and historical background of firm established in 1896 as the Lynchburg Plow Co. The foundry grew into one of the region’s largest, making pipes and fittings for such projects as the Panama Canal and the Manhattan Project.

## MINES & MINING

- ◆ Thomas G. Andrews. **Killing for Coal: America’s Deadliest Labor War.** Harvard Univ. Pr., 2008. 386 pp. \$29.95. Although the focus is the 1914 strike in Ludlow, Colo., much background and context is provided that traces the root causes of the violence to decades of managerial practices and changing economic and technological conditions that eroded the miners’ self-respect and autonomy. Rev.: *T&C*, Vol. 51, No. 1 (Jan. 2010), pp. 257-58.
- ◆ Jim Carlton. **Residents of Old Mining Town Want Gold to Stay in Them Thar Hills.** *WSJ* (June 4-5, 2011), pp. A1-A2. Citizens of Virginia City, Nev., epicenter of the legendary Comstock Lode,



which now boasts a national historic district and a booming tourist industry, are trying to prevent new open-pit mining nearby. Gold prices have made old claims newly attractive.

- ◆ **Dig It.** *Henrico County (Va.) Historical Society News*, No. 4, 2010. Historic photos and summary histories of stone quarries on the James River west of Richmond, includes the Richmond Granite Co., the Smith Quarry, and the Winston & Co. Quarry, among others.
- ◆ Heather Green-Oliver. **Saving the Last Hot Metal Car.** *Sudbury-Northern Life* (Aug. 11, 2011). The Northern Ontario RR Museum & Heritage Centre is preserving a 75-year-old hot metal railroad car once used by Inco to transport molten copper from the smelter to the refinery in Copper Cliff.

## POWER GENERATION

- ◆ Colin Bowden. **The End of a Revolution: The Last Days of Stationary Steam.** Landmark Pub. (U.K.), 2008. Subject is the disappearance of reciprocating steam engines from commercial use in the U.K. in the period between 1960 and 2000. This is a supplement to earlier publications documenting and describing 218 surviving engines. Rev.: *T&C*, Vol. 51, No. 1 (Jan. 2010), pp. 259-60.
- ◆ Jennifer Elmore. **Air Force Targets Heat Plants for Energy Savings.** *U.S. Air Force News* ([www.af.mil/news/story.asp?id=123274256](http://www.af.mil/news/story.asp?id=123274256)) (Oct. 3, 2011). The Air Force is planning to replace central heat plants at its bases. Many of the plants are over 50 years old and considered inefficient compared to decentralized condensing boilers. Heat plants are currently being replaced at McGuire, Tinker, and Robins air force bases.
- ◆ Frank Munger. **Manhattan Project Items Up for Sale: Copper Is Key.** *Knoxville (Tenn.) News* (Oct. 1, 2011). Nine 10-foot-high magnetic coils, used in the processing of some of the uranium for the atomic bomb dropped on Hiroshima, are being scrapped at Oak Ridge National Laboratory. They contain over 11 tons of copper but will require special handling at an EPA-approved smelter. Munger also reports (June 11, 2011) on the recent discovery of an extraordinary archival film showing the construction of the laboratory's top-secret production plants. The film was stored in an unmarked box amid lots of junk and abandoned items at the lab.
- ◆ Vaclav Smil. **Oil: A Beginner's Guide.** Oneworld, 2008. 202 pp. \$14.95. Covers in a concise and clear manner oil's origins, chemical and geological makeup, production processes, common uses, and geopolitical influences. Rev.: *T&C*, Vol. 51, No. 1 (Jan. 2010), pp. 256-57.
- ◆ Rebecca Smith. **Nuclear Backlash Energizing Old Plants.** *WSJ* (Sept. 8, 2011). Japan's Fukushima Daiichi disaster has stalled new construction, forcing the world to become more reliant on aging nuclear plants. More than 100 plants in the U.S. have had their original 40-year licenses extended by 20 years.
- ◆ Hsien-Chun Wang. **Discovering Steam Power in China, 1840s-1860s.** *T&C*, Vol. 51, No. 1 (Jan. 2010), pp. 31-54. The impact of the First Opium War (1839-1842) and the Second Opium War (1856-60) on Chinese officials' perception and understanding of the harnessing of steam power to machinery. Realizing that China was trapped in a completely different technological tradition, they finally came to the conclusion that China had to import from the West both its technology and a new approach to engineering.
- ◆ **Windmillers' Gazette.** Vol. 30, No. 2 (Spring 2011) includes *Large-Diameter Halladay Standard Windmills* (self-governing windmills manufactured by Halladay Wind Mill Co. of S. Coventry, Conn., c. 1850-1930) and *Using the Wind to Saw*

*Wood* (circular saws powered by windmills). Vol. 30, No. 3 (Summer 2011) includes *Power Aermotor Windmills* (La Verne W. Noyes organized the Chicago-based Aermotor Co. in 1888; the company's innovation was to produce windmills with curved metal blades rather than wooden slats). Vol. 30, No. 4 (Autumn 2011) includes *Battle Axe Homemade Windmills* (the vernacular style of timber-frame windmills bearing paddle-shaped blades, the motion of which gave the impression of a knight in armor attacking with a battle axe) and *Aermotor "Trussed Tripod" Steel Towers* (three-legged windmill towers produced by Aermotor, c. 1899-1919). Info: [www.windmillersgazette.com](http://www.windmillersgazette.com).

## ELECTRONICS & COMMUNICATIONS

- ◆ Shaul Katzir. **War and Peacetime Research on the Road to Crystal Frequency Control.** *T&C*, Vol. 51, No. 1 (Jan. 2010), pp. 99-125. In 1921 Walter Cady, a professor of physics at Wesleyan University, succeeded in designing circuits that set the frequency of an electronic system to desired values. This proved useful in telephony and radio communications. Explores the interaction of inventors, universities, and corporations in developing new technologies.
- ◆ Mark Wolverton. **The Miracle of Digital Imaging.** *I&T* (Winter 2010), pp. 38-44. How four decades ago Bell Labs scientists William S. Boyle and George E. Smith stumbled upon the means of capturing light and turning it into data with a small piece of silicon.

## WATER CONTROL & RECLAMATION

- ◆ **Hoover Dam 75th Anniversary Symposium.** ASCE Publications, 2011. 420 pp. \$75. Twenty papers given at the symposium held in Las Vegas in Oct. 2010 and sponsored by the ASCE History & Heritage Committee. Papers cover a wide range of topics from engineering and hydraulics to politics and economics. Rev.: *CHSA Newsletter*, No. 14 (Jan. 2011), pp. 2-3.
- ◆ Trevor Turpin. **Dam.** Reaktion Books, 2008. 256 pp. \$27. Much of the book focuses on British projects of the past two centuries but it also ranges across many of the world's major dams. Chapters discuss designers and builders, the functional and symbolic characters of dams, environmental issues, and the nature of dam failures. Rev.: *T&C*, Vol. 51, No. 1 (Jan. 2010), pp. 286-87.
- ◆ Ken Wright, et. al. **Moray: Inca Engineering Mystery.** ASCE Publications, 2011. 228 pp. \$59. Research and reverse engineering reveals that the ancient site, a series of concentric circular terraces and holes high in the Peruvian Andes, was a ceremonial site in celebration of water. The Spanish conquest likely interrupted the final step in the project, the digging of a channel between the water reservoir and the terraces.

## TEXTILES

- ◆ Andrew S. Dolkart. **The Fabric of New York City's Garment District: Architecture and Development in an Urban Cultural Landscape.** *Buildings & Landscapes*, Vol. 18, No. 1 (Spring 2011), pp. 14-42. The development of the dense mass of industrial loft buildings on the blocks north of 34th St. and west of Broadway.
- ◆ Alexander Pecci. **The Impulsive Traveler: Getting a New Perspective on Gritty Manchester, N.H.** *Washington Post* (Apr. 29, 2011). Highlights the textile city's Millyard Museum and Amoskeag historic district as a weekend vacation destination.
- ◆ Tom Poland. **Stone Cold Beautiful.** *Like the Dew: A Journal of Southern Culture & Politics* (Sept. 5, 2011). Essay offers a romanticized view of the South's ruined textile mills and mill villages.

- ◆ Martin Rorke, Dennis Gallagher, Charles McKean, Patricia Dennison, and Gordon Ewart. **Historic Galashiels: Archaeology and Development.** Historic Scotland and Council for British Archaeology, 2011. History of the Scottish burgh from prehistoric times to the present, with, of IA-interest, an in-depth history of the woolen industry from the weavers who formed their own corporation in 1666 to Heriot-Watt University's School of Textiles and Design that continues the town's link with its founding industry.
- ◆ Doug Walker. **Shannon Mill: Salvaging a Piece of History.** *Rome (Ga.) Tribune* (Aug. 29, 2011). Describes the razing of the Shannon Mill, built in 1925 by N.J.-based Brighton Mills. Includes background history.

## BUILDINGS & STRUCTURES

- ◆ David Bueche. **Fire-Retardant-Treated Wood: An American Innovation.** *CHSA Newsletter*, No. 13. (Oct. 2010), pp. 3-4. Brief illustrated history.
- ◆ Meghan Elliott. **Square Buildings and Round Bars: C.A.P. Turner and the Minneapolis Warehouse District.** *CHSA Newsletter*, No. 13. (Oct. 2010), pp. 5-6. Turner, best known for his innovative reinforced-concrete mushroom column, is recognized in the evolution of a roughly 30-block historic district.
- ◆ Jacques Kelly. **After 65 Years, Awning Company Owner Retires.** *Baltimore Sun* (July 4, 2011). History of the L.E. Jefferson Co., a Baltimore maker of fabric awnings since 1917. Details of the sewing room and fabric storage loft.

## BRIDGES

- ◆ **Copper River Highway Indefinitely Closed, Bridge Must Be Replaced.** *SitNews (Ketchikan, Alaska)* (Nov. 21, 2011). Bridge No. 339, built in 1977, has been closed. Located on the highway several miles south of the Million Dollar/Miles Glacier Bridge of Kennicott Copper Mine fame, it means that the mine is no longer accessible to vehicles.
- ◆ David Guise [SIA]. **Development of the American Lattice Truss Bridge and the Hilton Truss.** *Structure Magazine*, Part 1 (Aug. 2011) and Part 2 (Oct. 2011). Corrects several common misstatements concerning the design and location of the earliest American lattice-truss bridges. Avail: [www.structuremag.org](http://www.structuremag.org).

## AUTOMOBILES & HIGHWAYS

- ◆ Renee Busby. **Archaeologists Study Old Federal Road as Possible Tourist Destination.** *Mobile (Ala.) Press-Register* (Aug. 1, 2011). Archeologists from the University of South Alabama are locating remnants of the military road that was built from Augusta, Ga. to Mobile in 1806. Local residents are assisting with hopes that some remnants may become a historical trail that will attract tourists.
- ◆ Sara Mascia. **Lime Rock Park: Road Racing Center of the East and National Register Historic District.** *RPPN Bulletin* (Spring 2011). Race track that opened in 1957 in Northeastern Connecticut continues its racing tradition and is now a historic district.

## AGRICULTURE & FOOD PROCESSING

- ◆ Korky Vann. **Nostalgia in a Bottle: Connecticut's Vintage Soda Makers.** *The Hartford Courant* (July 14, 2011). Features Avery Beverages (est. 1904) of New Britain and Hosmer Mountain Soda (est. 1912) of Willimantic. Both firms produce soda in bottles using vintage equipment and flavor recipes.
- ◆ Andrea K. Walker. **Pepsi to Stop Making Beverages in Baltimore.** *Baltimore Sun* (Jan. 10, 2011). The reason for the

plant's closing, according to Pepsi, is a new 2-cent beverage tax imposed by the city. The plant is known for the digital clock and sign that can be seen from I-83.

## WATER TRANSPORT

- ◆ Jerry Allegood. **N.C. Battleship Will Get Hull Repairs.** *Raleigh (N.C.) News & Observer* (Mar. 8, 2011). Describes the \$2.1M project to restore the steel hull of the *USS North Carolina*. The 70-yr.-old battleship, now located in Wilmington, N.C., has not been out of the water since being in dry dock in 1947. The technique will involve placing cofferdams around the hull.
- ◆ Henry Fountain. **Panama Adding a Wider Shortcut for Shipping.** *NY Times* (Aug. 16, 2011). Construction has started on a major project to expand the capacity of the Panama Canal. Describes the process of building a larger set of locks at both the Atlantic and Pacific ends. Includes diagrams and maps. Also, Julie Greene, **The Canal Builders: Making America's Empire at the Panama Canal.** Penguin, 2009. 496 pp. \$30. The focus is on labor relations, particularly the racism, sexism, and worker exploitation of the low-paid West Indian workers who built the canal, eventually culminating in the Independence Day riot of 1912.
- ◆ Tony Giberson. **Huge Bell Salvaged from Gulf.** *Pensacola News* (June 3, 2011). Underwater explorers have found the wreck of the British barque *Amstel*, which ran aground on a sand bar outside Mobile Bay in the early days of the Civil War. Artifacts recovered include a 31-in. diameter bell cast by the Meneely Bell Foundry of West Troy, N.Y. The *Amstel* was carrying a load of Pennsylvania bluestone and planned to pick up a load of cotton in Mobile.
- ◆ Jonathan O'Connell. **Navy Yard Development Projects Getting a New Life after Languishing in Downturn.** *Washington Post* (Dec. 11, 2011). Describes work at the former Washington Navy Yard, including conversion of the foundry and boiler shops into condos.
- ◆ Jay Price. **Whaling Community Once Stood near Cape Lookout.** *Raleigh (N.C.) News & Observer* (Aug. 2, 2011). Recalls Diamond City, a 19th-c. whaling community located just west of the Cape Lookout Light. Little remains except for a graveyard and some ruins.
- ◆ Jack Trammell. **Down on the Chickahominy: The Life and Times of a Vanishing Virginia River.** The History Pr., 2009. 128 pp. \$19.99. History of the tidewater river community drawing on old letters, photographs, and the memories of lifelong watermen.

## ABBREVIATIONS:

CHSA	= Construction History Society of America
I&T	= <i>American Heritage of Invention &amp; Technology</i>
NRHS	= National Ry. Historical Society
T&C	= <i>Technology &amp; Culture</i> , published by the Society for the History of Technology
TICCIH	= The International Congress on Conservation of Industrial Heritage
WSJ	= <i>Wall Street Journal</i>

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## SITES & STRUCTURES

The Tennessee Valley Authority (TVA) has demolished the **Watts Bar power plant** near Spring City, Tenn. The plant, built in 1942, was the TVA's first coal-fired plant. It had been idle since 1985 and was razed due to the high cost of maintenance and a strong market for scrap metals. The plant had four units with a total capacity of 260 mW.—*Chattanooga Times* (Dec. 23, 2011)

**Steuben Glass** of Corning, N.Y., closed in December 2011 after more than a century in business. The iconic glass-maker was founded in 1903 by Frederick Carder, a chemist who made major achievements in the production of high-quality glass. Despite its reputation for fine design, Steuben was rarely profitable and was taken over in 1933 by Corning Glass, Inc., which maintained the Steuben studio as a center for art glass and other luxury items. Corning sold Steuben in 2008 to Schottenstein Stores, an Ohio-based discount retailer.

The City of New York, the State of New York, and the National Park Service have lost a ruling in state and federal courts over the future of the **Tobacco Warehouse**, south of the Empire Stores at Brooklyn Bridge Park (tour site—2003 SIA Annual Conference). About ten years ago, a federal grant helped restore the warehouse and the park, then under state control as the Empire Fulton Ferry State Park. A stipulation of the grant was that the state agree to never separate

the warehouse from the park. In 2009, it was decided to close the 1869 warehouse, citing the need for further renovation. Soon thereafter the city announced a plan to transfer the warehouse from the park to a private developer for renovation as a theatre. The Park Service concurred with the plan, but the courts ruled that the procedure for such a removal was not followed. Local preservation and community groups brought the suit. Under the court ruling, additional procedures will need to be followed to remove the warehouse from the park, including seeking permission from the state legislature. At this time the future of the warehouse remains uncertain.—*Crain's New York Business* (Dec. 14, 2011)

**Whiskey Row** in Louisville, Ky., has been saved from demolition due to the intercession of local philanthropists, many of whom wish to remain anonymous, but who joined with the Downtown Development Corp. to raise \$4.85 million. The collection of buildings built between 1852 and 1905 once housed a variety of bourbon producers. Louisville's Main Street, where Whiskey Row is located, is home to one of the nation's largest collection of cast-iron façade buildings.—*City of Louisville press release* (May 9, 2011)

A New Year's Eve fire, set by arson, destroyed a large portion of the **Westclox factory** (National Register) in Peru, Ill. The former watch and clock factory closed in the early 1980s. Some sections had been redeveloped as a trade center, and the damage was mainly confined to the main factory building, a vacant, saw-tooth roofed, steel-frame structure at the heart of the complex beside the Illinois River. Westclox was established in the late 19th century when Peru businessman Frederick Matthiessen bought out a small struggling watchmaker and formed the Western Clock Co., soon known as Westclox. The firm capitalized on the market for an inexpensive wind-up alarm clock, marketed as the Big Ben, and successfully made the transition to electric clocks. Westclox employed over 4,000 workers at its peak in the 1950s.

Lost to fire on December 27 was the **Swany White Flour Mills** (National Register) near Freeport, Minn. The mill, built about 1898, had been owned and operated by the Thelen family since 1903. The Thelens had been able to keep the mill competitive by focusing on organic grains milled on equipment that had not been updated since the early decades of the 20th century. Bob Frame [SIA] reported to local news outlets that Swany was the last of the small rural mills in the state to operate as a full-time commercial business. ■



**Tom Rinaldi [SIA]** recently relayed the sad news of the destruction of the **Rensselaer & Saratoga RR Green Island (N.Y.) Shops**. The shops were located on the island at the confluence of the Mohawk and Hudson rivers due west of Troy. Begun in 1871, the shops were completed the following year, by which time the R&S had been leased to the Delaware & Hudson RR. Heavy repairs and rebuilding of steam locomotives were carried out at the shops until 1912, and the shops continued in operation, building wooden freight cars until the 1930s. The shops were recorded by HAER in 1969 as part of its pioneering Mohawk-Hudson Area Survey.





# Threat to the Hojack Swing Bridge

The 106-year-old Hojack Swing Bridge, in the mouth of the Genesee River in Rochester, N.Y., is again threatened with demolition (SIA Summer-Fall 2002; Spring 2003). The Coast Guard has ordered CSX, the owner, to remove the bridge because it is no longer used for transportation and is a hazard to navigation. CSX has hired a company to apply for the permits and demolish the bridge, but as of January the application to the N.Y. Department of Environmental Conservation was not complete, so demolition cannot occur until next winter, at the end of navigation season. The bridge is the largest movable object in the county, and the most interesting feature in the Port of Rochester. It is eligible for historic landmark status, and has potential for reuse.

Of course, there are people who think it's an eyesore, but many others have signed petitions to save the bridge. The Landmark Society of Western New York is an advocate for preservation and is encouraging discussion of the options. Ten years ago, then-Mayor William Johnson, an advocate for a ferry that would carry passengers and vehicles between Rochester and Toronto, did not want the first impression of Rochester when visitors arrived to be the rusting bridge. In a letter to Mary Habstritt [SIA], then-President of the Roebling Chapter, SIA, he declared "...we in Rochester do have an appreciation of preservation generally and to the Swing Bridge in particular," but went on to say "... navigational requirements and passenger safety concerns argue in favor of

removal of the bridge. We have thus concluded that the Ferry project and the Bridge can not co-exist in their current locations." The ferry project failed after only 11 months, the company went bankrupt, and the City of Rochester was stuck with expenses. The next mayor sold the ferry to cut the mounting debt, but the fiasco cost the city about \$20 million.

The Hojack Bridge remains perched in the center of the river while its fate is debated. Proposals for reuse include a restaurant and shops, perhaps with enclosed inside glass walls, a vintage steam locomotive or caboose, a deck with umbrellas on top, or lights and banners to welcome visitors to Rochester's redeveloped harbor district. Or it could be returned to use for transportation by incorporating it into a trail system linking the Charlotte neighborhood on the west side of the river with Irondequoit on the east.

The Hojack is one of only three bridges that cross the Genesee River north of downtown Rochester, seven miles away. Once gone it will never be replaced, and we will have lost another historic landmark that links us to our industrial heritage.

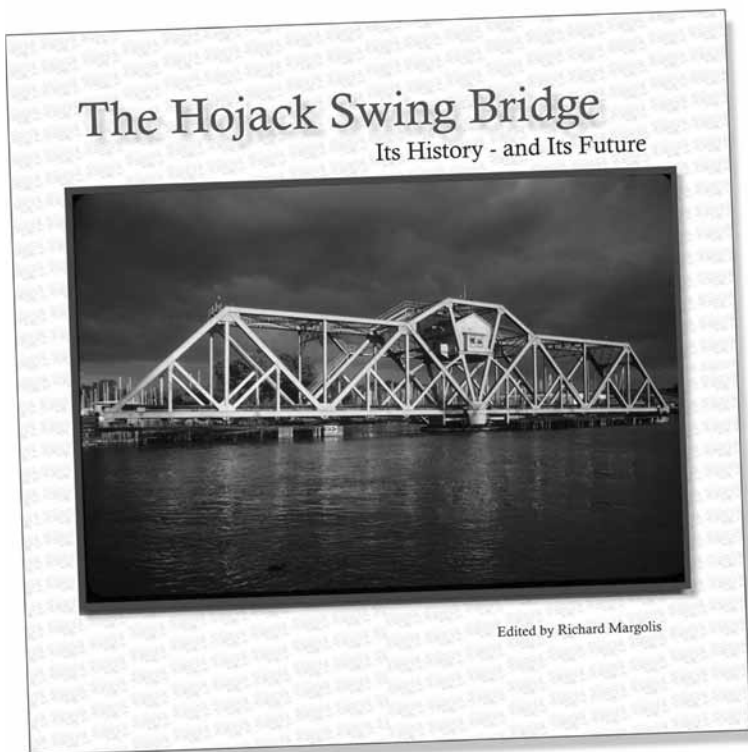
Richard Margolis

## NEW BOOK!

*The Hojack Swing Bridge, Its History—and Its Future* (125 pp., 81 photos) with essays by Joanne Arany, Stuart Bolger, Mary Hamilton-Dann, Eric DeLony [SIA], Alan Isselhard, Wayne Goodman, Emma Pollard Greer, Jim LaVilla-Havelin, Richard Margolis [SIA], Joni Monroe, Richard Palmer, Charles Roemer, Charles Russell, Peter Siegrist, Alan King Sloan [SIA] and John Walsh, edited by Richard Margolis. Publication date, Feb. 2012.

The Hojack Swing Bridge, built by the King Bridge Co. in 1905, carried trains across the Genesee on the Rome, Watertown & Ogdensburg. It documents the history of the region, the railroads, and the bridge. Eric DeLony's essay describes the development of movable bridges. Alan King Sloan, great-great-grandson of Zenas King, describes the history of the King Bridge Co. A chronology traces the formation of the group SOB (Save Our Bridge) and the sparring with various federal agencies over the bridge's future. The book ends with possibilities for reuse.

Special offer for SIA members until Mar. 31, 2012 (soft cover only) \$35.00 total! (*In the continental U.S. only. Add \$3.00 for Canadian postage*). Regular price \$48.15 ppd. (soft cover); \$58.95 ppd. (hard cover). Order from [http://thebridgeproject.com/sia\\_offer.html](http://thebridgeproject.com/sia_offer.html) using PayPal or send a check payable to Richard Margolis, 250 N. Goodman St., Rochester, NY 14607. Sale of the book benefits the effort to preserve the bridge. ■



## HISTORIC BRIDGE NEWS

The Los Angeles City Council voted to approve demolition of the historic **6th Street Bridge** over the Los Angeles River. The reinforced-concrete arch bridge is an iconic, Art Deco-style landmark that is familiar, if not known by name, to many Americans because of its appearance in numerous movies and television shows. Preservation groups had advocated for its preservation but ultimately the city's Cultural Heritage Commission and the Los Angeles Conservancy agreed with engineers that the concrete had been compromised by alkali silica reaction (ASR) or "sick bridge disease." ASR weakens reinforced-concrete and is a chemical reaction rooted in the make-up of the original construction materials. The debate over replacement has now shifted to the design of the new bridge with some advocating a design that incorporates references to the historic bridge's Art Deco motifs and others advocating a modern design.—*Los Angeles Times* (Nov. 19, 2011)

Virginia State Parks will open the historic **High Bridge** to pedestrians and bikers as a link in a 30-mile-long rails-to-trails project. The 2,400-ft.-long, steel, deck-girder bridge on 150-ft.-high brick piers was built in 1853-54 and improved in later years for heavier rail traffic. It is located over the Appomattox River in Cumberland and Prince Edward counties. During the Civil War, the Battle of High Bridge was one of the final actions prior to Lee's surrender at Appomattox. High Bridge Trail State Park was established in 2007 when Norfolk Southern donated the abandoned line to the state. The last train crossed the bridge in 2004. In other Virginia rails-to-trails news, the Virginia Creeper Trail between Abingdon and Alvarado remains closed due to the

destruction of **Trestle #7** by last spring's tornado. The timber trestle was featured in several O. Winston Link photographs of Norfolk & Western locomotives.

The historic **Silver Bridge** carrying River Road over Pine Creek near Jersey Shore, Pa., has been re-opened to traffic following a three-year rehabilitation project. The wrought-iron, lenticular-truss was fabricated in 1890 by the Berlin (Conn.) Iron Bridge Co. The truss was disassembled and repairs made to damaged structural members. Decorative lattice railings and cast-iron finials that had been removed or damaged over the years were replicated. The bridge was repainted its original silver color.—*PennDOT Press Release* (Dec. 9, 2011)

The historic **Francis Schell Memorial Bridge** (*SIAN*, Spring 2007), located over the Connecticut River in Northfield, Mass., survived the extremes of the past year, including a tornado, an earthquake, a hurricane, and serious flooding. The long-span Pennsylvania through-truss was built in 1903 as a private bridge to connect the Schell estate with the train station on the river's opposite bank. It has been closed to traffic since 1987 and under threat of demolition. Community residents continue to lobby for its re-opening. In 2004 local preservationists formed the Friends of Schell Bridge, which has grown and now functions as a strong advocate. A few years ago a feasibility study was performed by Smith College engineering students resulting in a recommendation that the bridge was worth rehabilitating as part of a pedestrian and bicycle pathway. More recently the Friends asked the University of Massachusetts, Amherst, Center for Economic Development to do a study on the economic impacts of re-opening

(continued on page 15)



**High Bridge, ca. 1865. Photograph by Timothy H. O'Sullivan, following the Battle of High Bridge, showing the reconstruction of four spans damaged during the battle.**

## IA ON THE WEB

**Elevator Museum** ([www.theelevatormuseum.org](http://www.theelevatormuseum.org)). Includes summary histories of early hoists and cranes; steam, hydraulic, and electric elevators; escalators; moving sidewalks; people movers; and the elevator industry. Also, images from vintage catalogues.

**Historic Concrete in Scotland** ([www.docomomoscotland.org.uk](http://www.docomomoscotland.org.uk)). Links to presentations and booklet examining the history, development, repairs, and conservation of historic concrete in Scotland (with implications further afield). Materials prepared for a seminar, organized by the Institute of Historic Building Conservation (IHBC) Scotland and the International Committee for the Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement (docomomo) Scotland.

**History of the Boston Subway** ([www.boston.com/news/globe/ideas/gallery/first\\_big\\_dig/](http://www.boston.com/news/globe/ideas/gallery/first_big_dig/)). Series of watercolor illustrations depicts the construction of Boston's Tremont Street subway in 1895. Reproduced from *Beneath the Streets of Boston* by Joe McKendry, published in 2005.

**How a Fossil Station Operates** ([www.dom.com/about/stations/fossil/index.jsp](http://www.dom.com/about/stations/fossil/index.jsp)). Dominion Power (Va., N.C., W.Va., Ohio) has produced a 6-min. video describing the operation of a fossil-fuel power plant.

**M/V Catalyst** ([www.pacificcatalyst.com/cat\\_history.htm](http://www.pacificcatalyst.com/cat_history.htm)). The *Catalyst*, built in 1932, was the University of Washington's first oceanographic research vessel. It has been converted into a luxury cruise ship offering voyages to the Canadian Pacific and Alaska coasts.

**New Doors Open for the HABS/HAER Collection** ([www.loc.gov/pictures/collection/hh/](http://www.loc.gov/pictures/collection/hh/)). The Library of Congress has added new on-line capabilities that include searching not just across but within collections, additional datafields and searchable PDFs of text pages once those pages are open in your browser. It is important to note that these new search capabilities are not available from the traditional "Built in America" portal for HABS/HAER in the American Memories collections. The place to find the new on-line collection with enhanced search is the Prints & Photographs Online Catalogue.

**Scottish Screen Archive** (<http://ssa.nls.uk/browse.cfm>). This impressive collection of over 32,000 moving images held by the National Library of Scotland includes many industrial films, organized by topic (coal mines, canals, etc.), much dating from the 1930s. All b&w, all silent, easy to watch.

**William Steinway Diary, 1861-1896** (<http://americanhistory.si.edu/steinwaydiary/diary/>). The Smithsonian has posted excerpts from the piano manufacturer's diary, supported by commentary and historic photographs. Steinway was a keen diarist who commented not only on the family business but also on a wide range of current events.

"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](mailto:phsianews@aol.com). ■

## IA EXHIBITS

**Electrifying Cars** is a new display as part of the *America on the Move* exhibition at the Smithsonian's National Museum of American History. The display showcases two cars—a 1904 Columbia electric runabout, the best-selling car of its time in the U.S., and a 1913 Ford Model T touring car, a gasoline-powered car equipped with an early type of electric starter and headlights. Inspired by the recent revival in using electricity as a power source for cars, the display follows the historical, cultural and physical development of the electric car during the past century. It also explores the choice among electric, steam, and gasoline cars in the early 20th century and the reasons that the gasoline car eventually became the vehicle of choice because it could be driven much further than the electric between fill-ups. —*Smithsonian Press Release* (Oct. 26, 2011)

The New York Transit Museum has opened its first science exhibit—**ElectriCity: Powering New York's Rails**. This 2,000-sq.-ft. exhibit weaves together objects from the museum's extensive collection with science-based interac-

tive displays designed to engage visitors in an exploration of electricity's role in powering the metropolitan region's subways and commuter rails. The goal is to give visitors of all ages a chance to connect the science of electricity to the quintessential New York experience of riding a subway and an understanding of how the third rail or a subway motor works. Historical items on display range from mammoth switches and circuit breakers to a giant subway control board panel (ca. 1932) that illustrates how the flow of electricity to the third rail was monitored and how the subway's power grid was managed. A special highlight is the Edison bipolar dynamo, restored by staff in the MTA shops. Also featured are historical photographs of construction and operations and architectural and engineering drawings that illustrate powerhouse and substation design, third-rail track diagrams, and power-to-rail connections. The Transit Museum is the largest museum in the U.S. devoted to urban public transportation history. It is housed in a historic 1936 subway station in Brooklyn Heights.—*Mary Habstritt* (also, *Review: NY Times*, Dec. 15, 2011.) ■



## NOTES & QUERIES

**Crofton Beam Engines** (Crofton, Marlborough, Wiltshire, England) historic site is celebrating two centuries of operation of the 1812 Boulton & Watt pumping engine. The beam engine, working alongside an 1846 Harvey engine, pumps water 40 ft. to the summit of the Kennet & Avon Canal, opened in 1810. As such, the engine is the oldest in the world still able to do its original job in its original location. To celebrate the occasion, Crofton Beam Engines will hold additional steamings this year. Jon Willis, Chairman, has extended a special invitation to SIA members who may be visiting the U.K. during 2012; if members make themselves known, the staff will endeavor to give them a personal guided tour. Info: [www.croftonbeamengines.org](http://www.croftonbeamengines.org).

The **Historical Society of Pennsylvania** (Philadelphia) is in the final stages of processing the records of the **Philadelphia Rapid Transit Co.** and **Philadelphia Transportation Co.** This large collection of more than 200 linear feet includes 624 volumes and 38 large charts and maps covering the development of the city's two major transit systems from the 19th century until their takeover by the Southeast Pennsylvania Transportation Authority (SEPTA) in the 1970s. The collection had remained unprocessed and largely unavailable to researchers in the Philadelphia Museum of History (the former Atwater Kent Museum) until being transferred to HSP in 2003.

## CHAPTER NEWS

**Oliver Evans** (Greater Philadelphia) held its 24th annual Filmfest at the Fairmount Water Works on December 12. Lance Metz [SIA] was once again the master of ceremonies, rolling reels from the National Canal Museum archives. The chapter's annual dinner was held on January 27 with featured speaker Tom Wieckowski, who discussed the history of Wyncote, a Philadelphia suburb established in the late-19th century by wealthy industrialists.

**Roebling** (Greater N.Y.-N.J.) members gathered at the Paterson Museum for the chapter's annual meeting on January 28. Prior to the meeting, the chapter enjoyed a special tour of the Barbour Flax Spinning and Dolphin Jute Works complex, located in the Great Falls Historic District. The mills, which largely date from the 1880s, are now re-used for a variety of light manufacturing purposes.

**Support Your Local Chapter.** For info on a chapter near you or to start one, contact Ingrid Wuebber, SIA Director, Local Chapter Chair (Ingrid\_Wuebber@urscorp.com) or check out the local chapters section of the SIA website ([www.sia-web.org](http://www.sia-web.org)). ■

The U.S. Chamber of Commerce has transferred its library to the **Hagley Museum & Library** in Wilmington, Del. The U.S. Chamber of Commerce established a library some time after 1912 in the Reception Hall of its headquarters in Washington, D.C. The holdings eventually grew to over 10,000 volumes. The Chamber recognized the historical significance of its library but felt it was no longer needed in Washington due to the Internet. The entire collection was shipped to Hagley in October 2011 and is in the process of being catalogued.—*Hagley Library and Archives Newsletter* (Dec. 2011)

The *SIAN* (Fall 2011) may have erroneously reported that the world's last manual typewriter manufacturer (Godrej & Boyce of Mumbai, India) closed in 2011. According to follow-up information obtained via the Internet, the demise of the manual typewriter may be correct, but is unconfirmed. If a manual typewriter maker remains in operation, it is likely in China, Malaysia, or another Southeast Asian country. Many companies still produce electric typewriters. ■

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## HISTORIC BRIDGE NEWS (continued from page 13)

the bridge. This concluded that the bridge could attract over 13,000 visitors per year with a projected economic impact of \$8.43 million over ten years. The Friends have since asked the Town of Northfield to request the state department of transportation to do a comprehensive engineering study. On Sept. 26, 2011, the town meeting voted on the request and passed it by a more than two-to-one margin. Info: Maureen Spaulding, Friends of Schell Bridge, [mospaulding@yahoo.com](mailto:mospaulding@yahoo.com).

The cable pull on the new east span of the **San Francisco-Oakland Bay Bridge** (National Register) began in December. During the 1989 Loma Prieta quake, the original east span (connecting the East Bay and Yerba Buena Island) was damaged. Once the new structure is complete, the old one will come down. The new span is a earthquake-resistant, self-anchored suspension span. The historic west span (between Yerba Buena Island and San Francisco) is not affected by this project.

The 75th anniversary of the **Golden Gate Bridge** will be celebrated over Memorial Day weekend (May 25-26) with a festival that will stretch along the San Francisco waterfront from Fort Point beneath the bridge to Fisherman's Wharf. Scheduled events include a historic watercraft parade, displays of cars from 1937, music and dance stages, and bridge-related exhibits and presentations. Also announced are plans to build a new visitors center at the south end of the bridge. Info: <http://goldengatebridge75.org>. ■

# **SOCIETY FOR INDUSTRIAL ARCHEOLOGY**

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## CALENDAR

### 2012

**Mar. 31: PAPER PROPOSALS DUE FOR SIA ANNUAL CONFERENCE, CINCINNATI, OHIO.** Info: Justin Spivey, [secretary@siahq.org](mailto:secretary@siahq.org).

**Mar. 31: SIA STUDENT TRAVEL SCHOLARSHIPS, DEADLINE FOR APPLICATIONS.** Info: Patrick Harshbarger, [phsianews@aol.com](mailto:phsianews@aol.com).

**Apr. 14: Material Culture Symposium for Emerging Scholars, Winterthur Museum, Wilmington, Del.** Object-based research expanding the current scholarship of the history of architecture, design, technology, and other subjects. Info: [www.materialculture.udel.edu/emerging\\_scholars.html](http://www.materialculture.udel.edu/emerging_scholars.html).

**Apr. 18-22: Society of Architectural Historians Annual Conference, Detroit, Mich.** Info: [www.sah.org](http://www.sah.org).

**Apr. 18-22: National Council on Public History Annual Meeting, Milwaukee, Wis.** Info: [www.ncph.org](http://www.ncph.org).

**Apr. 22-28: SIA STUDY TOUR, MALTA.** Info: [www.siahq.org/tours/malta/about.html](http://www.siahq.org/tours/malta/about.html).

**May 16-19: Early American Industries Assn. Annual Meeting, Solomons Island, Md.** Info: [www.eaiainfo.org](http://www.eaiainfo.org).

**May 31-June 3: SIA 41st ANNUAL CONFERENCE, CINCINNATI, OHIO.** Info: [www.sia-web.org](http://www.sia-web.org).

**June 6-9: Railroad Station Historical Society Annual Convention, Baltimore, Md.** Info: [www.rrshs.org](http://www.rrshs.org).

**June 6-10: Vernacular Architecture Forum Annual Meeting, Madison, Wis.** Info: [www.vernaculararchitectureforum.org](http://www.vernaculararchitectureforum.org).

**June 7-10: Mining History Assn. Annual Conference, Prescott, Ariz.** Info: [www.mininghistoryassociation.org](http://www.mininghistoryassociation.org).

**June 18-24: National Railway Historical Society Annual Convention, Cedar Rapids, Iowa.** Info: [www.nrhs.com](http://www.nrhs.com).

**July 3-7: 4th International Congress on Construction History, Paris, France.** Info: [www.icch-paris2012.fr](http://www.icch-paris2012.fr).

**July 11-25: Society of Architectural Historians Study Tour, Saxony, Germany.** See article in this issue for details on SIA member participation. Info: [www.sah.org](http://www.sah.org).

**Aug. 10-16: The Assn. for Industrial Archaeology Annual Conference, Chelmsford, Essex, England.** Info: [www.industrial-archaeology.org](http://www.industrial-archaeology.org).

**Sept. 19-22: Textile Society of America Biennial Symposium, Washington, D.C.** Theme: Textiles & Politics. Info: <http://textilesociety.org>.

**Sept. 20-23: Preserving the Historic Road 8th Biennial Conference, Indianapolis, Ind.** Info: [www.historicroads.org](http://www.historicroads.org).

**Sept. 26-29: Society for Commercial Archeology Annual Conference, Wildwood, N.J.** Tours of resort architecture and historic transportation. Info: [www.sca-roadside.org](http://www.sca-roadside.org).

**Sept. 29-Oct. 4: Assn. for Preservation Technology International Annual Conference, Charleston, S.C.** Info: [www.apti.org](http://www.apti.org).

**Oct. 4-7: Society for the History of Technology Annual Meeting, Copenhagen, Denmark.** Info: [www.historyoftechnology.org](http://www.historyoftechnology.org).

**Oct. 18-21: SIA FALL TOUR, UTICA, N.Y.** Tours of industrial sites in the Mohawk Valley and the Adirondacks. Info: [www.sia-web.org](http://www.sia-web.org).

**Nov. 4-11: The XV Congress of the International Committee for the Conservation of the Industrial Heritage (TICCIH), Taiwan.** Info: [www.mnactec.cat/ticcih](http://www.mnactec.cat/ticcih).

**Nov. 6-11: Assn. of Railway Museums (ARM) and Tourist Railway Assn. Fall Conference, Montreal, Que.** Hosted by Exporail, The Canadian Ry. Museum. Info: [www.railwaymuseums.org](http://www.railwaymuseums.org). ■