



# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

Volume 41

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Number 4

### THE STEEL

**T**his article by Joseph E.B. Elliott (SIA) introduces his new book *The Steel: Photographs of the Bethlehem Steel Plant, 1989-1996* (Columbia College Chicago Pr., 2013, 90 pp., 60 duotones, \$60). Aware of the decline and imminent demise of many integrated steel mills in the U.S. and fascinated by their monumental architecture, machinery, and the culture of work, Joe photographed the mills in Bethlehem, Pa., from 1989 until final shutdown. Working with historian Lance Metz (SIA), he amassed more than 1,000 large-format photographs and hundreds of archival images and documents, in an effort to preserve a record of the development, workings, and human dimensions of an integrated steel plant typical of machine age America. The book features an introductory essay by Betsy Fahlman (SIA), who also writes and edits the IA in Art column for SIAN. The project took many years to come to fruition and was helped along the way by a SIA Industrial Heritage Preservation Grant of \$1,000.

By the time I moved to the Lehigh Valley to teach art and photography at Muhlenberg College in 1983, I had a well-established interest in industrial infrastructure, particularly

railroads and waterways. I had explored and photographed the decaying waterfront facilities of New York harbor while I was simultaneously studying artists and documentarians such as Walker Evans and Charles Sheeler. I was ready for a big project that would document the heavy industry that seemed to be slipping away before my eyes.

Seeing it for the first time in the early 1980s, the Bethlehem steel plant embodied for me the history of the modern age, and possessed the sublime beauty of the remains of an earlier civilization. In 1987, after several years of probing the Bethlehem plant from the outside (this work was discussed by Betsy Fahlman in IA, Vol. 12, No. 2 (1986)), I wrote to the company management, introducing myself as an artist who was interested in making photographs about monumentality, structure, and the patina of rusting metal. My letter of inquiry drew no response. At the time, company officials were too preoccupied with financial losses, layoffs, and environmental violations to consider the forays of an aesthete. It must have been difficult for them to imagine the faltering nexus of their empire as a cultural landmark.

In 1988, I learned that Lance Metz, a historian with the

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Joseph E.B. Elliott

*Last Night at C Furnace, 1995.*

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National Canal Museum of Easton, Pa., was about to embark on a historical study and survey of Bethlehem Steel with a team from the Historic American Engineering Record (HAER). Metz, a relentless collector, was building an archive of records, photographs and artifacts related to local industrial history, primarily canals, railroads, steel, and coal. With his assistance, HAER was brought in to begin documentation of the Bethlehem Plant (SIAN, Spring 1990). Steel officials opened the plant to the team, allowing at last that their facilities had historical significance, if not merit as subject matter for artists. I was hired as the project photographer.

We officially entered the plant in the summer of 1989, under the watchful eye of Bethlehem Steel metallurgist John Fielding. He took us first to No.1 Forge Shop. Although its fourteen-thousand-ton press was long gone, the empty interior was magnificent: rolled-steel roof trusses high in deep shadow, a sliver of light piercing the darkness from a band of clerestory windows. Abandoned furnaces, piles of refractory bricks, and other industrial detritus littered the floor. This section of the plant had been constructed in the 1890s to produce battleship armor and cannon barrels, and housed

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).

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

the age-old metal processes of melting, casting, and forging. I quickly learned that exposures would need to be exceedingly long to capture the exquisite structure and material quality of the vast dim spaces. Distant sounds of steam escaping or trains rumbling past formed a background to our work. A Bethlehem employee for over twenty years, Fielding was one of our most committed supporters, never rushing us.

The visit to No. 1 Forge was the first of dozens of trips into the plant between 1990 and 1996. We photographed engine rooms, blast furnaces, forge and machine shops, coke ovens, electric and oxygen furnaces, foundries, beam yards, and myriad ancillary structures such as welfare rooms, repair shops and offices, down to makeshift lounges and kitchens constructed by workers. In addition to heavy forgings for ships, the plant rolled steel beams that formed the skyscrapers and bridges of the modern era. The plant was integrated: it could start with iron ore, limestone, and coal, and produce fully finished products. It could also repair itself, from relining furnaces to recasting spare parts. The beam rolling mills were driven by their original steam engines. Turbines and huge gas engines generated plant electricity, electric shops could rebuild huge motors, the brass foundry could make new bearings. Rigging crews could lift and install heavy equipment in any location, from sub-basements to 12 stories up on the blast furnaces. Old hands said the plant once felt like a self-contained city, with plant patrol officers directing traffic on interior roadways.

By the 1990s employment was down to 5,000, but the plant was still forging steel and rolling beams. Most of its structures remained standing, but many were underutilized. At least one blast furnace was always on line, and the electric furnaces made custom alloy steel every night. As we worked to make images, our experience was often one of moving through an empty stage set, a dark metropolis, perhaps encountering a few workers engaged here and there. The spaces were Piranesian;

*(continued on page 4)*



Joseph E.B. Elliott

**Machine Shop Side Bay, 1992.**

# SIA 42nd Annual Conference

THE TWIN CITIES, SAINT PAUL AND MINNEAPOLIS

MAY 30–JUNE 2, 2013

The cities of Minneapolis and St. Paul are vibrant urban centers consisting of innovative industries, world-renowned educational facilities, beautiful natural landscapes, and a thriving creative community consisting of arts, food, and music. We hope you come to experience the Twin Cities at the 2013 SIA Conference. Tour sites and events currently being explored include: St. Croix River Valley, Southeastern Minnesota industries, Mississippi River, and milling, breweries, and underground industries. For more information or to become involved in planning the conference please contact SIA Vice President Amanda Gronhovd, [Amanda@siahq.org](mailto:Amanda@siahq.org).

**CALL FOR PAPERS.** The SIA invites proposals for papers and poster displays to be presented on Sat., June 1, at the Hotel St. Paul. Presentations on all topics related to industrial archeology, technology, and social change related to industry are welcome. Papers about regional industries and transportation in the Upper Midwest are encouraged. Presenters on historic bridge-related topics are encouraged to participate in the 23rd Historic Bridge Symposium, which is planned to be one of the parallel presentation tracks. All papers and poster displays should offer synthesis and interpretation of data. Poster displays can be works in progress.

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 moderator optional).

**Proposal Formats:** Proposals should be submitted electronically (Microsoft Word .doc, or OpenOffice Open Document Format Text .odt) unless special 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) a brief biographical statement of 75-150 words for each presenter; 4) presenter contact information including postal address, telephone/fax, and e-mail; 5) a list of visual-aid requests. Facilities for media formats other than PowerPoint or OpenOffice 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 is missing, the proposal cannot be considered.

Presenters are encouraged to consider transforming papers into an article for the Society's journal *IA*. No



HAER MN-62, Ralph Berloitz, 1993.

**Mississippi River 9-Foot Channel, Lock & Dam No. 1, St. Paul, Minn. Constructed 1899-1917.**

conference proceedings will be published.

Deadline for paper proposals: Feb. 28, 2013. Send proposals or questions to: Erin Timms, SIA 2013 Paper Sessions Chair, 12 Tiffany St., Providence, RI 02908; (812) 584- 8711; [ectimms@siahq.org](mailto:ectimms@siahq.org).

NB—All presenters interested in submitting for the 23rd Historic Bridge Symposium should submit proposals to Kitty Henderson, Executive Director of the Historic Bridge Foundation (HBF), Box 66245, Austin, TX 78766; (512) 407-8898; [kitty@historicbridgefoundation.com](mailto:kitty@historicbridgefoundation.com).

**FILM NIGHT.** The SIA invites submission of DVDs for a film night to be held at the Annual Conference in Minneapolis-St. Paul on Friday evening, May 31. DVDs on IA-related subjects, historic and contemporary, are welcome. DVDs running no longer than 30 minutes are preferred. If you have a DVD that you would like to submit for consideration, please contact Bob Stewart, [robert.stewart13@att.net](mailto:robert.stewart13@att.net); (860) 668-2928.

**STUDENT TRAVEL SCHOLARSHIPS.** The SIA awards travel scholarships to help full-time students and professionals with less than three years of full-time experience to offset some of the expenses of attending annual conferences. To apply, send a letter of interest demonstrating a commitment to IA and a letter of reference to Patrick Harshbarger, SIA Scholarships, 305 Rodman Rd., Wilmington, DE 19809; [phsianews@aol.com](mailto:phsianews@aol.com). Deadline for applications is Mar. 31, 2013. ■





# SIA GENERAL TOOLS AWARD

## Call for Nominations

On behalf of the General Tools Award Committee, I invite and encourage SIA members to submit nominations for the 2013 SIA General Tools Award for Distinguished Service to Industrial Archeology.

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

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 publications*. (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 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 example) may be appended. Nominations must also include complete contact information, including e-mail address and telephone

number, for both the nominator and the nominee. Any SIA member in good standing may submit a nomination.

**History.** The General Tools Award was established in 1992 through the generosity of Gerald Weinstein [SIA], chairman of the board of General Tools & Instruments Co., 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—the now-famous “Plumb Bob,” a product of General Tools—and a cash award.

Previous recipients of the award 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), Richard Anderson (2011), and Jane Mork Gibson (2012). No award was given in 2006.

**Deadline for Nominations.** Nominations must be received on or before Apr. 1, 2013. They should be submitted to: Carol Poh, Chair, General Tools Award Committee, 17903 Rosecliff Rd., Cleveland, OH 44119-1347; or to [carolpoh@sbcglobal.net](mailto:carolpoh@sbcglobal.net).

Carol Poh

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## THE STEEL (continued from page 2)

the workers could be shepherds camping amid Roman ruins.

As member of a HAER team, my photographic work now was framed as documentation, not artistic expression. I had to concentrate on solving technical and logistical problems; aesthetic concerns would have to take care of themselves. When would the next furnace be tapped? What time would the 48-inch mill go back on line? Where could I set up the camera to get the best angle but not be crushed or burned? My camera was a 4x5-inch view camera that could only be used on a tripod. Exposures were very long. This camera produced superb detail and tonal subtlety, but my inability to shoot and move quickly meant that I often missed people and machinery that moved. The slow process also limited the number of views I could make. I would be forced to decide which few images would best describe what I was seeing.

Bethlehem Steel announced that the blast furnaces would close in December 1995, marking the end of steel production. I visited the furnaces on the last two nights of operation. A handful of men were at work, and I walked in on my own from across the tracks. The operating blast furnace was relatively quiet, a breathing organism. The predominate sound was the rush of air through the stoves and tuyeres, and an occasional skip car dumping ore into the bell. I made exposures in the rain late at night. The remaining part of the Bethlehem plant, the coke works, ran until 1997. The coke was sold on the open market, with trainloads shipped to Rouge Steel, the long ago source of Sheeler's iconic images. I

made my last image of the works looking across the hamlet of Didier, at midnight March 22, 2007, the last night of operation. Since then I have returned several times, but a dead steel mill is vastly different from a living one.

Seeing the project through to publication has taken longer than the seven years we spent doing the documentation. Finding a publisher whose interests fit with mine, and who could place the book in the narrow niche combining art and industrial themes was difficult. Between 1998 and 2007 many proposals for funding and publication were rejected. Editor George Thompson enthusiastically accepted the book for publication by the small press Center for American Places in 2007. I was aware that Thompson had published the wonderful book *Measure of Emptiness*, a photographic study by Frank Gohlke of midwestern grain elevators, in 1980. It has taken another five years, after a merger with Columbia College Press, and the continuous support of editorial director Brandy Savarese, for the book to be produced. My early advocate, Betsy Fahlman, contributed a wonderful essay on the art historical context for the work. Given Columbia College's small press and non-profit status, financial assistance had to be obtained. It came from several sources in the academic, museum, and industrial archeology spheres. I am very thankful for the generous support of both SIA and longtime SIA member Gerry Weinstein.

Joseph E.B. Elliott

## CALL FOR NOMINATIONS

### SIA TREASURER, SECRETARY, DIRECTORS, NOMINATIONS COMMITTEE

#### Attention SIA Members!

Now is your chance to nominate candidates to represent your society and keep SIA moving forward. This is your opportunity to help maintain the quality, strength, and diversity of leadership that has kept the SIA growing for more than three decades.

SIA's leaders are expected to consider and reflect members' interests in carrying out the business of the SIA. They represent the SIA to other organizations, recruit new members, and plan the future of the society.

In 2013, there will be several openings: one for Treasurer; one for Secretary; two on the Board of Directors, and one on the Nominations Committee. We need candidates willing to give back to the SIA by volunteering their time, knowledge, and experience. The Nominations Committee is depending on you to identify members—friends, colleagues, or perhaps even yourself—who are qualified and willing to serve. (If modesty precludes self-nomination, please find someone to nominate you.) Each candidate must be an SIA member in good standing and must consent to being considered for nomination.

The deadline for nominations is **Jan. 30, 2013**. If you have any questions or need additional information, please don't hesitate to contact **Kevin Pegram**, Chair, SIA Nominations Committee, 59 Continental Ave., Forest Hills, NY 11375; (718) 544-2846; [pegam.kevin@gmail.com](mailto:pegam.kevin@gmail.com).

#### Positions Open in 2013:

**Treasurer** (3-year term). Serves as a member of the Board of Directors; is the Society's accounting officer who records and reports on all financial transactions, and uses this data to evaluate where we stand and where we are headed.

**Secretary** (3-year term). Serves as a member of the Board of Directors; takes official minutes at Board meetings and the Annual Business Meeting; and maintains official records.

**Directors** (3-year term). Two of seven director positions on the Board of Directors are open this year. The board meets approximately four times per year (both in person and online), including during the Annual Conference. Directors govern official business of the SIA and chair committees that oversee operations such as publications, grants, and local chapters.

**Nominations Committee Member** (3-year term). One of three elected members who assist with recruiting and evaluating nominees and monitoring annual elections. It is expected that the newly elected member will chair the committee during the final year of the term and attend the Annual Conference to count votes and announce the results of elections.

All nominations will be reviewed by the Nominations Committee, which will present a slate of candidates to the membership. Each nomination must include the name,

address, telephone number, and e-mail address of the person being nominated, the office for which the nomination is being made, and evidence that the candidate consents to being nominated. Once the slate is selected, the Nominations Committee will request a brief biographical statement and a photograph from each nominee.

For summaries of the nomination process and responsibilities of SIA officials, view the Society bylaws on the About screen at [www.siahq.org](http://www.siahq.org). If you're unsure about the process or the obligation, please call or write Kevin Pegram at the address above.

#### SIA Officers and Directors

Duncan Hay, President (2012-2014)  
Amanda Gronhovd, Vice President (2012-2014)  
Jay McCauley, Past President (2012-2014)  
Justin Spivey, Secretary (2010-2013)  
Nanci K. Batchelor, Treasurer (2010-2013)  
Maryellen Russo (2010-2013)  
David Rotenstein (2010-2013)  
David A. Vago (2011-2014)  
Ingrid Wuebber (2011-2014)  
Scott Baxter (2011-2014)  
Gianfranco Archimede (2012-2015)  
Erin Timms (2012-2015)

#### Nominations Committee

Kevin Pegram, Chair (2010-2013)  
Tim Mancl (2011-2014)  
Susan Appel (2012-2015)  
Jay McCauley, *ex officio* (2012-2014)

## HAVE YOU RENEWED YOUR SIA MEMBERSHIP?

Please remember to renew your SIA membership for 2013 if you have not done so already. Renewal notices were sent by e-mail and USPS in Nov. 2012. Please go online to renew if you wish to charge your dues/contributions to a credit card. Due to credit card security rules at Michigan Tech, SIA cannot process credit card numbers sent by mail. To renew online go to the SIA website at [www.siahq.org](http://www.siahq.org) and select the "Online Secure Payment" option. SIA dues cover the costs of our publications and the general operations of the SIA. Additional donations sustain SIA activities such as Student Travel Scholarships and the Industrial Heritage Preservation Grants. Thank you for your support!

## HISTORIC BRIDGE NEWS

The **Humpback Covered Bridge** in Virginia and the **Knight's Ferry Covered Bridge** in California have been officially designated National Historic Landmarks (NHL) as of Oct. 2012. These are the first covered bridges to be so designated since the Blenheim Covered Bridge in 1964, and they raise the total number of NHL-listed historic bridges to ten. As many will recall, the Blenheim was sadly lost to Tropical Storm Irene last year (*SIA* Fall 2011). Achieving landmark status represents a ten-year effort by the Historic American Engineering Record (HAER) working with the Federal Highway Administration's National Historic Covered Bridge Preservation Program (NHCBP). The results of many NHCBP initiatives will be on display at the upcoming Second National Covered Bridge Conference in Dayton, Ohio, June 5-8, 2013: [www.woodcenter.org/2013-national-covered-bridge-conference/](http://www.woodcenter.org/2013-national-covered-bridge-conference/). The completed context study, nominations, and executive summaries for the Humpback and Knight's Ferry covered bridges can be downloaded from the NHL Program's website: [www.nps.gov](http://www.nps.gov) (search by name of bridge).

Christopher Marston

NB—Also designated NHLs were the *Denver & Rio Grande Railroad San Juan Extension (N.M.–Colo.)* and the *McKeen Motor Car #70 (Carson City, Nev.)*.



HAER CA-314. Jet Lowe, 2004

**Knight's Ferry Covered Bridge, Stanislaus County, Calif.**

The rustic, stone-faced, concrete-arch bridges crossing the Merced River in **Yosemite National Park** are under threat of demolition as the National Park Service attempts to balance competing preservation and environmental directives. The historic bridges, built in the 1920s and 1930s, are considered among the nation's finest examples of their type, having reached an iconic status within the park, and typifying the approach the National Park Service, working with U.S. Bureau of Public Road's engineers, took to improving automobile access to the nation's parks while also adopting designs that were in harmony with natural settings. Under a proposed park management plan, three of the bridges would be removed to comply with the Wild and Scenic River Act to return the river to an unimpeded flow. This goal conflicts with that of the National Historic Preservation Act and the

park is in the position of having to choose between the two. The final decision, which is not expected until sometime in 2013, is being watched closely by preservation groups that have become alarmed in recent years that the nation's environmental policies related to returning rivers to pre-modern, free-flowing conditions have little regard for the cultural value of historic resources like bridges, dams, and mills.



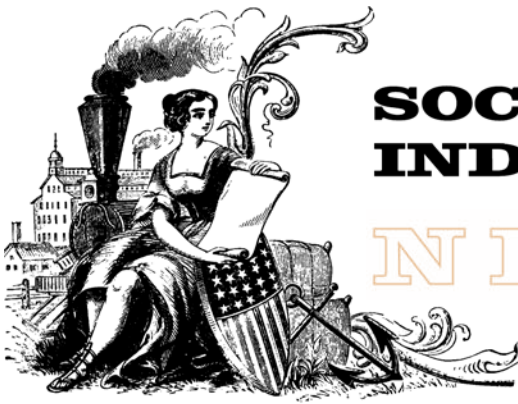
HAER CA-22. Brian Grogan, 1991

**Clark's Bridge, spanning the Merced River, Yosemite Village, Mariposa, Calif.**

The **John A. Roebling Suspension Bridge** (tour site—2012 SIA Annual Conference, Cincinnati) has been restricted to a vehicle limit of 3 tons due to a 4-inch crack in an eyebar of the main span, near the north tower. The normal vehicle load posting is 11 tons.—*Kentucky Enquirer* (Nov. 10, 2012)

Sadly, demolition of the **Hojack Swing Bridge** (*SIA* Winter 2012, Summer-Fall 2011, Spring 2003) in Rochester, N.Y. began on Oct. 22, 2012, after the U.S. Coast Guard issued final permits for removal by CSX. The bridge, located near the mouth of the Genesee River, was built in 1905 by the King Bridge Co. of Cleveland, Ohio. The bridge last opened to navigation in 1995. CSX announced its intent to demolish the bridge more than 11 years ago, and ever since a dedicated group of preservationists has worked to persuade the city, state regulatory agencies, and CSX to save the bridge. Alternative uses and rails-to-trails projects were proposed but failed to gain sufficient momentum to overcome perceptions that the bridge was an eyesore. On several occasions the SIA joined in supporting those advocating preservation. The Center at High Falls in Rochester is planning an exhibit to commemorate the Hojack Bridge and raise awareness of the city's architectural heritage. *Remembering the Hojack Swing Bridge* will feature photos, poems, drawings, paintings, sculpture, and other artworks. To enter artwork (entry fee \$25), contact Richard Margolis, [Richard@MargolisStudio.com](mailto:Richard@MargolisStudio.com). ■





# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

### PUBLICATIONS OF INTEREST

Vol. 41, No. 4

Fall 2012

COMPILED BY

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

#### GENERAL INTEREST

- ◆ Doug P. Cornelius. **Good News—I Failed: A Story of Inventing in Minnesota.** Minneapolis: Mill City Pr., 2012. 185 pp. \$13.95. Fictionalized tale of a young boy learning about the history of invention and Minnesota inventors. It includes an appendix of 80 inventors deemed Minnesota's greatest, like those who gave us knitting machinery and sticky notes. Lists their trade or education, major inventions, number of patents, company affiliations, and other research.
- ◆ James Douet, ed. **Industrial Heritage Re-tooled: The TICCIH Guide to Industrial Heritage Conservation.** Carnegie Pub. Co. (Lancaster, U.K), 2012. 244 pp., illus. £14.99. Avail: [www.ticcih.org](http://www.ticcih.org). This important collection of essays offers a comprehensive new guide to international best practices in safeguarding and appreciating industrial heritage. More than 30 of the world's foremost experts present the latest approaches, theoretical and practical, with a rich variety of case studies and color photographs of outstanding projects from around the world. Among the topics examined are reuse and repurposing, World Heritage sites, listing and designation, sustainable development, documentation and recording, industrial tourism, urban planning, historic photographs and archives, and industrial ruins. Includes articles by Patrick M. Martin, Bode Morin, Mark Watson, and Stuart B. Smith (all SIA).
- ◆ James W. Feldman. **A Storied Wilderness: Rewilding the Apostle Islands.** Seattle: Univ. of Washington Pr., 2011. 324 pp. \$35. This discussion of the definition of wilderness argues that the Apostles' landscape represents both history and nature, working simultaneously and together, with abandoned logging trucks, lighthouses, fishing nets, and quarries just off of the wilderness trails. Efforts by the National Park Service to deliberately re-wild the islands obscures this human (and often industrial) history.
- ◆ Harry Kyriakodis (SIA). **Northern Liberties: The Story of a Philadelphia River Ward.** History Pr., 2012. 192 pp., illus. \$21.99. Covers the ward's small and large manufacturing concerns, including its vast tanning and brewing industries that came into being prior to the Civil War. Its mills and factories employed immigrants from across Europe and the city's largest community of free African Americans. The Liberties' diverse narrative, however, was marred by political and social problems, such as the anti-Irish Nativist Riots of 1844. The history of the Liberties is covered from the time of William Penn to the present in this first full-length history of this Philadelphia neighborhood.
- ◆ Julie Marfany. **Land, Proto-Industry and Population in Catalonia, c. 1680-1829.** Ashgate, 2012. 230 pp. \$124.95.

Makes a fresh contribution to a longstanding but far from exhausted debate concerning the transition to capitalism in Europe. The work investigates key aspects of this transformation: the changes on the land, the origins of the industrial revolution, the modern rise of population, and the growth of markets. It does so from a new perspective by focusing on Catalonia, one of the few regions on the southern European periphery to industrialize in comparable ways and at the same time as areas of northern Europe.

#### BUILDINGS & STRUCTURES

- ◆ Robert Courland. **Concrete Planet: The Strange and Fascinating Story of the World's Most Common Man-Made Material.** Prometheus, 2011. 396 pp. \$26. Directed at a general audience, a very readable and interesting treatment of concrete, particularly its uses by Middle Eastern and Roman civilizations, although a bit skimpy on more recent historical applications in large reinforced-concrete structures like factories, dams, and bridges.
- ◆ Tony Dierckins and Maryanne C. Norton. **Lost Duluth: Landmarks, Industries, Buildings, Homes, and the Neighborhoods in Which They Stood.** Duluth: Zenith City Pr., 2012. 215 pp., illus., photos. \$24. Chronicles the city's vanished buildings and places, with over 400 photos and sketches of now-gone homes, landmarks, industries, and residential neighborhoods.
- ◆ Thomas Leslie. **Built Like Bridges: Iron, Steel, and Rivets in the Nineteenth-Century Skyscraper.** *Journal of the Society of Architectural Historians*, Vol. 69, No. 2 (June 2010), pp. 234-61. Evolving structural methods leading to development of the riveted all-steel skeleton frame. Rev: *CH*, Vol. 26 (2011), pp. 99-100.
- ◆ Alan Lutenegger (SIA). **Historical Development of Iron Screw-Pile Foundations, 1836-1900.** *International Journal for the History of Engineering & Technology*, Vol. 81, No. 1 (Jan. 2011), pp. 108-128. Attributed to engineers in the U.K. and U.S., the origins and rise of iron screw-pile and screw-cylinder foundations for lighthouses, bridges, and piers. Rev: *CH*, Vol. 26 (2011), p. 100.
- ◆ Vibeke Olson, ed. **Working with Limestone: The Science, Technology and Art of Medieval Limestone Monuments.** Ashgate, 2011. 288 pp. £65. Insights into the creative processes and the production-driven choices that were made by masons and sculptors.
- ◆ Andrew Rabeneck. **Building for the Future—Schools Fit for Our Children.** *CH*, Vol. 26 (2011), pp.55-78. The idealism that pervaded the design and construction of schools in post-

war Britain and America with a focus on modularization and prefabrication.

- ◆ Alison M. Rice. **Reconciling History and Hope at 3M's Old Home.** *NY Times* (June 27, 2012), p. B6. Efforts to preserve the 1939 Albert Kahn-designed office building at the former factory of 3M in St Paul, Minn.

## BRIDGES

- ◆ **Covered Bridge Topics** (Fall 2012) includes *Covered Bridges of Pike County, Illinois; Scribe Rule and Square Rule* (deciphering which method was used to layout timber framing in post-1830 covered bridges); *Framing Specialties of Columbiana County, Ohio* (locally peculiar practice of framing the overhead tie beams below the top chord); *Update on Recent Repairs on Wright's Bridge* (response of consulting engineers to prior article in CBT that was highly critical of the repairs to the bridge in Newport, N.H.).
- ◆ Pacific Northwest Chapter NRHS. **Steel over the Willamette.** Softbound. \$19.99 ppd. Avail: PNWC-NRHS (Steel Bridge), 800 NW 6th Ave. Room 1, Portland, OR 97209-3794; [www.pnwc-nrhs.org](http://www.pnwc-nrhs.org). Booklet celebrates the 100th anniversary of the Steel Bridge, a telescoping, double-deck, vertical-lift bridge built by the Oregon-Washington RR & Navigation Co. Covers design and construction, operation, use by trolleys and railroads, and vignettes of people and companies that figure in the bridge's history.
- ◆ **Workin' Bridges: Historic Truss Bridge Restoration.** 2012. DVD, 43 min. \$13.50 ppd. Documentary follows the restoration of two metal-truss bridges, located in Iowa, filmed by the North Skunk River Greenbelt Assn. Info: [www.skunkriverbridge.org/the-project.html](http://www.skunkriverbridge.org/the-project.html). Order: Julie Bowers, [jbowerz1@gmail.com](mailto:jbowerz1@gmail.com) or (641) 260-1262.

## TOOLS

- ◆ Terry Dickson. **Kingsland Company Making Parts of the Statue of Liberty and Historic Lighthouses and Bridges.** *Florida Times Union* (Mar. 11, 2012). The Enberg Mold & Tool Co. of Kingsland, Ga., replicates architectural elements using traditional machine tools and metal casting processes.
- ◆ Michael W. Pannell. **Fort Valley Machine Shop Making**

**Custom Parts since 1885.** *Macon (Ga.) Telegraph* (June 5, 2012). Feature article on the Anthoine (pronounced Ann-thorn) Machine Works where the motto is "Never throw anything away." Company was founded in 1885 to help set up a cannery and has continued in business ever since. The line shaft provides power to lathes, saws, grinders, presses, benders, shavers, and sanders, most of which pre-date 1925, in an 80 x 100-ft. building near the railroad tracks.

- ◆ The Tools and Trades History Society. **Tool Chest of Benjamin Seaton.** 2nd ed. Astragal Pr., 2012. 180 pp. \$34.95. The Seaton Chest, now in the Guildhall Museum, Rochester, Kent, U.K., is the finest and most complete surviving example of an 18th-c. cabinet-makers kit in Britain, if not the world. The tools, which are generally in little-used condition, were bought in 1796.

## COMMUNICATIONS TECHNOLOGY

- ◆ David Giffels. **Building a House of Wax.** *NY Times Magazine* (Oct 23, 2011), p. 28. Gotta Groove, a vinyl record-pressing operation, thrives in a former elevator factory in Cleveland.
- ◆ Ross Melnick. **American Showman: Samuel "Roxy" Rothafel and the Birth of the Entertainment Industry, 1908-1935.** Columbia Univ. Pr., 2012. 576 pp., illus. \$37.50. Rothafel (1882–1936) built an influential and prolific career as film exhibitor, stage producer, radio broadcaster, musical arranger, theater manager, war propagandist, and international celebrity. He helped engineer the integration of film, music, and live performance in silent film exhibition; scored early Fox Movietone films; pioneered the convergence of film, broadcasting, and music publishing and recording in the 1920s; and helped movies and moviegoing become the dominant form of mass entertainment between the world wars.
- ◆ Dionne Searcey. **What's 6 Feet Tall and Weighs 1,500 Pounds? A Minicomputer.** *WSJ* (Aug. 11, 2011). Microsoft cofounder Paul Allen has a passion for collecting vintage computers. He has established a private, appointment-only museum.

## MINES & MINING

- ◆ Kendall W. Brown. **A History of Mining in Latin America: From the Colonial Era to the Present.** Univ. of N.M. Pr., 2012. 280 pp., illus., maps. \$35. The Potosi mining district in Bolivia and the Valenciana silver mine in Mexico are the primary examples selected to illustrate the evolution of mining history. Rev: *MHJ* (2012), pp. 85-6.
- ◆ Jim Carlton. **Residents of Old Mining Town Want Gold to Stay in Them Thar Hills.** *WSJ* (June 4, 2011). The Comstock Mining Co. Inc. has disclosed plans to reopen and expand a long-closed open-pit mine near historic Virginia City, Nev. The local economy relies on tourism and historic preservation, raising concerns that a large mine with more than 6,100 acres of claims will introduce noise, dust, and potentially wipe out historic buildings and artifacts.
- ◆ Bill Carter. **Boom, Bust, Boom: A Story About Copper, the Metal that Runs the World.** Scribner, 2012. 288 pp. \$26. Inspired by the arsenic poisoning he suffered after eating vegetables grown in his Bisbee, Ariz. backyard, a journalist surveys the history, economics, and environmental consequences of copper mining.
- ◆ R.J. Cleevely, ed. **Collecting the New, Rare, and Curious: Letters Selected from the Correspondence of the Cornish Mineralogists Philip Rashleigh, John Hawkins, and William Gregor.** Devon and Cornwall Records Society (New Series, v. 52), 2011. 341 pp. £25. Trio of mineralogists, writing from 1755 to 1822, reveal a passion for analyzing new specimens and a great deal about the history of Cornish mines. Rev: *MHJ* (2012), pp. 82-3.

## CONTRIBUTORS TO THIS ISSUE

Nancy Banks, New York, N.Y.; Marc N. Belanger, Taunton, Mass.; Emily Boulton, Easton, Mass.; George Bulow, New York, N.Y.; Arlene Collins, Houghton, Mich.; Reese Davis, West Chester, Pa.; James Douet, Barcelona, Spain; Don Durfee, Houghton, Mich.; Joseph E.B. Elliott, Allentown, Pa.; Raymon Elozua, Mountaintale, N.Y.; Robert Frame, Minneapolis, Minn.; Dennis Furbush, Jackson Heights, N.Y.; John Gruber, Madison, Wis.; Mary Habstritt, New York, N.Y.; Neill Herring, Jesup, Ga.; Matt Kierstead, Beacon, N.Y.; Susanna Kuo, Oswego, Ore.; Harry Kyriakodis, Philadelphia, Pa.; Melissa Mann, Titusville, Pa.; Christopher Marston, Silver Spring, Md.; Vern Mesler, Lansing, Mich.; Steve Muller, Troy, N.Y.; John Park, South Miami, Fla.; Kevin Pegram, Forest Hills, N.Y.; Art Peterson, Greenville, N.C.; Ron Petrie, Lakewood, Ohio; Carol Poh, Cleveland, Ohio; Jessica Pumphrey, Washington, D.C.; John Reap, Syracuse, N.Y.; Terry Reynolds, Houghton, Mich.; Andy Rose, Johnstown, Pa.; Joe Seely, Chicago, Ill.; Robert Stewart, W. Suffield, Conn.; Lloyd Tepper, Villanova, Pa.; Tyler Turpin, Richmond, Va.; Robert M. Vogel, Washington, D.C.; Suzanne Wray, New York, N.Y.; Helena Wright, Washington, D.C.

*With Thanks.*



- ◆ Christopher J. Huggard and Terrence M. Humble. **Santa Rita del Cobre: A Copper Mining Community in New Mexico.** Univ. Pr. of Colo., 2012. 252 pp., illus., maps. \$45. A thorough history of the mining town established in 1803 and by 1970 consumed in its entirety by the Chino open-pit mine. Rev: *MHJ* (2012), pp. 86-7.
- ◆ Richard C. Huston. **A Gold Camp Called Summitville.** Western Reflections Pub. Co., 2012. 181 pp., illus. \$16. History of one of Colorado's major mining districts located in the San Juan Mts. Rev: *MHJ* (2012), p. 84.
- ◆ Richard E. Lingenfelter. **Bonanzas and Borrascas.** 2 Vols. 1,046 pp., illus., maps. \$72. Covers in great detail the history of gold, silver, and copper mining in the American West from 1848 to 1915. Includes an appendix listing individual mining companies that paid over \$1 million in dividends during that period. Rev: *MHJ* (2012), pp. 78-80.
- ◆ Kris Maher. **Coal-Town Puzzle: Mountains vs. Jobs.** *WSJ* (June 13, 2011). Preservationists and environmentalists battle to save Blair Mountain, W.Va., from strip mining. The mountain was the site of the 1921 battle between miners and coal companies in which the U.S. Army intervened on the side of the companies and 16 people were killed. The site was listed on the National Register in 2009 but delisted following the landowner's objection.
- ◆ **Mining History Journal** (No. 19, 2012) includes Mark Langenfield, *The "Old Stonebreak": James Gates Percival and the Lead Mines of Wisconsin* (Percival was the state geologist of Connecticut (1835-42) and of Wisconsin (1854-56)); Frank W. Millsaps, *My Experience at One of King Solomon's Gold Mines* (recollections of working the ancient mine of Mahad Dhahab in Saudi Arabia in the late 1940s for the American Smelting & Refining Co.); Ellen Baumler, *Children in Montana's Mining Camps*; Susan Layman, *A History of Wyoming's Carissa Gold Mine*; Eleanor Swent, *The Glover Gold Mining Company of the Black Hills and the House that Mary Baker Eddy Built* (the relationship of Eddy, a spiritualist and founder of the Church of Christ, Scientist, and her son, George Washington Glover, Jr., who ran a gold mining company out of Lead City, S.D., in the late 1860s to 1890s); and J. Steven Gardner, *A Mine Is a Terrible Thing to Waste: Kentucky's Portal 31 Exhibition Mine* (non-profit Southeast Education Foundation operates the mine as a museum showcasing Kentucky's coal mining heritage in Lynch, Harlan County).
- ◆ John Park (SIA). **Franklin-Ogdensburg Mining Heritage Guide.** Stonerose, 2012. 200 pp., illus., maps. \$19.95. Provides information on 273 mining sites and related points of interest in the Franklin-Ogdensburg area of New Jersey. Richly illustrated. Includes a 20-page summary history of the New Jersey Zinc Co. and its operations throughout North America. Also, an extended discussion of the local iron industry, including the Edison Ogden Works.
- ◆ Monica Perales. **Smelertown: Making and Remembering a Southwest Border Community.** Univ. of N.C. Pr., 2010. 336 pp. \$24. The life and death of Smelertown, the company town that serviced the American Smelting & Refining Co.'s operations in El Paso, Tex. Describes the daily practices established by Mexican laborers and the company on the U.S. side of the Rio Grande. Rev: *Buildings & Landscapes* (Spring 2012), pp. 128-30.

## TEXTILES

- ◆ Jacques Kelly. **Mount Vernon Mill Being Restored.** *Baltimore Sun* (July 7, 2012). Rehabilitation of the Jones Falls Valley landmark (tour site—1995 SIA Annual Conference, Baltimore) is underway. The cotton mill, built in 1873, will become residential units.
- ◆ Leon Stein. **The Triangle Fire, Centennial Edition.** ILR Pr., 2011. 264 pp., illus. \$17.95. Re-issue of 1962 classic account of the Triangle Shirtwaist fire with new introduction by Michael

Hirsch and foreword by William Greider. The author was able to interview survivors in researching the book.

- ◆ Sara E. Wermiel (SIA). **An Exceptional American Textile Mill and a Mystery: Stevens Linen Works.** *CHS Newsletter* (Jan. 2011), pp. 6-9. Handsome stone mill, built 1862-65, in Dudley, Mass. The mystery is who was responsible for the fine masonry workmanship.

## IRON & STEEL

- ◆ Raymond Boothe. **Fire on the Water: A New History of the Wheeling Steel Corporation.** Lulu Self-Publishing (*Lulu.com*), 2011. 394 pp., photos, maps. \$30. Documents the steel and cut-nail industry in the Wheeling, W.Va. and Steubenville, Ohio vicinities from the 1840s to the present. Profusely illustrated with historic photos, drawings, and maps.
- ◆ Don Plummer. **The Boone Blacksmithing Legacy.** Astragal Pr., 2012. 112 pp., illus. \$16.95. Daniel Boone VII, a descendant of the famous pioneer, and his sons Tom and Mike, discuss the legacy of the Boone family of blacksmiths, going back several centuries and continuing today in the production of traditional objects and artwork.
- ◆ Dana Saylor-Furman. **Grassroots Preservation Turning the Tide in Buffalo, New York.** National Trust for Historic Preservation: Stories, News and Notes (on-line blog) (<http://blog.preservation-nation.org/2012/05/25/grassroots-preservation-turning-the-tide-in-buffalo-new-york/>). Describes use of social media (Facebook and the like) to halt demolition of the c.1900 Lackawanna Steel office building, designed by architect Lansing Colton Holden in the Beaux-Arts style.

## POWER GENERATION

- ◆ Leslie Tomory. **Progressive Enlightenment: The Origins of the Gaslight Industry, 1780-1820.** MIT Pr., 2012. 304 pp., illus. \$28. Describes the contributions of pneumatic chemistry and industrial distillation to the development of gas lighting, and then explores the differences between the British and Continental European urban gas delivery networks.
- ◆ **Windmillers' Gazette**, Vol. 31, No. 4 (Autumn 2012) includes T. Lindsay Baker, *Solid-Wheel Wooden Windmills Made by the Dempster Mill Manufacturing Company* (mills produced from about 1892 to 1903 in Beatrice, Neb.). Quarterly, \$20/yr. Avail: Box 507, Rio Vista, TX 76093.

## WATER TRANSPORT

- ◆ Sara Campbell. **Restoring the Historic Tug Delaware.** *Preservation Online* (Nov. 9, 2011). The Chesapeake Bay Maritime Museum (St. Michaels, Md.) is restoring the wood tug for the vessel's centenary. Built in 1912 in Bethel, Del., the tug hauled barges throughout the Eastern Shore until purchased by the museum in 1989. Further details can be found at [www.retiredtugs.org](http://www.retiredtugs.org).
- ◆ Jack Horan. **Scientists Hunt for WWII Shipwrecks off the Outer Banks.** *The News and Observer* (Raleigh, N.C.), Aug. 5, 2012. Investigators working with the National Oceanic and Atmospheric Administration (NOAA) are surveying three merchant ships, a tanker, a navy tug, and a submarine that sank during an attack on a convoy on July 15, 1942. Dubbed the "Battle of the Atlantic Expedition," photos of these shipwrecks, as well as many others, can be seen at <http://vimeo.com/unccsi/videos>.
- ◆ Elizabeth McNamara. **Canal Quarters.** *Preservation Magazine* (Fall 2012), pp. 60-64. Two restored lockhouses on the C&O Canal now offer overnight stays in the national park.
- ◆ Steven Ujifusa. **A Man and His Ship: America's Greatest Naval Architect and His Quest to Build the S.S. United States.** Simon

& Schuster, 2012. 437 pp. \$29.99. Biography of naval architect William Francis Gibbs, designer of the ocean liner S.S. *United States*. Launched in 1952, she still holds the speed record for crossing the Atlantic. Now gutted and rusting in Philadelphia, the ship awaits a new career. Rev.: *WSJ* (Aug. 17, 2012).

## RAILROADS

- ◆ Michael Froio. **From the Mainline: A Guide to Exploring Railroad Landscapes.** *NRHS Bulletin* (Summer 2012), pp. 4-29. Froio's Mainline Project, begun in 2007, photodocuments the Pennsylvania RR's mainline between Philadelphia and Pittsburgh. What started out as a project to photograph the railroad metamorphosed into an interest in its impact on the landscape. Discusses categories of properties including bridges, yards and terminals, commuter stations, small city stations, small town stations, industries, etc.
- ◆ Wayne Iverson. **Hobo Sapien: Freight Train Hopping Tao and Zen.** Robert D. Reed Pub., 2010. 128 pp. \$12.95. Author spent 12 years "stealing" rides on railroads. 40 short stories describe his experiences. Rev: *NRHS Bulletin* (Winter 2012), p. 30.

## ABBREVIATIONS:

CBT	= <i>Covered Bridge Topics</i> , published by the National Society for the Preservation of Covered Bridges
CH	= <i>Construction History</i> , Journal of the Construction History Society (U.K.)
MHJ	= <i>Mining History Journal</i> , published by the Mining History Assn.
NRHS	= National Ry. Historical Society
<i>Timeline</i>	= published by the Ohio Historical Society, \$40/yr. Info: (614) 297-2315
WSJ	= <i>Wall Street Journal</i>

**Publications of Interest** is compiled from books and articles brought to our attention by you, the reader. SIA members are encouraged to send citations of new and recent books and articles, especially those in their own areas of interest and those obscure titles that may not be known to other SIA members. *Publications of Interest*, c/o **SIA Newsletter**, 305 Rodman Road, Wilmington, DE 19809; pshianews@aol.com.

## IA ON THE WEB

**After the Factory** (<http://afterthefactoryfilm.com>). Detroit has been running on fumes since the fall of the auto industry, and Poland's textile industry in Lodz has been hanging by a thread since the fall of the communist government. This documentary, directed by Philip Lauri and produced by Detroit Lives!, interviews workers from both cities who discuss the pressures of rebuilding their economies.

**Amtrak Corporate Archives** (<http://history.amtrak.com>). Amtrak recently launched a new website promoting its history with a selection of materials from its archives. Included are brochures, photos, press releases, and promotional films. Future updates will include annual reports, Congressional testimonies, and ridership and revenue statistics.

**Coca-Cola Bottling Co. of Winona, Minn.** (<http://archive.org/details/TourOfTheCoca-colaBottlingCo.OfWinonaMn>). This 4-min. video, produced by the Minnesota State Historic Preservation Office, shows operations of the last bottler in the U.S. to produce Coke in 6.5 oz. glass bottles. The plant recently closed down the aging bottling line.

**Egg Farming** ([www.eggbasket-scny.us](http://www.eggbasket-scny.us)). Richly illustrated website, drawing on oral interviews, photographs, and advertising ephemera, documents over 400 egg farms in Sullivan County, N.Y., in the postwar years. In 1950, Sullivan County was the largest producer of eggs in N.Y. Today, only two egg farms remain. Described are hatcheries, wholesalers, starter pullet, meat bird and brooder farms, as well as the Inter-County Feed Co-op.

**Golden Age of Canals** (<http://thevideochannel.net>, search on Golden Age of Canals). This 1-hr. video documents the end of commercial shipping on England's canals, how they fell into disrepair, and how individual citizens united to save them. Footage is largely drawn from the home movies

of enthusiasts who formed the Inland Waterways Assn. and undertook the campaigns to bring the canals back to life.

**How a Bicycle Was Made in 1945** (<http://devour.com>, search on How a Bicycle Was Made). A British Council Film documents the design and manufacture of Raleigh bicycles.

**Industrial Images of the 1840s-1870s** ([www.flickr.com/photos/marceldouwedekker/](http://www.flickr.com/photos/marceldouwedekker/)). From the Netherlands, Marcel Douwe Dekker has made available more than 1,600 images from *Scientific American*, mostly woodcuts showing industrial processes and landscapes.

**South Norfolk Jordan Bridge** ([www.snjb.net](http://www.snjb.net)). The new high-level, segmental box girder bridge between Norfolk and Portsmouth, Va. opened in Oct. 2012. Facts about the toll bridge and its predecessor, a historic Waddell vertical-lift bridge built in 1928 to the design of consulting engineers Harrington, Howard & Ash.

**Still-Alive Industrial Landscape Photography** ([www.st-al.com/about.html](http://www.st-al.com/about.html)). Photographer Marcello Modica's website features engaging landscape portfolios and commentaries. Sites are mostly located in Italy with some in Belgium, France, and Germany.

**Tower Bridge Photos** (<http://www.telegraph.co.uk>). Most easily located by a Google search for article on "Photographs of Tower Bridge Being Constructed Found in a Skip."). An album of fifty marvelous sepia photographs, fortuitously recovered from the trash by an office caretaker, document the construction of the Tower Bridge, 1886-1894. Sixteen photos are on the website, showing cranes, falsework, steam engines, and Thames River scenes.

"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: pshianews@aol.com. ■

## Johnstown Lights Historic Stone Bridge

Johnstown (Pa.) Area Heritage Association (JAHA) working with Norfolk Southern Railroad has completed a \$1.2 million rehabilitation and lighting of the historic stone-arch railroad bridge across the Conemaugh River just west of downtown.

The bridge, which currently carries about 45 trains daily, was constructed by the Pennsylvania Railroad (PRR) in 1887-88, replacing an older iron-truss bridge at the site. Designed by William H. Brown, chief engineer of the PRR, the bridge was built by Alexander G. Sparks and Shipley W. Evans of Philadelphia. This was the first large stone bridge designed by Brown, who became known as the PRR's "stone man" for the many stone bridges to his credit.

Officially known by the PRR as the Conemaugh River Viaduct, the bridge played an ominous role in the Johnstown Flood of 1889. While the heavy stone bridge was able to withstand the debris-filled floodwaters better than other bridges in the flood's path, its presence served as a temporary dam holding back water as tons of debris swept up in the flood became lodged between the piers. While the damming effect may have helped lessen the extent of downstream flood damage, it also served to temporarily prolong the flood and its effects upstream. The water eventually drained through the porous debris pile, leaving a mass of twisted and broken wreckage that trapped and entombed victims of the raging flood. After the flood subsided, survivors set out to rescue the living and recover the dead but as the search progressed a second tragedy occurred: the mass of debris caught fire, burning for days. It is estimated that as many as 80 of the 2,209 flood victims died in the burning debris.

According to Richard Burkert, Executive Director of JAHA, even before the 1889 flood, the newly constructed bridge across the Conemaugh River was of concern. A contemporary newspaper letter from a worried citizen questioned the placement of the new stone bridge across the river with its massive piers occupying the previously open stream channel. With Johnstown's history of frequent minor flooding, the writer worried that the new bridge might be at the center of a great disaster if a massive flood were to occur in the valley.

The stone bridge has been documented by the Historic



*The PRR's Conemaugh River Viaduct, Johnstown, Pa., lit at night.*

American Engineering Record (HAER No. PA-517). The 427.5-ft.-long bridge is composed of six, 58-ft. arch spans on 6-ft.-wide piers and one arch span of 40 ft. at the east end with a 9.5-ft.-wide pier to resist the larger thrust force from the longer arch span. All the arches have the same rise of 14.5 ft. Designed to carry 4 tracks, the bridge is 50-ft. wide at the coping and crosses the river on a 55-degree skew. The skew actually utilizes a "false skew" accomplished by offsetting twelve 4-ft. wide arch ribs in a stair-step pattern.

During construction, the railroad was shifted on to a temporary wooden trestle so the new bridge could be constructed on the old alignment. The construction contract signed by Sparks and Evans in April 1887 required two tracks completed within 8 months and the entire bridge completed by April of the following year. Records show Sparks and Evans were not paid until October 1888, suggesting they did not complete the bridge on time. The contract specified the bridge be faced with "mountain sandstone," believed to be the same Cambria County stone used on another PRR bridge in Lancaster, with backing of "any approved quality of stone." Frequent floods and harsh conditions have required repairs to the structure over the years. The eastern face of the bridge was refaced with a 16-in.-thick concrete façade sometime between 1916

*(continued on page 13)*



*The stone-arch bridge with debris, following the flood of 1889.*



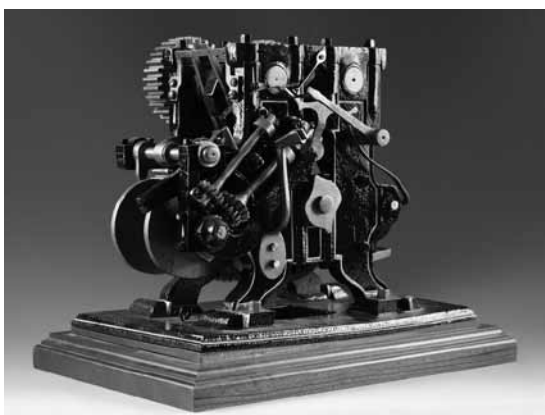
*The Johnstown Bridge's ribbed arches.*

Andy Rose, 2012



## NOTES & QUERIES

**Nominations for Engineer/Historian Award.** The History & Heritage Committee of the American Society of Mechanical Engineers (ASME) is seeking nominations for the ASME Engineer/Historian Award. The award recognizes outstanding published work or works by engineers dealing with the history of mechanical engineering, broadly defined. Nominees must have been trained in a field associated with mechanical engineering and be active or have been active in the practice of mechanical engineering at some point in their careers, including managers, teachers, and museum professionals directly concerned with mechanical engineering artifacts. The award is international in scope and open to both members and nonmembers. SIA members who are aware of good historical work carried out by practicing mechanical engineers should send a note with the name of the engineer and a reference to the historical work that he/she has published to Terry S. Reynolds, an SIA member who currently serves on the ASME's H&H Committee, [treynold@mtu.edu](mailto:treynold@mtu.edu).



Albany Institute of Art, Albany, N.Y.

Bob Rawls (SIA) and Alison Munsell of the Albany Institute of Art have provided these two photos of the Burden Horseshoe Machine Patent Model #17665, dated June 30, 1857. Bob wrote about the history of Burden's innovative machine and his own attempt to build a working model for demonstrations at Watervliet Arsenal Museum in SIAN, Spring 2005. The original patent model, which had been deposited in the institute's collections, only recently came to Bob's attention.

The SIA notes with sadness the passing of **Jack E. Boucher** (1931-2012), the long-time photographer of the Historic American Buildings Survey (HABS) who also made significant contributions of photography to the Historic American Engineering Record (HAER), especially in its formative years of the 1970s. Jack grew up in Atlantic City, N.J., where he developed a passion for photography and history while working as a cub photographer for the *Atlantic City Tribune*, starting at the age of 13. He wrote various texts on local historical sites including important books on the Batsto Iron Works and the Absecon Lighthouse. Jack joined the National Park Service in 1958 working for both HABS and the Branch of Still and Motion Pictures. He was Chief of Historic Sites for the State of New Jersey from 1966 to 1971 but returned to HABS in 1971. Traveling the United



Courtesy HAER

**Jack E. Boucher.**

*(continued on page 13)*



The Oswego Iron Furnace in Lake Oswego, Ore. (SIAN Spring 2012) has received a Preservation Honor Award from the National Trust for Historic Preservation. In 2003, concerned citizens of Lake Oswego noticed there was something missing from the renovation plans of a local community park, namely its historic 1866 blast furnace. In an effort to save this landmark, volunteers provided hours of research and planning, and a Save America's Treasures grant provided funds for a furnace preservation consultant. After the volunteers presented their findings, the City Council voted to fund the \$918,000 restoration. Painstaking efforts were taken to ensure the furnace met West Coast seismic codes without compromising its historic integrity. Info: [www.PreservationNation.org/awards](http://www.PreservationNation.org/awards).

## CHAPTER NEWS

**Oliver Evans** (Philadelphia). On Sept. 14, the chapter toured the John Wilde & Brother Carpet Mill, built in 1884 and located in the city's Manayunk neighborhood. The mill is being converted into residences. On Oct. 20, the chapter had a guided tour of *Catagenesis*, a site-specific sculptural exhibit at the Globe Dye Works. The former bleach and dye works, located in the city's Frankford section, has been re-used as space for small business start-ups and arts-related activities.

**Roebling** (N.Y.-N.J.) toured Historic Speedwell, a 19th-century ironworks and birthplace of the telegraph, in Morristown, N.J. on Aug. 12. Highlights of the visit were a new video and exhibits interpreting the estate of ironmaster Stephen Vail. Speedwell is perhaps best known as the location where Stephen's son Alfred Vail and Samuel Morse worked to perfect and demonstrate the telegraph. On Sept. 9, chapter members gathered at the home of Gerry Weinstein and Mary Habstritt for the annual corn roast in Croton-on-Hudson, N.Y. The event featured a showing of

the documentary film *LIEMBA*, telling the story of a dieselized steamship that still serves the communities of Lake Tanganyika in central Africa. Built in 1913 in Germany, and originally named the *Graf von Gotzen*, the armed transport ship controlled the lake for the German empire during WWI. As the Germans retreated, the ship was scuttled, and later raised by the British Navy in 1924. It has run almost non-stop since that time. The chapter held its 31st Annual Symposium on Industrial Archeology in Paterson, N.J. on Nov. 11. The symposium featured a full slate of papers and a remembrance of Patty Condell, a stalwart SIA member who passed away earlier this year (*SIA* Summer 2012).

**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)). ■

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### NOTES & QUERIES (continued from page 12)

States to photograph American architecture, he contributed more than any other individual to the photographic collections of HABS.

The **Railway & Locomotive Historical Society (R&LHS)** has established two fellowships to support research and publication of railroad history. The fellowships are named for Smithsonian curator emeritus and author John H. White, Jr., and the late railroad historian William D. Middleton (former SIA). The first fellowships were awarded in 2012 to Jeffrey T. Darbee of Columbus, Ohio, and Gregory L. Schneider of Topeka, Kans. Both will use the funds for travel to research sites. Darbee's project is to prepare a book about the history of two Indianapolis railroads: the Indianapolis Union and the Indianapolis Belt. Schneider is working on a study of how American railroads and the government interacted between the world wars. R&LHS, founded in 1921, has long supported research through its journal, *Railroad History*, and other activities; it has ten chapters. Info: [www.rlhs.org](http://www.rlhs.org), or from Robert Holzweiss, R&LHS President, 4027 Austin's Estates Dr., Bryan, TX 77808-7301; [Robert.Holzweiss@gmail.com](mailto:Robert.Holzweiss@gmail.com). Deadline for the next round of fellowships is June 30, 2013. Up to \$2,500 is available.

The **National Preservation Institute** offers seminars to highlight state-of-the-art practice in important areas of historic preservation and cultural resource management. Seminars focus on enhancing skills of professionals responsible for the preservation, protection, and interpretation of historic, archeological, architectural, and cultural resources. Classes, which usually span several days, are offered in locations throughout the U.S. Info: [www.npi.org](http://www.npi.org). ■

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### JOHNSTOWN LIGHTS (continued from page 11)

and 1920 at which time an additional track was added. Other repair work is reported to have been completed in 1929 following serious flooding in 1924, and again in 1952. In one of the repairs, the exterior ribs were replaced with concrete girders for the two westernmost arches on the downstream side. In addition, the bridge appears to have been extended on the western end with concrete girders during the construction of State Route 56 along the bank of the Conemaugh.

The bridge lighting project was originally proposed in 2007 to make aesthetic improvements to the bridge, including restoration of the façade and installation of state-of-the-art programmable LED lighting to illuminate the eastern façade, facing downtown. Large portions of funding for the \$1.2 million project came from PennDOT and Norfolk Southern. PennDOT provided a \$495,000 grant, while Norfolk Southern, which owns the bridge, completed over \$400,000 in repair and restoration work. Over 400 corporate and private donations from throughout the community completed the funding. The lighting work, designed by Clifton, N.J.-based lighting firm Shadowstone, uses programmable LEDs allowing for various colors and patterns. Since the project dedication on Sept. 24, 2011, the nightly illumination has been programmed to show colors appropriate for various holidays and local events, and can even be sponsored for corporate and private functions. To provide for annual operating costs and long-term maintenance of the lighting system, an endowment has been established through a community foundation. The restoration and illumination of Johnstown's historic stone bridge serves to preserve and highlight an important piece of Johnstown's history for tourists and future generations. Info: [www.jaha.org/stonebridge.html](http://www.jaha.org/stonebridge.html).

Andy Rose

## SITES & STRUCTURES

In June 2012, preservationists celebrated the groundbreaking of a project to rehabilitate the 1857 Long Shop at the **Ames Shovel Works** in North Easton, Mass. (tour site—2004 SIA Annual Conference, Providence, R.I.). The project, developed as an alternative to demolition, will convert 117,000 sq. ft. of industrial space into 113 residential units. The works had been placed on the National Trust's 11 Most Endangered List in 2008. The SIA supported the listing. John Ames founded the shovel works in the mid-1770s. The Long Shop, built after an 1852 fire, featured innovative linear production methods with materials entering at one end and completed shovels coming out the other. By 1870, Ames was producing 5,000 shovels per day. The **Southern New England Chapter** of the SIA and the Vernacular Architecture Forum sponsored a joint tour of the works and the redevelopment project on Aug. 18, 2012.

Baltimore Gas & Electric has announced plans to demolish the **Melvale Gasholder**, a north Baltimore landmark visible from I-83. The steel gasholder was built in 1933 with a storage capacity of seven million cubic feet of gas manufactured at the Spring Gardens works. Later it stored natural gas brought by pipeline from other locations. It has been out of service since 1997. It was an MAN (Maschinefabrick-Augsburg-Nürnberg) waterless-type, of which the Baltimore-based Koppers Co. was the American licensee.

The **Schlitz Brew House** (tour site—2005 Annual Conference, Milwaukee, Wis.) has been slated for demolition to begin in Dec. 2012. The Romanesque-style, 5-story, brick building, one of the beer capital's finest examples of

brewery architecture, was constructed in 1890. The brew house and two adjacent Schlitz office buildings will be razed to make way for a new business park. Efforts to persuade the owner to preserve and redevelop the buildings as office space failed after the county's Department of Health and Human Services moved out six years ago.

In happier news, the **Jacob Schmidt Brewing Co. Historic District** in St. Paul, Minn., has been granted historic landmark status by the City Council, and a National Register nomination is pending, according to information released by the Minnesota Historical Society. The district encompasses 54 acres and includes the Main Brewery Complex, the Bottling Plant, the Office Building, and the Keg House, among the most important of the 25 buildings surviving on the property. The brewery's period of significance is from 1858 to 1955 and spans the ownership of the Stahlmann, Schmidt, and Bremer families. Info: [www.stpaul.gov/DocumentCenter/Home/View/15697](http://www.stpaul.gov/DocumentCenter/Home/View/15697) and <http://legacy.mnhs.org/projects/1051>.

**Georgia Power's Riverside Power Plant** (tour site – 1999 Annual Conference, Savannah, Ga.) was decommissioned in 2005 and is now being offered for sale. The site is considered attractive to developers due to its downtown location and 1,000 feet of river frontage. Georgia Power hopes that it can be utilized for retail, residential, office, hotel, or a combination of those uses. The coal-fired plant opened in 1912 and was expanded several times. When it closed, five of the eight generators were still in use. – *Savannah Morning News* (Sept. 26, 2012). ■

## IA EXHIBITS

The **Drake Well Museum** (Titusville, Pa.) held a grand opening on Aug. 26 of its 10,000-sq.-ft. exhibit "There's a Drop of Oil and Gas in Your Everyday Life!" The exhibit is the culmination of a 5-year, \$8.75 million project to renovate the museum and provide an introduction to the grounds that include a recreation of Drake's well and a collection of historic oil and gas drilling equipment. Info: [www.drakewell.org](http://www.drakewell.org).

**Frank Furness: Working on the Railroads** is an exhibit at the Library Company (Philadelphia, Pa.) through Apr. 19, 2013. The exhibit brings together architectural drawings, artifacts, original art, and photographs to tell the story of the work undertaken by architect Frank Furness (1839-1912) for three of the nation's major railroads: the Philadelphia & Reading, the Baltimore & Ohio, and the Pennsylvania. Drawing from more than 200 of Furness's railroad-related architectural commissions, the exhibit explores his imaginative, picturesque designs that captured the energy of the

industrial age. Featured are a model of Philadelphia's Broad Street Station, salvaged architectural pieces, original plans for stations, and photographs of many Furness-designed stations that are no longer in existence. Info: [www.librarycompany.org/events/index.htm](http://www.librarycompany.org/events/index.htm). The exhibit is part of a yearlong celebration of the life and works of Furness with exhibits, tours, and talks commemorating the 100th anniversary of his passing. Info: [www.frankfurness.org](http://www.frankfurness.org).

**Old Steel** is an exhibit of contemporary steel mill photographs at the Center for Land Use Interpretation in Culver City, Calif. As quoted by the website ([www.clui.org/section/old-steel](http://www.clui.org/section/old-steel)), the exhibit looks at "Old Steel sites across the USA, at a moment when the industry is making its final transition from Old Steel to new, from raw to recycled. Despite the historic impact of Old Steel on the landscape, economy, and people of the nation, just a few efforts exist to preserve and interpret these industrial dinosaurs as they disappear from the land." ■



## CONFERENCES & WORKSHOPS

**Call for Papers.** The Southern New England Chapter of the SIA invites proposals for papers to be presented at the 26th Annual New England Conference on Industrial Archeology. The conference is alternately hosted by the Southern New England and Northern New England chapters as a forum for presenting research of our industrial past. This year's conference is to be held at Clark University in Worcester, Mass., on Sat., Feb. 23, 2013. Papers are welcomed on all topics related to industrial history, archeology, manufacturing, preservation, engineering, architecture, etc., in New England and elsewhere. Proposals may be submitted for individual papers, team papers, or reports on works-in-progress. The time limit for each presenter will be 30 minutes. Student papers are welcomed. Each presentation proposal must include: (1) title; (2) an abstract of not more than 300 words; (3) a brief resume of the author(s), including postal address, telephone, and e-mail; and, (4) a list of the presenter's audiovisual requirements. Proposals must be received by Jan. 26, 2013. Send proposals in PDF or MS Word format to: [mnbelanger@comcast.net](mailto:mnbelanger@comcast.net) or via USPS to: Marc N. Belanger, 161 Highland St., Taunton, MA, 02780.

The 2013 **Iron & Steel Preservation Conference** will be held at Lansing Community College, Lansing, Mich. on March 4-5. The first day of the conference features speakers and the second day features hands-on learning of techniques for restoring old iron and steel in the college's state-of-the-

art metal shops. This year's featured speaker will be Michael Mort, author of *A Bridge Worth Saving, A Community Guide for the Preservation of Historical Bridges* (2008). Mort is also owner and executive producer at Equity Studios, Inc., specializing in documentary films about the importance of historic preservation, including iron and steel structures. His video credits include *To Have and to Hold: A Call to Preserve the Lighthouses of Michigan* (1997), *Archways to Our Past: The Story of Michigan's Historic Bridges* (1997), and *From Moccasins to Main Street: A Journey Down the Old Chicago Road* (2006). Other speakers include Thomas Boothby (graphic analysis and design of iron bridges and buildings), Cynthia Brubaker (historic Indiana bridge companies), Nathan Holth (Chicago's historic bridges), Frederick Rutz (shielded metal arc welding on historic wrought iron), Dario Gasparini (cast-iron repairs to New Hampshire's Moose Brook Bridge), and Mark Bowman (evaluation and repair of wrought-iron bridges in Indiana). Hands-on sessions and demonstrations will include riveting, welding and brazing, metallurgical and tensile testing of wrought-iron samples, heat straightening, and pack rust removal. Info: [www.facebook.com/lcc.ispc](http://www.facebook.com/lcc.ispc). To register call (517) 483-9853. \$300 for both days; \$175 for one-day paper sessions only. Scholarships of from \$100 to \$1,000 dollars are available for students in engineering, preservation, and industrial arts. To apply: [www.lcc.edu/manufacturing/welding/ISPCConference/NCPPT\\_student\\_application\\_form.aspx](http://www.lcc.edu/manufacturing/welding/ISPCConference/NCPPT_student_application_form.aspx). ■

## Historic Steam Engine Available for Salvage

*The owner of the former Crocker/Albion Paper Mill in Holyoke, Mass. would like to find a good home for a very large historic stationary steam engine. The engine is a Rice & Sargent two-cylinder, cross-compound rope drive steam engine. This Corliss-type engine was built in Providence, R.I. and based on a number of late 1890s and subsequent patents. This example is from a later era when the mechanical elements were shrouded. Rice & Sargent steam engines were known for well-regulated, efficient and reliable high-speed operation in industrial mechanical or early electrical power generation applications. This engine is a large example of the late application of steam power to a preexisting longitudinal subterranean main shaft drive system, and later, dynamos, via rope drive. There are a small handful of known surviving Rice & Sargent Corliss steam engines operating in museum settings, although none are as large as this one, and all are single-cylinder examples. It is unknown how many of these engines survive in their original industrial settings. The mill building housing the engine is slated for demolition in spring 2013. If you are seriously interested in acquiring this engine, know of a potential home for it, or can suggest a practical preservation solution, please contact Matt Kierstead at: [matthew.a.kierstead@gmail.com](mailto:matthew.a.kierstead@gmail.com).*



# **SOCIETY FOR INDUSTRIAL ARCHEOLOGY**

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## CALENDAR

### 2013

**Jan. 9-12:** Society for Historical Archaeology Annual Conference, Leicester, England. Info: [www.sha.org](http://www.sha.org).

**Feb. 23:** 26TH ANNUAL NEW ENGLAND CONFERENCE ON INDUSTRIAL ARCHEOLOGY, CLARK UNIVERSITY, WORCESTER, MASS. Paper proposals requested. See article in this issue. Info: [www.sia-web.org/chapters/nnecc/index.htm](http://www.sia-web.org/chapters/nnecc/index.htm).

**Mar. 4-5:** Iron and Steel Preservation Conference, Lansing Community College, Lansing, Mich. See article in this issue. Info: [www.historicbridgerestoration.com](http://www.historicbridgerestoration.com).

**Mar. 7-9:** Nineteenth Century Studies Assn. Annual Conference, Fresno, Calif. Theme: "Loco/Motion" on the history of transportation and travel. Info: [www.nineteenthcenturystudiesassociation.org](http://www.nineteenthcenturystudiesassociation.org).

**Mar. 21-23:** Business History Conference Annual Meeting, Columbus, Ohio. Info: [www.thebhc.org](http://www.thebhc.org).

**Apr. 10-14:** Society of Architectural Historians Annual Conference, Buffalo, N.Y. Info: [www.sah.org](http://www.sah.org).

**Apr. 17-20:** National Council on Public History, Ottawa, Ont. Info: [www.ncph.org](http://www.ncph.org).

**May 30-June 2:** SIA ANNUAL CONFERENCE, THE TWIN CITIES: ST. PAUL & MINNEAPOLIS, MINN. Paper and DVD proposals requested. See article in this issue. Info: [www.sia-web.org](http://www.sia-web.org).

**June 5-8:** Second National Covered Bridge Conference, Dayton, Ohio. Info: [www.woodcenter.org](http://www.woodcenter.org).

**June 5-8:** Railroad Station Historical Society Annual Convention, Providence/Pawtucket, R.I. Info: Theodore Xakellis, [xakellis@juno.com](mailto:xakellis@juno.com).

**June 6-9:** Mining History Assn. Annual Conference, Galena, Ill. Tours of the historic zinc and lead mining district. Info: [www.mininghistoryassociation.org](http://www.mininghistoryassociation.org).

**June 6-9:** Railway & Locomotive Historical Society Annual Meeting, Madison, Wis. Info: [www.rlhs.org](http://www.rlhs.org).

**Aug. 9-15:** Assn. for Industrial Archaeology Annual Meeting, Dundee, Scotland. Info: [www.industrial-archaeology.org](http://www.industrial-archaeology.org).

**Aug. 21-24:** Chemistry in Material Culture, 9th Int'l Conference for the History of Chemistry, Uppsala, Sweden. Paper proposals requested. Deadline: Mar. 31, 2013. Info: [www.9ichc.se](http://www.9ichc.se).

**Sept. 14-22:** National Railway Historical Society, Annual Convention, Fairbanks and Anchorage, Alaska. Charter trains and tours. Info: [www.nrhs.com/events](http://www.nrhs.com/events).

**Sept. 25-27:** Big Stuff, Triennial Conference, Ottawa, Ont. Sponsored by the Canada Science & Technology Museum. Theme: "Saving Big Stuff in Tight Economic Times." Info: [www.sciencetech.technomuses.ca](http://www.sciencetech.technomuses.ca) (search Big Stuff).

**Sept. 26-29:** SIA FALL TOUR, ROCKFORD, ILL. Info: [www.sia-web.org](http://www.sia-web.org).

**Oct. 9-12:** Pioneer America Society: Assn. for the Preservation of Artifacts & Landscapes, Annual Conference, Mohawk Valley, N.Y. Info: [www.pioneeramerica.org](http://www.pioneeramerica.org).