In 2007, with a grant from the SIA and funding from several generous donors and trustees, the American Precision Museum (APM) engaged the Historic American Engineering Record (HAER) to document the remains of the waterwheel pit and millwork at the Robbins & Lawrence Armory, home of the APM in Windsor, Vt. Christopher Marston [SIA], HAER architect, led the project, in collaboration with John Johnson [SIA], an industrial historian from Marshfield Vt. The Robbins & Lawrence installation was typical of an 1840s waterwheel in northern New England, and the remains of the waterwheel pit and millwork are a case study in a waterpower system. Evidence from the study adds to the understanding of similar factories constructed at this time. The armory was constructed in 1846 as a private armory for the manufacture of firearms and machine tools to make those firearms, and it stayed in production as an armory until 1856. During this period the American system of manufacture was employed here by skilled machinists with a variety of machine tools necessary for the manufacture of interchangeable parts.

On site fieldwork and additional research indicate that the armory was originally powered by a high, breast-type, wood and metal waterwheel 14-ft. wide and 18-ft. in diameter, that supplied mechanical power for the woodworking and metalworking machines used in the manufacture of government-contracted firearms. Power from the waterwheel was directed to a partially extant gearing frame set on granite blocks near the southeast edge of the extant wheelpit. Power from the gearing frame was directed to machinery on the first floor of the factory. While most of the conjectural drawings in the report focus on the millwork, other drawings illustrate major changes to the entire building showing its appearance in 1853, 1884, and today.

(continued on page 2)
In 1849, to supplement the waterwheel, a power house with steam engine was added to the east elevation; a two-story addition expanded machine tool operations on the west elevation. Robbins & Lawrence produced world-renowned firearms for domestic and foreign contracts during this period, but ill-advisedly expanded into rail car manufacture. After the Robbins & Lawrence company failed in 1856, the building was adaptively used as a machine shop and sewing machine factory for Windsor Manufacturing Co. (1857-1870), a cotton factory for Jones, Lamson & Co. (1870-1886), vacant (1887-1901), a steam and hydroelectric power station for the Windsor Electric Light Co. (1902-ca.1935), and a transmission substation for Central Vermont Public Service Company (ca.1935-1965). The evolution of the power systems in the building included the original waterwheel (1846), a steam engine (1849), a turbine (1870), and electricity (1902).

The museum hopes to use this information to create a model of the waterwheel for display purposes. Selections from the study will be posted on the APM website, and the museum hopes to publish the entire 40-page historical report illustrated with historic photographs, maps, and conjectural drawings at a later date pending funding.

HAER was established in 1969 by the National Park Service, the American Society of Civil Engineers, and the Library of Congress to document historic sites and structures related to engineering and industry. This HAER project is comprised of a written report, providing context for historical, technological, and archeological aspects of the site's significance, photographic documentation of existing conditions, and interpretive drawings to reconstruct what may have existed. The final report and drawings will be archived at the Library of Congress American Memory site in the HAER collection.

This article originally appeared in the museum's newsletter, Tools & Technology, Vol. 27, No. 3, Winter 2009, which can be viewed along with additional drawings at www.americanprecision.org/images/stories/pdfs/2009_tt_winter.pdf.
Fredric L. Quivik: New Editor of IA Journal

IA: The Journal of the Society for Industrial Archeology welcomes a new editor—Fredric L. Quivik—who will take over when Patrick Martin steps down at the end of 2010, concluding fifteen years at the journal’s helm. In January, Fred moved to Houghton to join the faculty at Michigan Tech as an Associate Professor of History. A member of the Dept. of Social Sciences, he teaches in Michigan Tech’s interdisciplinary Ph.D. program in Industrial Heritage and Archeology.

Since 1976, he has been professionally active in the fields of the history of technology, industrial archeology, and cultural resource management. Fred’s scholarly and practical background is one of rare breadth, and has embraced the full scope of the SIA’s long-standing commitments to the preservation, interpretation, and documentation of our industrial past and heritage, making Quivik uniquely suited to the challenges of IA Editor.

In 1982, he founded Renewable Technologies, Inc., a historic preservation consulting firm in Butte, Mont. Fred left RTI in 1990 to pursue graduate work at the University of Pennsylvania, earning his Ph.D. in the History and Sociology of Science in 1998. The subject of his dissertation was Smoke and Tailings: An Environmental History of Copper Smelting Technologies in Montana, 1880-1930.

For the SIA, Fred served as president between 1996 and 1998, and was a co-founder of the Klepetko (Montana) Chapter. He co-organized memorable SIA fall tours to Butte/Anaconda (1989), and in 2003 to industrial and engineering sites in northeastern Montana (the Fort Peck Dam was a highlight of that tour) (SIAN, Winter 2004). He has served as program chair for the paper sessions at three SIA conferences (Savannah, Duluth, and Philadelphia).

Quivik brings a long familiarity with IA as he has published three scholarly articles in the journal, one of which received the Vogel Prize in 2005. His articles have appeared in other scholarly journals, including Montana: The Magazine of Western History, CRM Journal, History and Technology, The Public Historian, and Environmental History. He has also served as a peer-reviewer for articles in those journals and others including Technology and Culture and BC Studies. As a result, he is thoroughly familiar with the standards of scholarly publishing, both in the areas of content and production processes.

Further, he has ample experience as a field practitioner of industrial archeology, and has conducted historic bridge inventories in five states. His reports for HAER on industrial and engineering resources have included bridges, dams, coke works, metallurgical facilities, shipyards, and an automobile assembly plant—all core areas of SIA interest. As a historian of technology, he has served as an expert witness in Superfund and related environmental litigation, and the material analysis of artifacts, structures, and landscapes is among the tools he uses in developing expert opinions.

As editor, Fred looks forward to continuing the long tradition of excellent scholarship established by previous IA editors. In addition to those of the SIA, he typically attends the annual meetings of the Society for the History of Technology and the American Society for Environmental History. He hopes to expand scholarly networks which naturally link to SIA interests in order to expand manuscript submissions.

Betsy Fahlman
Chair, IA Editor Search Committee

The other search committee members were Patrick Malone and Mark Finlay.
Travel west of the Mississippi River and step into a time of tremendous innovation, adventure, and enthusiasm. Never before, or since, has the United States had the opportunities presented by the acquisition of such a huge amount of land as that of the Louisiana Purchase in 1803—828,800 sq. miles. The rush to “go west young man” was a rush to new frontiers, which inevitably brought new industry. This year’s SIA Annual Conference theme is “Industry on the Frontier.”

Held in downtown Colorado Springs, the 2010 conference will bring a new perspective on many fronts. We will learn about the men and women who left their imprint everywhere through their cities, bridges, railroads, mines, and mills—monuments of sweat and steel in the shadow of the immense beauty of the Rocky Mountain Range, the longest chain of mountains in the world. Take a tour of the Pikes Peak Cog Railway and stand on the Continental Divide to witness the watershed between the Atlantic and Pacific oceans. Visit historic Pueblo, “Pittsburgh of the West,” which was once considered so industrially important that it was designated to be the capital of the Colorado Territory. Take a tour of Colorado Fuel & Iron, now Rocky Mountain Steel Mill, and the Bessemer Steelworks Museum of Industry & Culture and get a firsthand look at how this important mill shaped the southern portion of the state before it was a state. Oil was being extracted and sold from large coal reserves as early as 1872, and CF&I was important to the history of mining, labor, steel production, railroads, and the development of Pueblo and Colorado.

West of Pueblo, the Arkansas River cuts a 1,200-ft.-deep canyon through solid granite. No sooner had silver been discovered in the upper reaches of the river in 1877, than the Atchison, Topeka & Santa Fe RR and the Denver & Rio Grande Western RR began fighting over the right to lay tracks through the gorge, which was too narrow for two sets of rails. The race to get to Leadville, where a profusion of mines were springing up, led to the “Royal Gorge Railroad War.” It ended in 1879 when the federal government ordered the D&RG to build the line and lease it for shared use.

In 1929, the Royal Gorge Bridge was built as a tourist attraction. Its pedestrian walkway is 1,053 ft. above the river, making it the highest suspension bridge over water in the world (a rank it held until Nov. 15, 2009, when it was superseded by the Si Du River Bridge in China. The Royal Gorge Bridge is reached by an Otis-built incline railway, the steepest in the U.S. which climbs up 1,550 ft. at a 45-degree angle with a 100 percent grade.

Soar into a more modern mode with visits to the Air Force Academy, Peterson Air and Space Museum, and the Olympic Training Complex. Go back in time when you visit historic Cripple Creek and tour the Molly Kathleen Mine.

Cowboys, dinner in a railroad depot, and outstanding presentations to increase your knowledge and pique your interest in learning more, will all be found in Colorado Springs, June 3-6, 2010. We hope to see you there.

The conference brochure will be mailed to all current SIA members in early spring 2010. Registration will open about a week after the brochure is mailed.

**Conference Hotel Antlers Hilton.** Located in the heart of Colorado Springs, the Antlers Hilton is as historic as the town itself. The original Antlers Hotel was built in 1883 by Gen. William Jackson Palmer, the founder of the town, to provide an elegant hotel for nature lovers visiting the area. Today’s hotel contains a brew pub, a restaurant, and a coffee shop. Rooms: $139/night for conference guests, $149/night for mountain view rooms. Antlers Hilton Colorado Springs, Four South Cascade, Colorado Springs, CO 80903-1685; (719) 955-5600.

**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 attend annual conferences. Those interested in applying for a travel scholarship to attend this year’s conference 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. 26, 2010. Apply to Patrick Harshbarger, SIA Scholarship Committee Chair, 305 Rodman Rd., Wilmington, DE 19809; phsianews@aol.com.
Whether you use photography for work or pleasure, you won’t want to miss the half-day Photography Workshop at the 2010 Society for Industrial Archaeology Annual Conference in Colorado Springs. Information on registering for the workshop will be included in the general conference registration materials sent to all SIA members.

James C. Owens (Senior Fellow at Torrey Pines Research and Past President and Fellow for the Society for Imaging Science and Technology), Jet Lowe (HAER Staff Photographer), and Richard K. Anderson (Cultural Resource Documentation Services) will discuss three separate, yet closely related, aspects of photographic documentation of industrial sites.

The Revolution in Photographic Technology (James C. Owens). The shift from film to digital photography is almost complete. Although electronic images offer immediate access and flexible editing, there are some disadvantages to digital capture, especially for wide-latitude scenes, and file formats remain a problem. In this portion of the workshop, we will briefly review the technologies available for electronic image capture, editing, archiving, and printing, giving an overview of today’s imaging technology and guidance on technological solutions and equipment selection for challenging archaeological projects.

Large-Format and Good Field Photography (Jet Lowe). Several differences exist between large-format formal documentation and good field photography. This segment of the workshop will examine how photographers apply large format documentation techniques to digital photography; specifically how best to use your tripod, set up your camera, paint with light, and store images. In addition to the mechanics of taking the large-format photographs, we will examine how to use Photoshop in perspective correction.

Applications of Digital Images to Industrial Archeology (Richard K. Anderson). Dimensional information is an important aspect of recording industrial sites. Properly taken and processed photographs can often yield this data. In this portion of the workshop we will learn about the inherent distortions present in some types of photographs and how to employ basic post-processing steps in order to convert an image into a drawing. Because some of these post-processing steps can apply to scans of film or prints, even some historic photographs can be “mined” for two- and three-dimensional data.

Can you identify this mystery device in a Cincinnati, Ohio, riverside stereo view—most likely by Edward Anthony, circa 1870. Photographic antiquarian, N.M. Graver collected this stereo view because it depicts the portable photo darkroom cart in the lower left, used to prepare and process this very image. Then he began to wonder about the much larger wheeled rig, the center of attraction. It seems to be for hauling large beams or girders, etc.? If readers send comments regarding the device, its maker or use, he will report back through the newsletter. Thanks to John Waldsmith for the date and Anthony attribution. Comments: ngraver@rochester.rr.com.
**2010 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 example) 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.


Nominations, which must be received on or before April 16, should be submitted to: David A. Poirier, 33 Simsbury Landing, Simsbury, CT 06070; (860) 836-0718; sapdap@comcast.net.

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**SIA Slate of Candidates—2010**

The Nominations Committee is pleased to present the following draft slate of candidates for the 2010 election:

- **President (2-year term)**
  - You will vote for one
  - Jay McCauley

- **Vice President (2-year term)**
  - You will vote for one
  - James Bouchard
  - Duncan Hay

- **Secretary (3-year term)**
  - You will vote for one
  - Richard Anderson
  - Justin Spivey

- **Treasurer (3-year term)**
  - You will vote for one
  - Nancy Batchelor

- **Director (3-year term)**
  - You will vote for two
  - Maryellen Ficker
  - David Rotenstein
  - Wes Thompson

- **Nominations Committee (3-year term)**
  - You will vote for one
  - Kevin Pegram
  - John Stacier

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 2010 calendar year) and delivered to the Nominations Committee chair at the address below no later than April 15, 2010. 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 2010 calendar year in order to vote.

The current Nominations Committee includes Christopher Marston (chair), Erin Timms, Rachael Greenlee, and Robert Stewart (ex officio). Please direct all nominations and other correspondence to: SIA Nominations Committee, c/o Christopher Marston, 9500 Seminole St., Silver Spring, MD 20901; (202) 354-2162 work or (301) 502-1217 cell; christopher_marston@nps.gov.
GENERAL INTEREST

Joyce Appleby. The Relentless Revolution: A History of Capitalism. In examining the rise of capitalist culture since the 16th century, many entrepreneurs are profiled from James Watt to Josiah Wedgwood, and resistance to capitalism is also examined. Rev.: NY Times Book Review (Jan. 24, 2010), p. 15.


Lynn Marsden-Atlass, ed. Thirteen Miles from Paradise, John Moore. Univ. of Pa. Pr., 2009. 48 pp., illus. Industrial landscape paintings by realist John Moore, features locations near Paradise, Pa., including the Lukens steel works, railroads, and Amish farmland.

Tony Bartelme. Research on Hunley Spurs New Discoveries. Charleston [S.C.] Post and Courier (Dec. 27, 2009). In efforts to preserve the Civil War submarine the H. L. Hunley, researchers at the Warren Lasch Conservation Center and Clemson University have been using super-pressurized water as a means of preserving iron artifacts from corrosion, especially those that have been exposed to salt water. The International Conference on Historic Metal Conservation will meet in Charleston in October to examine the process.

Karim Fahim. A Pocket of Work in an Area of Joblessness. NY Times (Jan. 19, 2010). Reports on the little “industrial hub” of East New York, Brooklyn, where more than 100 small manufacturers steadily produce metal alloys, candles, plumbing supplies, and a variety of other goods and services. Features Belmont Metals, Inc. (est. 1896), a small foundry that produces specialty alloys.

Jeff Hoffman. A Survey of the Canals and Water Raceways of New Jersey. New Jersey History, Vol. 124, No. 1 (Fall 2009), pp. 107-116. A new survey of the current and historic canals and water raceways of New Jersey found 171 of them. The locations are available in a GIS shapefile that indicates their current status (active or abandoned) and condition (wet or dry). The shapefile also shows the locations of locks and inclined planes on the Morris Canal and the Delaware & Raritan Canal. The number of mapped historical water raceways in an area is directly correlated to the interest and activity of local historians. Undoubtedly many more water raceways remain to be rediscovered. This report will be updated by the New Jersey Geological Survey as additional canals and water raceways are identified and located.


Domenico Sella. Trade and Industry in Early Modern Italy. Ashgate, 2009. 316 pp. Reassesses the economic fortunes of Northern Italy, in particular Lombardy and Venice, during the 16th and 17th centuries. The literature on the economics and society of northern Italy had hitherto dealt primarily with the major cities, Milan, Florence, and Venice, and their celebrated industries, extensive commercial activities, and banking. By contrast, the countryside was largely neglected and its population dismissed as an undifferentiated mass of peasants fully engaged in farming. As it turns out, rural communities often harbored handicraft industries, and the latter appear to have avoided the debacle that hit the urban economies and their celebrated manufactures, highly regulated as they were by the guilds, in the face of international competition. Includes chapters on the iron industry, water-powered textile spinning, and the wool industry.


TEXTILES

Charles V. Bagli. New York Seeks to Consolidate Its Garment District. NY Times (Aug. 19, 2009), p. A20. While large-scale manufacture of clothing left the island decades ago, Manhattan’s Garment District remains home to smaller producers of limited-run couture for designers based in the city. The city government and the non-profit Garment Industry Development Corp. are considering the possibility of consolidating these producers into a few large buildings to protect them from rising commercial rents.

Tim Chitwood. A Year after It Burned, the Bibb Mill Not Yet a Ghost of the Past. Columbus (Ga.) Ledger-Inquirer (Oct. 30, 2009). The massive Bibb Mill, one of the South’s largest and most historic cotton mill complexes, burned on Oct. 30, 2008 (SIAN, Winter 2009). A year later the mill’s bricks are being salvaged and sold by the tens of thousands across the region for re-use in new buildings and restorations. A Georgia Historic Trust grant is paying for a plan to determine what to do with the mill’s footprint and the surviving façade.
Richard W. Hunter [SIA], Nadine Sergejeff, and Damon Tvyanas. *On the Eagle’s Wings: Textiles, Trenton, and a First Taste of the Industrial Revolution*. New Jersey History, Vol. 124, No. 1 (Fall 2009), pp. 57-98. The rise, fluctuating fortunes, and eventual fall of the Eagle Factory, Trenton’s first major textile manufacturing enterprise, located on the Assumpink Creek. Established in 1814 at the dawn of the American Industrial Revolution and controlled throughout by the Walns, a prominent Quaker merchant family of Philadelphia, the Eagle Factory began by producing yarns and hand-woven goods. Following the introduction of power looms in the 1820s the factory shifted into the mass production of a variety of machine-made fabrics, including plaids, checks, muslin, gingham, ticking, and a number of more distinctive cloths. However, this strictly family-run enterprise was never entirely successful, falling victim to broader global economic forces and regional competition, as well as several floods and fires.

**COMMUNICATIONS TECHNOLOGY**


**AGRICULTURE & FOOD PROCESSING**

- Damien Cave. *Deep Roots, Oranges and a Taste of Florida’s Past*. NY Times (Jan. 1, 2010). Roadside citrus stands, their history and shrinking numbers.
- Eric Curl. *Pinpointing Pin Point*. Savannah (Ga.) Morning News (Feb. 10, 2009). Designation of a historic district surrounding the Pin Point Oyster Cannery near Savannah. Preservationists are looking at ways to preserve the cannery and nearby oyster and crab shacks.
- Iconic Pittsburgh Beer Risks Losing the City by Leaking. *Wall Street Journal* (June 20, 2009). Chronicles the history of the Iron City Brewery (est. 1861), which is ceasing its operations in downtown. Production is moving 40 miles to the former Rolling Rock Brewery in Latrobe, Pa.

**MISC. INDUSTRIES**

- Chris Dovi. *City, State Jockey over Shoe Factory*. Style Weekly, Richmond, Va. (Oct. 20, 2009). The state plans to demolish the Putney Shoe Building (1907) in downtown Richmond. The building, modeled after Paris’s Gare du Nord, featured two railroad spurs that allowed trains to pull into the building on either side of the factory floor. The building is currently used by the state film bureau for storage.
- Tom Huntington. *Reign of Error: Liquid Paper’s Humble Beginnings*. I&T (Fall 2009), pp. 8-10. Story of Bette Nesmith Graham, a typist at Dallas’s Texas Bank & Trust, who invented the white-out used to correct typing mistakes in the 1950s and subsequently made a fortune marketing it. (She was also the mother of Michael Nesmith of the rock music group The Monkees.)
- Louis Uchitelle. *Glassmaking Thrives Offshore, But Is Declining in U.S.* NY Times (Jan. 18, 2010). Except for glass bottles, most American glassmakers have fallen on hard times since the 1990s.

**MINES & MINING**

- The #6 Locomotive Is Here! Quincy Mine Hoist Association Newsletter (Summer 2009). Photos of shipping #6 from N.J. to the Upper Peninsula of Mich. Also info about the museum’s cog railway and restoration of the roundhouse, which will be used to restore and interpret the three locomotives at the Quincy Mine Hoist (tour site—1997 Annual Conference). Mentions work of Pat Martin [SIA] and students at Mich. Tech.
- Phillip J. Pells and Phillip J. Hammon. *The Burning Mists of Time: A Technological and Social History of Mining at Katoomba*. WriteLight, Blackheath NSW, 2009. 258 pp., ill., maps. Story of establishing the town of Katoomba in the Blue Mountains of New South Wales, including the history of the Scenic Railway. Traces the pioneering developers who were drawn by the world’s richest oil-shale deposits and associated coal seams, and their roles in the later rise of Katoomba to fame as a tourist destination. Includes technical descriptions of the mining infrastructure, previously unpublished historic photos, and sketches and diagrams to explain complex industrial processes. An accompanying website (www.scenicworld.com.au/burningmists) provides details of the research undertaken. The book can be purchased from Scenic World at Katoomba for $AS9.95 plus postage: jeanette@scenicworld.com.au. Purchase a from ScenicWorld includes a presentation box of a piece of oil shale and a souvenir box of matches, with which you can test the claim that Katoomba’s oil shale was the highest quality in the world by setting fire to it in the privacy and safety of your own home. (We are not sure whether this applies to mail orders given restrictions on flammable material in the post but you can always ask—maybe request the shale without the matches!).
- Brandon Wilson. *History Revealed*. Marietta (Ga.) Daily Journal (Jan. 30, 2010). Describes a sinkhole that has opened up over a 360-ft.-deep pyrite mine. Includes brief history of the former Marietta Mining Co.
**RAILROADS**

- Schuyler Kropf. *Trolleys Derailed. Charleston (S.C.) Post & Courier* (Jan. 17, 2010). A preservation group struggles to save two city trolley cars, which since 1938 have been used as a single-family house in West Ashley.
- Patricia Lowry. *Andrew Carnegie’s Former Locomotive Works on the North Side Slated for Demolition. Pittsburgh Post-Gazette* (Jan. 24, 2010). Reports that the dozen or so remaining brick buildings associated with the former Pittsburgh Locomotive Works will be razed. The plant operated from ca. 1867 to 1919. Includes brief company history and status of three remaining locomotives.

**WATER TRANSPORT**

- Danny Barnett, Jr. *‘Big Shaky’ Centerpiece of Big Muddy Showplace. Vicksburg (Miss.) Post* (Nov. 18, 2009). The 1,450-ton MV Mississippi IV, a retired U.S. Army Corps of Engineers river workboat, is being restored as a museum and interpretive center to open in 2011. It was the first diesel-powered vessel to serve as the flagship of the Mississippi River Commission.
- Allyson Bird. *Staying Afloat. The [Charleston, S.C.] Post & Courier* (Jan. 12, 2010). Repairs to the USS Laffey, a WWII destroyer, have included strengthening the hull, new internal walls, a dehumidifying system, and protective coatings to arrest rusting. The ship will be on display at the Patriots Point Naval & Maritime Museum.

**BUILDINGS & STRUCTURES**

- Lynn Dore. *Terra Cotta Lumber. CHS Newsletter*, No. 85 (Aug. 2009), pp. 15-17. Discussion of extruded hollow building blocks made of three parts sawdust and two parts clay. Used mostly for partition walls in the late-19th century and believed to be particularly adapted to fireproofing. Focus is their use in Australia, but also some background on earlier uses in the U.K. and the U.S.
- Iain Stuart. *The Diffusion of Quonsets to Australia (1942-1948)*. CHS Newsletter, No. 85 (Aug. 2009), pp. 12-14. Quonset huts built by U.S. forces during WWII introduced the prefabricated design to Australians, who also acquired them as surplus following the war.

**BRIDGES**

- Kate Luce Angell. *Plan Presented to Save Hulton Bridge. Pittsburgh Post-Gazette* (Dec. 24, 2009). Carnegie Mellon University students studied the through-truss highway bridge built in 1908 and developed a plan for preserving it as a pedestrian/bicycle bridge. Hulton is the last through-truss bridge over the Allegheny River; PennDOT plans to replace it. Article quotes Eric DeLony and Todd Wilson [both SIA].
- James Barron. *100 Years Later, Still No Respect for a Bridge. NY Times* (Dec. 30, 2009). The Manhattan Bridge was still incomplete when its opening was celebrated by outgoing Mayor George B. McClellan, Jr., on New Year’s Eve, 1909. For reasons ranging from anti-McClellan sentiment to the bridge’s poor design and enormous demand for maintenance and repair funds, the NYC Bridge Centennial Commission did not celebrate the 100-year anniversary of the event.

**AUTOMOBILES & HIGHWAYS**

- Michael M. Gryna. *In Need of Cash, State Requiring Drivers to Buy New $25 Plates. NY Times* (Nov. 10, 2009). N.Y. State’s new license plates, a mandatory $25 purchase starting with registration renewals in Apr. 2010,
**Construction History—A One-Day Exploration.** Christopher Marston represented SIA at this event on Dec. 2, when over 60 people gathered at the National Building Museum in Washington, D.C., under the sponsorship of the Construction History Society of America to compare their research and activities in this field. It was a very full day with 25 panelists, speakers, and moderators representing 20 organizations. While a fuller summary of the day can be found at the CHSA website (www.constructionhistorysociety.org), two principal conclusions were reached. First, while some features of American design and construction history are being well addressed—architecture in particular comes to mind—most other aspects call for more focused study and research. These would include areas such as the evolution of the industry itself, construction methods and procedures, and labor and its organizations. Second, attempts should be made to introduce construction history into the curricula of engineering and construction schools. The exchange of information and the identification of multiple sources of research material were extremely valuable. The National Building Museum and CHSA were encouraged to continue efforts toward closer collaboration between the societies and associations represented.

**BigStuff 2010** will be held at the Imperial War Museum at Duxford, near Cambridge, U.K., Oct. 6-8, 2010. The theme of the conference will be the causes and avoidance of conflict between the display and conservation requirements of large technology objects within the museum setting. It is anticipated that day one will cover conservation, day two will cover display, and day three, to be held on-board HMS Belfast in London, will look towards generating compromise between the two disciplines. The organizers also intend to build a session dealing specially with the demands of industrial monument or site handling at this year’s conference. Big industrial monuments require special methods of examination, action planning, and treatment. Info: cknapp@iwm.org.uk.

On Sunday, May 2, the Lake States Railway Historical Assn. (LSRHA) will hold its 3rd Annual Luncheon at the Baraboo Arts Building, Baraboo, Wisc. The speaker for the event will be David J. Leider, who will present on the topic Building the Soo Line’s Chicago Freight House. His talk provides an interesting, educational and well-illustrated look at the building’s construction and will be of interest to railroad historians and SIA members alike. In 1909, the Minneapolis, St. Paul & Sault Ste. Marie RR (Soo Line) leased the Wisconsin Central Ry. giving the Soo Line and its Canadian Pacific owner direct access to Chicago. The Soo Line eventually decided to build a new freight house north of the Grand Central Station along Canal Street. Eleven city blocks were acquired and the Central Terminal Ry. was incorporated to build and operate the new terminal. The LSRHA program will feature more than 200 photographs taken over the course of construction, which detail every aspect of the work. These photographs were taken to illustrate the use of cement in what was one of the largest reinforced-concrete structures of the time. Included are photographic views of how the cement was manufactured, transported and poured. Check the LSRHA website (www.lsrha.org) for additional information on the program. If planning to attend, please identify your association with SIA. The LSRHA archives will host an Open House before and after the luncheon and program. The archives include original drawings of the 1895 and 1901 Portage Lake bridges between Houghton and Hancock, Mich. ■

**Abbreviations:**

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CG</td>
<td>Common Ground, published by the National Park Service</td>
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<tr>
<td>CHS</td>
<td>Construction History Society (U.K.)</td>
</tr>
<tr>
<td>CHSA</td>
<td>Construction History Society of America</td>
</tr>
<tr>
<td>I&amp;T</td>
<td>American Heritage’s Invention &amp; Technology</td>
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**Timeline** = Quarterly journal of the Ohio Historical Society, 1982

**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, phsianews@aol.com.
SIA FALL TOUR
Montpelier-Barre, Vt. • September 16-19, 2010

The SIA’s 2010 Fall Tour will visit industrial heritage sites in Montpelier, Barre, and nearby towns in Vermont. Mark your calendars for this important IA region with an emphasis on the Green Mountain State’s machine tool and granite industries.

The machine tool industry will be the focus of the Thursday tour. We will drive to Windsor to visit the American Precision Museum’s impressive collections and learn about a recent HAER documentation of the waterwheel pit (see article in this issue). We will then walk to the Cornish-Windsor covered bridge. Then it’s off to the Harpoon Brewery and the Simon Pearce Glass blowing studio next door. We can have lunch and samples at the brewery. Preliminary plans are to follow lunch with a process tour at one of several active machine tool manufacturers in Springfield. We will then head to the Stellafane observatory. Russell W. Porter founded the observatory and the Springfield Telescope Makers in 1923. After the observatory we will proceed to Barre/Montpelier for the opening night reception at the Vermont Granite Museum.

Friday tours will focus on the granite industry of Barre with several quarries and granite-related sites possible (think cemeteries, tool makers, sculptors). Tours may also offer options of nearby wood-processing (old sawmills, baseball-bat factory) and dairy industries (cheese and commercial dairies). Saturday’s schedule includes possible excursions to abandoned mines and Burlington (Shelburne Museum, snowboard factory, micro-brewery). The Saturday evening banquet will be held at the Socialist Labor Party Hall in Barre. Optional walking tours of Barre architecture and sculpture are scheduled for Sunday. Check the SIA website and e-news for updates as this year’s fall tour takes shape. Registration materials will be sent to members in midsummer.


Tod Engine Becomes Youngstown Steel Heritage Foundation

In November, the Tod Engine Foundation (tour site—2006 Fall Tour, Youngstown, Ohio) became the Youngstown Steel Heritage Foundation. The new name better describes the foundation’s expanded mission of preserving the steel industry heritage of the Youngstown steelmaking district, which includes both the Mahoning and Shenango valleys. The primary function will continue to be the construction and operation of the Tod Engine Heritage Park; however, other projects are in the works including instituting memberships, publication of a quarterly journal featuring articles about Youngstown district steelmaking history and steel industry preservation around the world, and of course working to educate the public about the dynamic history of steelmaking in the Youngstown district. The Foundation’s new logo resurrects the former “Youngstown Steel” ladle and arrow mark that was developed by the Youngstown Sheet & Tube Co. This mark once represented high quality steel products manufactured by YS&T; now it represents the preservation of the Mahoning and Shenango valleys. The officers of the Youngstown Steel Heritage Foundation include: Rick Rowlands [SIA], president; Zara Rowlands, secretary; and Rich Rees, treasurer. The board of directors includes David Tod II, Thomas E. Leary [SIA], Ken Izzo, and Chris Dawson.

The Foundation recently acquired a 70-ton center-cab diesel switching locomotive built by General Electric in 1942 for the New York Central RR to switch passenger cars. It was sold to Standard Slag in 1952, where it moved slag around its plant. In the early 1960s, Republic Steel Corp. took ownership. In 1980, Valley Mould & Iron Co. acquired it. Some time later, the Hubbard-based Ellwood Group Inc. bought it for a subsidiary, the Ellwood Engineered Casting Co. Ellwood retired the engine in 2008, replacing it with an 80-ton locomotive.

The Youngstown Steel Heritage Foundation’s newest acquisition, a 70-ton switcher used in local steel plants.
The Burden Iron Works Museum (Troy, N.Y.) has received the donation of Henry Burden’s original 1876 Centennial Exposition gold medal and four original patents for horseshoe-making machines, one of them signed by President Andrew Jackson. Burden invented several machines for automatically manufacturing horseshoes, revolutionizing the previous hand-manufacturing process. Several operating models of these machines are on display at the museum (SIAN, Spring 2005, Fall 2009). The machine that Burden displayed at the 1876 exposition has also been located, in storage at a warehouse of the N.Y. State Museum. Bob Rawls [SIA] has been studying the patents and machines to understand how the process worked and improvements that Burden made in the process from the 1830s to the 1870s.

Patent Models in the Oval Office. Among the items President Obama has selected to decorate the Oval Office are three patent models from the National Museum of American History’s collection. The models, which are meant to fit with the President’s interest in technological innovation, include Samuel Morse’s 1849 telegraph register, John Peer’s 1874 gear-cutting machine, and Henry Williams’ 1877 feathering paddlewheel for steamboats.—Huffington Post (Jan. 7, 2010)

What Was It Like to Work in a Pumping Station 100 Years Ago? Developers of the Metropolitan Water Works Museum in Chestnut Hill, Mass., which is due to open next fall in the former waterworks, are researching the various personnel and jobs in the plant from 1900 to 1915. If you have information on the day-to-day work of this plant or a similar plant, a resource that describes this work, or information that might lead to suggestions on where to look for personnel records, please contact Margie Hilton, Metropolitan Waterworks Museum, Boston, MA 02467; marjorieh@waterworksmuseum.org.

Domino Sugar Photos and Video Wanted. If you toured the Domino Sugar refinery in Brooklyn as part of the SIA’s 2002 conference or with the Roebling Chapter a few months later, Mary Habstritt [SIA President] is seeking to use your video and photos to help preserve this important historic site. Once the world’s largest sugar refinery and the seat of the Sugar Trust, this plant has been determined eligible for the National Register of Historic Places. Three of the 20+ structures have received local landmark designation, but the rest are slated to be demolished for residential apartment towers. Your photos and video could help in the preservation fight. Please contact Mary, (917) 709-5291; president@siahq.org.

The Willamette Falls (Ore.) Heritage Foundation has received a donation of canal lock gate parts as a result of a recent project by the U.S. Army Corps of Engineers to rehabilitate the Willamette Falls Lock. The Foundation is seeking advice from individuals or institutions having experience with the preservation of similar metal parts that have been underwater. The parts include metal gate hardware, brass pintles, and about a 10-ft. section of the quoin timber. Please contact: Sandy Carter, WHF, Box 311, Marylhurst, OR 97036; willamettefalls@msn.com; www.willamettefalls.org.
The Lake Champlain (Crown Point) Bridge was dynamited in late December following an underwater inspection that found severe deterioration of the piers. The N.Y. Department of Transportation (NYDOT) reported, “If any major cracks were to develop diagonally in the pier, or deterioration reduces the contact bearing area between concrete segments, the pier could fail without warning. The risk and safety for personnel working in close proximity to the existing, fragile bridge is too great to permit rehabilitation in any form [sic].” Preservationists had for several years been lobbying the states of Vermont and New York to consider rehabilitation options, but the bridge’s condition and the states’ reluctance to spend funds on an aging structure eventually militated against that option. The Lake Champlain Bridge extended more than 2,186 ft. across a narrow reach of the Lake between Crown Point, N.Y., and Chimney Point, Vt., with a 1,014-ft.-long deck-through arch-deck continuous truss at the center. Designed by the engineering firm Fay, Spofford & Thorndike and constructed 1928-1929, the structure’s claim to national significance arose from its position as a highly influential prototype in the adaptation of continuous-truss technology, first developed for railroads during the late 19th and early 20th centuries, to long-span highway bridges at the beginning of the country’s automobile age. As demonstrated in this bridge, the continuous truss made it possible to build a structurally efficient bridge that required fewer materials and provided greater rigidity than conventional trusses. The design also demonstrated the continuous truss’s aesthetic potential, an important consideration in an era of enthusiastic automobile tourism. This very successful design was quickly employed at other important crossings, e.g., General Sullivan Bridge, N.H., 1934; Sagamore Bridge, Mass., 1934; Bourne Bridge, Mass., 1935; and Glover Carry Bridge, Ky. and Ohio, 1940. Eventually, its use extended across the country in the era of the interstate highway system. Due to the Lake Champlain Bridge, Fay, Spofford & Thorndike immediately joined the ranks of America’s most innovative engineering firms.

Pony-Truss Bridge Available. The Maryland State Highway Administration is planning to replace Bridge No. 7055 on Route 545 over Little Elk Creek north of Elkton, Cecil County. This National Register of Historic Places-eligible bridge was constructed in 1932 by the Roanoke Iron & Bridge Works for the Maryland State Roads Commission. The bridge is a steel, Warren pony-truss design on concrete abutments. The overall length is 95 ft. by 27 ft. wide from curb to curb. The bridge is available to any city or county government, historic preservation organization, bicycle/trail group, non-profit organization, corporation, or individual for reuse at a new location. Funds may be available for some of the costs associated with its relocation. The recipient party will be required to preserve and maintain the bridge in accordance with established standards for historic bridges. Parties interested in reusing this bridge must contact MSHA by March 15. Please contact Fred Shoken; (866) 527-0502; fshoken@sha.state.md.us.

The Rock Island Railroad Bridge in Little Rock, Ark., over the Arkansas River, has received an $8 million federal stimulus grant for rehabilitation. The bridge, which is adjacent to the Clinton Presidential Center, is a vertical-lift bridge built in 1899. It has been out of service for more than 25 years.—Arkansas Times (Sept. 30, 2009)

The Bixby Creek Bridge on California Route 1 in Big Sur, Monterey County is being honored with a commemorative postage stamp. Built in 1931-1932, the reinforced-concrete, open-spandrel arch was designed by H.D. Stover, who designed a number of the Big Sur bridges and other historic bridges in California as well. It took quite some time for this stamp finally to be issued. If you’ve watched any commercials of cars going over an incredibly nice-looking bridge along the California coast, it was probably this bridge. Info: www.dot.ca.gov/ctnews/jan10/bixby.shtml. ■

The Lake Champlain Bridge, a nationally significant example of continuous-cantilever truss design, was demolished in December 2009.
Northern New England was host to the 22nd Annual Conference on New England Industrial Archeology at Plymouth (N.H.) State University on Feb. 27. A wide range of papers related to industrial history, architecture, and manufacturing was presented.

Oliver Evans (Greater Philadelphia) members enjoyed the chapter’s 22nd annual filmfest on Dec. 10. Mitchell Dakelman, film librarian of the National Railroad Historical Society, selected some outstanding films covering railroads and industries in the Mid-Atlantic states. The chapter held its annual dinner on Jan. 15 at the Manayunk Brewery next to the Manayunk Canal locks. Guest speaker David Barnes presented on the history of the Lazaretto quarantine station on the Delaware River—the oldest quarantine station in the Western Hemisphere.

Roebling (Greater N.Y.-N.J.) members toured the Webb Institute of Naval Architecture and Marine Engineering in Glen Cove, N.Y., on Dec. 12. Established in 1887 by William Henry Webb, then a leading industrialist and shipbuilder, the institute prepares students for the shipbuilding industry and houses an impressive collection of ship models and testing labs. The chapter held its annual meeting at the Paterson (N.J.) Museum on Jan. 23. Elected president was Jim Mackin, replacing Lynn Rakos, who chose not to run this year due to other obligations. Elected vice-president was Mary Lee Thompson Barranger. Prior to the meeting, members toured the Society for Establishing Useful Manufactures’ Great Falls Power Plant, an operating hydroelectric facility built in 1912-14. The tour was led by Patrick Harshbarger [SIA] who has been working on a preservation plan for the plant.

The future of the Ames Shovel Shops (tour site—2004 SIA Annual Conference, Providence, R.I.) located in Easton, Mass., is looking brighter. The shops were named last year to the National Trust for Historic Preservation’s most endangered historic sites list. Since then, a developer with a proven track record in historic preservation has taken over the project to adaptively re-use the site for affordable housing and a museum. The SIA preservation committee has written letters of support.—EnterpriseNews.com (Nov. 3, 2009)

The Penn Coach Yard Chimney at 30th Street Station in Philadelphia was demolished in November. The 323-ft.-tall smokestack was located atop a six-story steam plant built by the Pennsylvania RR in 1929. The plant provided the power needed for the railroad to electrify its locomotive fleet. The power plant and an adjacent dormitory that housed Pullman car porters are being torn down to make way for new development. Photos: www.philly.com/philly/hp/art/Steam_Plant_Demolition.html.—Philly.com (Nov. 15, 2009)

The long-abandoned Southern Pacific Central Shops in Sacramento (tour site—1996 Annual Conference) are three months into a $5 million environmental cleanup. The shops officially closed in 1999, and since that time many of the original buildings have fallen into disrepair. Only eight of at least 240 buildings once located on the 244-acre site remain. The Central Pacific RR established the yards in the 1860s at the western end of the transcontinental railroad; the company was combined with the Southern Pacific in 1885. In the 1920s, the company slowly began downsizing the yards, a process that accelerated with the construction of maintenance shops for diesel locomotives in Sacramento’s suburbs after WWII. Two of the remaining buildings – the boiler shop and the erecting shop – are being given by the developer to the state park system for use by the State Railroad Museum. The remainder of the site will be redeveloped for commercial and residential uses.—Sacramento Bee (Nov. 10, 2009)

During a meeting at the Sloss Furnace National Historic Site in Birmingham, Ala., January 23, the Southern Chapter elected John Stewart (right) president and Jim Bennett (left) secretary. John is a Birmingham engineer and Jim is the head of the Alabama Labor Dept. The Southern Chapter was recently re-activated and plans tours and work sessions in the coming months at various Birmingham area industrial sites, including the historic iron ore mines on Red Mountain, first opened in 1863 and shut down in the early 1960s. Info: Jim Bennett, jim.bennett@labor.alabama.gov.

Support Your Local Chapter. For info on a chapter near you or to start one, contact Tim Mancl, SIA Director, Local Chapter Chair (tjmancl@gmail.com) or check out the local chapters section of the SIA website (www.sia-web.org).
William G. McGowan’s MCI, 1968 to 1991 (http://digital.hagley.org/index.php) is a web-based exhibit and accompanying archives. William G. McGowan (1927-1992) was the driving force behind the success and innovation of the telecommunications giant MCI and successfully led antitrust litigation against the AT&T monopoly. This exhibition draws on the MCI archives at Hagley Museum & Library (Wilmington, Del.) and documents McGowan’s impact throughout American and international business, particularly in the areas of innovation and entrepreneurship, technology, and the creation of a competitive market in the telecommunications industry. The digital exhibit traces McGowan’s life and career and examines the evolution from microwave to fiber optic application in telecommunications, the AT&T antitrust suit, MCI’s advertising innovations, and its numerous mergers and acquisitions.

Edward Burtynsky: Oil (www.corcoran.org/burtynsky/index.php) is an exhibit that premiered at the Corcoran Gallery of Art (Washington, D.C.) in 2009 and will be touring the U.S. through 2012. The exhibit features a decade of large-format photographic imagery exploring the subject of oil. The Canadian photographer has traveled internationally to chronicle the production, distribution, and use of this critical fuel. Review: www.artsjournal.com/man/2009/11/introducing_edward_burtynsky_o.html.

Deere & Company, manufacturers of John Deere equipment, has announced that its corporate art collection will go on display to the public for the first time at the Figge Art Museum in downtown Davenport, Iowa. The collection, acquired during the mid- to late-20th century, contains artworks from regions where Deere & Company conducted business, including east Asia, northern Africa, eastern Europe and the Americas. The media include oil paintings, works on paper, photography, textiles, and sculpture. Info: www.artdna.org/Exhibitions/Upcoming.aspx.

Lace in Translation is a modern-art exhibition inspired by the Quaker Lace Co. of Philadelphia, one of the nation’s largest lace manufacturers with over 100 giant looms. Three European and Canadian design teams were commissioned to explore the company’s collections and then adapt the company’s patterns to site-specific art installations. In one, a 160-ft.-long lace fence swoops along the driveway to the Philadelphia Design Center. The exhibit continues through April 3 at the Philadelphia Design Center at Philadelphia University, 4200 Henry Ave.; open from 10 a.m. to 4 p.m. weekdays, 11 a.m. to 4 p.m. Saturdays. Admission is free. Info: www.laceintranslation.com.

At the Heart of Progress: Coal, Iron, and Steam since 1750: Industrial Imagery from the John P. Eckblad Collection will be running through March 21 at the Frances Lehman Loeb Art Center, Vassar College, Poughkeepsie, N.Y. The exhibit features prints and other images of industrial landscapes of the late-18th to 19th century. Info: http://fllac.vassar.edu/exhibitions/2009-2010/heart-of-progress.html.

American Ruins (www.slate.com/id/2241211/). Photographs by Camilo Jose Vergara feature a half-dozen or so industrial sites visited by the SIA.

Call to Action for Pennsylvania’s Historic Bridges (www.portal.state.pa.us/portal/server.pt/community/historic_bridges/5137/bridge_preservation/487228). Pennsylvania Historical & Museum Commission (PHMC) makes an appeal to local communities to recognize their historic bridges and work with PennDOT to preserve them. Notes the loss of about 25 percent of the state’s metal-truss highway bridges since the mid-1990s.

The Color Explosion (www.huntington.org). Exhibit on the history and impact of color lithography. Exhibition at the Huntington Library features more than 250 objects from advertising posters to trade cards, many with IA themes.

Lake Champlain Shipwrecks (www.lcmm.org/shipwrecks_history/shipwrecks_history.htm). A sampling of the shipwrecks on the bottom of Lake Champlain. Includes info on viewing shipwrecks using remotely operated vehicles.

National Museum of Commercial Aviation (www.nationalaviationmuseum.com). Located in Forest Park, just south of Atlanta, the museum features exhibits and a large collection of artifacts related to how planes work and are serviced, cargo transported, and traffic controlled.


Sheaff: Ephemer (www.sheaff-ephemera.com) features digital images of a wide-range of collectibles, many with IA-related themes: stamps, postal history, trade cards, billheads, broadsides, cartes-de-visite, stereo views, ticket- engravings, chromolithographs, early American glass, Irish blown three-mold glass, patent medicine bottles, flasks, almanacs, postcards, marbled paper, early letterpress printing, typography, books, African art, record album covers, airbrushed restaurant china, Micronesian tapa cloth, etc.

“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.

Mar. 31-Apr. 3: National Popular Culture & American Culture Association Conference, St. Louis, Mo. Paper sessions and some tours of IA interest (industrial design and architecture). Info: www.pcaaca.org/conference/national.php.


Oct. 6-8: BigStuff 2010, Imperial War Museum, Duxford, U.K. See article in this issue. Info: cknapp@iwm.org.uk.

