



# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

Volume 42

Spring 2013

Number 2

## PENN ACQUIRES VERMONT MARBLE ARCHIVES

**T**he University of Pennsylvania Libraries and School of Design announce the acquisition of the Vermont Marble Co. Archives. Comprising business records and a stone sample collection, the archives document the firm's activities from its beginning in 1869 as the Sutherland Falls Marble Co. to its final years in the 1970s. The purchase has been made possible by the generosity of the B. H. Breslauer Foundation, Lisa Sardegna, and the G. Holmes Perkins Fund.

Penn plans to collaborate with the Preservation Trust of Vermont, which has acquired the Vermont Marble Museum in Proctor, Vt., the original home of Vermont Marble. The museum and collection were recently threatened when the current owner, OMYA, Inc., decided to divest itself

of the property (*SIAN*, Winter 2013). Joint projects may range from updated exhibitions to student workshops and publications. In addition, a merit-based scholarship will be established for a student from Vermont who wishes to study at Penn's School of Design with a major in historic preservation, architecture, or landscape architecture.

The history of Vermont Marble encapsulates America's rapid growth at the end of the 19th century. Vermont Marble produced the stuff of monumental America, from everyday memorials to commercial and domestic palaces to national monuments. As supplier, designer, fabricator, and seller, the company embodied the very nature of American ingenuity and resourcefulness and quickly became a global competitor in the European-dominated world of building and ornamental stonework.

*(continued on page 2)*



Vermont Marble Archives

Marble yard at West Rutland, Vt., early 20th century.

### In This Issue:

- Springfield Furnace Archeology
- Whitney Glassworks Artifacts
- Seattle's Gas Works Park Listed on the NR
- TICCIH's Industrial Heritage Re-tooled
- Building the World Blog

The business records begin with Redfield Proctor's consolidation of many of the existing smaller stone yards near Rutland, Vt. Included are correspondence, purchase orders, payrolls, job books, individual project files, drawings (linens, blueprints, pencil sketches, and original watercolor designs), photographs, illustrated trade catalogs, and salesmen's kits. The photographic record is particularly complete with thousands of negatives documenting the company's many quarries, stone yards, trimming rooms, construction sites, and finished projects, including the Lincoln Memorial, the National Gallery of Art, the United Nations building, and the Tomb of the Unknown Soldier. All of these records are further extended



Vermont Marble Archives

*Demonstration of the pointing technique by a Vermont Marble carver, Proctor, Vt., 1930s.*

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

Mailing date for Vol. 42, No. 2 (Spring 2013), June 2013. ISSN 0160-1067. If you have not received an issue, apply to SIA-HQ (address above) for a replacement copy.

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

**TO CONTACT THE EDITOR:** Patrick Harshbarger, Editor, *SIA Newsletter*, 305 Rodman Road, Wilmington, DE 19809; (302) 764-7464; e-mail: [phsianews@aol.com](mailto:phsianews@aol.com).

and complemented by perhaps the most unusual aspect of the archives—a carefully assembled and cataloged collection of over 1,000 stone reference samples from quarries throughout the world.

Few American enterprises have lasted so long and remained intact, continuing in the tradition of their founders. The result is a distinctive research collection that not only documents the rise of this important company but also sheds light on how the business of building in America radically changed from the Victorian era to Beaux Arts to post-war modernism. The records will give scholars and researchers a builders' perspective on the development of the urban environment. In addition, there is potential to shed light on architect-client decisions pertaining to particular buildings. Other topics could include 20th-century business practice, the architecture of the Public Works Administration, the place of stone in the history of the City Beautiful movement, and public history and state sponsorship of architecture.

Established in 1978 to house the archives of world-renowned architect Louis I. Kahn, PennDesign's Architectural Archives collects, preserves, and makes available for students, scholars, and museums around the world the records of over 300 designers from the 18th century to the present. From buildings and landscapes to infrastructure and cities, its collections provide fundamental insights into the diverse ways that designers conceive and develop their ideas toward a built form. The Architectural Archives will house several thousand architectural and shop drawings produced by Vermont Marble, extensive reference drawings sent by architectural firms, and the remarkable stone reference collection. ■

## SIA CONFERENCE AND TOUR UPDATES

### 2013 Fall Tour

#### Rockford, Illinois, Sept. 26–29

The SIA's 2013 Fall Tour will be at the midway point between Lake Michigan and the Mississippi River. Rockford, Ill., developed in the mid-19th century as a commercial and industrial center where furniture and farm-machinery manufacturing were fueled by waterpower from the Rock River. In the 20th century, Rockford became a major producer of machine tools, parts, fasteners, and controls for the aviation, automotive, and other industries. More recently, Lowe's and UPS have established major distribution centers in Rockford due to its strategic location. We will tour factories, power plants, and historic sites representing the breadth of Rockford's industrial heritage. Our Thursday early bird tour and opening reception will be held at Midway Village, Rockford's main historical museum and living history center ([www.midwayvillage.com](http://www.midwayvillage.com)). Due to scheduling issues, instead of our usual Saturday evening banquet, a Sunday brunch will be held in the beautifully restored Coronado Performing Arts Center, an atmospheric style theater and movie palace that opened in 1927. We will have a behind-the-scenes tour of this historic, and now state-of-the-art, theater complex ([www.coronadopac.org](http://www.coronadopac.org)). Rockford is easily accessible by expressway, passenger train, or airline, including a direct bus between the conference hotel and O'Hare or Midway airports in Chicago. Brochures will be mailed to members in mid-summer and updates will be posted on the SIA website, [www.siahq.org](http://www.siahq.org).

### 2014 Annual Conference

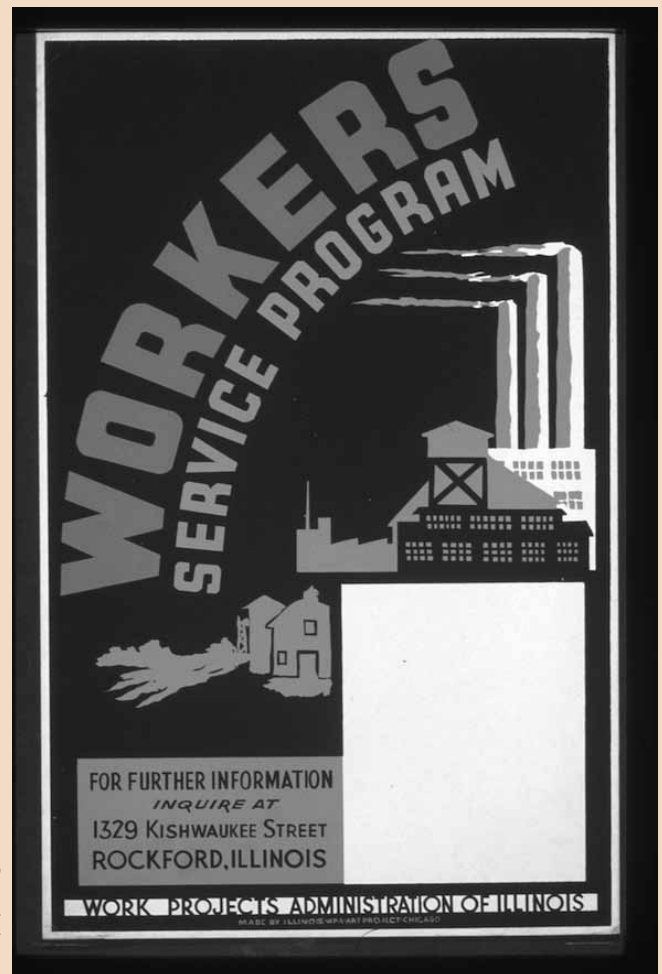
#### Portland, Maine, May 22-25

Planning is underway for the 43rd Annual Conference in Portland. Note that the conference will be one week earlier than usual, falling on Memorial Day Weekend due to scheduling issues. The conference headquarters will be the downtown Holiday Inn in the historic and walkable harbor area. Watch the SIA website ([www.sia-web.org](http://www.sia-web.org)) and future issues of the SIAN for updates.

### 2014 Fall Tour

#### Columbus, Indiana

Columbus is a small city noted for its top-name architecture and association with Cummins diesel. Process tours of modern and historic manufacturing technology are planned. Columbus is south of Indianapolis and northwest of Cincinnati, not far from major airports. Dates for Fall Tour are yet to be finalized. Watch the SIA website ([www.sia-web.org](http://www.sia-web.org)) and future issues of SIAN for updates.



Library of Congress.

Workers Service Program Poster, Works Progress Administration, Illinois WPA Art Project, 1941.

# Springfield Furnace (1837–1862)

In 1979, the late John R. White of Youngstown University was asked by the Mercer County (Pa.) Historical Society to find and account for fifteen of the 19th-century iron furnaces once known to exist in the county. White discovered that most furnaces had few remains. But the Springfield Furnace location was different. “If the other furnaces are to be avoided the Springfield is certainly the one to examine,” White concluded. By simply walking around the property he found a scattering of iron artifacts, which sparked his interest.

Twenty-eight years later, in 2007, Larry Bruno (SIA) purchased the property for the future site of Bruno Fine Jewelers. White approached Bruno and asked if he could perform an archeological dig, Larry agreed wholeheartedly, and a friendship was born to boot. White led the excavation and recruited a dedicated following of associates, students, professors, and serious novices.

The furnace was built in a gorge formed by glacial activity ten to twelve thousand years ago, with energy supplied by the constant flow of a waterfall. By the late 20th century, local residents had largely forgotten the history of the 19th-century furnace that had once been located in this beautiful vale, and the only visible remain was a cut-sandstone wall, identified as a sidewall of the wheelpit.

The archeological dig started in the spring of 2007. Trees and overburden had covered the site but their removal revealed a stone-lined wheelpit that had once housed a wheel, estimated to have been 38 feet in diameter. Large 12x12-in. timber beams had been evident in 1979 but were no longer to be found. Much wood was present in the muck, which still filled the pit area. Full excavation of the wheelpit was assigned to a later date.

White followed the waterwheel support wall towards the blowing shed, a room that sat between the waterwheel and furnace that would have housed bellows or blowing tubs pumping air into the furnace. It became a common occurrence to hear the excited yell, “artifact” from the team members finding one of many iron objects such as tools, nails, billet, spikes, and casting floor shovels found in various conditions. These discoveries fueled everyone’s excitement and imagination as to what was going to be found next.

The actual furnace site was a large 30-ft. mound with a few stones sitting high on its bank and numerous large trees growing from it. With the trees removed, one by one stones were uncovered, and after tons of debris had been removed by hand, the furnace structure was revealed with two tuyere areas: one for the air going into the bosh and one in the front area where the iron would be tapped to the casting floor.

In White’s early discussions with the crew, he stated that sometimes, but not very often, a cornerstone on an early iron furnace would be inscribed with the owners’ names or a date. What a day it was when the cornerstone was found still in place in the front tuyere section only six feet above the working floor of the casting room. It was clearly inscribed: AD 1837, WM & SG. The identity of these men is still a mystery but could possibly lead to President William McKinley’s father, who was reported to have owned the furnace.

As the dig continued, it became clear that only about half the furnace stack still stood, with many stones out of place or removed. But more importantly, the entire bottom of the structure was still intact, revealing its full footprint, as well as most of the bosh and crucible.



All images courtesy of Larry Bruno

Springfield Furnace.



Visitors look on as archeologists uncover the forge at Springfield Furnace.

Two fantastic iron tuyeres were found in the air intake area, one a classic D shape. The other had a very rare water-cooling jacket so that the air nozzle could be inserted into the bosh and withstand the extreme heat without melting. Very few, if any, of these tuyeres have survived since the mid-19th century.

The huge sandstone blocks of the furnace, many weighing over a ton, are hand dressed. It wasn't until the construction of the new jewelry store was in progress that the discovery of chisel and quarrying marks on the huge rock face behind the site made it evident that the sandstone blocks had come from the gorge wall. A French-drain system was also revealed; the builders of the furnace had to make sure water was kept away from its foundation.

The next stage of the dig involved excavating a small hill in front of the blowing shed area. A forge was uncovered complete with a brick chimney still mounted on an iron plate holding the brick in place.

The Springfield Furnace reportedly produced pig iron as well as cast-iron stoves, hollowware, and farm equipment, and supporting artifacts were found. Two large cast-iron

ingots were discovered buried near the forge, one cast in a rectangular block and the other apparently a final cast called a salamander.

It was reported in the mid-1840s that William Scollard had purchased the furnace and become its ironmaster. The Scollard family owned the property for approximately 100 years, and with so few owners little has been disturbed and even the ironmaster's house still stands. The Springfield Furnace was Mercer County's first iron furnace and a proud reminder of the significant role the county played in the early growth of the iron and steel industry in western Pennsylvania. Bruno Fine Jewelers (now built on the gorge edge overlooking the waterfall and furnace) has on display iron artifacts and the furnace byproduct (slag) made into beautiful fine jewelry dubbed the "Ironmaster's Gem."

Sadly, Professor White passed away in 2009. His crew carries on tirelessly removing overburden to unveil the furnace's secrets. The crew is now currently working on the wheelpit digging through muck and scattered fallen stone.

*The John White Archaeology Associates*



*An artist's rendering of what the Spring Furnace complex may have looked like, based on archeological evidence.*

# Glassworks Artifacts Donated to Rowan University, Glassboro, N.J.

Solid wastes associated with industrial operations commonly consist of process wastes, such as plating sludge, still bottoms, and filter cake. Probably of greater interest to the industrial archeologist are wastes that contain or consist of specimens of the product itself.

In 1980, recutting of a drainage ditch along the former West Jersey RR tracks exposed a thin stratum of glassy waste approximately 0.7 mile from the site of the Whitney Glass Works of Glassboro, N.J. Shortly before its closure in 1929 by the Owens-Illinois Glass Co., Whitney (as a descendant business entity) claimed to be the oldest operating glass manufacturer in America.

The waste occurred as a discontinuous stratum approximately 4-in. in thickness, overlain by approximately 1 ft. of soil, exposed for approximately 40 ft. along the track side of the ditch. The waste may have been purposefully used as fill, or the railroad right-of-way may have served as an innocuous location for waste disposal. The presence of foreign (metallic) objects rendered the material outright waste, as opposed to cullet (glass residuum suitable for recycling).

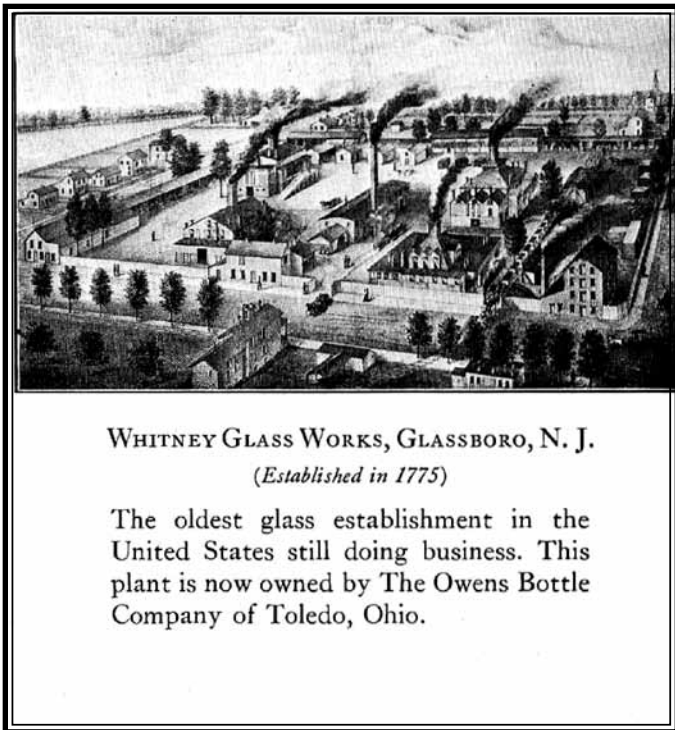
The artifacts recovered by the author in 1981 and 1982 include press-molded bottle stoppers (glass forced into a mold by use of a lever-operated plunger), small mouth-blown

bottles, "mold warmers" (solid glass castings used to heat molds), lengths of a glass walking stick or punch-bowl stirring rod, and simple iron tools. The hollowware represents the last of the glassblowers' product, dating from shortly before the advent of the bottle-blowing machine. The walking stick or stirrer represents the tradition of glassblowers who made whimsical pieces on their own time and initiative, as relief from the monotony of blowing bottles and to demonstrate that their skills were more than utilitarian.

Most of the bottles are obviously production rejects, with collapsed bodies, deformed necks, and other flaws. Having been discarded prior to the annealing process, the bottles are dangerously sensitive to sudden temperature change. A great loss was an abundantly embossed medicine bottle that shattered while being cleaned, before the embossing could be read.

The iron tools consist of a set of tongs for handling bottles, a wedge that likely was used to steady and/or open molds, and a rectangular plate against which residual glass (moil) was scraped off the blowpipe. The waste matrix consisted of mica-like flecks of moil.

The scope of the Whitney business is best illustrated by the discovery of defective and unfinished bottles for



*Bird's Eye View of the Whitney Glass Works, published at least as early as 1876, from **American Bottles Old and New** (Toledo, Ohio: The Owens Bottle Company, 1920).*



**Collapsed Tabasco sauce bottle. Height, 5 in.**

Michael Bernstein



**Blowing hollowware at a glassworks in Grafton, W.Va., 1908. The tongs in the mold boy's right hand appear identical to those recovered at Glassboro. Note the shim beneath the mold's left leg, likely inserted to steady the mold on an uneven floor; the iron wedge recovered at Glassboro may have served the same purpose. This scene likely compares well with operations at the Whitney Glass Works, circa 1900.**



**Clear and oxidized mold warmers for Pettingill's Kidney-Wort Tablets. Height, 2 in. Marketed by Wells, Richardson & Company of Burlington, Vt., and Montreal, Que. "A positive cure for all kidney, bladder, and liver complaints." Chocolate coated! The 1902 product registration date with the State of Oregon concurs with the estimated date of the Glassboro artifacts.**



**Mold warmer with S over C logo. Wing due to partially open mold.**

the famous McIlhenny Tabasco sauce of Louisiana (SIAN, Summer 1992). Also included are embossed bottles for nostrums and proprietary remedies marketed by manufacturing druggists located in Illinois, Michigan, Vermont, New York, and Quebec. Other bottles are identifiable with pharmaceutical manufacturers Parke, Davis & Co. and Eli Lilly & Co. Vials made from tubes, for homeopathic drugs or possibly opium, were also recovered. No beverage bottles, fruit jars, or other large containers were found.

The artifacts were examined in 1982 by the late Ed Pfeiffer, who referred to the solid bottles as "mold warmers." The heating of molds in general, and specifically the use of gathers of glass to do it, have been questioned. Pfeiffer was an authority on South Jersey blown glass; his collection of glass, glassmaking tools, glass company scrip, and related documents was exhibited at Batsto (the Revolutionary War iron-making town administered by the State of New Jersey) and his library of materials about South Jersey glass and glassworks is preserved in the New Jersey State Archives. Gay Taylor, curator emeritus at the Museum of American Glass in Millville, N.J., informed the author that mold warmers are real but rare, since they were usually recycled as cullet. Also significant is a notation on the 1905 Sanborn fire insurance map of Whitney, which states that a 200-gallon underground storage tank located between Factory No. 1 and Factory No. 4 contained gasoline "to heat moulds in No. 4."

In 1910, Whitney was the site of the first attempt to simultaneously produce a variety of bottles on a single automatic

(continued on page 16)

# Seattle's Gas Works Park Makes National Register

**F**riends of Gas Works Park are pleased to announce that Gas Works Park has been listed in the National Register of Historic Places (NRHP). SIA members will recall Gas Works Park from the 2011 SIA Annual Conference in Seattle (SIAN, Summer 2011). The Lake Union Tour participants visited the park and had the opportunity to meet Richard Haag, the landscape architect and instigator of the conservation of the gas works.

The NHRP listing states that the park is historically significant not only as part of Seattle's industrial heritage, but also as "a project that represents the work of master landscape architect Richard Haag and as a resource that embodies the distinctive characteristics of landscape architecture in the 1970s." Haag integrated the defunct industrial towers and buildings into a park, believed to be the first in America to envision industrial structures complementing and enriching a recreational facility. The park opened to the public in 1973 and has remained a favorite of Seattleites.

The American Industrial Revolution and Seattle's own early growth and success were based on having an abundant supply of energy. One of the most important forms was gas. Light and heat for American cities was produced by illumi-

nating gas, a man-made product derived from coal or oil. In the U.S. there were over 1,400 plants producing such gas, and from 1880 to 1930 they fueled America's growth. The assemblage of structures and machinery standing in Gas Works Park is a rare survivor of the era and the only site in the U.S. that can be documented with most of its generating equipment intact. The array of towers, pipes, pumps, and boilers forms a unique and dramatic collection of artifacts from a turn-of-the-century technology.

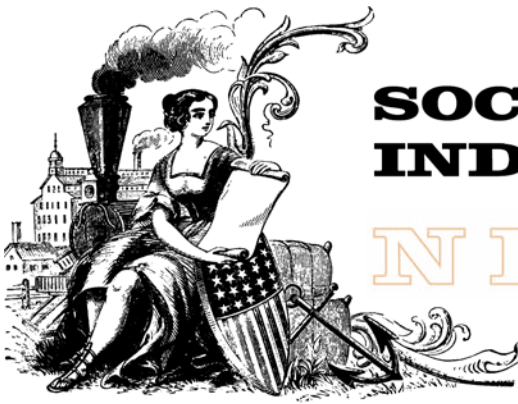
As the gas works site on Lake Union was integrated into a new city park, the key components for transforming coal or oil into gas were kept in place. Haag's "pruning" was extremely selective and knowledgeable. His research into the gas works made clear to him the sequence of the technology and the importance of maintaining the rationale of the gasification process. By removing the two large oil tanks and two gasholders, he eliminated bulky pieces that were not key to gasification technology. Haag's other pruning was of pipes and catwalks, which were a safety hazard, and the removal of several large metal buildings and sheds to open up the site to views of the lake and the city.

*(continued on page 17)*



*Aerial view of Gas Works Park, 1985.*





# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

### PUBLICATIONS OF INTEREST

Vol. 42, No. 2

Spring 2013

COMPILED BY

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

#### GENERAL INTEREST

- ◆ Celina Fox. **The Arts of Industry in the Age of Enlightenment.** Yale Univ. Pr., 2010. 576 pp. \$95. Explores the mutually supporting arenas of fine arts and mechanical arts in communicating new scientific and technological ideas. Looks specifically at drawing, model making, the foundation of societies for the advancement of the arts, publications (mainly encyclopedias and dictionaries), portraits of mechanical artists and entrepreneurs, and industrial landscapes. Rev: *T&C* (July 2011), pp. 624-26.
- ◆ Paul Kennedy. **Engineers of Victory: The Problem Solvers Who Turned the Tide in the Second World War.** Random House, 2013. 436 pp., illus. \$30. How small groups of individuals and institutions made it possible for the Allies to win the war through technological and logistical innovations. Rev.: *NY Times Book Rev.* (Feb. 10, 2013).
- ◆ Ursula Klein and E. C. Spary, eds. **Materials and Expertise in Early Modern Europe: Between Market and Laboratory.** Univ. of Chicago Pr., 2010. 398 pp. \$50. This collection of essays broadly examines the interaction of science and technology in the early years of the Industrial Revolution, arguing in the main that experimental scientists had a far more limited impact on the development of new industrial technologies than usually thought. Materials discussed include ceramics, silver, ink, ethers, milk, mineral water, liqueurs, gunpowder, and dyes. Rev: *T&C* (July 2011), pp. 622-24.
- ◆ Charles R. Morris. **The Dawn of Innovation: The First American Industrial Revolution.** Public Affairs, 2012. 368 pp. \$28.99. A fresh look at America's industrial development that considers the robber barons unnecessary—the country was too productive, too entrepreneurial, too inventive not to burst into the front rank of world powers. Rev.: *NY Times Book Rev.* (Feb. 3, 2013).
- ◆ David E. Nye. **America's Assembly Line.** MIT Pr., 2013. 376 pp., illus. \$29.95. Starting with the development of the assembly line at the Ford Motor Co. in 1913, the evolution of this familiar form of mass production is followed through the 20th century, illustrating how it transformed industrial labor and was portrayed as a bastion of liberty and capitalism.
- ◆ **Old Mill News**, Vol. 41, No 1 (Winter 2013) includes Vincent A. DiNoto, Jr. *The United States Two Great Armories* (summary histories of Harpers Ferry and Springfield); *Croops Mill—Eden Valley, New York* (grist mill, est. c.1812); and *Abbotts Mill—Sussex County, Delaware* (grist mill, est. c.1795, includes documentation drawings). Published quarterly by the Society for the Preservation of Old Mills. Info: [www.spoon.org](http://www.spoon.org).
- ◆ Richard Popp. **Machine-Age Communication: Media, Transportation, and Contact in the Interwar United States.** *T&C*, Vol. 52, No. 3 (July 2011), pp. 459-84. Explores cultural interpretations of mobility and connectivity as cars, planes, radios, and televisions together created an “automated society.”

#### MINES & MINING

- ◆ Alex DeMarban. **Concern over Old Mercury Leads to Tests for Today's Nome Gold Rushers.** *Alaska Dispatch* (Aug. 21, 2012). State officials worry that modern-day prospectors are inadvertently absorbing toxic levels of mercury waste from last century's gold rush. The mercury was used to concentrate gold flakes.
- ◆ Edwin Dobbs. **Viewpoint: Location, Occupation, Juxtaposition, Interpenetration, Notes on an Erotics of the Mining City.** *B&L*, Vol. 17, No. 1 (Spring 2010), pp. 1-12. An essay on historic preservation in Butte, Mt., discusses the need to encourage a new period of immigration in order to keep the once vibrant mining town from becoming a ghost town.
- ◆ William Finnegan. **The Miner's Daughter: Australia's Richest Woman.** *The New Yorker* (Mar. 25, 2013), pp. 76-87. Profiles the infamously media-averse Georgina (Gina) Rinehart as her company, Hancock Prospecting, prepares to open a new iron mine in Western Australia's Pilbara region, complete with a railroad and major expansion of Port Hedland. The ore deposits were reportedly discovered by her father Lang Hancock in 1952.
- ◆ Peter A. Galuszka. **Thunder on the Mountain: Death at Massey and the Dirty Secrets Behind Big Coal.** St. Martin's, 2012. 306 pp. \$25.99. Analysis of the causes of the lethal 2010 explosion in the Upper Big Branch coal mine in W.Va. and a look at the industry as a whole.
- ◆ Jack Morris. **Going for Gold: The History of Newmont Mining Corporation.** Univ. of Ala. Pr. 2010. 395 pp. \$27. Newmont developed into a major international holding company with its wealth built on the Carlin Trend, a gold mining district in central Nevada made viable by large open pits, heap-leaching technology, and deregulation of gold prices in the 1960s. Rev: *T&C* (July 2011), pp. 642-44.
- ◆ Kyle Whitmire. **Drummond Co. Brings a Monster Machine Back to Life as Alabama's Mining Industry Looks to Be Reborn.** *Birmingham News* (Jan. 4, 2013). The “Mr. Tom,” an 8-million-pound, 20-story-tall dragline crane (a Bucyrus

Erie 1570W model built in the 1970s) has been inactive since 1995. In a joint venture with U.S. Steel, the Drummond coal company has reactivated the monster and is in the process of moving it 17 miles to work the Shannon strip mine in Jefferson County.

- ◆ Robert F. Wolensky and William A. Hastie Sr. **Anthracite Labor Wars: Tenancy, Italians, and Organized Crime in the Northeast Coalfield of Northeastern Pennsylvania, 1897-1959.** Canal History & Technology Pr. ([www.canals.org/store](http://www.canals.org/store)), 2013. 445 pp., illus. \$24.95. An exhaustively researched study of the subcontracting system and labor-management relations at the Erie Coal Companies in the Wilkes-Barre and Scranton areas. In the 1920s, labor rebellions led the companies to adopt a leasing system in which larger coal companies leased mineral rights to smaller tenants who could exert greater control over workers. Organized criminals secured many of the leases, effectively limiting the ability of organized labor to respond to workplace grievances.

## AUTOMOBILES & HIGHWAYS

- ◆ Mona Hadler. **Pontiac Hood Ornaments, Chief of the Sixes.** *SCA Journal* (Spring 2010), pp. 6-15. GM's Pontiac hood ornaments, from the time Chief Pontiac first appeared on radiator caps in the 1920s to the showy winged chrome ornaments of the late 1940s to 1960s.
- ◆ Robert W. Jackson. **Highway under the Hudson: A History of the Holland Tunnel.** NYU Pr., 2011. 304 pp., illus. \$29.95. Economic forces that led to the need for the tunnel, and details of the politicking that took place on both sides of the Hudson River to enable its construction from 1920 to 1927.
- ◆ Richard Snow. **I Invented the Modern Age: The Rise of Henry Ford.** Scribner, 2013. 384 pp. \$30. Weaving together scenes and incidents from Ford's life, this narrative follows Ford's rise to fame thanks to his greatest invention, the Model T, which triggered the cycle of consumerism that we still inhabit, through his later years as he soured and the benevolent side of his character went into eclipse.
- ◆ Carl A. Zimring. **The Complex Environmental Legacy of the Automobile Shredder.** *T&C*, Vol. 52, No. 3 (July 2011), pp. 523-47. The automobile shredder was at first considered an environmental success for its ability to eliminate automobile graveyards, however it had the secondary effect of spewing toxic residues of automobile materials into the environment.

## WATER TRANSPORT

- ◆ Joe Flatman. **Ships and Shipping in Medieval Manuscripts.** British Library, 2009. 160 pp., illus. \$55. A beautifully illustrated book of ship images in medieval illuminated manuscripts, mostly from the British Library. Rev: *T&C* (July 2011), pp. 618-19.
- ◆ John Kelly. **What's Up with That Landlocked Boat in Georgetown?** *Washington Post* (Mar. 23, 2013). Background on the *Georgetown*, a replica canal barge that began service in 1976 (tour site—2001 SIA Annual Conference, Washington, D.C.). It is now stranded in dry dock at the National Park Service's C&O Canal since being deemed unsafe due to cracks in its hull in 2011. With no funds to fix it, rides on the mule-drawn canal boat have been canceled. The Georgetown Business Improvement District is hoping to raise funds to have a new boat built.
- ◆ Allen S. Miller. **"The Lighthouse Top I See": Lighthouses as Instruments and Manifestations of State Building in the Early Republic.** *B&L*, Vol. 17, No. 1 (Spring 2010), pp. 13-34.

Among Congress's earliest acts was to assert federal authority over the location of lighthouses, which filled a utilitarian function as aids to navigation and also served as symbols of the nation's newly gained sovereignty.

- ◆ Chandra Mukerji. **Impossible Engineering: Technology and Territoriality in the Canal du Midi.** Princeton Univ. Pr., 2009. 304 pp. \$42. A history of France's famous 17th-century canal emphasizes the collective dimensions of the work rather than the individual effort of engineer Pierre-Paul Riquet. Rev: *T&C* (July 2011), pp. 620-22.
- ◆ Robert L. Reid. **Uplifting Experience.** *CE* (Feb. 2013), pp. 46-53. The *Cutty Sark*, located in London's Greenwich borough and reportedly the best surviving example of Great Britain's 19th-century tea clipper ships, recently underwent a controversial restoration project that included inserting a new steel framework and raising the hull above the floor of its dry berth so that it can be viewed from below.
- ◆ Jason Shellenhamer and Christine Oricchio (ed.). **Projects in Parks: The Workers Who Built the C&O Canal.** National Park Service, 2011. Avail: [www.nps.gov/archeology/sites/nps/cnoCanalWorkers.htm](http://www.nps.gov/archeology/sites/nps/cnoCanalWorkers.htm). The Louis Berger Group conducted a 9-year archeological survey of the canal to locate canal worker campsites and provide a more complete narrative of the people who built the canal.

## RAILROADS

- ◆ Dan Barry. **Secrets of Duffy's Cut Yield to Shovel and Science.** *NY Times* (Mar. 24, 2013). Excavation of a mass grave of Irish railroad workers in Pennsylvania reveals working conditions and the poor treatment they received after contracting cholera in 1832.
- ◆ H. Roger Grant. **Twilight Rails: The Final Era of Railroad Building in the Midwest.** Univ. of Minn. Pr., 2010. 275 pp. \$39.95. Rail lines constructed in the early decades of the 20th century are often simplistically portrayed as examples of overbuilding and economic failure, but the author offers a more nuanced understanding of their impact on local communities. Many of the short-line railroads in America's heartland successfully served their communities. Rev: *T&C* (July 2011), pp. 637-38.
- ◆ Jeremiah Moss. **Disney World on the Hudson.** *NY Times* (Aug. 21, 2012). Opinion piece laments the phenomenal popularity of the High Line (*SIAN*, Spring-Summer 2004), contending that it draws crowds that keeps locals away and has spawned development that has pushed all but the elite out of the surrounding neighborhood.
- ◆ Anthony W. Robbins. **Grand Central Terminal: 100 Years of a New York Landmark.** Stuart, Tabori & Chang, 2013. 224 pp. \$40. This history, commissioned by the NY Transit Museum for GCT's anniversary, is written by a former researcher for the city's Landmarks Preservation Commission. Profusely illustrated with archival images as well as new photos by Metro-North's official photographer, it includes photos of power equipment by Gerry Weinstein [SIA].
- ◆ Sam Roberts. **Grand Central: How a Train Station Transformed America.** Grand Central Pub., 2013. 320 pp. \$30. One of several books celebrating the 100-year anniversary of GCT, this entertaining collection of anecdotes and factoids by a *NY Times* columnist is heavily illustrated with historic photos. Also, Clyde Haberman, **Looking Out on Grand Central, and Looking Back on Saving It.** *NY Times* (Jan. 27, 2013). The background story of the legal battle to prevent the demolition of Grand Central in the mid-1970s, including an intervention by Jacqueline Kennedy Onassis.

- ◆ Alex Ruuska. **Ghost Dancing and the Iron Horse: Surviving Tradition and Technology.** *T&C*, Vol. 52, No. 3 (July 2011), pp. 574-97. A study of Native American interactions with railroads in the 19th century. The railroads posed grave threats and Native Americans responded first by thwarting them and ultimately by reinventing their cultural relationship to them.
- ◆ Ben Wright. **WWI Era Train Rolls to New Home at National Infantry Museum.** *Columbus (Ga.) Ledger Enquirer* (June 26, 2012). Narrow-gauge locomotive, used to transport soldiers around Fort Benning, has been restored and is on display.

## BRIDGES

- ◆ **Arched Solution Helps Preserve Scenic Views at New York Rail Bridge Replacement.** *CE* (Feb. 2013), pp. 16-18. Modjeski & Masters has designed a deck arch replacement for the Norfolk Southern Railway's Portageville Viaduct over the Genesee River, parts of which date to 1875 (*SIAN*, Spring 2012). Mitigation measures may include HAER documentation and preservation of a portion of the old structure.
- ◆ Jeff L. Brown. **The Bridges of Central Park.** *CE* (Feb. 2013), pp. 38-41. This general overview focuses on the cast-iron bridges designed by Calvert Vaux in New York City's Central Park, but also covers the variety of materials used in park bridges and laments the demolition of several spans throughout the park's history.
- ◆ Stephan G. Bullard, Bridget J. Gromek, Martha Fout, Ruth Fout, and the Point Pleasant River Museum. **The Silver Bridge Disaster of 1967.** Images of America, Arcadia, 2012. 128 pp., illus. \$21.99. The eyebar suspension bridge of 1927-28 between Pt. Pleasant, W.Va., and Gallipolis, Ohio, failed on Dec. 15, 1967, crashing into the Ohio River, killing 46. The cause of the failure was traced to corrosion stress cracks in an eyebar on the Ohio side. This book chronicles the bridge's history, collapse, and rescue efforts in photographs.
- ◆ Jeremy Mauro. **Gilpin's Falls Covered Bridge Documentation**

- and Rehabilitation. *CRM Journal* (Winter/Summer 2011), pp. 106-9. Project to document and rehabilitate a Burr arch-truss bridge in Cecil County, Md., involved coordinated efforts of HAER, Federal Highway Admin., Md. State Highway Admin., Md. Historical Trust, and Historical Society of Cecil County.
- ◆ John Schwartz. **Did Someone Order an Instant Bridge?** *NY Times* (Apr. 17, 2012). Modern "accelerated bridge techniques" rely on prefabrication, self-propelled transporters, and heavy lifts.

## BUILDINGS & STRUCTURES

- ◆ Dwight Dana. **Florence Propane Gas Tank Was Talk of the Town.** *Morning News of Florence [S.C.]* (Dec. 1, 2012). Brief history of Florence's propane Hortonsphere, built in 1928 and demolished in 1976. The riveted steel superstructure was fabricated by the Chicago Bridge & Iron Co.
- ◆ Melvyn Green [SIA]. **Building Codes for Existing and Historic Buildings.** J. Wiley, Publisher and International Code Council, 2012. 272 pp. \$85. Examines how the International Building Code (IBC) and the International Existing Building Code (IEBC) can be applied to historic and existing buildings. Written for architects, engineers, and preservation and code enforcement professionals with practical advice and worksheets. Includes a discussion of the history of building regulations in the U.S. and the events and conditions that created them.

## ELECTRONICS & COMMUNICATIONS

- ◆ Finn Brunton. **Spam: A Shadow History of the Internet.** MIT Pr., 2013. 304 pp. \$27.95. This is a book about what spam is, how it works, and what it means. Traces spam through from its infancy in the 1970s, when it first appeared in the form of pranks on the early non-commercial computer networks, to the present day where it supports a global criminal infrastructure.
- ◆ Paul E. Ceruzzi. **Computing, A Concise History.** MIT Pr., 2012. 176 pp. \$11.95. A concise guide to computing history from how a Bell Labs technician coined the word "digital" in 1942 to the development of the Silicon Valley and the Internet in the present day.
- ◆ Gary L. Frost. **Early FM Radio: Incremental Technology in Twentieth-Century America.** Johns Hopkins Univ. Pr., 2010. 191 pp. \$60. A reinterpretation of the story of FM radio's development in the 1930s and 1940s focuses on the individuals, most notably Edwin Howard Armstrong, who contributed to the technology. Rev: *T&C* (July 2011), pp. 652-54.
- ◆ David P. D. Munns. **A Single Sky: How an International Community Forged the Science of Radio Astronomy.** MIT Pr., 2012. 256 pp, illus. \$34. Over the past 60 years, radio technology has transformed how astronomers see the universe. The interconnecting story of Australian, British, Dutch, and American astronomers who built a new "community" style of science.
- ◆ Mark Wolverton. **A Solution for Almost Everything: 50 Years of the Laser.** *I&T* (Summer 2010), pp. 34-43. The world's first laser was built in May 1960, but few scientists saw that it had any practical applications. Article explores the history of this technology that now is used in many daily applications.

## POWER GENERATION

- ◆ Ernest Freeberg. **The Age of Edison: Electric Light and the Invention of Modern America.** Penguin, 2013. 354 pp. \$27.95. Social history of the development of America's

## CONTRIBUTORS TO THIS ISSUE

Susan Appel, Champaign, Ill.; Nancy Banks, New York, N.Y.; Mark Belanger, Taunton, Mass.; Michael Bernstein, Chalfont, Pa.; Kathleen Lusk Brooke, Boston, Mass.; Larry Bruno, Mercer, Pa.; Arlene Collins, Houghton, Mich.; Elizabeth Comer, Baltimore, Md.; Larry DeYoung, Devon, Pa.; Don Durfee, Houghton, Mich.; Patricia Fels, Seattle, Wash.; Dennis Furbush, Jackson Heights, N.Y.; Helen Gomersall, Luddenden, U.K.; Melvyn Green, Torrance, Calif.; Mary Habstritt, New York, N.Y.; Neill Herring, Jesup, Ga.; Jon Inners, Camp Hill, Pa.; Bill Keller, Philadelphia, Pa.; Leedom Lefferts, Washington, D.C.; Annie Malone, Baltimore, Md.; Patrick Martin, Houghton, Mich.; Stu Miller, Covington, Wash.; Steve Muller, Troy, N.Y.; David Peterson, Cincinnati, Ohio; Ron Petrie, Lakewood, Ohio; Carol Poh, Cleveland, Ohio; David Poirier, Simsbury, Conn.; Zoe Quinn, Boston, Mass.; Heinz D. Schwinge, Evanston, Ill.; Joe Seely, Chicago, Ill.; Justin Spivey, East Windsor, N.J.; John Teichmoeller, Ellicott City, Md.; Lloyd Tepper, Villanova, Pa.; Tyler Turpin, Richmond, Va.; Robert M. Vogel, Washington, D.C.; Suzanne Wray, New York, N.Y.

*With Thanks.*

electrical network, including, of course, the battle between Edison's and Westinghouse's currents (DC & AC). Rev.: *WSJ* (Feb. 23/24, 2013,) p. C6.

- ◆ Sean F. Johnston. **Making the Invisible Engineer Visible: DuPont and the Recognition of Nuclear Expertise.** *T&C*, Vol. 52, No. 3 (July 2011), pp. 548-73. Engineers and managers of DuPont emerge with growing authority in the process of industrializing the experimental nuclear reactors created by atomic scientists at Oak Ridge and Hanford in the 1940s and 1950s.
- ◆ Will Moore. **Going Home: The Caney Creek Village Story.** DVD. 45 min. \$16.15 ppd. Info: [www.oldtowncleveland.com](http://www.oldtowncleveland.com). Caney Creek in Polk County, Tenn., was a company town established in 1912 to house workers building and operating the Ocoee hydroelectric power development. Living in the isolated mountains, the workers had electricity and indoor plumbing, plus a trolley, hotel, school, and tennis court. Includes interviews with six former workers.
- ◆ **Tide Mill Times** (Jan. 2013) includes *Tide Mill Institute's 8th Conference* (summary of conference in Bath, Me., Nov. 2012) and *Nova Scotia's Apple River Tide Mill* (brief description and photographs of remains of a tide-powered sawmill. Info: [www.tidemillinstitute.org](http://www.tidemillinstitute.org)).
- ◆ Chuck Williams. **Change of Plans: Whitewater Construction Crew Plans to Blow Up City Mills Dam Next Week.** *Columbus (Ga.) Ledger Enquirer* (Mar. 8, 2013). One of the South's significant textile mill cities continues to erase its industrial history with removal of dams from the Chattahoochee to create a whitewater kayak course. The City Mills Dam was built in 1907 to power a flour mill.

## IRON & STEEL

- ◆ Elizabeth Yourtee Anderson. **Catoctin Furnace: Portrait of an Iron Making Village.** History Pr., 2013. 128 pp., illus., map. \$22.50 ppd. Avail: [www.catoctinfurnace.org](http://www.catoctinfurnace.org). A meticulously researched and extensively referenced social, economic, and technical history of Catoctin Furnace in Frederick County, Md. From 1774 until 1903, the furnace and village of Catoctin survived numerous economic, industrial, social, and cultural upheavals and adaptations. Throughout this period, Catoctin Furnace produced munitions and household goods as well as pig iron. The book documents the work of highly skilled immigrants and slaves at Catoctin, and also includes a chapter on the grassroots historic preservation movement in the 1960s that resulted in rescuing the village from planned highway construction.
- ◆ W. Bruce Bowlus. **Iron Ore Transport on the Great Lakes: The Development of a Delivery System to Feed American Industry.** McFarland, 2010. 262 pp. \$45. Examines the history of moving iron ore from the iron ranges to America's industrial heartland. Includes railroads, Soo Locks, iron-ore boats, and ore loaders and unloaders. Rev: *T&C* (July 2011), pp. 640-41.
- ◆ Eugene DiOrio, Katherine Gould Pella, and Richard P. Smith. **Remarkable Past, Promising Future, 200 Years of Iron & Steel Operations in Coatesville, Pennsylvania.** Graystone Society, 2010. 200 pp., illus. Hardcover bicentennial history of the Lukens Steel Works (tour site—2004 Fall Tour, Wilmington, Del.) and successor operations at Coatesville and Conshohocken.
- ◆ Olaf T. Engvig. **Last(ing) Iron Ships—Iron vs. Steel in Shipbuilding.** *Sea History* 133 (Winter 2010-11), pp. 34-37. Contrary to the commonly held view, makes the surprising argument that wrought-iron hulls survive better than younger

steel hulls, citing several examples of both operating ships and hulks of original iron over 100 years old.

## TEXTILES

- ◆ Joe DePriest. **Saving Gastonia's Loray Mill: '... a Gift from Heaven.'** *Charlotte (N.C.) Observer* (July 5, 2012). The Loray textile mill, built in the early 20th century, was the site of a deadly labor strike in 1929. Firestone bought the massive mill in the 1930s and manufactured tire cords there until closing the mill in 1993. This article focuses on the persistence of the community in insisting that the mill be preserved. The current owner specializes in historic redevelopment and is moving forward with an adaptive reuse plan.
- ◆ Aaron Hale. **Architect Wants Excavation of Property Where Cooper Pants Factory Sat.** *Gainesville (Ga.) Times* (June 11, 2012). The pants factory, and much of downtown Gainesville, was leveled by a tornado in 1936; the collapsed building caught fire, trapping at least 40 victims, mostly women workers. Local architect states that the tragedy has never been properly recognized and the recent decision by the City Council to tear down a building on the factory site provides an opportunity for archeology and a memorial.
- ◆ Jamie Jones. **Telling the Untold Story of Dalton's Gift to Fashion.** *Dalton (Ga.) Citizen* (Mar. 25, 2013). Obscure story of Catherine Evans Whitener, who legend has it crafted hand-tufted chenille bedspreads in the late-19th century. Her products were popular with tourists and became a local cottage industry, which eventually led to the founding of the region's carpet industry. Ashley Callahan, curator of decorative arts at the Georgia Museum of Art, is researching Whitener and chenille fashions, with plans to publish a book.
- ◆ Erin Skarda. **Made in America: Fashion's Fight to Save the Garment District.** *Time Magazine* (Feb. 19, 2013). On-line edition, <http://style.time.com>. The Garment District in Manhattan is fighting the economic "myth" that high-quality American-manufactured products are too expensive.

## AGRICULTURE & FOOD PROCESSING

- ◆ Jim Greve. **Beyond the Almanac, Journal Sheds Light on 19th-Century Farm Life in the Valley of Virginia.** *Library of Virginia Broadside* (Summer 2012), pp. 8-9, 15. [www.lva.virginia.gov](http://www.lva.virginia.gov). The Library of Virginia has made available nine "memorandum books," covering the years 1842-1878, written by Siram Henkel (1809-1879), who operated a farm and mill at Plains Mill in Rockingham County. The journals are noteworthy for the detail and breath of their observation, including many notes on new techniques and machinery.
- ◆ Mitch Talley. **Oldest Working Piece of Equipment at Prater's Mill Gets Makeover.** *Dalton (Ga.) Citizen* (Dec. 7, 2012). John Lovett and Roger Rollins repair the 100-year-old millstones at the rural Whitfield County gristmill. Details of the process.
- ◆ Candus Thomson. **Ship Bringing Largest Sugar Delivery Ever to Domino.** *Baltimore Sun* (Apr. 6, 2012). The Domino sugar refinery (tour site—1995 Annual Conference) received 95 million lbs. of raw sugar from Guatemala delivered by the 623-ft. bulk carrier *Simon Schulte*.
- ◆ Rich A. Wagner. **Philadelphia Beer, The Heady History of Brewing in the Cradle of Liberty.** History Pr., 2012. 160 pp., illus. \$19.99. From the earliest colonial ale brewers to the heyday of lager beer in the late-19th century to the dry years of Prohibition and the current craft-brewing renaissance, the author, an Oliver Evans chapter member and leader of the SIA's Philly brewery tour (Annual Conference 2007), pro-

vides an entertaining and informative celebration of brewing history in the City of Brotherly Love.

## AERONAUTICS & AEROSPACE

- ◆ Rob Bardua. **National Museum of the Air Force Displays Formerly Classified Reconnaissance Satellites.** *Air Force News Releases* (Jan. 26, 2012). Avail: [www.af.mil/news/story.asp?id=123287582](http://www.af.mil/news/story.asp?id=123287582). The Air Force museum in Dayton (tour site—2012 Annual Conference, Cincinnati and 1996 Fall Tour, Central Ohio) has placed examples of the formerly top-secret Gambit 1, Gambit 3 and Hexagon 9 satellites on exhibit in the Cold War Gallery.
- ◆ **Fast Fade.** *Common Ground* (Fall 2012), p. 26. Summary of the HAER documentation of the SS *United States*. Published by the National Park Service, <http://commonground.cr.nps.gov/index.cfm>.
- ◆ **There's One More Shuttle That Needs a Home.** *Air & Space Magazine Daily Blog* (June 12, 2012). A full-scale, wood and plastic mock-up of the space shuttle, stored in a hangar in Downey, Calif., is available to a museum. It was built in 1972 by Rockwell International as part of the original space shuttle contract competition. Over the years, it was used as the hands-on model for the shuttle's design and instrumentation upgrades.

## LUMBER & PAPER

- ◆ Jennifer Levitz. **Tissue Rolls to Mill's Rescue.** *WSJ* (Feb. 16, 2012). Re-opening of the century-old Gorham (N.H.) Paper & Tissue Mill. The mill was the last paper mill operating in the state when it closed in 2010. Now, soaring demand for tissue paper has given it a new life.
- ◆ Melissa Scott Sinclair. **Into the Woods: In Richmond's Urban Forests, the Toughest Team on 10 Legs Performs Feats of Strength.** *Richmond (Va.) Style Weekly* (Sept. 4, 2012); [www.styleweekly.com](http://www.styleweekly.com). Ryan DiMarco and his team of draft horses, Art and Chain, are in high demand removing logs from residential properties, largely because they don't tear up the earth, compact the ground, or damage trees like power machinery.
- ◆ John Thomas Slater. **Tonawanda Harbor: The Lumber Capital of the World.** *Western New York Heritage* (Spring 2013), pp. 8-17. Located 12 miles northeast of Buffalo on the Niagara River, Tonawanda featured some of the biggest lumberyards on the Great Lakes from the 1870s to 1910s. Photographs of shipyards, towers of stacked lumber, and a big fire in July 1913.

## MISC. INDUSTRIES

- ◆ Pierre-Emmanuel Danan [SIA]. **Une Histoire de l'Allumette: La Révolution du Feu Instantané.** Ref.2C éditions ([www.editions-ref2c.fr](http://www.editions-ref2c.fr)), 2011. 191 pp. 25€. The development of the safety match and its manufacture is illustrated with historical photos of industrial processes and the colorful graphics of matchboxes and matchbooks.
- ◆ Linda Pembroke Kaiser. Foreword by Dennis Connors [SIA]. **Pulling Strings: The Legacy of Melville A. Clark.** Syracuse Univ. Pr., 2010. 185 pp. \$29.95. Celebrates the 150th anniversary of the Clark Music Co. of Syracuse, which supplied harps throughout the world, and the Clark family's most prominent member, Melville, a fine musician and inventor who became the company president in 1919. Among his inventions were the first nylon strings for instruments, balloons used by the British Army in 1918, and the portable Clark Irish harp.

(continued on page 18)

# Industrial Heritage Re-tooled

A new publication will be of exceptional interest to all SIA members and those concerned with the preservation of industrial sites: **Industrial Heritage Re-tooled: The TICCIH Guide to Industrial Heritage Conservation**, edited by James Douet (Lancaster: Carnegie, 2012; ISBN 978-1-85936-218-1, 244 pp., \$24 + postage).

Billed as a comprehensive new guide to international best practice in safeguarding and appreciating the industrial heritage, it features thirty of the world's foremost specialists, including a number of SIA members, presenting the latest approaches, theoretical and practical, with a rich variety of case studies and color photographs of outstanding projects from around the world. It also represents an accessible complement to TICCIH's authoritative Nizhny Tagil Charter, the full text of which is published here for the first time.

The authors, who have poured their experience and reflections into the book, are all associated with TICCIH, the worldwide association for everyone passionate about studying, sustaining and sharing the best of the industrial heritage. The full list of contributors and their essays, as well as information on how to order the book, is at [www.ticcih.org](http://www.ticcih.org)

The International Committee for the Conservation of the Industrial Heritage (TICCIH) was founded in 1973 and today brings together enthusiasts and professionals, individual members and corporate organizations across international boundaries. It publishes the quarterly *TICCIH Bulletin*, organizes thematic and regional meetings, and holds a major international congress every three years. The SIA elects a representative who serves as a national member with voting rights in TICCIH.



## “Building the World” Blog Invites SIA Member Participation

The Brooklyn Bridge has inspired more poetry than another other span. Roebing’s masterpiece also resulted in a medical breakthrough: hyperbaric chambers. London Bridge similarly gave the world much more than a waterspan; the ancient structure may have been one of the first shopping malls in history. *Building the World* (Davidson and Lusk Brooke, 2006) presents the bridges, waterways, railroads, highways, energy and power generation, aerospace achievements, and iconic buildings and structures that shaped the course of civilization. The work also presents the original founding documents that launched these masterpieces of industrial archeology. We’ve all seen images of the Eiffel Tower, but have you ever read the real estate contract?

SIA members have been specially invited to be guest commentators and leaders of discussion on *Building the World’s* companion blog, hosted by the University of Massachusetts Boston and designed by Kathleen Lusk Brooke and Zoe G. Quinn. How can we “stand on the shoulders of history” to see a better, safer, sustainable future? Industrial archeologists possess great insight and knowledge; the authors hope SIA will join the discussion. The blog welcomes every language, and poses questions about how history can help to answer the world’s future questions. Please visit <http://blogs.umb.edu/buildingtheworld/>.

*Kathleen Lusk Brooke and Zoe G. Quinn*



*Courtesy of Building the World*

**Brooklyn Bridge.**

## Henry Adam Rentschler (1928-2013)

Longtime SIA member Henry Adam “Hank” Rentschler died on March 26, 2013, after a long struggle with cancer. He was 84.

Hank was born on July 27, 1928, in Hamilton, Ohio. He attended the Hamilton public schools through the tenth grade, then transferred to Phillips Academy in Andover, Mass. Hank graduated from Princeton in 1950 and remained an active and devoted alumnus ever after, even forgoing SIA conferences if they conflicted with class reunions.

Hank’s first job was with the Baldwin-Lima-Hamilton Corp. in Lima, Ohio, where he had the “slightly humorous” (his words) title of Special Methods Engineer. In 1952 he volunteered for active duty in the U.S. Navy. He was assigned to Bay City, Mich., where, as the supply corps officer, he oversaw various contracts, including those concerned with the building of aircraft rescue boats. These speedy craft helped save dozens of downed pilots during the Korean War. He received an honorable discharge in 1954.

Returning to Baldwin-Lima-Hamilton—this time at the giant works at Eddystone, Pa.—Hank’s initial assignment was in the Hydraulic Press and Power Tool Dept. He later moved to a wide variety of administrative jobs with the title of Manager of Marketing Administration. In the mid-1960s, he was placed in charge of the manufacture of renewal parts. This division operated successfully and profitably until 1971, when the Eddystone complex was liquidated.

The renewal parts operations were spun off to private ownership and given the name Baldwin-Hamilton Co. Hank was named president. Over the next twenty years, the company’s primary business was the manufacture of renewal parts for Baldwin locomotives and diesel engines. When Baldwin-Hamilton closed in 1991, Hank ensured that the firm’s remaining drawings and records were donated to major museums.



Henry Adam “Hank” Rentschler in 2008.

During the SIA Fall Tour to Deadwood, S.D., in 1991, this writer suggested that this newly retired executive put his industry background to work for the SIA. Hank was elected to the Board of Directors in 1993. During his three-year term he managed the Society’s tours and conferences assiduously, as those who served on local arrangements committees will attest. Hank’s signal accomplishment was the planning and execution of an SIA study tour to England and Wales in 1993.

Hank leaves his devoted friend and companion of twenty-eight years, Rosmarie Hope; three children and their spouses; two grandchildren; and his brother and sister.

Carol Poh

## IA ON THE WEB

**Assn. for Preservation Technology (APT) Building Technology Heritage Library** ([www.archive.org/details/buildingtechnologyheritagelibrary](http://www.archive.org/details/buildingtechnologyheritagelibrary)) is a web-based digitized collection of archival architectural and construction trade catalogues, house plan books, and related publications. The collection consists of pre-1964 publications, organized by subject, and is made available through the Internet Archive collaborative. The Canadian Centre for Architecture is the

first major institution to share its collection of over 4,000 catalogues.

**Building a Steel Mill in 1953** (<http://www.youtube.com/watch?v=JqiVLMxcrSM>) Classic industrial short film (24 min.), titled *New Neighbor*, chronicles the construction of the U.S. Steel Fairless Works in Levittown, Pa.

(continued on page 18)

## SITES & STRUCTURES

The Federal Energy Regulatory Commission (FERC) issued an order on April 18, 2013, amending the license of the hydropower company that owns the **Pawtucket Dam** (within the boundary of the Lowell [Mass.] National Historical Park) so as to provide for the removal of the wooden flashboard system and its replacement with a pneumatic crest-gate system. The National Park Service, the Advisory Council for Historic Preservation, the Massachusetts Historical Commission and preservation groups, including the SIA, have raised objections to this plan which would alter the appearance and function of the dam at the heart of the nation's premiere historic waterpower system. FERC, contrary to the objections raised by preservationists through the Section 106 and Section 110 processes of the National Historic Preservation Act, determined that the new gate system could be installed "without unacceptably altering the dam or adversely affecting the park and historic districts." FERC based this claim primarily on the benefits to recreation, fish passage, dam and worker safety, power generation, and alleviation of upstream backwater flooding that outweighed, in its view, the historic preservation concerns. It now appears that the project will move forward, unless challenged in court.

The **Duluth, Missabe & Iron Range Railroad Roundhouse** in Two Harbors, Minn. (tour stop—2000 SIA Annual Conference, Duluth) moved one step closer to demolition



Jack Boucher, HAER 1976

*Pawtucket Dam and Gatehouse viewed from the north side of Merrimack River, looking east.*

in March, when the City Council voted to level the structure and market the empty waterfront lot on Lake Superior for commercial use. The oldest section of the roundhouse dates to 1888. It has been vacant since J.J. Castings, a foundry, closed in the 1970s. There has been interest in rehabilitating the roundhouse for manufacturing space but the city rebuffed such proposals.—*Lake County News-Chronicle* (March 28, 2013) ■

---

## GLASSWORKS ARTIFACTS *(continued from page 7)*

bottle-blowing machine. The machine was a six-arm Owens unit. The first trial run involved five square bottles and one oval bottle, representing three weights, three heights, and three capacities. The next test involved four weights, heights, and capacities. The last test involved two weights and capacities in six specialty molds. The experiment was a success, and the fate of the glassblowers was sealed. By the end of 1911, seven 10-arm Owens machines had been installed at Whitney. In 1911 and 1912, 140 glassblowers and their families abandoned Glassboro. The last mouth-blown bottles made at Whitney were produced in 1913.

In April 2012, the author donated the waste stratum collection to Rowan University (the former Glassboro State College). The author was a student at Glassboro at the time of the fieldwork, the excavation is located immediately off campus, and the author desired permanent preservation of the material in an institutional setting. The collection consists of seventy glass artifacts and two iron artifacts. A public exhibit is anticipated.

Michael Bernstein



Michael Bernstein

*Amber stoppers still attached to fragments of production forms. Each form bore one row of five or six stoppers. Before the glass had completely solidified, the stoppers were cut free by the use of shears.*



## SEATTLE'S GAS WORKS PARK (continued from page 8)

The impact of Gas Works Park on land reclamation and industrial preservation attitudes and techniques extends far beyond Seattle. The park has gained national and international standing as a prototype for industrial site conversions. Haag introduced a groundbreaking experiment in bioremediation to naturally clean the polluted soil, which was so polluted after 60 years of industrial use that it could not be planted like a traditional park.

Future plans for the landmark include a campaign to “free the towers” by removing the temporary fences that presently surround the largest steel towers, preventing the public from walking amidst these giants. Once the towers are open to the public, Friends of Gas Works Park hopes to install a *camera obscura* in one of them. Haag’s validation of vernacular industrial elements inspired landscape designers and developers to look at such sites as important remnants of history and culture.

Patricia Fels

### IA EXHIBITS

**The Woolworth Building @ 100** is an exhibit at the Skyscraper Museum (New York, N.Y.) through July 2013 celebrating the 100th anniversary of the iconic building, designed by architect Cass Gilbert. The exhibit features original drawings and photographs. Speakers and special events explore the building’s history. When it opened on April 24, 1913, Woolworth was the tallest building in the world. Info: [www.skyscraper.org](http://www.skyscraper.org).

**Fashion Meets Science: Introducing Nylon** is an exhibit at the Hagley Museum & Library, Wilmington, Del., celebrating the 75th anniversary of the DuPont-developed product. DuPont displayed nylon hosiery at the 1939 World’s Fair, but the material was not widely available until after WWII because in early 1942 the entire production of nylon was allocated to the war effort. The exhibit features many examples of clothing (lingerie, foundation undergarments, slips, nightgowns, blouses, etc.) showing nylon’s impact on the fashion industry. Info: [www.hagley.org](http://www.hagley.org). ■



Gas Works Park Towers with Seattle skyline in the background, January 2013.



Children in the “play barn” at Gas Works Park.

## CONFERENCES & WORKSHOPS

**Call for Papers.** Abstracts are invited for 30-minute papers to be delivered at the **First Early Main Line Railways Conference** to be held in Caernarfon, North Wales, U.K., June 19-22, 2014. The conference will cover the pioneering period of the public main line railway, up to the establishment of a regular network of routes with agree or amalgamated running rights. (This period extends from the opening of the Liverpool & Manchester Railway in 1830 to the major consolidation of companies which had taken place by about 1870; dates will differ for other countries). The emphasis of the event will be on the formation, social, cultural impact and effects of the early main lines in all their aspects. Papers are particularly sought on political influences and implications; capitalization and finance; management, staffing, and administration; technology, with respect to all aspects of the civil and mechanical engineering; and international contexts. This conference follows on

### IA ON THE WEB *(continued from page 15)*

**Glendalough Mining Heritage Project** ([www.glendalough-mines.com](http://www.glendalough-mines.com)). History and news about the Irish lead-mining district in County Wicklow, active from the 1790s to 1950s. A documentary DVD is available.

**Industrial Pittsburgh** ([www.steelcactus.com](http://www.steelcactus.com)). Double-click on the “real men of steel” and “old Pittsburgh” links for superb photo galleries of steel industry landscapes and work scenes, mostly from the early 20th century.

**Pendleton Factory Rhythms** (<http://vimeo.com/16082440>). Video (2 min.) of machinery carding, spinning, and weaving wool for colorful blankets.

**Schenectady Digital History Archive** ([www.schenectadyhistory.org](http://www.schenectadyhistory.org)) includes local history and primary source documents on the New York county’s history with sections on canals (Erie, NY State Barge Canal), locomotive manufacturing (ALCO), and General Electric. Stu Miller [SIA] discovered the site while perusing a *Book of Plans, New York Barge Canal* (1920) for drawings of the mechanisms and structures seen on the SIA Fall Tour, Utica/Mohawk Valley (SIAN, Winter 2013).

**Volant Mills** ([www.volantmills.com](http://www.volantmills.com)). A rural gristmill and village in the Amish country of northwestern Pennsylvania are being preserved and operated as a tourist attraction by a local non-profit group. Several photographs of the restoration of the mill’s waterpower system. ■

“IA on the Web” is compiled from sites brought to the editor’s attention by members, who are encouraged to submit their IA Web finds: [phsianews@aol.com](mailto:phsianews@aol.com).

the great success of the international Conferences on Early Railways and the realization of the large and growing body of valuable scholarship on the subject of early main line railways worldwide. This will be the first of a four-yearly conference devoted to the subject, with a view to sharing this information and promoting cross-disciplinary research. A 200-word abstract should be submitted by Sept. 30, 2013 by e-mail to [early.main.line.railways@gmail.com](mailto:early.main.line.railways@gmail.com) or by post to Mike Chrimes, Institution of Civil Engineers, One Great George St., Westminster, London, SW1P3AA. Info: [www.earlymainlinerailways.org.uk](http://www.earlymainlinerailways.org.uk). ■

### PUBLICATIONS OF INTEREST *(continued from page 13)*

- ◆ David Owen. **Hands Across America.** *The New Yorker* (Mar. 14, 2013), pp. 30-34. GOJO Industries, a family-owned soap company in Ohio founded by Goldie and Jerry Lipman in 1946, was known for its eponymous mechanics’ hand cleaner. Purell hand sanitizer was invented in 1988; the alcohol-based hand rub initially did not sell well but rapidly became a standard in the medical industry. GOJO is now testing “hand-cleaning compliance systems.”
- ◆ Rob Pavey. **Pottersville: Where Edgefield Pottery Tradition Began.** *Augusta (Ga.) Chronicle* (Apr. 10, 2013). Industrial archeology of the site of Pottersville, the South Carolina town established in 1810 where slaves owned by Abner Landrum turned out hundreds of thousands of stoneware vessels.
- ◆ Stephen L. Pintel. **Organ Building Along the Erie and Chenango Canals: Alvinza and George N. Andrews of Utica, New York.** Richmond, Va.: Organ Historical Soc., 2010. 301 pp. \$35.99. The story of this family company is accompanied by many illustrations and detailed descriptions of the organs installed by the company, as well as notes on restoration projects.

### ABBREVIATIONS:

B&L	= <i>Buildings &amp; Landscapes: Journal of the Vernacular Architecture Forum</i>
CRM Journal	= <i>Cultural Resource Management Journal</i> , published by the National Park Service
CE	= <i>Civil Engineering</i>
I&T	= <i>American Heritage’s Invention &amp; Technology</i>
SCA	= <i>Society for Commercial Archeology</i>
T&C	= <i>Technology &amp; Culture</i> , published by the Society for the History of Technology (SHOT)
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; [phsianews@aol.com](mailto:phsianews@aol.com).**

## NOTES & QUERIES

The Dept. of Social Sciences at Michigan Technological University is very pleased to announce a new degree program, **AmeriCorps VISTA/OSM Masters of Science in Industrial Archaeology**. This program allows students to dedicate time to the AmeriCorps VISTA program, working with organizations dedicated to renewing the environmental and social legacies of historic mining communities. Michigan Tech is seeking students with a passion for community-based and socially engaged archeological practice. Info: [www.mtu.edu/social-sciences/graduate/osm-vista/](http://www.mtu.edu/social-sciences/graduate/osm-vista/).

For SIA members who attended the **Ruhr Study Tour** in 2001 (SIAN, Spring 2001), a recent article appearing on the website of the *Frankfurter Allgemeine Zeitung* (Mar. 22, 2013, [www.faz.net](http://www.faz.net)) will be of interest. Of course the article is in German, so a summary of the more important points follows. The budget for the preservation of monuments in the state of North Rhine-Westphalia decreased by 40 percent from 35.4 million Euros in 1992 to 9.4 million Euros in 2013. It is projected that the budget will be reduced to 3.4 million Euros in 2014 with a further reduction to zero for 2015. The article calls this elimination of support for preservation “monument Darwinism” [“Denkmaldarwinismus”], since only those sites that can scramble for scarce resources will survive. The savings constitute 0.02 percent of the total budget of the state of North Rhine-Westphalia. The article goes on to state that “the appearance of cities and villages will suffer; small artisanal businesses which have specialized in historically correct restoration work such as masonry, stuccoing, or window replacement, will be forced into bankruptcy, and know-how will be lost” and concludes that “the status of North Rhine-Westphalia as a cultural landscape is endangered.” It goes without saying that this imperils one of Europe’s most significant industrial heritage



**The owner of a former Food Machinery Corp. (FMC) plant, shown here, in Atlanta, Ga. is seeking information on the history of the building and similar FMC buildings throughout the U.S. There is particular interest in the identity of the architects and whether this building has a “family resemblance” to other FMC buildings. Contact: Neill Herring, [neillherring@earthlink.net](mailto:neillherring@earthlink.net).**

areas and one that has often been held up as a model for development of other areas.—Thanks to Heinz D. Schwingel [SIA] for providing the translation and summary.

The **Southern Museum of Civil War and Locomotive History** (Kennesaw, Ga.) has announced that it will be breaking ground on a new \$1 million research center. The center will house archival and artifact collections that have not previously been available to researchers, including papers from all of the past presidents of the Southern Ry. and nearly a million railroad photos.—*Marietta (Ga.) Daily Journal* (Apr. 6, 2013) ■

## CHAPTER NEWS

**Roebling** (N.Y.-N.J.). Over five spring weekends, the chapter undertook a series of walking tours led by Joe Macasek or Bierce Riley (both SIA). The first tour, on Mar. 23, explored the remains of the Hibernia Mine and furnace in northern N.J. On Apr. 6, intrepid chapter members hiked the abandoned Wharton & Northern RR, a spur connecting the Green Pond Mines with the New York, Susquehanna & Western RR. On Apr. 14, the walkers traversed 3 miles along the route of the Morris Canal in Paterson, N.J., stopping by the new Barnes Street Canal Park and the Great Falls. On Apr. 21, the featured tour was to the stone furnace stack, forge site, and other remains of the Split Rock Furnace in Morris County, N.J. The last tour, on May 4, was to the Hackelbarney Mines and Cooper Mill in North Jersey’s Black River gorge.

**Southern New England Chapter** met in Fall River, Mass., on May 18, for a walking tour of a few of the city’s historic textile mills. The morning session focused on the area of the lower Quequechan River valley, including the 1846 Metacomet Mill, and also the large storehouses of the American Printing Co. In the afternoon, the group toured a small portion of the upper valley, including the large Union and Durfee Mill complexes. ■

**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@urs.corp.com](mailto:Ingrid_Wuebber@urs.corp.com)) or check out the local chapters section of the SIA website ([www.sia-web.org](http://www.sia-web.org)).

# **SOCIETY FOR INDUSTRIAL ARCHEOLOGY**

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

Non-Profit Organization  
U.S. POSTAGE  
**PAID**  
Permit No. 11  
Houghton, MI 49931

## CALENDAR

### 2013

**July 10-14:** Rust, Regeneration and Romance: Iron and Steel Landscapes and Cultures, Ironbridge Gorge, England. Info: <http://ironandsteel2013.wordpress.com>.

**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. 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. See article in this issue. Info: [www.sia-web.org](http://www.sia-web.org).

**Oct. 6-9:** Society for the History of Technology (SHOT) Annual Meeting, Portland, Maine. Info: [www.historyoftechnology.org](http://www.historyoftechnology.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).

**Oct. 11-15:** Assn. for Preservation Technology International Annual Conference, New York, N.Y. Info: [www.apti.org](http://www.apti.org).

**Oct. 21-27:** VII Latin American Symposium on Conservation of the Industrial Heritage, San Luis Potosí, Mexico. Info: [www.mnactec.cat/ticcih/](http://www.mnactec.cat/ticcih/).

**Oct. 29-Nov. 2:** National Trust for Historic Preservation Conference, Indianapolis, Ind. Info: [www.preservationnation.org](http://www.preservationnation.org).

**Nov. 8:** Business and Politics in 20th-Century America, Wilmington, Del. Sponsored by the Hagley Museum & Library. Info: [clockman@hagley.org](mailto:clockman@hagley.org).

### 2014

**Jan. 8-12:** Society for Historical Archaeology Annual Conference, Quebec City, Que. Info: [www.sha.org](http://www.sha.org).

**Mar. 19-22:** National Council on Public History Annual Conference, Monterey, Calif. Info: [www.ncph.org](http://www.ncph.org).

**Apr. 9-12:** Society for Commercial Archeology Annual Conference, St. Petersburg, Fla. Info: [www.sca-roadside.org](http://www.sca-roadside.org).

**Apr. 9-13:** Society of Architectural Historians Annual Conference, Austin, Tex. Info: [www.sah.org](http://www.sah.org).

**May 22-25:** SOCIETY FOR INDUSTRIAL ARCHEOLOGY ANNUAL CONFERENCE, PORTLAND, ME. Watch the SIA website for updates. Info: [www.sia-web.org](http://www.sia-web.org).

**June 19-22:** First International Conference on Early Main Line Railways, Caernarfon, North Wales, U.K. See call for papers in this issue. Info: [www.earlymainlinerailways.org.uk](http://www.earlymainlinerailways.org.uk). ■