



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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Number 1

CUPOLA ART TEACHES IRON HISTORY AT BLUFF FURNACE

The Bluff Furnace site, located in downtown Chattanooga, Tenn., is known to SIA members primarily from three sources: a 1987 IA journal article (*Innovation and Change in the Antebellum Southern Iron Industry: An Example from Chattanooga, Tennessee*), a 1992 book (*Industry and Technology in Antebellum Tennessee: The Archaeology of Bluff Furnace*), and more recently, as part of the 2008 SIA Fall Tour. The remains of this antebellum hot-blast furnace were first discovered by the late Jeffrey L. Brown and later excavated by University of Tennessee at Chattanooga (UTC) archeologists. Through the integration of documents, photographs, and archeological data, the archeologists confirmed the site's transition from a charcoal-fired furnace to one that used coke as a fuel—the first in the 19th-century South to do so.

Both the site's historical significance and its location made it an ideal candidate for public interpretation. Bluff Furnace is adjacent to the Hunter Museum of American

Art, the Tennessee Riverwalk, and the Walnut Street Bridge, and the concatenation of these attractions generates tens of thousands of pedestrian visits each year. Accordingly, in the early 1990s an ambitious interpretive program was implemented that included (1) an on-site scale model of the furnace (in its coke phase); (2) traditional signage at three locations adjacent to the site; (3) an outdoor interactive computer display (DOS-driven!) that highlighted the blast furnace process, the archeological excavations, and local history; and (4) most impressive of all, a full-scale replica of the hot-blast cupola on the original furnace foundations. Based on historic photographs and archeological information, a stainless-steel framework was constructed at the furnace location and covered with a vinyl fabric painted to resemble the 1860 ironclad cupola. All the materials and expenses for these displays were grant-funded or donated by local businesses, including a powerful light that illuminated the furnace from inside the frame.

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Close-up of the artistic representation of the furnace cupola.

In This Issue:

- Digital Photography Tips
- Preview of SIA Fall Tour to Connecticut
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BLUFF FURNACE (continued from page 1)

After more than a decade of exposure to the elements (and to certain urban personalities), the exhibits began to decline. While the signage remains largely intact, the scale model deteriorated, the computer screen was apparently blown away with a high-caliber handgun (it had proved impervious to other, lesser attempts at vandalism), and the fabric covering the stainless-steel frame began to tear due to ultraviolet damage and wind shear; sadly, even the light was stolen. Eventually city employees removed the fabric, leaving only the frame, and due to budget constraints stopped maintaining the site and its viewshed shortly after the 2008 SIA Fall Tour. With only a bare frame surrounded by privet, weeds, and hackberry trees, the site and its fascinating story were largely ignored by passing visitors.

In 2010, Frances McDonald of Mark Making, a local nonprofit dedicated to community-based public art, envisioned the steel frame as a blank canvas. Mark Making partnered with the UTC Jeffrey L. Brown Institute of Archaeology and began to design an exhibit for the frame. The mutual vision was to create an artistic interpretation of the furnace's processes, history, and place in Chattanooga's industrial past in a way that visitors could understand and

appreciate. Support for this effort was provided by the Parks Foundation and Public Art Chattanooga.

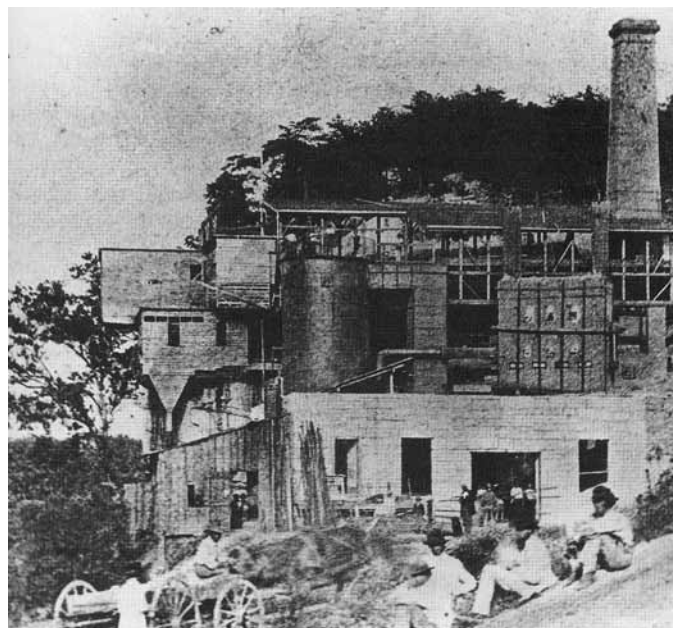
Three undergraduate students enrolled in an independent studies course with the Institute's Director, Nicholas Honerkamp, and spent four weeks reviewing the site's history and deciding on the specific content for the exhibit. Students enrolled in a UTC archeology class agreed to test some of the early ideas, and after a visit to the site several of them volunteered to help.

Then the design phase began. With guidance from the Mark Making staff, issues of scale, color, multiple viewscapes, and fabrication were eventually worked out. All the

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The excavated cupola-furnace base, complete with an iron salamander that marked the furnace's demise in November of 1860. The small scale in the center of the view is 50-cm long.



*A stereoscopic image of Bluff Furnace in 1860. Workers on break sit in front of the casting shed (foreground). Above the shed, the ironclad cupola stack is on the left, and the hot-blast stove is on the right. Source: Tucker and Perkins, *Southern Stereoscopic Views*, from the collection of Dr. James W. Livingood.*

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

Mailing date for Vol. 40, No. 1 (Winter 2011), March 2011. 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.

SIA Seattle • June 2-5, 2011

The Seattle Host Committee is putting the final touches on the program for the SIA Annual Conference, June 2-5. Members will soon receive registration materials in the mail including an exciting list of tours and paper sessions. Special tours of aerospace manufacturing, maritime facilities, the coffee industry, as well as local infrastructure and adaptive reuse are on the agenda. For more information, visit www.sia2011.com for a number of preview videos, including Gas Works Park and the 1962 World's Fair attractions, plus information on the Grand Hyatt Seattle, official conference hotel.



Seattle waterfront, c. 1900-10. Detail of photo (LC-D4-34102), Detroit Publishing Co. collection, Library of Congress

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 the 2011 Annual Conference in Seattle should submit a concise letter outlining their demonstrated interest in and commitment to industrial archeology or a related field, and one letter of reference. Deadline for applications is Mar. 31, 2011. Apply to Patrick Harshbarger, SIA Scholarship Committee, 305 Rodman Rd., Wilmington, DE 19809; (302) 764-7464; phsianews@aol.com. ■

BLUFF FURNACE (continued from page 2)

images that were chosen (including historic photographs) were first drawn by hand onto acetate. The images were then scanned into Adobe Illustrator files, merged, scaled, and projected against the Mark Making studio walls. Hanging from the walls were the substrate panels of vinyl mesh. After first staining each panel an appropriately “earthy” background hue, the images and text were projected against each one at full scale and the painting began. Once the students finished painting the images and text, each panel was covered with a urethane coating and grommeted around the margins. Eventually 18 panels, or nearly 1,300 sq. ft. of vinyl, were completed.

Two experienced rock climbers were recruited to attach the panels to the frame using cable ties. The installation process turned into a mini-sensation, covered by local radio, television, newspaper, and Internet media. Besides directly experiencing the visually stunning messages and images on the 45-ft.-high exhibit, visitors can review the entire process through an ongoing blog entitled “Bluff Furnace Restored!” (<http://bluffurnace.blogspot.com/>). A short cell phone audio tour is also available (423-535-9083, item # 73). In addition, two exhibits illustrating the site's history and the interpretive process are currently being developed for display this spring at the Cress Gallery of Art on the UTC campus.

While the Bluff Furnace exhibit is not intended to be permanent, it is expected to last at least five years. More durable materials, vents that are designed to mitigate wind shear, and greater site visibility and security should assure its longevity. In that projected life span, literally hundreds of thousands of visitors will come face-to-stack with an important part of the South's industrial past.

Nicholas Honerkamp



The finished product, aka Art of History.

Digital Photography

IA and Education

The SIA's Education Committee is hereby instituting a regular column in the SIAN to provide members with information about how to learn technologies and tools that will help in IA activities. The committee has ideas for the first several columns, but would like to hear from you. Please send suggested ideas to Anthony Meadow (ameadow@gmail.com) or Amanda Gronhovd (gronhovd@10000lakesarchaeology.com).

We're starting with an update on digital photography, which was written by Anthony Meadow.

A few decades ago when I was in high school, I learned to develop Plus-X black-and-white film. The memories of the strong smells in the darkroom are still with me, as well as the magic of watching a print emerge from the shiny white paper. Ten years ago I could see that the mediocre digital cameras were the first step towards the future of digital imaging. I quit film cold turkey and bought my first digital camera. I've learned a lot along the way and would like to pass along some of the lessons I've learned.

There are still good reasons for using film, such as documenting structures to meet HABS/HAER standards, or perhaps you like using a view camera. For most people, however, photography is now digital. Many skills needed for digital photography are exactly the same as for film photography, such as varying the relationship between aperture and exposure time, but there are some technical issues and skills that are new.

File formats: Almost all cameras support the JPEG for-

HISTORIC BRIDGE NEWS

The City of Chicago is slapping corporate logos on its historic movable bridge houses in an effort to increase revenues. The advertising is selling for \$70,000 to \$140,000 per month. Space is available on the 14 bridges that span the Chicago River. As far as can be ascertained, the revenues are not earmarked for bridge maintenance and preservation, which might make the practice more palatable.—*Chicago Sun Times* (Jan. 8, 2011)

The **Henley Bridge**, a handsome six-span, open-spandrel, ribbed arch bridge over the Tennessee River at Knoxville, is being rehabilitated by TennDOT. The solution to repairing the heavily deteriorated reinforced-concrete superstructure is to replace the spandrel columns and deck in-kind while retaining the arches. The bridge was built in 1930-32, and like many of the open-spandrel arches of this era represents the apex of American reinforced-concrete arch design. An extensive history of the bridge, details of the project, and live camera feed of construction: www.tdot.state.tn.us/Henley. ■

mat for images. It's certainly convenient—it's easy to copy images onto your computer, resize them, email them, and even print them. But there are some limitations to the JPEG format that are important to understand. JPEG is a "lossy" format, that is, when your camera created the JPEG file using the raw sensor data it threw away some of the image data. This may not be important if you are simply taking family snapshots. But if you later enlarge a portion of the image, adjust the contrast, apply a filter, or adjust the white balance more than once there may be artifacts created in the image. These artifacts are a result of the JPEG compression process that throws away information every time the image is saved, quickly reducing the quality.

What's the alternative to using JPEG? There are other ways in which images can be saved and edited that preserve the maximum amount of information. First, you can use your camera's raw format such as the Canon CR2 or Nikon NEF format. These files are compressed but in a lossless manner—no information about the image is thrown away when the file is created. However, there are few image editors that can read and write these proprietary formats, so you'll need to convert the image into another format to edit it.

Images can be converted to lossless formats either from the raw camera format or from JPEG. The Photoshop format (PSD) and the Tagged Image File format (TIFF) are the best-known lossless-image formats.

Adobe has been promoting a lossless image alternative called the DNG (Digital-Negative) format, which is a third alternative that was designed to support editing and long-term archiving of images. DNG is a lossless format that is widely supported by many image-editing programs. At this time some camera manufacturers support DNG as a native format (Leica, Ricoh, and Samsung) but others (Nikon and Canon in particular) do not. One advantage of DNG is that it contains a checksum that can be used to verify the file integrity, a capability that no other image format offers today. You can read more about the DNG format at www.adobe.com/products/dng/index.html.

Backups and Archives: Film negatives can last over a hundred years if processed properly. How can we ensure that our digital photographs will be preserved for posterity? For a start you'd better backup your image files regularly, so that when the hard drive fails in your computer, all your images don't disappear. Offsite backups provide another level of insurance.

Metadata: Metadata is information about an image. Your camera automatically creates some metadata about each image including the camera name, shutter speed, aperture, image size, and so on. You can add additional metadata to your images such as copyright information and keywords that describe the image including category, project name, people, and objects in the image. The location where the image was taken can be added to the metadata automatically or manually (this is known as geo-tagging). The pur-

Digital SIAN Now Available!

As of this issue, SIA members will have the option of downloading the *SIAN* as a digital download at the time of publication, which is typically three to four weeks before the printed version arrives in your mailbox. You will still receive the printed copy unless you opt out, but now you can read the electronic version sooner.

Members who have signed-up to receive the SIA's e-news will receive notification when the paperless version of each issue becomes available. If you haven't been receiving e-news, please make sure we have a good email address for you. Members can sign up for e-news at the SIA website (www.siahq.org). The e-news message will direct you to an unpublicized part of the SIA website where you may view and download the issue. You are encouraged to share the electronic *SIAN* with your colleagues and friends as a membership recruitment tool.

All members will continue to receive a printed version of the *SIAN* unless they opt out of the printed version by contacting SIA headquarters. The choice of selecting the paperless-only option can also be made at the time of the annual membership renewal. Choosing

the paperless option will assist the SIA reduce costs associated with printing and postage, and it also will reduce the SIA's "carbon footprint."

There are no current plans to discontinue the printed version of the *SIAN*. Members may choose to receive both the paperless and hard-copy versions. Many members prefer to receive the hard copy; the decision to offer the paperless option was based on the ability to provide timely information, the desire of some members to go paperless, and making the SIA more "green."

In the coming months, the SIA will be proposing and implementing other paperless options. The 2012 membership renewal cycle will provide a number of different choices about which of our communications you wish to receive electronically. All of these will be opt-in, if you still want to receive our communications in the current standard paper form, you won't need to do anything beyond renewing your membership.

We welcome your ideas about how to make the SIA a leader in both industrial heritage preservation and the green movement.

To sign up for the paperless option, contact SIA headquarters at SIA@mtu.edu. ■

pose of metadata is to make it easy to search for images in whatever ways you or others might need.

Digital Asset Management (DAM) Systems: As the number of images you take grows into the thousands or tens of thousands it's easy to lose track of where your images are and which is the current version of a particular image. One image may be used for a project more than once. DAM systems are software programs that allow you to catalog, process, and print images.

There are quite a few DAM programs on the market. Some are intended for individuals and others for organizations. The more popular products used by serious amateur and professional photographers are Adobe Lightroom, Aperture (Apple), Bibble (Bibble Labs), and Expression Media (a Microsoft product recently acquired by Phase One). A license for each of these products costs less than \$300.

Although none of these applications can offer all the capabilities of Adobe Photoshop, the twenty-year-old standard, they are rapidly increasing in capabilities. And they offer advantages over Photoshop. These DAMs provide parametric image editing. Unlike Photoshop, which directly manipulates the image file, a parametric editor like Lightroom captures your edits as a series of operations performed on the image; the original image is not modified at all. Lightroom also allows you to make virtual copies of an image, making it easy to prepare the image for use in different projects.

DAMs enable digital photographic workflow that ensures that all of your images are secure, backed up, searchable, and editable. They also make it possible to process an

image in different ways and then compare the results. With Photoshop and older image editors you can quickly find yourself with multiple copies of an image. A year later you may have a very difficult time figuring which one is which. This does not happen with parametric editors.

We've just scratched the surface in this brief look at image file formats, backups, metadata, and image editors. There's a lot to learn about these topics and more. The good news is that we're not alone in making this transition to digital photography. The American Society of Media Photographers (ASMP) and the Library of Congress have organized a large effort to assist professional photographers. They offer a variety of resources including seminars given all over the country and a blog. Their largest resource is an extensive website that provides detailed tutorials, including hours of video. This site explains how to set up and use a digital workflow that works for you. This worthwhile website can be found at www.dpbestflow.org. And did I mention that it is free?

Two excellent books on digital workflows are *The DAM Book* by Peter Krogh (2nd ed., O'Reilly Press, 2009) and *Digital Photography Best Practices and Workflow Handbook* by Patricia Russotti and Richard Anderson (Focal Press, 2009).

Editor's note: We also mark with no small degree of sadness the end of an important era in film photography with the passing of Kodachrome (1935-2010). As reported in several media outlets, the last commercial processor of Kodachrome (Dwayne's Photo, Parsons, Kan.) shut down its processing machines on Dec. 31, 2010. ■

SIA FALL TOUR

Quinebaug-Shetucket Valley, Connecticut • Oct. 12–16, 2011

The Quinebaug-Shetucket Valley is also known as the “Last Green Valley.” It received that designation when airline pilots following the Boston-New York route noticed that there was a dark area among the myriad lights along the east coast. The area is still rural but has a number of small industries scattered among the towns along the river.

The conference hotel is the Southbridge Conference Center. This building was formerly headquarters of the American Optical Co. and was adapted for use as a comfortable hotel with full facilities. The rate for SIA attendees will be \$105 per night.

The hotel is about 17 miles from Worcester, Mass.; public transportation is very limited. Southbridge is located about 60 miles east of Hartford-Springfield Airport or 62 miles west of the Boston or Providence airports. The simplest way to get there is by automobile. There is good access to Southbridge and Sturbridge via the Mass Pike (I-90). We plan to include a buffet breakfast in the tour package price as there are few restaurants in the area (and this will help us get the buses off on time).

Currently we are firming up the tour itinerary and schedules. The opening reception will be at Sturbridge Village and will feature tours of the sawmill, carding mill, and grist mill in addition to a speaker on the history of the area. Friday tour sites are in the Mansfield and

Willimantic areas. Possible Saturday tour sites include CorkTec (wine cork production), the Horseridge nuclear shelter/industrial storage facility in Stafford, Crabtree & Evelyn’s production facility, the Taylor Brook vineyard (box lunch & winery tour) in Woodstock, New England Automated Buns (McDonald’s bun baker), the Lake Road Generating Station, and Spirol International (a global manufacturer of components for fastening and joining and parts feeding systems). Check the SIA website (www.sia-web.org) for updates. Brochures will be mailed to members during the summer.



Willimantic Linen Co., Mill No. 2, Windham, Conn., 1988.

NOTES & QUERIES

The National Park Service’s Heritage Documentation Programs (Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey) seeks your assistance in promoting the **Leicester B. Holland Prize 2011: A Single-Sheet Measured Drawing Competition**. This new competition, open to both students and professionals, recognizes the best drawing of a historic building, site, or structure prepared to HABS, HAER, or HALS standards for the collection at the Library of Congress. The winner will receive \$1,000, a certificate of recognition, and publication of the drawing in *Architectural Record*. There is no charge to enter the competition, but the entry form must be completed by May 31, 2011 and the completed entry postmarked by June 30, 2011. Entry form, rules, and additional info: www.nps.gov/history/hdp/competitions/holland.htm.

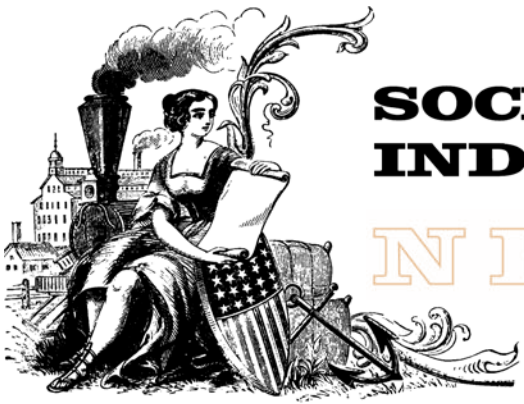
The project to restore **Boston & Maine No. 3713**, a 4-6-2 Pacific locomotive built by the Lima Locomotive Works in 1934, is a partnership between the Lackawanna & Wyoming Valley Railway Historical Society and the Steamtown National Historic Site in Scranton, Pa. The partnership was

formed in 1995, and its goal is to restore the engine to operating condition. When completed, No. 3713 will be the first American-manufactured engine to be used in regular service by Steamtown for its excursion service. Donations to the Restoration Fund are tax-deductible. Info: www.project3713.com. To make a donation: Locomotive Restoration Fund, L&WV R.H.S., Inc., Box 3452, Scranton, PA 18505.

The Delaware Public Archives has digitized and made available online the **Jackson & Sharp Company Collection**. J&S was a major builder of railroad cars and steamships in Wilmington from 1863 to 1950. It was perhaps best known for its wood passenger and parlor cars. The collection consists of over 4,000 photographs and drawings. www.archives.delaware.gov.

The **B.B. Comer Memorial Library** in Sylacauga, Ala., has recently made available in digital, searchable format *The Avondale Sun*, a newspaper published by **Avondale Mills** for its employees, 1924-2006. The paper represents a significant research resource for labor and social history of textile mill communities.

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SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

PUBLICATIONS OF INTEREST

Vol. 40, No. 1

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COMPILED BY

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

GENERAL INTEREST

- ◆ Robert C. Allen. **The British Industrial Revolution in Global Perspective.** Oxford Univ. Pr., 2009. 331 pp. \$27.99. Factors of labor, capital, and technology that made Britain the center of industrialization with comparisons to pre-industrial France, U.S., India, and China. Statistical details, especially regarding the steam engine, cotton textiles, and the use of coke. Rev.: *T&C* (Oct. 2010), pp. 1018-19.
- ◆ Robert Friedel. **A Culture of Improvement: Technology and the Western Millennium.** MIT Pr., 2010. 600 pp., illus. \$24.95. A sweeping, ambitious look at a thousand years of Western experience arguing that technological change comes largely through the pursuit of improvement. Case studies of technology from the plow and the printing press to the internal-combustion engine, the transistor, and the space shuttle.
- ◆ Christopher Hann. **Gateway to the Past: New Jersey's Roebling Museum Honors an Industrial Giant.** *Preservation* (Jan./Feb. 2011), pp. 10-11. National Trust recognizes efforts of local activists to preserve the company town and establish a museum on the grounds of the Roebling factory (tour site—2007 SIA Annual Conference, Philadelphia).
- ◆ Jeff Horn, Leonard N. Rosenband, and Merritt Roe Smith, eds. **Reconceptualizing the Industrial Revolution.** MIT Pr., 2010. 336 pp. \$24. Collection of essays offers new perspectives on industrial developments from 1750 to 1914. Each of 15 chapters explores a distinctive pattern of national development from China to Brazil.
- ◆ Miriam R. Levin, Sophie Forgan, Martina Hessler, Robert H. Kargon, and Morris Low. **Urban Modernity: Cultural Innovation in the Second Industrial Revolution.** MIT Pr., 2010. 272 pp. \$30. Examines the construction of an urban-centered, industrial-based culture at the end of the 19th century. Focus on businessmen, industrialists, and officials who expressed the new culture through expositions, museums, and other institutions and projects.
- ◆ Amanda Peterka. **Superfund Sites Sometimes Yield Clues to History.** *NY Times* (Dec. 9, 2010). Describes archeology undertaken at Superfund sites and discusses the EPA's attitudes and approaches to preservation under its Section 106 obligations. Features a number of industrial sites (Anaconda, Elizabeth Mine, Sulphur Bank Mercury Mine) and quotes extensively from several SIA members including Matt Kierstead, Bode Morin, and Fred Quivik.
- ◆ John F. Ross, ed. **25 Revolutionary American Inventions.** *I&T*, Vol. 25, Issue 3 (Fall 2010), pp. 14-52. To celebrate the 25th anniversary of the publication, the editors chose "25 of the most crazy-creative, on-steroids, thinking-outside-the-box inventions in American history": barbed wire, cotton picker, tungsten lightbulb, frozen food, Freon, Tupperware, microwave oven, voice-over radio, FM radio, shoe laster, steam shovel, galvanized steel, O-ring, microencapsulation, Kevlar, machine gun, Teflon, transistor, laser, flat-panel TV, charge-coupled device, COBOL, video games, social networking, and 6-mercaptopurine.
- ◆ Ross Thomson. **Structures of Change in the Mechanical Age: Technological Innovation in the United States, 1790-1865.** Johns Hopkins Univ. Pr., 2009. 448 pp. \$68. Analysis of over 14,000 patents, census data for 1,800 companies, hundreds of business directories, and dozens of machinery-firm business records. Examines the knowledge-sharing network that promoted technological creativity. Rev.: *T&C* (Oct. 2010), pp. 1026-28.
- ◆ **TICCIH Bulletin**, No. 51 (2011) includes Iain Stuart, *Is Industrial Heritage Greater Than or Equal to the Heritage of the Industrial Revolution?* (discussion of the meaning of TICCIH's charter to focus on the Industrial Revolution and what that means for the period of study); Shigetomo Kikuchi, *Matsubara*

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With Thanks.

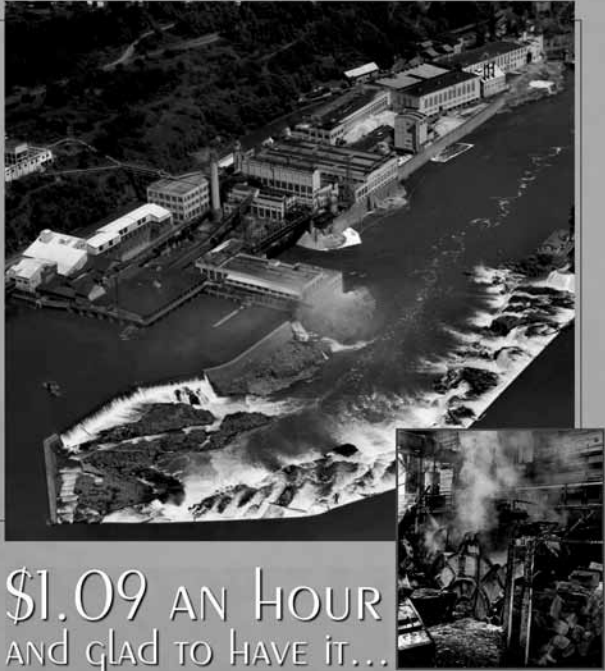
Housing in the Context of Japanese Coal Mining History (company housing from the late 1930s); Carolina Lucena Rosa, *Northeastern Brazilian Company Towns: Present and Future Perspectives* (company towns for the textile, paper, mining, and sugar sectors in Sao Paulo); as well as the usual round-up of industrial heritage news from around the world. Info: www.ticcih.org.

TOOLS

- ◆ H.G. Brack. **The Classic Period of American Toolmaking 1827-1930**. Astragal Press, 2009. 382 pp., illus. \$24.99. First 100 pages are a narrative historical overview. Appendices provide a timeline of toolmaking techniques, definitions of the types of iron and steel used in tools, a listing of American tool companies, and a bibliography.
- ◆ **Catalogue of the Andrew Alpern Collection of Drawing Instruments**. Norton, 2010. 160 pp., illus. \$60. Three hundred years of traditional tools for architects and engineers from the Avery Architectural & Fine Arts Library at Columbia Univ.
- ◆ Daniel Michaels. **As Pencil Makers Push the Envelope, Age-Old Rivalry Stays Sharp**. *NY Times* (Sept. 29, 2010). Two German pencil makers, Staedtler Mars GmbH and Faber-Castell AG, are sparring over which can lay claim to have the oldest and most prestigious antecedents. Both can trace their origins to pencil makers in Germany over 250 years ago.

PAPER & WOOD PRODUCTS

- ◆ Sandra H. Carter, ed. [SIA]. **\$1.09 an Hour and Glad to Have It: Conversations with 17 Mid-20th Century Crown Zellerbach Millworkers**. Willamette Falls Heritage Foundation, 2011. 426 pp., illus. \$35. Interviews and photos of workers at the West Linn, Ore., paper mill, many of whom stayed with the mill for decades and helped build a middle-class neighborhood.



\$1.09 AN HOUR AND GLAD TO HAVE IT...

Conversations with seventeen mid-20th Century Crown Zellerbach millworkers

SANDRA HICKSON CARTER

Describes the work in the mill, often physically demanding and dangerous: guiding logs to debarking machines, sawing logs into blocks, and pushing the blocks into grinders that created pulp. Workers recall the high and low points of their decades-long mill careers. The interviews were synthesized for two documentary movies in 2006 and 2007. Because of a tight budget only 100 copies of the book will be made in the first printing. A second printing will be made if demand permits. To order, call WFHF (503) 650-9570, leave name and date called, and send check to WFHF, Box 635, West Linn, OR 97068.

- ◆ Drew Kerr. **IP to Demolish Buildings at Former Mill in Corinth**. *The (Glen Falls, N.Y.) Post-Star* (Dec. 13, 2010). International Paper has announced it will tear down the mill buildings on its 300-acre tract in Corinth, N.Y. The administration building will be saved as a museum.

MISC. INDUSTRIES

- ◆ Robert L. Shanebrook. **Making KODAK Film: The Illustrated Story of State-of-the-Art Photographic Film Manufacturing**. 2010. 94 pp. \$29.95. The author, who worked at Kodak for 35 years (retiring in 2003), wrote and published this book that shows the firm's processes and equipment used to make film, including many color photos and illustrations throughout. Until this book, there have been only limited materials available on Kodak's silver-halide film manufacturing. Info: www.makingkodakfilm.com.
- ◆ Justin Shatwell. **Here in New England: Where the Bells Ring On**. *Yankee Magazine* (Nov./Dec. 2010), pp. 16-20. Focus on Bevin Bros. Mfg. Co., the 176-year-old maker of hand bells in East Hampton, Conn.

AUTOMOBILES & HIGHWAYS

- ◆ **Engineering History and Heritage (EHH)**, Vol. 163, Issue EH2 (May 2010) is devoted to the history of limited-access highways, chosen in part to celebrate the 50th anniversary of the opening of the first motorways in the U.K. Includes David M. Orr, *The Antrim Coast Road—A Civil Engineering Legacy* (40 km Irish road, 1832-1842); Colin McKay, *Highway Design by Highwaymen* (equipment and techniques available to British engineers in the 1950s); J. Patrick Harshbarger [SIA], *Two Pioneering American Roadways* (Delaware's DuPont Highway and New Jersey's Route One Extension); Mike Chrimes, *Autostrade: The Italian Interwar Achievement* (the Milan-Varese-Lake Como motorway opened in 1924); Timothy Davis, *Documenting New York's Bronx River Parkway* (HAER project); Harry Yeadon, *Preston By-pass: The First Motorway in the U.K.*; and Robin Soper, *The M-1: Britain's First Inter-Urban Motorway*.
- ◆ Euan Hague. **More Imagined Than Real ... The Jefferson Davis Highway**. *SCA Journal* (Fall 2010), pp. 14-19. United Daughters of the Confederacy have placed markers, mileposts, and plaques on more than 4,000 miles of highway since 1913.
- ◆ Karl Ludvigsen. **Ferdinand Porsche—Genesis of Genius: Road, Racing, and Aviation Innovation, 1900 to 1933**. Bentley Publishers, 2009. 496 pp. \$99.95. Examines the accomplishments of the German engineer responsible for the design of a vast number of vehicles and engines. Focuses on the period prior to the founding of the famed automaking firm that bears his name when Porsche worked for Austro-Daimler, Mercedes, and others. Rev.: *T&C* (Oct. 2010), pp. 1040-41.
- ◆ W.J. McCoubrey, ed. **The Motorway Achievement**. Thomas Telford Books, 2008. 3 vols. £195 set price. In-depth examination of the planning, design, and construction of the 2,000 miles of motorway in the U.K., coinciding with the

50th anniversary of the British motorway system. Series of companion volumes cover the system in detail region by region.

- ◆ Phil Patton and John Margolies. **John Margolies: Roadside America: Architectural Relics from a Vanishing Past.** Taschen Press, 2010. 256 pp. \$39.99. Coffee table-style book features hundreds of color images of roadside attractions. Rev.: *SCA Journal* (Fall 2010), p. 34.

POWER GENERATION

- ◆ T. Lindsay Baker, ed. **Windmillers' Gazette** is a quarterly newsletter dedicated to the preservation of America's wind power history and heritage. Vol. 29, No. 4 (Autumn 2010) includes *Selling Windmills at County and State Fairs* (salesmen and local dealers exhibiting their products) and *The Dempster No. 11 and the Introduction of Self-Oiling Technology to Windmills of the Dempster Mill Mfg. Co.* (Dempster of Beatrice, Neb. introduced its own self-oiling model in 1921, following the Elgin (Ill.) Wind Power & Pump Co. which introduced the first commercially successful self-oiling windpump about 1912). Vol. 30, No. 1 (Winter 2011) includes *The Windmills That Get Down and Wallow on the Ground* (paddle-bladed low-slung homemade windmills, reminiscent of the paddle wheel on a river steamboat).
- ◆ David E. Nye. **When the Lights Went Out: A History of Blackouts in America.** MIT Pr., 2010. 304 pp., illus. \$27.95. The development of the power grid and the impact—technological, social, and cultural—of blackouts that have caused Americans to confront their condition as a community bound together by electrical wires. Blackout episodes are examined from 1935 to present, including blackouts before and after World War II, the New York City blackouts of 1965 and 1977, and the rolling blackouts in California in 2000.
- ◆ Henry Schlesinger. **The Battery: How Portable Power Sparked a Technological Revolution.** Smithsonian, 2010. 320 pp. \$25.99. A popular history of the storage battery. Schlesinger explores the numerous inventions spawned by the invention of the battery, ranging from the telegraph and telephone to the transistor and integrated circuit to the cell phone and beyond.

MINES & MINING

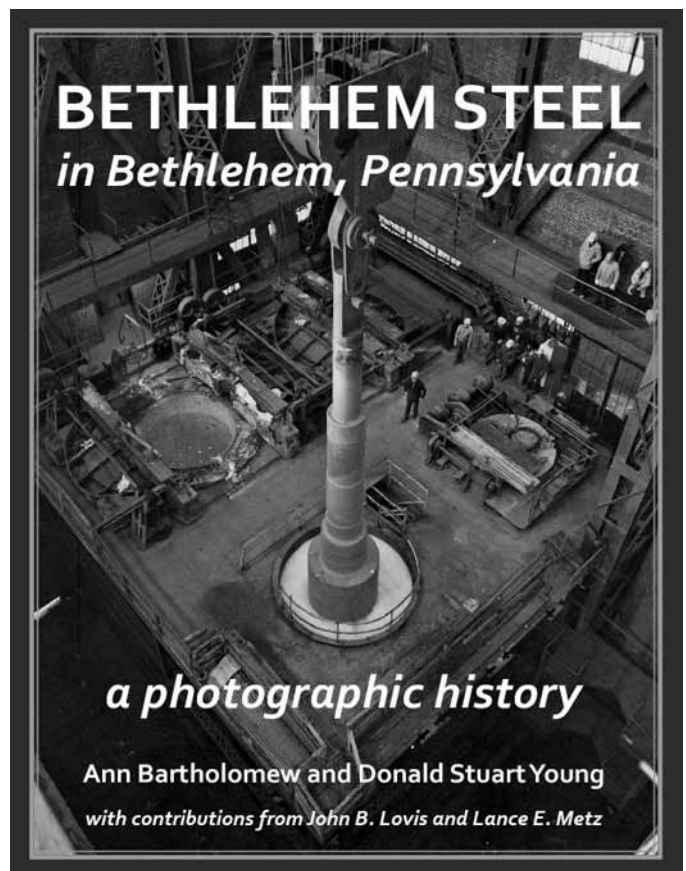
- ◆ Brian C.S. Harper. **The 1862 Gold Fields Water Supply Scheme: Victoria, Australia.** *EHH*, Vol. 163, Issue EH3, pp. 169-78. Examines engineer Joseph Brady's approach to estimating the hydrological parameters involved in constructing a large embankment dam on the Coliban river and aqueducts to serve the mining communities at Castlemaine and Sandhurst. Also, Richard G. Hartley, **Lessons from Western Australia's Goldfields Water Supply Scheme**, pp. 170-87. Construction of the world's first steel pipeline for pumping water 565 km to the Coolgardie goldfield, 1896-1904.
- ◆ Paul Lucier. **Scientists and Swindlers: Consulting on Coal and Oil in America, 1820-1890.** John Hopkins Univ. Pr., 2008. 448 pp. \$65. Looks at the role of geologists and other scientists in the early history of the American coal, kerosene, and oil industries. Rev.: *T&C*, Vol. 51 (July 2010), pp. 743-45.
- ◆ Michael J. Makley. **John Mackay: Silver King in the Gilded Age.** Univ. of Nev. Pr., 2009. 296 pp. \$34.95. Biography of Mackay, one of the men who made a fortune in Nevada's Comstock mines in the 1860s and 1870s. Rev.: *T&C* (Oct. 2010), pp. 1030-31.
- ◆ Ron Pearson. **Smokeless! Coal Cleaning along the East Broad Top.** *TT*, Vol. 25, No. 1 (Summer 2010), pp. 16-25. Describes in detail, with diagrams, operations of the coal-cleaning plant

at Mount Union, Pa. Plant, erected in 1915, served by the East Broad Top RR.

- ◆ John Snyder. **The Clayspur on Sandy Ridge.** *TT*, Vol. 25, No. 1 (Summer 2010), pp. 5-9. History of a clay mine, located south of Shirleysburg, Pa., that operated from 1917 to 1937. Clay was loaded into horse-drawn dump carts and carted a short distance to the East Broad Top RR.

IRON & STEEL

- ◆ **Bethlehem Steel in Bethlehem, Pennsylvania.** Canal History & Technology Pr. (www.canals.org), 2010. 256 pp., illus. \$35. Over 650 photographs and drawings with descriptive captions to tell the story of iron- and steelmaking in Bethlehem. Spans the 130-year period from the founding of the Bethlehem Iron Co. in the 1860s through the era of Bethlehem Steel, to the last cast of iron in late 1995 and the subsequent closing of the BOF and the mills. Most of the images used are company photographs that are now in the Canal Museum archives, many never published. Until shut down in 1983, the corporation's own photographic department produced thousands of photos. Some show the Grey Mill, company president Charles Schwab's prescient gamble in 1905 that produced the wide-flange "H" beams that became Bethlehem's trademark. Other photos show the evolution of steelmaking technology from Bessemer to open-hearth to basic-oxygen furnaces. One chapter is devoted to how an ingot becomes a finished forging; another to transporting large finished castings and forgings by road and rail. Other images show blast furnaces, steelmaking furnaces, soaking and stripping ingots, machine shops, rolling mills, forging shops, tempering facilities, the research department, coal and ore storage, PB&NE locomotives and Saucon narrow-gauge trains, and the coke works. Young was the general foreman of Bethlehem



Steel's electric furnace melting shop, and is well known for his enthusiasm for steam locomotives and his popular lectures on Bethlehem Steel. Discount of 10% for Canal Museum members. To purchase, www.canals.org or email store@canals.org.

- ◆ Chris Evans and Goran Ryden. **Baltic Iron in the Atlantic World in the Eighteenth Century**. Brill, 2007. 359 pp. \$144. Detailed examination of the flow of iron from Sweden and Russia to England, the onward in the form of manufactured goods to Africa and America. Rev.: *T&C*, Vol. 51 (July 2010), pp. 756-57.

WATER TRANSPORT

- ◆ Stuart Drabble. **Templer & Parlby: Eighteenth Century Contractor**. *EHH*, Vol. 163, Issue EH3, pp. 189-98. James Templer (1722-1782) and Thomas Parlby (1727-1802) were men of humble origin who became prominent contractors working mainly in the English royal dockyards for the Navy Board.
- ◆ Robert J. Kapsch [SIA]. **Historic Canals of Maryland and Virginia, USA**. *Engineering History & Heritage*, Vol. 163 (Nov. 2010), pp. 205-18. Describes the states' canals as "a means of capturing the essence of the American canal experience and the beginning of American civil engineering." Summary histories of the Chesapeake & Delaware, Chesapeake & Ohio, James River & Kanawha, Albermarle & Chesapeake, and Dismal Swamp. Also, **Historic Canals and Waterways of South Carolina**. Univ. of S.C. Press, 2010. 296 pp., illus. \$44.95. South Carolina's network of canals and navigable waterways developed from the 1790s to the 1830s. At the center of the system was the Santee Canal, constructed 1793-1800, to tie the Santee River and its upcountry watershed with the Cooper River and Charleston Harbor. The Santee was America's first summit-level canal. Explores the interrelationship of canal building to the cotton economy.
- ◆ Robert Kapsch [SIA] and Yvonne E. Long. **James Brindley, American Canal Engineer**. *Int'l Journal for the History of Engineering & Technology*, Vol. 81, No. 1 (Jan. 2011), pp. 22-59. The James Brindley of this title is the nephew of the eponymous builder of the Duke of Bridgewater's canals. He worked in England with his uncle until the latter's death and then emigrated to America in 1774. In America he worked on most of the early canals constructed in the 18th century: the Susquehanna, Conewago, Potomac, Santee, James River, Harper's Ferry power canal, and others. Unlike the better-known English canal engineer William Weston, who also came to America at this time, Brindley worked on more canals and completed most of them. George Washington, an ardent proponent of canals, knew Brindley and spoke well of him. The paper provides a coherent picture of Brindley's life and the early development of American canals before the construction of the Erie, using sources including Brindley's papers when he was chief engineer of the Conewago Canal.
- ◆ Ann Loeding. **Pennsy Barge 399**. *RMQ*, No. 1 (Summer 2010), pp. 20-21. Briefly describes efforts to preserve a covered wood-and-steel barge, built in 1942 and once part of the PRR's New York Harbor fleet. It has been towed to Waterford on the N.Y. State Barge Canal for restoration.
- ◆ Alex Roland. **Exhibit Review: On the Water: Stories from Maritime America**. *T&C*, Vol. 51 (July 2010), pp. 723-27. Reviews the National Museum of American History's recent exhibit, devoted to the history of American commerce afloat from the slave trade to the modern cruise industry. Notes the exhibit's curious inattention to technology, despite it being filled with technological artifacts. Exhibit is available on-line, <http://americanhistory.si.edu/onthewater>.

- ◆ Alex Roland, W. Jeffrey Bolster, and Alexander Keyssar. **The Way of the Ship: America's Maritime History Reenvisioned, 1600-2000**. John Wiley & Sons, 2007. 544 pp. \$35. A "major new interpretation" of American maritime history expands on traditional focus on bluewater sailing to include coastal and inland shipping, and follows analytical threads of economics, policy, labor, military, and technology. Rev.: *T&C*, Vol. 51 (July 2010), pp. 741-43.

RAILROADS

- ◆ Aaron Isaacs. **Minnesota Transportation Museum**. *RMQ*, No. 1 (Summer 2010), pp. 13-20. Background, management, and operations of museum, mostly railroad oriented, including extensive collection of rolling stock, roundhouse, archives, a troubled defunct tourist line (Stillwater branch line), and an active tourist rail line (Osceola & St. Croix Valley Ry.).
- ◆ Joe Bux. **The New York, Ontario and Western Railway, Postcard History Series**. Arcadia, 2009. 128 pp., illus. \$21.99. Postcard images of railroad that operated in northern N.J. and N.Y. Rev.: *NRHS Bulletin*, Vol. 75 (Summer 2010), p. 36.
- ◆ Ron Goldfeder. **Turntables at Museums and Tourist Railroads**. *RMQ Trainline* No. 2 (Fall 2010), pp. 13-20. State-by-state list and summary of operating status.
- ◆ Frank Kyper. **Narrow Gauge to Boston, A Nostalgic Window on the Boston, Revere Beach & Lynn Railroad**. 112 pp., maps, illus. \$24.95. Avail.: Friends of the East Broad Top Company Store, febtstore@comcast.net. Commuter railroad that operated from 1876 to 1940. Six of the narrow-gauge passenger cars are now in the collection of the EBT in Orbisonia, Pa.
- ◆ Elrond Lawrence. **Union Pacific's Central Coast Line**. *NRHS Bulletin*, Vol. 75 (Summer 2010), pp. 4-21. Summary history and photo essay of line between Los Angeles and San Francisco Bay, established in 1902 and recently de-activated.

ABBREVIATIONS:

APT	= Association for Preservation Technology International
EHH	= <i>Engineering History & Heritage</i> , published by the Institution of Civil Engineers, www.engineeringhistoryandheritage.com .
I&T	= <i>American Heritage of Invention & Technology</i>
NHRS	= National Ry. Historical Society
RMQ	= <i>Railway Museum Quarterly</i>
SCA	= Society for Commercial Archeology
T&C	= <i>Technology & Culture</i> , published by the Society for the History of Technology
TICCIH	= <i>The International Committee for the Conservation of the Industrial Heritage</i> , www.mnactec.com/ticcih
TT	= <i>Timber Transfer</i> . Published by Friends of the East Broad Top. Avail. with membership. \$30/yr. www.febt.org .
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.



2011 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.

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

Nominations, **which must be received on or before April 16**, should be submitted to: Charles Parrott, Chair, General Tools Award Committee, 71 Lowell St., Andover, MA 01810; (978) 275-1723; charles_parrott@nps.gov. ■

SIA Slate of Candidates—2011

The Nominations Committee is pleased to present the following *draft* slate of candidates for the 2011 election:

Director (3-year term)
Vote for three

Scott Baxter
David Hayes
Connie Thatcher
David Vago
Ingrid Wuebber

Nominations Committee (3-year term)
Vote for one

John Beaton
Tim Mancl



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 2011 calendar year) and delivered to the Nominations Committee chair at the address below no later than **April 15, 2011**. 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 2011 calendar year in order to vote.

The current Nominations Committee includes Erin Timms (*chair*), Rachael Greenlee, Kevin Pegram, and Mary Habstritt (*ex officio*). Please direct all nominations and other correspondence to: SIA Nominations Committee, c/o Erin Timms, 177 Vinton St., Providence, RI 02909; (812) 584-8711; ectimms@hotmail.com. ■

CONFERENCES & WORKSHOPS

Archeological Prospection Workshop. The National Park Service's 2011 workshop *Current Archeological Prospection Advances for Non-Destructive Investigations in the 21st Century* will be held May 23-27, 2011, at the Palo Alto Battlefield National Historical Park in Brownsville, Texas. Lodging will be at the Courtyard by Marriott in Brownsville. The field exercises will take place at the site of Fort Brown on the University of Texas at Brownsville and Texas Southmost College campuses. The Palo Alto Battlefield preserves the historic and archeological remnants of the first battle of the Mexican War in 1846. Co-sponsor for the workshop is the NPS Midwest Archeological Center. This will be the 21st year of the workshop dedicated to the use of geophysical, aerial photography, and other remote sensing methods as they apply to the identification, evaluation, conservation, and protection of archeological resources. The workshop will present lectures on the theory of operation, methodology, processing, and interpretation with hands-on use of field equipment. Registration: \$475. Info: www.nps.gov/history/mwac/. Or contact Steven L. DeVore, Archeologist, NPS Midwest Archeological Center, Federal Bldg., Rm. 474, 100 Centennial Mall North, Lincoln, NE 68508-3873; (402) 437-5392, ext. 141; fax: (402) 437-5098; steve_de_vore@nps.gov.

The **National Preservation Institute** offers a wide range of seminars and workshops on historic preservation law and regulations; the identification, planning, and evaluation of cultural resources; cultural and natural resource management; Native American cultural resources; property management and design issues; and the curation, conservation, and stewardship of collections. Programs are offered in cities throughout the U.S. Info: www.npi.org.

4th International Congress on Construction History. Researchers from all disciplines concerned with the history of construction are invited to submit 20-minute paper abstracts for the congress to be held in Paris, France, July 3-7, 2012. The proposal should include: a title followed by the name(s) of the author(s) and institutional affiliation(s); an abstract of 400 words maximum must contain mention of the sources consulted; six key words (selected, if possible, from the list of topics and subjects); a short curriculum vitae of one page maximum indicating contact information, status, laboratory affiliation if relevant, as well as a list of important or most recent publications. Prospective speakers should submit proposals to tricia.meehan@paris-malaquais.archi.fr no later than April 15, 2011. For full requirements and info on the congress: www.icch-paris2012.fr. ■

NOTES & QUERIES (continued from page 6)

The pages are filled with company news, worker family news (births, weddings, vacations, deaths, etc.), and chronicle changing lifestyles from the Great Depression to the closing of the mills in 2006. Info: www.bplonline.org/resources/Digital_Project/AvondaleSun.htm.—*Birmingham News* (Jan. 1, 2011)

Post-World War II Industrial Architecture in Georgia. Established in honor of a former state historic preservation officer, the Elizabeth Lyon Fund provides financial assistance for scholarly research that contributes to the practice of historic preservation in Georgia. Steven Eubanks, a graduate student at the University of West Georgia, is the 2010 Fund Fellow. He is preparing a statewide historic context on post-World War II industrial architecture that will be complete in May 2011. Check out his regular research blog, www.thegeorgiitrust.blogspot.com. Recent posts discuss the technology of air control in textile mills in the 1940s and 1950s.

Business History in the United States: A Guide to Archival Collections. Edited by Terry Snyder and published by the German Historical Institute, this guide features a state-by-state listing of archives, including contact information and notes on the collection content. The guide may be consulted at www.ghi-dc.org, click on publications and then on reference guides.

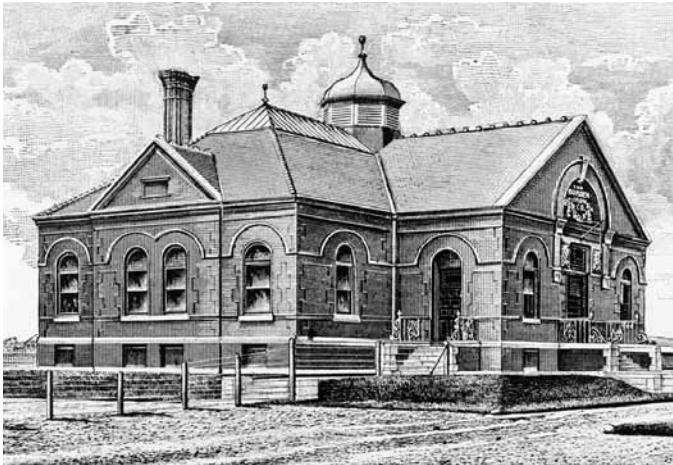
The U.S. Navy is celebrating the centennial of naval aviation with over 200 events across the country, but no place

is hosting more events than the **Pensacola (Fla.) Naval Air Station**. Thirty-two men arrived at Pensacola in 1914 with seven primitive aircraft and orders to establish the Navy's first flight school. Since then most U.S. naval aviators have been trained at Pensacola. Events will include a number of aerial demonstrations, a symposium, and ceremonies honoring pilots and airmen. Info: www.celebrateflight.com.

LEGAL NOTICE—Historic/Archaeological Resource Services. CSO Solicitation No. 2120-2121. The **Connecticut Department of Transportation** is seeking to engage two cultural resource consulting firms for historic and archeological resource services on a task-order basis. The services to be performed by the selected firms shall include archeological investigations and historic documentation studies for transportation projects in accordance with state and federal regulations. Please be advised that the selected firms will be required to have archeological laboratory capabilities in-house. The contracts will cover a three-year period with up to 12 assignments anticipated for each firm with an expected commencement date in September 2011. Firms wishing to provide such services may get the full solicitation that includes the required format for submittals at www.ct.gov/dot/consultant via the Consultant Solicitations link or by contacting the Consultant Selection Office at (860) 594-3017. Deadline is Apr. 15, 2011. Connecticut DOT is an Equal Opportunity/Affirmative Action Employer. ■

SITES & STRUCTURES

The **Burden Iron Works Museum** in Troy, N.Y., operated by the Hudson Mohawk Industrial Gateway, has received a \$100,000 grant from Brookfield Renewable Power to develop historic lighting displays for the museum. The museum will employ state-of-the-art technology to demonstrate how the 1882 museum building—the former office of the Burden Iron Co.—would have been illuminated in different eras using gas light and then incandescent, fluorescent, and LED lighting. The project will also include the installation of period lighting fixtures.



The Burden Iron Works office building. From Weise, City of Troy & Vicinity, 1886, p. 47.

Divers exploring the bottom of the Oswego River at Granby, N.Y., believe they have found the remains of an **Erie Canal boat**, measuring 78-ft. long by 30-ft. wide. The dimensions are key in dating the boat and suggest a date of construction of between 1830 and 1850. Later boats tended to be longer. The divers believe this would make it the oldest Erie Canal boat yet discovered.—*Syracuse Post-Standard* (Dec. 8, 2010)

In late January, workers began demolishing the **Cramp Machine Shop** (tour site—2007 SIA Annual Conference) in the Richmond section of Philadelphia. To make way for a new I-95 interchange, the forty-foot tall building with clerestory will be torn down. It was built in 1913 as part of William Cramp & Sons shipyard and originally produced propulsion steam-turbines. The factory lay dormant for 18 years before coming back to life in World War II to make gun turrets. From 1945 until 2009 it was used as a warehouse, but has sat empty since.

The **O'Hara Mill** in Mondac, Ont., began reconstruction of the millpond dam in Sept. 2010. The sash-saw sawmill, built in 1848, the only known working waterpowered mill of its type in Canada, has experienced a renaissance due to the energy and commitment of the O'Hara Volunteers Assn. As previously reported in *SIAN* (Spring 2009), the volunteers restored the mill to an operating condition between 2005 and 2009. Volunteers are also leading the way with the reconstruction of the cut limestone dam, showing amazing stamina and professionalism on a very tight budget.—*Peter Sporning* ■

IA ON THE WEB

Beyond DC (<http://beyonddc.com>). Features photo galleries, data, and commentary on the past, present, and future of D.C.'s transportation systems.

Forgotten Chicago (www.forgottenchicago.com). Research sources and historic images of Chicago architecture, industry, infrastructure, and transportation.

Historic Aerials (www.historicaerials.com). Aerial photos (c.1930-present) of selected areas of the U.S. Nifty feature allows the viewer to compare older photos with newer ones.

How Baseballs Are Made (www.reliableplant.com/view/25724/how-baseballs-are-manufactured). Video of manufacturing major-league baseballs, excerpted from the Discovery Channel's *How It's Made* series.

Made in Baltimore (www.baltimoresun.com/business/bal-made-in-baltimore-pg,0,6963157.photogallery). Brief article and photo gallery features 30 contemporary images of small manufacturers in Baltimore.

Minnesota Historic Bridges (www.dot.state.mn.us/historic-bridges/index.html). Data on the DOT's historic highway bridge inventory and efforts to rehabilitate and preserve select bridges.

Sulphur Mine (www.boston.com/bigpicture/2010/12/kawah_ijen_by_night.html). Incredible series of photos by Oliver Grunewald documents the sulfur mine in the crater of the active Kawah Ijen volcano in East Java, Indonesia.

"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. ■

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USPS MERRIFIELD PROCESSING & DISTRIBUTION CENTER

Chapter Tour Report

On Oct. 22, eighteen members of the Montgomery C. Miags “Original” Chapter visited the center in Merrifield, Va. Manager Stephen E. Martin provided a detailed overview of the types and quantities of mail processed each year, as well as the number of pieces processed per hour and per day. He discussed the challenges caused by the decrease in volume, due largely to the Internet and the recession. The USPS has responded by consolidating mailing centers and substantially reducing the number of employees through attrition.

The mail-processing technology used at Merrifield was developed by Northrop Grumman and other contractors. One machine operating at 15,000 pieces per hour scans handwritten addresses and applies a unique identification code, usually in orange ink, on the back of each piece. The scans are transmitted to very powerful computers with state-of-the-art optical character recognition that turn each handwritten address into a unique bar code. Another machine reads the orange code and prints a bar code in black on the front. A third machine reads the bar code and rapidly sorts the letters into 200 bin sorters. Mail is sorted into carrier routes with pieces arranged sequentially by address.

USPS has about 400 processing facilities with similar functions. At 300,000 sq. ft., Merrifield is among the 200 largest facilities. It has about 600 employees and most work is done between 5 pm and 6 am. Merrifield is a fascinating mixture of very high-tech machines, yet processed mail is moved from station to station in plastic or cardboard trays packed on four-wheel carts

with shelves, much as it has been for over a century. When asked about these carts, Martin explained that the cost of automated equipment to move mail from one machine to another was very high and that the present method was cost efficient.

Bruce Greenberg



The Delivery Bar Code Sorter (DBCS) is capable of sorting over 36,000 letters per hour. There are over 5,800 of these machines nationwide used daily to “Delivery Point Sequence” mail, meaning that the machine automatically puts the mail in the order of each carrier’s delivery route.

MEMBER NEWS

The SIA notes with sadness the death of **James H. Brothers IV** of Midlothian, Va., on Jan. 24, 2011. Jamie was an expert on the history of American metallurgy, and he had spoken widely in the U.S. and abroad on industrial archeology, historical archeology, and archeometallurgy. He was noted for his expertise regarding the blast furnaces and iron processes of colonial Virginia. Jamie completed his B.A. in anthropology at the University of Pennsylvania in 1974 and his M.A. in historical archeology at William and Mary in 2002. At the beginning of his career, he organized the historical archeology club at Penn and excavated in Philadelphia as an undergraduate. A lifetime member of the Archaeological Society of Virginia, Jamie served as editor of the Society’s *Quarterly*

Bulletin and was a member of the Falling Creek Ironworks Foundation’s Archaeology Committee. He was a student of all things related to historic iron, doing research and participating in many archeological organizations. Jamie’s master’s thesis was on the Albermarle Iron Works, and he published several articles on it. He also published *Slag and Metallurgy for Historical Archaeologists* (2001), a bibliography of useful sources. Outside of his accomplishments in archeology, Jamie was a 22-year veteran of the U.S. Army and Army Reserve. He served with distinction in the U.S. Army Field Artillery and retired with the rank of major. He is survived by his wife Joanne Hehre Brothers and their daughters Nancy, Meredith, Elizabeth, and son James. ■

CHAPTER NEWS

Oliver Evans (Greater Philadelphia). Members toured Willet Stained Glass Studios on Dec. 2. The studios have been located in Philadelphia since 1913. On Dec. 6, Joel Spivak presented his new illustrated book, *Philadelphia Railroads* (Arcadia), featuring many rare images. The chapter held its annual meeting Jan. 29 at the Manayunk Brewery. Members enjoyed an illustrated presentation on the region's historic rail transportation by Bill McKelvey.

Roebling (Greater N.Y.-N.J.) toured the Transit Museum in Brooklyn Heights on Jan. 20. On Jan. 29, the annual meeting was held at the Paterson Museum to elect officers and plan activities for the upcoming year. Prior to the meeting, members toured Les Métalliers Champenois (LMC), an operating atelier, continuing the European tradition of fine ornamental metalwork. LMC's past projects include the Chateau de Versailles, the ornate gates on the Place Stanislas in Nancy, and the recreated torch and flame for the Statue of Liberty.



Dennis Furbush

The Roebling Chapter visited Les Métalliers Champenois prior to the chapter's annual meeting on Jan. 29.

Samuel Knight (Northern Calif.). On Jan. 13, chapter President Tony Meadow, Secretary/Treasurer Jay McCauley, and SIA Secretary Justin Spivey made a short presentation to the Oakland Heritage Alliance about industrial heritage, opportunities for collaboration, and the use of social media to encourage historic preservation. On Feb. 23, the chapter visited Transcontinental Printing's Northern California plant in Fremont, a state-of-the-art facility that prints the *San Francisco Chronicle*. It is highly automated with cutting edge material-handling equipment and production machinery. ■

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).

IA EXHIBITS

The **Hub City Railroad Museum** of Spartanburg, S.C., held its grand opening on May 1, 2010. Located in the Spartanburg depot, built by the Richmond & Danville Ry. (later Southern Ry.) in 1905, the museum features two rooms of artifacts including a restored baggage wagon and extensive photographs of railroad operations within about a 75-mile radius of Spartanburg. A special section of the show details shipping peaches by rail. In the late 1940s, Spartanburg County shipped as many carloads of peaches as the entire state of Georgia. In October the museum sponsored a special tour to Inman, S.C., to visit the last operable peach packing sheds in the area.—*NHRS News* (Dec. 2010)

The **Virginia Museum of Transportation** (VMT) and the **C&O Historical Society** jointly present a new exhibit exploring the pinnacle of American steam technology: two classic passenger locomotives, the N&W J 611 and the C&O J-3a 614. The 614 will be on display alongside the 611 at VMT until the end of April 2011. The 614 will then move to the **C&O Railway Heritage Center** in Clifton Forge, Va., as a permanent exhibit. Both steam locomotives were built for speed and power based on a 4-8-4 wheel arrangement. The 614, built in 1948, was the last commercially manufactured 4-8-4 and has not been available for public viewing in a decade. The locomotive last made excursion runs in the late 1980s and early 1990s. The 611 was designed and built in the N&W's Roanoke Shops in 1950, finely tuned to excel on the N&W system. The J Class pulled passenger trains among Virginia, Ohio, and Tennessee at speeds of up to 110 mph, until the class was retired in 1959.

The **Skyscraper Museum** in New York City presents a special exhibit, *Vertical Urban Factory*, through the end of June. Tracing the evolution of mass-production technologies and related social issues, the exhibit examines the architecture of city factories past, present, and future. The underlying theme is the verticality of urban manufacturing—both historically and as a potential for renewed industrial uses. The installation features over 200 photographs, diagrams, and drawings. Nine architectural models created for the exhibit using state-of-the-art computer fabrication highlight progressive design and construction. A series of films by documentary filmmaker Eric Breitbart uses historical and contemporary footage to immerse the gallery visitor in the environment of conveyor systems and industrial processes. The exhibit includes some conveyors removed from the Paragon Paint factory in Long Island City. The exhibition is guest-curated by Nina Rappaport, architectural historian, critic, and author, in collaboration with designers Studio Tractor Architects, MGMT Design, and filmmaker Breitbart. Mary Habstritt [SIA] served as an advisor on the exhibit. Info: www.skyscraper.org. ■

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CALENDAR

2011

Mar. 27: Waterworks Museum, Grand Opening, Boston, Mass. Located in the 1887 High Service Pumping Station at Chestnut Hill Waterworks (Tour site—1984 joint SIA/TICCIH conference—Romanesque building housing three steam pumping engines including ASME landmark Leavitt-Reidler engine). Info: www.waterworksmuseum.org.

Mar. 31-Apr. 2: Business History Conference, St. Louis, Mo. Info: Carol Lockman, (302) 658-2400, ext. 243; clockman@hagley.org.

Apr. 9: Hagley Fellows Conference: "Disaster! A Conference on Disasters in History," Hagley Museum & Library, Wilmington, Del. How disasters in history have impacted technology, society, and culture. Info: clockman@hagley.org.

Apr. 14-16: On the Surface: The Heritage of Mines and Mining, Innsbruck, Austria. Info: www.tourism-culture.com/news_2.html.

Apr. 20-23: Southwest/Texas Popular Culture Assn. and American Culture Assn. Joint Conference, San Antonio, Tex. Paper sessions on topics of IA-related interest. Info: www.swt xpca.org.

May 23-27: National Park Service Archeological Prospection Workshop, Palo Alto Battlefield, Brownsville, Tex. See article in this issue. Info: www.nps.gov/history/mwac.

May 31-June 4: Vernacular Architecture Forum Annual Conference, Falmouth, Jamaica. Info: www.vafweb.org.

June 1-5: SIA ANNUAL CONFERENCE, SEATTLE, WASH. See article in this issue. Info: www.sia-web.org.

June 20-26: National Railway Historical Society Annual Convention, Tacoma, Wash. Info: www.cascaderails2011.com.

Oct. 12-16: SIA FALL TOUR, QUINNEBAUG VALLEY, CONN. See article in this issue. www.sia-web.org.

Nov. 3-6: Society for the History of Technology (SHOT) Annual Conference, Cleveland, Ohio. Call for papers deadline, March 31. Info: www.historyoftechnology.org.

Nov. 17-18: The Life of New Materials Conference, Hagley Museum & Library, Wilmington, Del. Co-sponsored by the Chemical Heritage Foundation and Philadelphia Area Center for History & Science. Info: www.pachs.net/newmaterials.

Nov. 17-20: The 14th National Conference on Planning History, Baltimore, Md. Society for American City and Regional Planning History. Paper sessions and tours on architecture, planning, geography, and landscape design. Info: www.dcp.ufl.edu/sacrph.

2012

July 3-7: 4th Int'l Congress on Construction History, Paris, France. See call for abstracts in this issue. Info: www.icch-paris2012.fr. ■