

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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Rendez-vous in Montreal

Review of the 2003 Annual Conference

Montreal is the largest French-speaking city outside of Paris, and nearly 200 SIA members from across North America gathered there from May 29 to June 2 to experience the city's lively culture and, most importantly, learn about its industrial past and present. Participants visited museums and historic sites, as well as took part in process tours that covered a wide spectrum of industrial and engineering activities from small craft shops to modern plants. A day of paper sessions, simultaneously presented in French and English, introduced the group to recent scholarship on Quebec's industrial archeology.

Thursday's pre-conference tours included a self-guided circuit of downtown museums or a walking tour of Old Montreal. There was also a cruise on the **Lachine Canal**, first opened in 1824 and one of the most

important factors in the city's industrial expansion. The canal, which by-passes the Lachine Rapids on the St. Lawrence River, has been both a transportation corridor and a source of water-power, attracting industries including foundries, textile mills, sawmills, and grist mills. The canal closed in 1970, but has been the scene of a huge revitalization project since 1997. It is now a National Historic Site administered by Parks Canada, and a great success gauged by the many citizens out enjoying the recreational opportunities along the canal's tow path. A park interpreter provided narration to our group, as we traveled between Atwater Market and Point des Seigneurs Archaeological Park, passing through the St. Gabriel Lock.

L'École de Technologie Supérieure (ETS) was host to the Thursday-night opening reception

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2003 Annual Conference participants are in good cheer for the group photo in front of No. 492 at the Canadian Railway Museum in Montreal.

Patrick Harshbarger

MONTREAL (continued from page 1)

where participants snacked among student projects, including a solar-powered vehicle. The group then gathered in the auditorium for introductions and greetings from the many local groups and officials that sponsored our conference. Joanne Burgess, historian at the Université du Québec à Montreal and author of many articles and books on the history of Montreal, presented a slide-illustrated overview of the city's industrial past.

On Friday, five tours were offered to appeal to a variety of interests. Itineraries, as originally advertised, were somewhat shuffled because the Port of Montreal was engaged in a lockout and a couple of sites were cancelled at the last minute, but conference organizers did a great job of adapting to the situation and offering a fully packed day. Participants boarded Prévost coaches (a product of Quebec) to spread out across the city and its hinterlands. An excellent accompaniment to the day was the conference guidebook, *A Treasure Chest of History: A Selection of Sites of Interest from Montreal's Industrial Heritage*. SIAN's volunteer correspondents sent in reports on some of the process-tour highlights:

Hydro-Quebec's Beauharnois Hydroelectric Station is a run-of-river plant, that is, it does not impound water in a reservoir, but takes advantage of the 80-ft. difference in elevation between two wide portions of the St. Lawrence River. The powerhouse was completed in 1932 and expanded in 1941, 1948-51, and 1961. The result is an impressive 3,038-ft.-long building with 36 generators, the largest number of any hydro station in the world. It is capable of delivering more than 1.673 mW to the Hydro-Quebec system with surplus sold to the U.S. Following an introduction in the



John Reap

Hydro-Quebec's Beauharnois Central Station No. 1. The glass-walled bridge on trussed bents in the middle carries 120 KV bus bars from the generator step-up transformers on the powerhouse roof to a new switching station. The bridge was added in 1994.

powerhouse's museum, tour participants were issued headphone-equipped FM receivers to enable the guides to offer commentary amid the noise of the machinery. All of the generators are driven by I. P. Morris-designed, center-discharge Francis turbines constructed by Dominion Engineering.

Canadian Allied Diesel, Ltd. (CAD) is located just a few blocks away from Beauharnois. For the past five years, CAD has operated two shops, remanufacturing diesel engines, and refurbishing locomotives and cars of all types, including tank cars, in facilities previously occupied by Dominion Engineering. About 60 employees work in the diesel shop refurbishing locomotives ranging in size from about 1,000 to 7,000 hp. Prior to refurbishing, smaller parts are de-greased in solvent and larger pieces are hot-tanked overnight in caustic solution. CAD has abrasive-blasting cabinets

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Steven A. Walton

IA members tour the cavernous shops of Canadian Allied Diesel where locomotives and cars undergo repairs.

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 \$35; couple \$40; full-time student \$20; institutional \$50; contributing \$75; sustaining \$125; 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; Web site: www.sia-web.org.

Mailing date for Vol. 32, 4 (Fall 2003), Dec. 2003. 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.

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2004 SIA Annual Conference

Providence, Rhode Island • June 10–13

The Southern New England Chapter is sponsoring the SIA 33rd Annual Conference in Providence and the Blackstone Valley. Planning is well underway for the process tours and historic sites' visits. Registration materials will be sent to all members in the early spring.

Watch the SIA Web site for periodic updates, www.sia-web.org.

The conference hotel will be the downtown Providence Marriott Courtyard. Additional rooms will be available at the Providence Biltmore for participants who prefer staying in a historic hotel.

A one-day **GIS course** on June 10 will be under the direction of Lyn Malone at Brown University. In addition, the conference planners will offer a Thursday pre-tour with details yet to be announced. The opening reception will be held at **Slater Mill** in Pawtucket on Thursday evening. A brief orientation session will be at the adjacent Blackstone Valley Visitors Center where a light buffet will also be served, followed by opportunities to view the operating machinery in the Slater and Wilkinson Mills.

Process tours planned for Friday are scheduled (tentatively) to include:

- The **Cranston Print Works**, a company founded by Samuel Slater, has bleaching, printing, and engraving operations.
- **Tremont Nail** specializes in reproduction antique nails and fastenings, many of which are made on period machines.
- **Blount-Barker** operates a seafood processing plant.
- **New England Ropes** is a modern plant that manufactures nylon climbing ropes and engineered ropes for unique purposes.
- **"Genuine Forgery"**, a tools and instruments maker.

Paper sessions and the annual business meeting will convene at the Providence Convention Center. A "poster session" will run concurrently with the formal paper presentations. Space will be available for conference attendees to set up displays of artifacts, drawings, historic photographs, books for sale, and board displays on IA subjects that are better presented in a "Science Fair" setting than in "Show and Tell" or as a formal paper.

The conference's closing event will be a buffet dinner aboard the *Bay Queen* on a cruise of upper Narragansett Bay.

If you want to volunteer or have a question, contact Bob Stewart, robert.stewart13@att.net or Greg Galer galer@stonehill.edu.



Belcher Foundry—filling a transfer crucible. At least one small foundry will be scheduled for the '04 Annual Conference in Providence, June 10-13.

Slater Mill will be the site for the opening reception of the 2004 SIA Annual Conference.



Bob Stewart photos.

Student Travel Scholarships

The SIA awards travel scholarship 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 annual conference in Providence, RI, June 10-13, 2004, 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 submissions is April 15, 2004.** Info: Mary E. McCahon, SIA Scholarships, c/o Lichtenstein Consulting Engineers, One Oxford Valley, Suite 818, Langhorne, PA 19047; (215) 752-2206; fax 752-1539. Notice of awards will be made by May 15th.

Call for Papers

The SIA invites proposals for papers and poster sessions to be presented at the Annual Conference on Saturday, June 12, 2004, at Providence, RI. Poster sessions can be works in progress. Presentations on all topics related to industrial archeology are welcome, especially those related to New England's rich proto-industrial and industrial heritage. Papers about bridges for the 21st Annual Bridge Symposium, co-sponsored by the Historic American Engineering Record (HAER), are also encouraged. All papers and poster sessions should offer interpretation and synthesis of data.

Presentation Formats: Proposals may be for individual papers, themed papers filling a 90-min. session, or organized panel discussions (formal commentator optional) for 90-min. sessions.

Proposal Formats: Each proposal must include: 1) title; 2) an abstract with a detailed discussion of points, findings, or conclusions to be presented in hard copy and electronic format (Word or WordPerfect); 3) résumé for the presenter(s), including postal address, telephone/fax, and e-mail; 4) a list of visual-aid requests (computers will not be provided). A panel organizer should submit all paper proposals as a group, accompanied by a title and a brief description of the theme or purpose. If any of the items are missing, the proposal will not be considered. Each invited presenter is then responsible for submitting electronically a concise, one-page or less summary of their presentation to be published in session abstracts. The summary will be due by April 16, 2004.

Deadline: February 6, 2004. Send paper copies of all proposals to: Mary E. McCahon, 332 E. Union Street, Burlington, NJ 08016; (215) 752-2206; mmccahon@LCE.us.

MONTREAL (continued from page 2)

with several types of media for subassembly parts, and a room-sized chamber for engine blocks and other large assemblies. Small units, such as coolant and lubricating-oil pumps, are sent to separate bays for renewal to factory specifications. Governors, fuel pumps, and injectors are rebuilt and calibrated at test benches. The heart of the engine, its power assemblies (cylinder heads and liners, pistons, and connecting rods) are removed from the block and inspected for wear with computerized measuring instruments, in addition to traditional calipers and micrometers. Magnetic and ultraviolet fluorescence techniques may be used to determine structural integrity, and hardness testers check camshaft and journal surfaces. If necessary, camshafts and crankshafts are sent out for resurfacing, but engine blocks can be welded, machined, surfaced, and liner-bored in-house. CAD also allowed us into their Engine Systems Development Centre laboratory where engine tests are completed on a contract basis for regulatory agencies and outside vendors.

GE Hydro offered an impressive display of turbine assembly in a building with miles of pipes, gauges, and valves used to simulate various water flow conditions. Each turbine is custom-made for a specific application with the rough castings received from outside vendors. Small crews of workers then machine, weld, and grind to achieve the meticulously finished final product. Tour participants walked the shop floor and saw the extensive design and testing laboratory where GE turns their customers' specifications into prototypes for testing.

Johnson & Johnson's Women's Healthcare Division is a massive 673,000 sq.-ft. facility that is the sole North American source for J&J's sanitary products line. Managers provided an orientation before entering the plant floor with its high level of ambient noise. J&J manufactures a variety of minipads and tampons, but in all cases, expanded wood-pulp filament batting is faced on one side with a layer of porous fabric and backed on the outside with a film of non-porous plastic barrier designed to contain liquids within the absorbent medium. At the beginning of the process, thin sheets of compressed pulp are fed into multi-stage disc shredding machines and drawn into continuous skeins similar in appearance



Larry Mishkar

Examining the 1947 Fourdrinier machine at St. Armand Paper.

to surgical cotton. The skeins are simultaneously united with continuous strips of the porous and barrier layers, then heat-sealed, molded, embossed, and die-cut to shape. In order to keep the items in proper registration for finishing operations on this series of specialized machines, vacuum is employed to hold them against a fine wire-screen transfer belt. In a separate section of the plant floor, narrow slivers of material are spiral wound around spinning forks to form tampons. Assembly rooms are kept under positive pressure to prevent dust infiltration and all air in the building passes through filters. Once the items have been completed, they are individually wrapped and packaged by more-or-less standardized machinery.

Au Dragon Forgé was a pleasant stop for the SIA's bridge historians and enthusiasts. ADF took over the former premises of the Dominion Bridge Co. in 1998. They continue to use the equipment on site, much of it from the early years of the 20th century. Participants were treated to the sight of workers fabricating large beams bound for a bridge project in the Caribbean, but the plant manager sadly commented that this was the plant's last order, and it was likely to close later this year. Dominion was formed in 1882

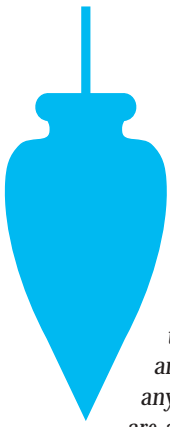
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Perry Green



Au Dragon Forgé offered an up-close look at fabricating welded beams for bridges. ADF operates in the former Dominion Bridge Co. works.



Alex Barbour

2003 General Tools Award Recipient

The Society for Industrial Archeology General Tools Award for Distinguished Service to Industrial Archeology recognizes individuals who have given sustained, distinguished service to the cause of industrial archeology. Nominations for the award may be made by any SIA member in good standing. The criteria for selection are as follows: the recipient must have given noteworthy service, over an extended period of time, to the cause of industrial archeology. The type of service is unspecified, but must be for other than academic publication. It is desirable, but not required, that the recipient be a member of the SIA. And finally, the award may be made only to a living individual.

The SIA General Tools Award was established in 1992 by Gerry Weinstein, Chairman, General Tools Manufacturing Co., and is funded through an endowment created by the Abraham and Lillian Rosenberg Foundation.

This year's recipient of the SIA General Tools Award has been involved with machinery and engineering all of his life; and is a hands-on practitioner of industrial archeology with a prodigious knowledge of machinery of all types. A millwright and mechanical engineer by profession, he has achieved a wide recognition for his expertise in machinery restoration, millwrighting, and marine engineering.

Alex Barbour, an IA consultant and former chief engineer (retired) of the Marine and Industrial Conservation unit of Canada's Public Works Department, has had a widely varied career marked by impressive achievements. Alex was born in Dundee, Scotland, an area rich in industrial heritage, and began his working career in 1953 as an apprentice millwright in a local flax mill, Baxter Brothers. After completing his apprenticeship as a millwright and graduating in Marine Engineering from Dundee Technical College (now University of Abertay), Alex went to sea on the ships of Ben Line Steamers Ltd. of Edinburgh, earning his First Class Steam certificate.

In 1964, he emigrated to Canada with his young family and entered upon a teaching career. Alex taught marine engineering at George Brown College in Toronto, and subsequently became Head of the Marine Engineering Department. In 1973, Alex joined Parks Canada (now a federal government agency), where he specialized in the

preservation and restoration of historic ships and industrial machinery, and rose to the position of Senior Engineer, Machines and Vessels. When the heritage conservation program was transferred to the Department of Public Works in 1986, Alex followed, and served as Chief Engineer of the Marine and Industrial Conservation unit. On his retirement in 1996, Alex established a private consulting practice, and continues to be heavily involved in machinery and marine restoration projects both in Canada and abroad.

Over 23 years of service with Parks Canada and Public Works, Alex was responsible for the stabilization, conservation, and restoration of a large number of historic ships, several grist mills and industrial plants, and numerous steam engines, as well as historic machinery of many kinds. Among his major contributions to the field of industrial archeology were the stabilization and restoration of several large vessels now being preserved and interpreted as national historic sites. These include the S.S. *Moyie* (Kaslo, B.C.), S.S. *Klondike* (Whitehorse, Yukon), and S.S. *Keno* (Dawson, Yukon) sternwheel steamers; the *St. Roch* (Vancouver, B.C), the first ship to traverse the Northwest passage from west to east, and the HD-4 Hydrofoil of Alexander Graham Bell (Beddeck, Nova Scotia).

Other major achievements include the restoration of two compound steam, walking beam engines at the Hamilton Water Works National Historic Site (Hamilton, ON); the stabilization, decontamination, and restoration of a herring reduction plant at the Gulf of Georgia National Historic Site (Stevenston, BC); and the salvaging of a 2000-ton gold dredge trapped in the permafrost of the Yukon, and its stabilization and restoration for subsequent

interpretation as Dredge No. 4 National Historic Site. In all of these major industrial heritage preservation projects, Alex played a critical, and highly unusual dual role. As a registered professional engineer he planned the projects and supervised the project teams; and as a millwright, he employed his practical knowledge and trade skills in carrying out the work required. He got his hands dirty, and enjoyed it.

In addition to his field work, Alex Barbour has made a significant contribution to IA through sharing his knowledge and experience with others. Over the years, he has been an enthusiastic participant in SIA conferences, and was an organizer, and a highly knowledgeable

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Alex Barbour (center), 2003 General Tools Award recipient, receives the Plumb Bob from Gerry Weinstein (right), Chairman of General Tools, and Robert Passfield (left), chairman of the General Tools Award committee at the Annual Business Meeting in Montreal, May 31, 2003.

Perry Green

Larry Mishkar



SIA Members on an architectural walking tour pass in front of the Montreal Stock Exchange, built in 1903.

and was a world presence in steel bridge construction for over a century, before it went bankrupt in 1998. Early projects included a cantilever span over the Reversing Falls in St. John, NB (1884), a continuous-truss railway bridge over the St. Lawrence River at Lachine (1886), and the Alexandra Bridge connecting Ottawa and Hull (1900). Later projects included the second Quebec Bridge and the Jacques-Cartier Bridge in Montreal.

Several of the Friday tours transited from large-scale heavy industries to exquisite small-scale craftshops with but a few employees. **St. Armand Papers**, housed in the basement of a former linoleum factory, was one such stop. Founded in 1978 by David Carruthers, St. Armand makes paper from cotton and linen rags, mostly to fill custom orders from watercolorists, printmakers, letterpress printers, and others seeking distinctive, high-quality



The head furrier at Hercules demonstrates how garments are laid out and sewn. Nan Hachtel [SIA] samples the wares.

papers. Our group crowded into the shop, observing the family business, with the nephews of the owner demonstrating the techniques of making paper using handscreens. We meandered through a maze of beautiful paper sheets hanging to dry on lines and racks into a narrow room with no windows to watch a 24-in. wide Fourdrinier paper machine of 1947. Other equipment of historic interest included an 1898 Hollander beater, antique guillotine and typographical presses, and a Ludlow caster.

Cider is a traditional product of the Rougemont region of Quebec, southeast of Montreal, where visitors will notice apple orchards everywhere. Moreover, many Quebecers have ancestral roots in Brittany and Normandy, where cider has been made for hundreds of years. **Michael Jodoin**, who welcomed the SIA to his orchard, cider press, and bottling works, belongs to a line of apple growers spanning four generations. In 1901, his great-grandfather bought 100 apple trees at the Sunday auction on the church square and so began a thriving family business. Jodoin began bottling his own cider in 1988 with first-year production totaling 5,000 bottles.

Hercules Furs is another traditional family business that opened its doors to the SIA. Hercules has been producing fur garments since 1959 in downtown Montreal, but the fur industry dates to the very establishment of Quebec as a French colony more than three centuries ago. The multi-story building has a retail shop on the first floor and workshops on the upper floors where pelts are stored, sorted, trimmed, and sewn into garments. The matching and stitching of the furs is a skill that takes many years to learn, and tour participants were treated to demonstrations, as well as given ample opportunity to touch and even try on the garments.

On Saturday, the SIA held its annual paper session in rooms provided by the Université du Québec à Montréal, conveniently

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Larry Mishkar



RICHARD VEIT

2003 Vogel Prize Winner



Richard Veit (right), 2003 Vogel Prize winner, and Pat Martin, IA Editor (left), following the award presentation at the Annual Business Meeting in Montreal.

Each year the SIA recognizes outstanding scholarship within the field of industrial archeology with its Robert M. Vogel Prize. The award honors the author of the best article to appear in the Society's journal, *IA*, within the past three years. Articles under consideration have a clearly stated thesis, a well constructed narrative, and an understandable conclusion. The analysis of material culture plays an important role in articles considered for the prize, as does the use of high-quality illustrations. The prize consists of a cash award and a wooden foundry pattern and plaque engraved with the recipient's name.

At the 2003 Annual Business Meeting in Montreal, this year's award was presented by IA Editor Patrick Martin, on behalf of Robert M. Frame, this year's Vogel Prize Committee Chair, to Richard Veit for his article, *Moving Beyond the Factory Gates: The Industrial Archeology of New Jersey's Terra Cotta Industry*, published in *IA* Vol. 25, No. 2 (1999), pp. 5-28.

In his article, Richard Veit deals with the use of an industrial product, architectural terra cotta—a building material—and the industrial process that created it. His story begins with the raw material, Cretaceous clay, which is found in a broad swath across central New Jersey known as the Clay District, centered around the city of Perth Amboy. It happens that 12 miles from Perth Amboy, by boat, is Manhattan, site of countless buildings using the Clay District's terra cotta output between the 1870s and 1930s. Thus does Veit trace the journey of this humble substance—clay—from its mining to its monumental final use in, among other things, the 750-ft., white terra-cotta Woolworth Building.

In the course of working this out, we learn of the production process at New Jersey's many terra cotta factories, all now gone. We also learn of the factory workers in this technologically straightforward and labor-intensive industry. The terra cotta workers came from the region's largely immigrant population, which consumed one of the industry's more unusual products: the terra cotta gravemarker. The terra cotta gravemarker is the artifact that first piqued Veit's interest. The poorer citizens of the Clay District knew what Manhattan's architects learned, that terra cotta could be an inexpensive alternative to stone. From their native clay, they produced a wide range of creative and colorful markers for their cemeteries, providing Veit with artifacts that he studied from many angles.

All together, Veit offers us a complex picture of a simple material from an industrial-archeological perspective. He provides multi-dimensional analysis using wide-ranging resources, the most significant of which truly exemplify the importance of research outside the library. ■

SIA Announces New Grants Program

The Society for Industrial Archeology now offers Industrial Heritage Preservation Grants from \$1000 to \$3000 for the study, documentation, recordation, or preservation of significant historic industrial sites, structures, and objects. Contributions of in-kind services, as well as cash resources from the sponsoring and cosponsoring agencies may qualify for matching purposes. Funds may be used for a range of projects including, but not limited to: increasing public awareness of preservation efforts, photography, videography, preparing inventories and developing measured drawings of extant significant industrial sites, structures, maritime facilities, and industrial artifacts. Grant recipients must agree to prepare a written summary of their project suitable for publication in either the *SIA Newsletter* and/or *IA*:

The Journal of the Society for Industrial Archeology.

Grants are open to qualified individuals, independent scholars, nonprofit organizations, and academic institutions. Substantial participation from state, county, or local history organizations is encouraged, although such groups do not necessarily need to be a sponsoring agency. Awards are limited. Applications are accepted year-round and, unless circumstances warrant, awards will be announced following a regularly scheduled meeting of the SIA Board of Directors.

For further information or to request a grant manual contact: Bode Morin (313) 297-8380; bodemorin@msn.com; Lynn Rakos (212) 264-0229; Lynn.Rakos@nan02.usace.army.mil, or visit the SIA Web site at www.sia-web.org. ■

Minutes of the Annual Business Meeting

May 31, 2003

President Vance Packard called the meeting to order in the gymnasium of the Université du Québec à Montréal.

Secretary's Report: Secretary Richard Anderson announced that the minutes of the 2002 Annual Meeting had been published in the *SIAN* (Summer-Fall 2002) and asked if there were any additions or corrections. There being none, the Secretary's report was accepted by motion and unanimous vote.

Treasurer's Report: Treasurer Nanci Batchelor reported that the SIA is classified as tax-exempt under the IRS Code 501(c)3 as an educational organization, and we file a Form 990 tax return yearly. The SIA maintains its books and records on a cash basis and maintains a calendar year reporting period. The report that follows is an accounting of the year that ended December 31, 2002.

We began 2002 with a total fund balance of \$198,612. Cash receipts for the year totaled \$79,222. The majority of our annual income comes from the various membership dues categories. In 2002 the total dues received were \$61,699. The balance of \$17,523 was comprised of interest income (\$2,567), publication sales, receipts of excess funds from tours and conferences, and finally contributions—both general and restricted (\$1,925). Total expenses for the year were \$51,677. The production costs of our major publications—the newsletter and the journal—combined for a total of \$13,704. The balance of \$37,973 was spent on a combination of labor (\$23,994), postage (\$2,484), insurance, prizes and awards, tours and conferences, and a few miscellaneous items. The Society closed 2002 with excess revenues over expenses of \$27,545 and a total fund balance of \$232,475 of which \$22,347 is in restricted funds. Our excess revenues were higher than usual for 2002 due to delays in the production of the journal. The journal expenses are usually between \$25,000 and \$30,000 per year. The Board has noted that there may be a larger expenditure in 2003 to compensate for the additional journal production costs. To date in 2003, the SIA has had a total of \$39,420 in cash receipts and expended \$28,799. The Treasurer's report was passed by motion and unanimous vote.

Montreal Conference: President Packard thanked all of the SIA members, organizations, and volunteers that contributed to the 2003 Annual Conference, and recognized James and Diana Bouchard for their leadership coordinating the conference.

Local Chapters: An SIA tradition is to welcome chapter members by asking members of each of the current 14 local chapters to stand and be recognized.

Publications and SIA HQ. Pat Martin, executive secretary and *Journal* editor, reported on headquarters operations. Martin thanked Terry Reynolds, the *Journal's* book-review editor, and encouraged all those with late reviews to submit them as soon as possible. He commended Don Durfee as extremely helpful at headquarters, observing that Don has automated the SIA's Web site as much as possible. There are no student scholarships this year. Lastly, the *SIAN* goes out on a regular basis. Its editor,

Patrick Harshbarger, is always happy to receive items of interest, and he requests volunteers to help index back issues.

Awards: Pat Martin, on behalf of Vogel Prize Committee Chair Bob Frame, who could not attend, presented the Robert M. Vogel Prize to Richard Veit. Bob Passfield presented the SIA General Tools Award for Distinguished Service to Industrial Archeology to Alex Barbour.

New Business: President Packard opened the meeting to new business matters.

Motion: Member Shawn Selway moved that, "in view of the recent loss of important museum and library collections in Baghdad, Iraq, and the continuing threat to other cultural property in that country, that the membership urge the board of directors to contact TICCIH, American ICOMOS, and Canadian ICOMOS, in order that the SIA may join with these organizations and others in the ongoing common efforts to protect and restore cultural heritage in Iraq." Member Fred Quivik seconded the motion.

A spirited discussion followed about whether the motion should apply specifically to Iraq or to sites worldwide, as well as the process by which the Society or its officers should let those concerns be known. Following discussion, Selway offered the following amendment:

Amendment 1: "That the Board of Directors be asked to present their concerns to TICCIH and ICOMOS, and ask them to join the SIA to support a continued effort to call to the attention of government and military authorities the need to protect historic industrial sites in areas of military conflict."

The question was called and a tallied vote was recorded on the amendment with the Ayes: 41; Nays: 44. The first amendment did not pass.

Amendment 2: A member moved that the wording "other areas of civil and military unrest" be added after "Iraq." It was seconded by another member.

A vote followed in which Ayes were tallied as 59. President Packard pronounced the motion and second amendment adopted. Nays were not called or counted.

Elections: The Nominations Committee Chair Carol Poh Miller thanked outgoing directors Mary Habstritt and Bob Stewart for their service. Re-elected were Secretary Richard Anderson, Jr., and Treasurer Nanci Batchelor; elected Directors were James Bouchard and Lynn Rakos; and, elected to the Nominations Committee was Martha Mayer. Miller thanked all of the candidates who agreed to run for office, and warm applause greeted the new and re-elected officers.

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Perry Green



The reinforced-concrete mushroom-column construction of this former RCA Victor factory, built about 1920, is clearly expressed. It now houses the Musée des ondes Émile Berliner that pays tribute to the inventor of the flat recording disk through an impressive collection of phonographs, radio receivers, tape recorders, and television sets. The museum held tours for several SIA groups.



The Musée d'archéologie et d'histoire de Montréal - Pointe-à-Callière was one of several city museums that provided special tours to SIA members. Opened in 1992, the museum sits atop the remnants of walls from the fortifications of Montreal, an inn, and a warehouse, which are creatively exposed as exhibits. The museum includes the Youville Pumping Station, opened in 1915, to pump sewage to an outlet downstream of the city.

located near the conference hotels. Sessions focused on a variety of topics, but, apropos to the host city, there were Canadian presentations on ship canals, hydroelectricity, and bridges, as well as an all-morning session on the history and revitalization of Montreal's Lachine Canal.

The Canadian Railway Museum was the site of the Saturday-night banquet. The museum has recently opened an impressive new facility, and we were among the first visitors to view the historic locomotives and cars on 12 indoor tracks. In addition to excellent food, a number of docents were on hand to answer questions, and the evening ended with a trolley ride on a small stretch of track outside the building.

Many participants stayed in Montreal for post-conference tours on Sunday and Monday. There were reprises of the Lachine Canal boat tour, a full day of self-guided touring at the Canadian Railway Museum, and a tour of historic bridges spanning the St. Lawrence River and the Lachine Canal. One busload of participants traveled to the Mauricie Region northeast of Montreal, to visit the Cité de l'énergie, showcasing the hydropower generation and the beginnings of Quebec's electrochemical and aluminum industries. A highlight was Parks Canada's Forge St.-Maurice, the first ironworks in Canada established in 1738, and the subject of intensive archeological investigations.

The SIA's heartfelt thanks goes to conference coordinator James Bouchard and organizing committee members Sébastien Bachmann, René Binette, Diana Bouchard, Susan Bronson, Pauline Desjardins, François Gaudette, Yves Gladu, Sabine Gobeaut, David Hanna, Jaques Lecours, Marie-Claude Reid, Marie-Claude Robert, and Louise Trottier. Others include Hélène Buteau, who laid out the guidebook, and Eric Pellerin, who designed the brochure and poster. The help of SIA board member Mary Habstritt and Don Durfee from SIA Headquarters was invaluable. SIA also sends thanks to the Canadian Railway Museum staff and volunteers, the Ecomusée du Fier Monde, and the employees and people at all the sites visited. This year's conference benefitted mightily from financial and staff support donated by Canadian Heritage, Ministère de la Culture et des Communications du Québec, the City of Montreal, the Université du Québec à Montréal (UQAM), the Canada Science and Technology Museum, Hydro-Québec, the Port of Montreal, and the McAuslan Brewery. Merci!

*Patrick Harshbarger
with assistance from James Bouchard, John Reap, & Scott See*

CALL FOR NOMINATIONS—SIA OFFICERS, DIRECTORS, COMMITTEE MEMBERS

Your Society Needs Your Help

The SIA depends on the freely given time and experience of its members to administer the organization and its activities. Here's an opportunity for you or a colleague to give back to the Society by offering to serve. You have more to give than you may think, and your voluntary time and experience are wanted and will be appreciated. Please don't hesitate to nominate yourself – it may be the only way we know you're out there and available. Modesty here is not a virtue. The deadline is Jan. 15, 2004. If you're not sure, call or e-mail me and let's talk about it.

Coming up in 2004 are five openings: Vice President, two Directors, one member of the Nominations Committee, and the TICCIH Representative. Submit your name or the name of a colleague, keeping in mind that each candidate must be an SIA member in good standing and must consent to being considered for nomination.

Michael Raber
Chair, Nominations Committee
(860) 633-9026; ms_raber@aol.com

Positions open in 2004:

Vice President (2-year term) serves as a member of the Board of Directors and carries out presidential functions, such as chairing board meetings, in the President's absence. Traditionally, the Vice President is elected President at the end of his or her term to provide continuity. Candidates for Vice President must have previously served on the Board for a minimum of one year as a voting member.

Directors (3-year term), two of seven directors on the Board of Directors, which meets three to four times per year, including during the annual conference. Directors govern official business of the SIA and chair committees that oversee operations, such as publications, tours and conferences, and local chapters.

Nominations Committee (3-year term) serves as one of three elected members who oversee the annual nominations and elections. The newly elected member chairs the committee during the final year of the term.

TICCIH Representative (3-yr. term) serves as the North American liaison with the International Committee for the Conservation of the Industrial Heritage. Responsibilities include communicating with representatives of other industrial heritage organizations (mostly European, but increasingly representative of other parts of the world) and acting as a conduit for information to be shared on matters of advocacy for the preservation of industrial sites of international importance. TICCIH meetings are typically held in foreign countries with a congress every three years and annual interim meetings. The representative must have either outside institutional support or his or her own resources for travel. The SIA does not pay for travel. Interested parties are encouraged to contact the SIA President (Vance Packard, 570-472-3274, vpackard@worldnet.att.net) or Past President (Carol Poh Miller, 216-692-0747, cpmiller@stratos.net) to discuss the expectations of

the position before submitting their name for nominations.

All nominations are reviewed by the Nominations Committee, which will present a slate of candidates to the membership. Each nomination must include the name, address, telephone, and e-mail address of the person nominated, the office for which the nomination is being made, and evidence that the candidate consents to be nominated. Once the slate is selected, the Nominations Committee will request a brief biographical statement and a photograph from each nominee.

Please submit nominations by January 15, 2004, to the committee chair: Michael Raber, Box 46, South Glastonbury, CT 06073; (860) 633-9026; ms_raber@aol.com. If you're unsure about the process or the obligation, please call or e-mail.

Editor's Note: The Board of Directors requested that the Call for Nominations appear in the newsletter to save the Society the considerable cost of a separate mailing. The bylaws state that the Nominations Committee shall request suggested nominations by the members by means of a printed announcement at least thirty days prior to selection by the Nominations Committee, Section 2.05 (a). This is that printed announcement.

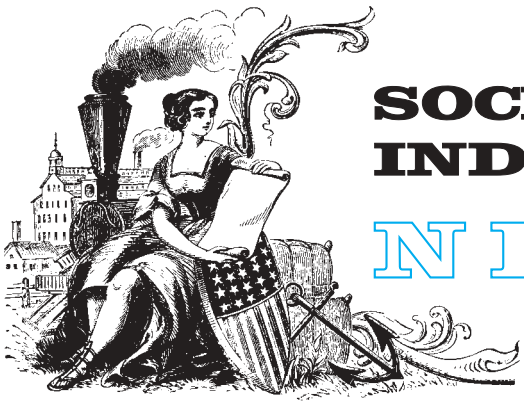
SIA Officers and Directors, 2003-2004

Vance Packard, President (2002-04)
Chris Andreae, Vice President (2002-04)
Carol Poh Miller, Past President (2002-04)
Richard K. Anderson, Jr., Secretary (2003-06)
Nanci K. Batchelor, Treasurer (2003-06)
Susan Appel, Director (2002-05)
James Bouchard, Director (2003-06)
Perry Green, Director (2002-05)
Robert Kapsch, Director (2001-04)
Bode Morin, Director (2002-05)
Lynn Rakos, Director (2003-06)
Patrick E. Martin, Executive Secretary, Editor *IA*, and
TICCIH Representative
Patrick Harshbarger, Editor *SIAN*

Nominations Committee

Michael Raber, Chair (2001-04)
Justin Spivey (2002-05)
Martha Mayer (2003-06)
Carol Poh Miller, ex officio (2002-04)





SOCIETY FOR INDUSTRIAL ARCHEOLOGY NEWSLETTER

PUBLICATIONS OF INTEREST

A Supplement to Vol. 32, No. 4

Fall 2003

COMPILED BY

Mary Habstritt, New York, NY; and Patrick Harshbarger, SIAN editor.

GENERAL INTEREST

- Franca Di Valerio. **Archeologia industriale e conservazione negli Stati Uniti.** *Scuola Officina 1* (2003), pp. 14-19. Italian magazine on IA published by the Museo del Patrimonio Industriale di Bologna (Bologna's IA museum) has an article about IA in the USA, including SIA activities. In Italian with an abstract in English. Info: Museo del Patrimonio Industriale, Fornace Galotti, via della Beverara 123, 04131 Bologna, Italy; tel: 051 6347770; fax 051 6346053.
- Erik Larson. **The Devil in the White City.** Crown Books, 2003. 447 pp., illus. \$25.95. Daniel Hudson Burnham, architect and builder, known for his work on Chicago's early skyscrapers, and the true-life, parallel career of Henry H. Holmes, physician and serial murderer. Pulls together strands of engineering, architectural, and industrial history, combined with a murder mystery, as they intersect in the building of the World's Columbian Exposition in 1893.
- Deidre McCarthy. **Integrating GIS and GPS Technologies into Cultural Resource Survey and Documentation.** *VAN 97* (Fall 2003), pp. 22-25. Overview of digital mapping for historic and archeological sites. Author works in the GIS Facility of the National Park Service.

BRIDGES

- Bob Brier. **Saga of Cleopatra's Needles.** *Archaeology* 55, 6 (Nov.-Dec. 2002), pp. 48-54. Concerns not bridges exactly, but the part played by John A. Roebling's Sons Co. (of Brooklyn Bridge and other suspension bridges fame) in bringing the obelisk from Egypt to NYC in 1880s. They built an immense turning mechanism that was used to tip and lower the obelisk in Egypt and also to lift it in Central Park.
- Stanley Changnon. **Making the Connection: Illinois Rail Bridges Span Space and Time.** *Historic Illinois* v. 25, 5 (Feb. 2003), pp. 3-6. In the same issue, **Illinois Bridge Types**, pp. 7-9.
- Dan Cupper. **Rockville Bridge: Rails Across the Susquehanna.** Withers Publishing, 2002. 112 pp. \$29.95 paper. Centennial tribute to the longest stone-arch bridge in the world (3,860-ft.), built by the Pennsylvania Railroad above Harrisburg in 1902. Rev: *RH* (Fall-Winter 2002), pp. 124-25.
- Robert Hadlow [SIA]. **Elegant Arches, Soaring Spans.** Oregon State Univ. Pr., 2001. Biography of Oregon's famed bridge engineer Conde D. McCullough. Educated at Iowa State College, McCullough worked for the State of Iowa and in private practice before beginning his long career in Oregon.

He later designed bridges in Central America. His bridges are known for innovative engineering and some of the most elegant designs ever built. They are also noteworthy for the variety of structural types employed. The book includes an inventory of his Oregon work and their preservation status, along with extensive annotations. While a few of his bridges no longer exist, most of them continue in service and are given close attention by Oregon DOT, which clearly recognizes their historic significance. Rev: *T&C* (July 2003).

- Angelo Maggi and Nicola Navone, eds. **John Soane and the Wooden Bridges of Switzerland and the Culture of Technology from Palladio to the Grubenmanns.** Università della Svizzera Italiana and Sir John Soane's Museum (13 Lincoln's Inn Fields, London WC2A 3BP, U.K.; fax 020 7831 3957), 2003. 240 pp., illus., £21.45. Exhibition catalogue jointly prepared by Sir John Soane's Museum in London and the Archivio del Moderno in Switzerland. High-quality reproductions of technical and "lecture" drawings of Swiss wooden trusses prepared by the London architect following a 1780 tour. Also provides extensive contextual information and illustrations with chapters on the history of wooden bridges, the 18th-c. reputation and technical capabilities of the Grubenmann brothers, Diderot's *Encyclopédie*, the "philosophical value" of mechanical arts, and Caesar's bridge over the Rhine, another consuming interest of this multi-faceted architect.
- John W. McGrain. **Six Susquehanna Bridge Crossings: Thirteen Bridges.** *Harford Historical Bulletin* 92 (Spring 2002). 56 pp., illus. \$6.25 ppd. Bridges of the lower Susquehanna from 1820 to the present, including Conowingo, Rock Run, Amtrak (former PRR), CSX (former B&O), US Route 40, and Interstate 95. Published by the Historical Society of Harford County, Box 366, Bel Air, MD 21014.
- Allison Rachleff. **The New York, New Haven & Hartford Railroad's Grand Avenue Bridge over the New Haven Cut (1907).** *SIA New England Chapters Newsletter* 22,2 (2002), pp. 6-16. Detailed history of one of Connecticut's early reinforced-concrete arch highway bridges.

BUILDINGS & STRUCTURES

- Carlos P. Avery. **E. Francis Baldwin, Architect: The B&O, Baltimore, and Beyond.** Baltimore Architecture Foundation, 2003. illus., softbound. (Avail: B&O RR Museum, (410) 752-2490 x 213; www.borail.org. \$29.90 ppd.). Baldwin (1837-1916) designed many buildings (depots &c.) for the B&O and is known in the Baltimore area for his eclectic late-19th-c.

designs. The author has been researching Baldwin since 1977 and is a founding member of the Baltimore Architects' Roundtable. Forward by Herb Harwood [SIA].

- Gillian Darley. **Factory.** Reaktion Books, 2003. 224 pp., illus. \$19.95, paper. Examines the factory as image, icon, innovator, and laboratory, and what has attracted architects, particularly Europeans, to factories as "authentic" architecture as opposed to grand public buildings and luxury private dwellings. Architectural development of the factory from the utopian schemes of Robert Owen to the landscaped industrial parks created out of former steel mills in the Ruhr area of Germany.
- Kurt H. Gerstle, et. al. **Of Shells and Their Master.** *Structure* 10,4 (May 2003), pp. 24-6. Brief biographies of Milo S. Ketchum, Sr. and Jr., and Mark Ketchum, three generations of engineers who were pioneers in their respective fields of engineering education, thin-shell concrete structures, and segmental concrete bridges. Some readers may recognize the eldest Ketchum as the author of *Structural Engineers Handbook*, among other classic texts.
- Daniel D. Reiff. **Houses from Books: Treatises, Pattern Books, and Catalogues in American Architecture, 1738-1950: A History and Guide.** The Penn State Univ. Pr., 2000. 412 pp. illus. \$75. Numerous examples and references for scholars and amateurs who want to study or know more about the influences of pattern books on American residential architecture. Rev: VAN (Winter 2002), pp. 19-21.
- Donna J. Rilling. **Making Houses, Crafting Capitalism: Builders in Philadelphia, 1790-1850.** Univ. of Penn. Pr., 2000. 261 pp. \$45. Daily work routines of house builders. Detailed chapters on the physical process of building a house. Rev: T&C (July 2002), pp. 609-10.
- **Solving a Medieval Mystery—Engineer Helps to Re-create Cathedral Construction Cranes.** *ASCE News* 28,5 (May 2003), p. 6. In an episode of the Discovery Channel's Retro Tech series scheduled to air later this year, structural engineer Bashar Altabba was challenged to re-create a 30-ft., human-powered, timber-framed crane capable of lifting one ton, using only tools and technology available to medieval cathedral builders. Using two people walking abreast on a treadmill, they were able to lift a pickup truck weighing about a ton and a half. Perhaps as interesting for its description of how engineers get on television as for the artifact itself.
- Guy Span. **The Steam Will Rise Again.** *San Francisco Bay Crossings*, v. 2,2 (March 2003), pp. 10-11, 28. Loving account of stationary steam's robust survival on SF Bay, in the form of the port's two floating pile drivers, modified from pre-war steam logging mules, still at work maintaining the bay's miles of piles.

TOOLS

- **American Machinist Memories: Automobiles 1913-15.** Lindsay Pub. (Box 538, Bradley, IL 60915; (815) 935-5353; www.lindsaybks.com), 2003. 160 pp., illus. \$14.95. Reprints of period articles reveal the tools and production techniques of the automobile industry in the mid-1910s. Views from the shops of Crane, Winton, Hupp, Studebaker, Cadillac, White, Pierce-Arrow, Ford, and others.
- Kenneth Cope. **American Cooperage Machinery and Tools.** Astragal Press (1-866-543-3045; www.astragalpress.com), 2002. 213 pp., illus. \$26. Examines the evolution of barrel making from hand tools to large machines. Also, **American Planer, Shaper and Slotter Builders**, c. 2002. 208 pp., illus. \$24.95. Information on over 300 makers from 1800 to 1950.
- James S. Daugherty. **Sheet-Metal Pattern Drafting & Shop Problems.** Lindsay Pub., (Box 538, Bradley, IL 60915; (815) 935-5353; www.lindsaybks.com), 2003. Reprint ed. of original 1922 ed. 176 pp., illus. \$17.95. Loaded with pictures and patterns, this book was originally intended as a course of home study by apprentices and sheet-metal workers. Everything from the theory and geometry of laying out patterns to how to make Roman moldings with complex miters, fancy roof ventilators, watering cans, etc.
- Walter W. Jacob. **The Early Development of Stanley Zig-Zag Rules.** *The Chronicle of the EAIA* (March 2003), pp. 32-37. History of folding zig-zag rules, patented 1899.
- Susan Carter White Pieroth. **Pulaski Carter: Manufacturer of Axes and Edge Tools, Providence, Pennsylvania.** *The Chronicle of the EAIA* (March 2003), pp. 1-8. Tool works in northeastern PA, ca. 1840-1880.
- Donald Rosebrook & Dennis Fisher. **Wooden Plow Planes: A Celebration of the Planemakers' Art.** Astragal Press (1-866-543-3045; www.astragalpress.com), 2003. 322 pp., illus. \$75. 275 yrs. of carpenters' planes from their humble origins to the ultimate symbol of the tool as art.
- Alvin Sellens. **Keen Kutter Planes: The Simmons Hardware Company.** 2002 (Avail: EAIA, c/o 176 Vandora Suits Rd., Murphy, NC 28906). 160 pp. illus. \$19.95. Planes and other tools marketed under the Keen Kutter trademark from 1895 to 1959. Simmons was a wholesaler and had tools made with its trademark.
- William Simpson, **Manual of Screw Cutting** (1887) and **Change Gears for Cutting Special Threads** (1935) are available in a "two books in one" reprint by Lindsay Publications (1-815-935-5353, www.lindsaybks.com), 2003. 46 pp., illus., \$4.95 paper. Period machinists' manuals on how to apply lathes to screw cutting.

MINES & MINING

- William H. Bunting. **Hallowell Granite Works Stinchfield Quarry.** *The Chronicle of the EAIA* (March 2003), pp. 40-41. Brief history of Massachusetts quarry, c. 1885-95.
- **Investitionen im Salinenwesen und Salzbergbau** (Investments in Salt Works and Salt Mining), 2002. 364+ pp. Extensive collection of articles, mostly in German, some in English, on the archeology, history, and preservation of salt works and mines throughout the world from ancient times to the present. Includes Carol Litchfield [SIA], **The Salt Industry of Eastern Michigan: A By-Product of the Lumber Industry**, pp. 346-357. Papers are from the International Symposium on Global Organization, Regional Impacts, and Salt Museums/Monuments (Internationale Tagung am Lehrstuhl für Bauaufnahme und Baudenkmalpflege Global Rahmenbedingungen, regionale Auswirkungen, verbliebene Monumente). Avail: Wissenschaftliche Zeitschrift der Bauhaus-Universität Weimar (publisher), Bauhaus-Universität Weimar, Universitätsverlag, D-99421, Germany. Tel: +49 (0) 36 43/58 11 50. The next meeting of the International

Commission on the History of Salt is Sept. 16-19, 2004, in Nantes, France. Info: Carol Litchfield, olearius@att.net.

- Jim Robbins. **The Copper Mine Ran Through It: Tales of a River's Rescue.** *NY Times* (Apr. 1, 2003). After years of study, the EPA has released cleanup funds for Montana's Clark Fork Basin, contaminated from years of pollution from the Anaconda copper mine.

AGRICULTURE & FOOD PROCESSING

- David Gonzalez. **Cuba's Bittersweet Move to Trim Its Sugar Crop.** *NY Times* (Oct. 9, 2002). Since June 2002 almost half of Cuba's sugar mills have closed and many are being demolished. The government blames a glut of sugar and loss of Russian price supports. Thousands of workers have been laid off. (From an IA standpoint, the reduction is likely to result in the loss of older sugar milling equipment and steam power.)
- Katherine Johnson. **Buried Dreams: The Rise and Fall of a Clam Cannery on the Katmai Coast.** Katmai National Park & Preserve (AK), 2002. 124 pp. Avail: 907-271-1383 or jeanne_schaaf@nps.org.
- Brian D. Joyner. **African Reflections on the American Landscape.** Office of Diversity and Special Projects, National Center for Cultural Resources, National Park Service, 2003. 64 pp. Based on a conference held May 2001. Of IA interest, a synopsis of HAER project documenting Laurel Valley Sugar Plantation (Thibodaux, LA) and an overview of a program teaching children about Chicora Wood Rice Plantation (Georgetown County, SC).
- Peter T. Kilburn. **One More Vestige of King Cotton Fades Out in Mississippi.** *NY Times* (Oct. 18, 2002), National Report. The Port Gibson Oil Mill, which ran for 120 years, was closed by Archer Daniels Midland, citing overcapacity in the industry. ADM sought a demolition permit but was blocked by the city council, which hopes to find someone else to buy and operate it.
- **The Lummus Story: One Hundred Twenty-Five Year History of Lummus Industries, Inc., 1863-1988.** 160 pp., illus., hardcover. Lummus manufactures cotton gins and related machinery. Originally located in Columbus, GA, the company moved to Savannah in 1998 [SIA 1999 Annual Conference]. This official company history, published about 1988, is out of print but an unsold supply has been found by an intrepid SIA member. Avail: \$20 ppd., Mike Buckner, US Postmaster, Junction City, GA 31812.
- Bob Roger. **Hand-Held Green Corn Shredders.** *The Chronicle of the EAIA* (March 2003), pp. 16-24. Descriptions of hand tool used to work with "green" corn, i.e., fresh, soft corn.
- Louise Carroll Wade. **Chicago's Pride: The Stockyards, Packingtown, and Environs in the Nineteenth Century.** Univ. of Ill. Pr. (1-800-537-5487), reprint ed., 2003. 440 pp., illus. \$24.95. The growth from the 1830s to 1890s of the communities that sprang up around Chicago's meat-packing industry, efforts to control the resulting air and water pollution, expansion of the work force, changes in ethnic neighborhoods, role of religious organizations in shaping the community, and ethnic influences on politics. Contrary to the image in Upton Sinclair's *The Jungle*, the stockyards and Packingtown were viewed positively by many Chicagoans.

- Martin Watts. **The Archaeology of Mills & Milling.** Tempus Pub., 2002. 160 pp., illus. £16.99. Account from prehistory through modern times of British milling technology, with an emphasis on archeological evidence and the artifacts and machines for grinding grain. Rev: *IA News* (Autumn 2002), p. 14.

COMMUNICATIONS TECHNOLOGY

- K. G. Beauchamp. **A History of Telegraphy.** IEE (1-800-230-7286, www.iee.org/publish/), 2001. 413 pp., illus. \$95. Growth of telegraphy over two centuries, depicting the discovery and ingenuity of the experimenters and engineers involved, the equipment they designed and built, and the organization, application, and effects on society.
- John Bray. **Innovation and the Communications Revolution: From the Victorian Pioneers to Broadband Internet.** IEE (1-800-230-7286, www.iee.org/publish/), 2002. 313 pp., illus. \$65. Survey of communications technology. First telegraph and cable engineers, pioneers of telephone and television, microwave radio, inventors of the transistor and microchip, computer-controlled electronic exchange, and the history and growth of the Internet.
- Ron Martin. **King's Standing Transmitter Station, Crowborough.** *IA Review* 24,2 (2002), pp. 91-102. WWII transmitter station in East Sussex, England, transmitted propaganda to the enemy. Measured drawings and descriptions of the buildings.

IRON & STEEL

- Michael W. Fazio. **The Making and Unmaking of the Woodward Iron Company.** *Alabama Heritage* (Spring 2003), pp. 6-17. Story of how two Massachusetts-born brothers named Woodward created in Birmingham what for nine decades was one of the nation's most efficient, vertically integrated iron manufacturing companies. Handsomely illustrated with images from the 1974 HAER survey and historic photos from the Woodward Family Papers in the W. S. Hoole Special Collections Library, Univ. of Alabama.
- Pat Frost. **Llythydry Smithy, Pentrebach, Powys.** *IA News* 122 (Autumn 2002), pp. 2-3. Archeology of a roadside blacksmith's shop, dated to 1819 or earlier, in Wales. Described as "rare example of small rural industry and includes a forge hearth that has been left untouched since it went out of use."
- Robert B. Gordon [SIA]. **A Landscape Transformed: The Ironmaking District of Salisbury, Connecticut.** Oxford Univ. Pr., 2001. 159 pp. \$29.95. Changes to the ecology and landscape as a result of industrial development from the colonial period to the early 20th c. Rev: *T&C* (July 2002), pp. 607-09.
- John A. Ricketts. **The History of Ironmaking: A Highly Illustrated Description of the Evolution of Ironmaking from Ancient Smelting Holes to Modern Blast Furnaces.** Iron & Steel Society, c. 2000. Extensive illustrations of the iron and steel-making processes, covering in particular charcoal blast furnaces, Bessemer, and open hearth. Author is the ironmaster at Ispat Inland, Inc.

MISC. INDUSTRIES

- Carriage Museum of America and Don Peloubet. **Carriage and Wagon Axles for Horse-Drawn Vehicles.** Astragal Press (1-866-543-3045, www.astragalpress.com), c. 2002. 250 pp., illus. \$29.95. Axle-making saw tremendous changes in the last half of the 19th c., from individual handmade wooden axles made by the wheelwright, to iron axles forged by the blacksmith, and finally factory-made, lathe-turned axle arms. Compilation of articles from period journals.
- Florence Feldman-Wood. **Solomon Plant and His Customers.** *The Chronicle of the EAIA* (March 2003), pp. 9-15. Analysis of spinning-wheel maker's daily account book, Stratford, CT, 1810-21.
- Philip F. Gura. **C. F. Martin and His Guitars, 1796-1873.** UNC Press, 2003. 352 pp. \$45. Study of the German-born guitar maker and his blend of craft and modern industry in a company still run by his descendants. Draws on company records dating back to the 1830s. [tour site – 2002 Fall Tour, Lehigh Valley, PA].
- Susan Green. **Horse Drawn Sleighs.** 2nd ed. Astragal Press (1-866-543-3045; www.astragalpress.com), 2003. 265 pp., illus. \$29.95. The edition, like the first, features selected articles from three of the outstanding carriage journals of the late 19th and early 20th c. Glossary for sleigh parts, detailed line drawings, body design, painting, and trimming.
- David Johnson. **Friedrich Edouard Hoffmann and the Invention of Continuous Kiln Technology: The Archaeology of the Hoffmann Kiln and 19th-Century Industrial Development (Part 1).** *IA Review* 24,2 (2002), pp. 119-32. Examines Prussian-born Hoffmann's contributions to technology of lime burning and brick manufacture. Uses patents and physical examination of surviving Hoffmann kilns in England and Wales to assess their operation and significance.
- Kenneth Kilby. **The Cooper and His Trade.** Astragal Press (1-866-543-3045, www.astragalpress.com), c. 2002. 192 pp., illus. \$21.95. Author was born to a family of coopers and apprenticed to the trade. First half describes materials and techniques, the second half social history.
- Adrian Kinnane. **DuPont: From the Banks of the Brandywine to Miracles of Science.** Johns Hopkins Univ. Pr., 2002. 272 pp., illus. \$29.95. Richly illustrated 200th anniversary history.
- Paul Rosen. **Framing Production: Technology, Culture, and Change in the British Bicycle Industry.** MIT Press, 2002. 160 pp., illus. \$29.95. Raleigh Cycle Co., 1920s-1990s, as a case study of the complex interactions among product design, production methods, industrial organization, and culture.
- Joseph Sopko. **Cultural Resources Site Examination of New York State Museum Site 10935, New York Knife Company.** New York State Museum Cultural Resources Survey Program Series No. 1.
- Alan M. Stahl. **Zecca: The Mint of Venice in the Middle Ages.** Johns Hopkins Univ. Pr., 2001. 497 pp. \$68. Workings of the Venetian mint beginning in the 9th c. Rev: *T&C* (July 2002), pp. 587-89.
- Paul H. Vigor. **Olive Oil Soap Factory, Kardamyli, Greece.** *IA News* 124 (Spring 2003), pp. 2-4. Built in early 1930s.

WATER TRANSPORT

- Arthur P. Chavez. **The Design of Railcar Fastenings Used in Worldwide Train Ferry Operations.** *Transfer* No. 38 (May-Aug. 2003), pp. 11-16. Text and 17 illustrations describing methods of securing railroad cars for transportation on vessels over water. *Transfer* is a publication of the Rail-Marine Information Group, www.trainweb.org/rmig.
- Arthur P. Chavez. **S. S. Badger – The Lake Michigan Car Ferry.** Arcadia Publishing, 2003 (www.arcadiapublishing.com). 128 pp, \$19.99, paper. Published on the occasion of Badger's 50th anniversary in service. It is part of Arcadia's "Images of America" series but goes far beyond this series' normal format of captioned postcards. Extensive appendix containing technical specifications and 18 pp. of drawings and diagrams of the vessel and its engines.
- David Pearce [SIA]. **Handling Railroad Barges in New York Harbor.** *Transfer* No. 38 (May-Aug. 2003), pp. 17-23. Describes how cargo barges were handled, based on author's experiences on the Lehigh Valley Railroad. 10 illustrations/diagrams.
- John Teichmoeller [SIA]. **Launch and Delivery of Baltimore and Ohio Railroad Carfloats. No. 199 and 200.** *Transfer* No. 38 (May-Aug. 2003), pp. 3-9. Reproduction of 10 company photos, with commentary and an article from the *B&O Magazine*. Plans of these two carfloats were published in *Transfer* No. 14. This is Part 3 in a series running in *Transfer* on Northeastern U.S. Steel Carfloat Architecture and Part 7 in an extended series of articles in several publications by the author and others on the B&O's Marine Story.
- Bill Trout [SIA]. **The New River Atlas.** Virginia Canals & Navigations Society, 2003. 147 pp., \$23.50 ppd. Avail.: R. A. Davis, VCNS Sales, 4066 Turnpike Rd., Lexington, VA 24450. Report of IA sites found on the New River in NC-VA-WV with annotated maps showing batteau navigation structures, iron furnaces, mills, etc. This is the 14th in the VCNS river atlas series. See www.batteau.org.

ABBREVIATIONS:

EAIA	= Early American Industries Association
IA News	= Industrial Archaeology News, Assn. for Industrial Archaeology (UK) (www.industrial-archaeology.org.uk)
IA Review	= Industrial Archaeology Review, Assn. for Industrial Archaeology (UK)
T&C	= Technology & Culture, Quarterly of the Society for the History of Technology
VAN	= Vernacular Architecture News, Published by Vernacular Architecture Forum (www.vernaculararchitectureforum.org)

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.

Bronx River Parkway

HAER Wins Award for Documentation Project and Web Site.

In October 2003, the National Park Service's Historic American Engineering Record (HAER) and its local partners in Westchester County, NY, received an award of excellence from the Lower Hudson Conference, a consortium of cultural and preservation organizations, for work documenting the Bronx River Parkway Reservation. The parkway was one of the nation's earliest roads designed explicitly for automobiles. The HAER project includes drawings by Tanya Folger, Brandon Andow, Karolina Buczek, Kamalahasan Ramaswamy; a historical report by Dawn Duensing; and large-format photography by David Haas. The project leaders were Christopher Marston [SIA] and Tim Davis.

The parkway was suggested as early as 1895 in legislation creating the Bronx Valley Sewer Commission. The Bronx Parkway Commission (BPC) was appointed in 1906 but did not receive funding for land acquisition until 1913. The parkway was completed to much acclaim in 1925.

The parkway was initially conceived as an environmental restoration and park development project aimed at transforming the heavily polluted Bronx River into an attractive linear park connecting New York City's Bronx Park with the Kensico Dam in Westchester County. With the addition of a

parkway drive the project became a pioneering example of modern motorway development. It combined beauty, safety, and efficiency by reducing the number of dangerous intersections, limiting access from surrounding streets and businesses, and surrounding motorists in a broad swath of landscaped greenery.

Warren Thayer was the project's initial engineer and Hermann W. Merkel was the primary landscape architect. BPC Engineers Jay Downer, Leslie Holleran, and Gilmore Clarke supervised general construction. Engineer Arthur G. Hayden used reinforced-concrete rigid-frame bridges for many grade separations, introducing the rigid-frame design to the U.S. from Europe. Private architects, including Charles Stoughton, provided architectural details for many bridges.

The award of excellence recognizes the collaboration between HAER; the Westchester County Archives; the Westchester County Dept. of Parks, Recreation, and Conservation (the project's sponsor); the Westchester County Historical Society; and the Bronx River Parkway Reservation Conservancy "to create quick, user-friendly, public Web site access to original HAER records." Westchester County Archive's director Patricia Dohrenwend displayed great initiative and technical prowess in making the documentation available over the Internet years before it will be seen on the Library of Congress American Memory Web site with other records from the HAER collection (<http://memory.loc.gov>). The documentation is available in its entirety at www.westchesterarchives.com/BRPR/BRPRHome.html. ■



HAER drawing illustrating the roadway geometry and design principles that guided the development of the Bronx River Parkway and made it a landmark in the development of motor roads. HAER No. NY-327.

Near Mile Marker 4.8, this rigid-frame reinforced-concrete bridge faced in stone carries Thompson Road over the Bronx River Parkway. The parkway was the first significant use of rigid-frame bridge technology in the U.S. HAER No. NY-327. David W. Haas.



Kellogg Truss Photo Discovered

In the winter of 1999, the *SIA* ran an article about Kellogg-truss bridges and appealed to the readership to join in the search for a photograph. As a result of that appeal, we are now able to share a photograph of a Kellogg truss with you. It was unearthed from the collection of the New York Public Library by James Stewart [SIA]. For many years he has quietly provided invaluable research help to many SIA members. We are especially pleased with this particular example of his sleuthing abilities as it illustrates one of the roles this publication fills, serving as a vehicle for members to become aware of other members' interests, and thus providing mutual assistance.

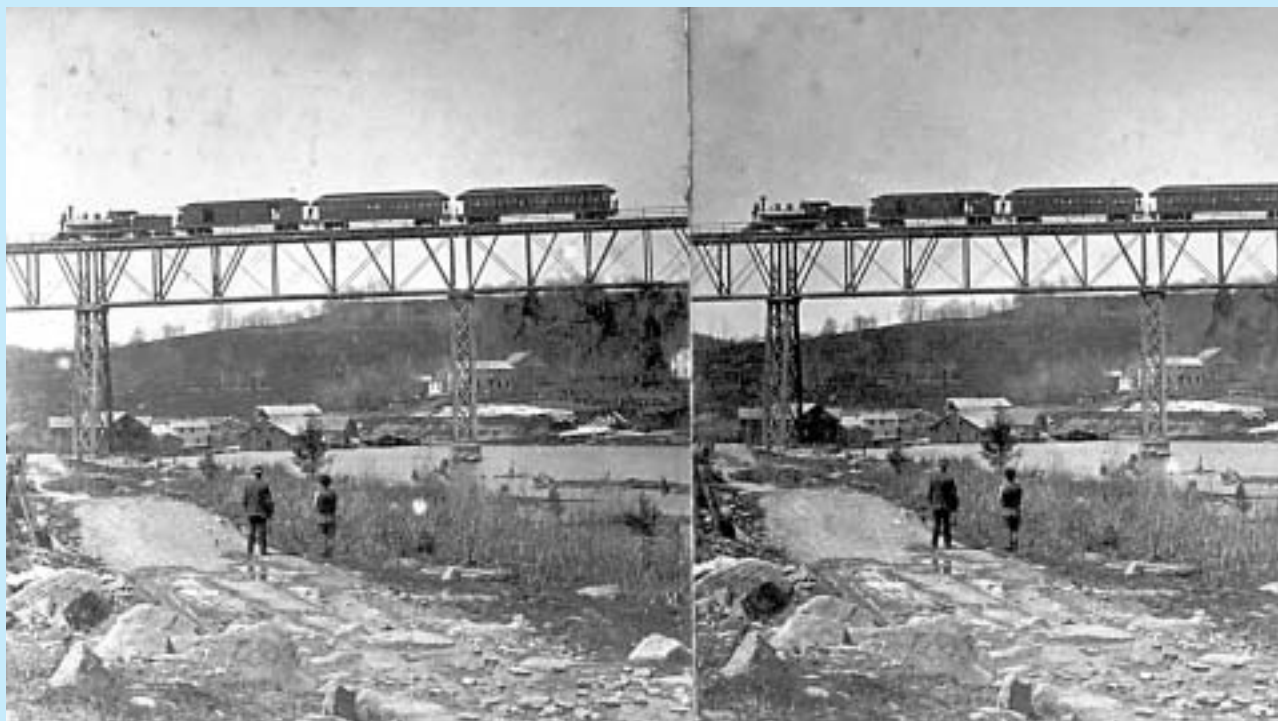
The Kellogg truss enjoyed a brief period of popularity in the late 1870s as a truss for narrow, single-track railroad bridges. Most, if not all, were built in New York. It was an easily built configuration and slightly less expensive than a Pratt as it eliminated verticals at the points where alternate diagonals connected to the bottom chord. The diagonals that connected to the chord between verticals served to prevent secondary stress in the chord due to bending stresses generated by the deck, which was framed by closely spaced joists spanning between the lower chords of the two trusses. The increasing need for double track bridges whose

deck framing was connected to the chords only at panel points, plus the rapid increase in locomotive weight and speed, which requiring stiffer trusses (more verticals), quickly combined to render Kellogg's design obsolete.

Several turn-of-the-century engineering texts discussed the Kellogg truss, some critically. *The Report of the Board of Railroad Commissioners of the State of New York on Strains on Railroad Bridges of the State* (1891) listed several in use and provided diagrams, but no photograph of them.

The photograph here reproduced is of a deck Kellogg, a variation not mentioned in any of the known literature. The only difference between a deck and a through Kellogg is that in the through Kellogg, the bottom chord (which directly supports the train load) is helped by an intermediate tensile diagonal without the addition of a vertical. The deck Kellogg, which carries the trainload on its top chords, uses a compression strut to help support the chord between verticals.

David Guise



Kellogg-truss bridge, Liberty Falls, NY. Robert N. Dennis Collection of Stereoscopic Views, Miriam & Ira D. Wallach Division of Art, Prints & Photographs, The New York Public Library, Astor, Lenox, and Tilden Foundations. NYPG91-F87 0007F. Photographer J. P. Doremus.

Australian Building Technology Bibliography (www.arbld.unimelb.edu.au/~milesbl/library.html). Univ. of Melbourne architecture professor's impressive on-line bibliography covers wide range of historic building materials, technologies, and applications.

Corrugated Iron (www.corrugated-iron-club.info). UK-based enthusiasts celebrate the history and uses of corrugated iron around the world. Standardized product allows many a small builder or contractor to produce non-standardized buildings and structures.

Diners (www.americandinermuseum.org). Learn about the architecture and manufacture of diners at the American Diner Museum Web site. Also, where to find some good eats!

Fabulous Ruins of Detroit (www.detroityes.com/home.htm). Treasure trove of photos of Motor City landmarks in varying degrees of disrepair and decay by photographer Lowell Bioleau.

Fireboats of 9/11 (www.historychannel.com) is a documentary airing on the History Channel and featuring the courage of the NYC firefighters and the effectiveness of marine firefighting during the Sept. 11 disaster. One of the fireboats was the historic *John J. Harvey*, the retired FDNY fireboat that came back into service and pumped for 80 hrs. when duty called. Roebing Chapter member Al Trojanowicz, FDNY ret., was the historical consultant for the program.

Flying Yankee (www.flyingyankee.com). Group has raised \$2.5 million toward the restoration of the former Boston & Maine RR, art-deco-style, streamlined, steam locomotive, housed in Glen, NH. Of a handful of surviving streamliners, the *Flying Yankee* could be the first to return to the rails under its own power.

How Everyday Things Are Made (<http://manufacturing.stanford.edu>). More than 4 hrs. of video showing the manufacture of 40 different products including candy, cars, airplanes, and bottles. Produced by the Alliance for Innovative Manufacturing at Stanford U.

Institution of Civil Engineers (UK) (<http://knowledge.ice.org.uk/archives/civil-engineering-heritage-1.html>) maintains a civil engineering heritage mailing list, which consists mainly of historical (rather than technical) inquiries. Also, ICE has launched a Web site containing a full run of its proceedings (www.iceknowledge.com). Searching the index is free, but one must pay to view articles.

Lake Champlain Breakwaters (www.nan.usace.army.mil/business/prjlinks/culture/index.htm). U.S. Army Corps of Engineers, NY Dist., page contains information on historic construction techniques gathered on the Plattsburgh (NY) breakwater and further underwater exploration of the Burlington (VT) breakwater.

Learn with Wilbur and Orville. (www.cr.nps.gov/nr/www/wpls/lessons/109WrightNC/109wrightNC.html). Lesson plans help students and teachers explore the Wright brothers' historic first flight in 1903. Read Orville's diary, imagine what it was like to sit in the shed at Kitty Hawk, design your own glider. Developed by National Park Service, National Register of Historic Places, and Wright Brothers National Memorial.

Nevada's Industrial Heritage (www.cr.nps.gov/nr/travel/nevada/). "Three Historic Cities: Carson City, Reno, and Virginia City" is an on-line travel itinerary of 57 NR-listed historic places. Featured prominently are mines and railroads, and the stories of the people who built them.

Red Hook Containerport (www.waterfrontmatters.org). Examines activities at, and future use of, Brooklyn's Red Hook piers 6-12 (tour site - 2002 Annual Conference).

Saarstahl AG (www.saarstahl.com/english/unternehmen/geschichte/index.html). Major German steel maker traces lineage to the 16th c. Extensive on-line company background and history. Saarstahl specializes in wire rod, sectional steel, and forged products with plants in Völklingen, Burbach, and Neukirchen. ■

Alex Barbour (continued from page 5)

able tour guide, for the Yukon Study Tour in 1990. He has been active in several heritage preservation societies; was a founding member of the Canadian Society for Industrial Heritage; and has made presentations on his projects, and heritage preservation practices and techniques, at conferences of the SIA, the Association for Preservation Technology (APT), the Canadian Institute of Marine Engineers (CIMarE), and at sessions of the International Conference on the Preservation of Large Historic Vessels.

Widely recognized for his expertise in historic ship and machinery restoration work, Alex has served as a consultant for the Canadian federal government, provincial governments and heritage agencies across Canada, and has worked on IA projects as far afield as the Falklands, Martinique, and the U.S. Virgin Islands. In recognition of his outstanding contributions to industrial heritage

preservation, he received the Freeman Award (1992) from Public Works, and the Award of Excellence (1993) from Parks Canada.

A gregarious person, who loves ships and technical challenges, Alex has few peers in the combination of skills and specialized knowledge that he brings to the preservation of historic ships and industrial machinery, and in the nature of the outstanding contributions that he has made to the IA field during a lifetime commitment to industrial heritage preservation work. Alex Barbour is truly a worthy recipient of the General Tools Award for 2003.

Robert W. Passfield, Chair
Betsy Fahlman
Pat Malone

SIA General Tools Award Committee, 2003.

HISTORIC BRIDGE NEWS



Wind gusts, and perhaps a tornado, struck the Kinzua Viaduct, once considered the tallest bridge in the world, on July 21. The 100-mph winds toppled 12 of the 20 piers, turning much of the viaduct—which measured nearly one-half mile long and 300-ft. high—into a twisted pile of steel. Essentially, the middle part of the bridge is gone. The Kinzua Viaduct was built in 1882 and rebuilt in 1900. The State of Pennsylvania purchased the bridge and gorge as a state park after the railroad abandoned the line in 1959. Tourist trains ran on the viaduct until 2002 when park officials closed it because of signs of structural fatigue and fears that strong winds could topple it. Unfortunately, their fears proved correct. Last Feb. repairs had begun at the ends, but not the middle of the bridge. At press, no decision had been made as to the viaduct's future, although officials had expressed a desire to stabilize and restore the sections of the bridge that remain standing.

One Bridge Removed, Another Saved in Arlington, WA. The 136-ton, 210-ft.-long, Warren through-truss, main span of the Haller Bridge in Arlington, built in 1924, was removed by lowering it slowly onto a specially built barge in the Stillaguamish River in Sept. The bridge, by-passed by a new highway and closed since 1999, was considered unsafe and an obstruction to spawning salmon. Two computer-controlled cranes, one with a lifting capacity of 500 tons, the other of 350 tons, attached polymer-fiber slings to the bridge. The barge, anchored in the main channel, received the weight, sinking only several feet. The barge then was pulled to the river bank where a hydraulic shear was used to cut the beams into small pieces to be trucked to the scrap yard.

One bridge gone, but another historic bridge remains just a short reach east. This is the pin-connected, Pratt thru-truss bridge built by the Northern Pacific RR in 1900-01 as part of the extension of its line from Arlington to Darrington to better serve local lumber interests. The railroad bridge will be restored and resurfaced to become part of the Centennial Trail, a walking, biking, riding route through Snohomish County from Seattle's King County north into Skagit and possibly to the Canadian border.

– George Rappole



George Rappole

The 1924 Haller Bridge over the Stillaguamish River in Arlington, WA, in the process of being lowered onto a barge for removal prior to being cut into scrap. The abandoned 1900-01 Northern Pacific RR bridge in the background is slated for rehabilitation as part of a rails-to-trails program.

Hojack Bridge Update. Local preservationists continue their efforts to save the through-truss, swing-span, railroad bridge built by the King Bridge Co. in 1905 over the Green River in the Charlotte Harbor of Rochester, NY. Contracts were about to be let for demolition early last year (SIAN, Spring 2003) when local citizens contacted state and local officials to make a plea for an alternative reuse. The demolition was stayed, at least temporarily. Richard Margolis [SIA], head of the save-the-bridge committee, writes, "There are no benchmarks to gauge the progress, but in terms of meetings with public officials and their response, we are not falling back. The bridge is still there, and there are impressive proposals receiving serious attention." The SIA has sent a resolution of support. For regular updates: www.thebridgeproject.com. An article "Some See a Landmark; Others, a Bridge Too Rusty," by Michelle York, appeared in the NY Times, NY Region Sec. on Oct. 5. (www.nytimes.com/2003/10/05/nyregion/). ■



Jay Harding

On Sept. 9, the restored Aldrich Change Bridge was set atop its stone abutments in Aqueduct Park, Route 31, Palmyra, NY. The event marked the successful culmination of a nearly 8-year effort to save the 9-ton, 74-ft.-long, wrought- and cast-iron bridge, which originally was built over the Erie Canal in 1858 to a design by Squire Whipple, the dean of American iron-truss bridge engineers (see SIAN, Summer 1998). The restoration is a credit to local volunteers and the leadership provided by project coordinator Jay Harding [SIA].

IA EXHIBITS

Pageant of Locomotives at the Railroad Museum of Pennsylvania (Strasburg) features photography from North American railroad fairs including the 1876 Centennial Exhibition, Philadelphia; the 1893 Columbian Exposition, Chicago; the 1904 World's Fair, St. Louis; the 1927 B&O Fair of the Iron Horse, Halethorpe, MD; the 1939-40 World's Fair, New York; and the 1948-49 Chicago Railroad Fair. These events gave railroad companies an opportunity to unveil their latest technologies and display celebrated equipment of the past. The exhibit runs through Apr. 19. Info: www.rrmuseumpa.org.

New York Transit Museum, closed for two years for renovations, reopened in Sept. The museum is located in a former subway station at Boerum Place and Schermerhorn St., just a few blocks from Brooklyn's Borough Hall. There are new permanent exhibits on the history of surface transportation over two centuries, the electrification of the NY transit system, and the evolution of fuel technologies. The inaugural temporary exhibit features the photographs of Christopher Payne from his book *New York's Forgotten Substations: The Power Behind the Subway* (Princeton Architectural Press). Power for the city's els, trolleys, subways, and trolley buses originally came from huge rotary converters, which converted standard AC for long-distance transmission at high voltages into a lower, more usable DC voltage for third-rail and driven transit vehicles. These converters were housed in substations – cavernous brick buildings, often finished with architecturally stylish facades. In modernizing its vast electrical network, the transit authority began to replace the converters with automatic rectifiers around 1959, completing the task in 1999, when the last of 75 substations was shut down. Info: mta.info/mta/museum/index.html.

America on the Move opened on Nov. 22 at the Smithsonian's National Museum of American History. The 26,000 sq.-ft. exhibit replaces and refurbishes some of the transportation exhibits that were installed when the museum opened in 1964. More than 300 transportation artifacts are showcased in period settings, from a scene of the 1810s National Road to a 1970s shipping container in transit. Multi-media elements include videos and "soundscapes." The cost of the renovation was approximately \$22 million provided by a combination of private and public support, including \$10 million from General Motors, the exhibit's primary sponsor. Info: <http://americanhistory.si.edu/media/pr030528.htm>.

Representations of Railroad Work, Past and Present, a three-year, \$125,000 educational exhibit and publishing program to interpret railroad labor and work history using photographs and case histories is being sponsored by the Center for Railroad Photography & Art, Madison, WI (www.railphoto-art.org). The North American Railway Foundation approved funding for the project in July. The center will first collect images of workers and catalog them on-line for reference. Second, to bring this visual history to the public, the center will produce a museum-quality traveling exhibit, accompanied by narration and a take-home brochure. Finally, the center will follow this exhibit with a book. The Web site features examples of the types of images for which the center is looking. ■

Minutes (continued from page 8)

Future Tours and Conferences: Fred Quivik spoke about the 2003 Fall Tour in Montana. Quivik described it as a thoroughly industrialized if remote part of the U. S., and gave approximate geographic locations of tour highlights. Bob Stewart described the next Annual Conference to be held in Providence, RI, June 10-13, 2004. He said the tours will center within a 30-mile radius of Providence. The opening reception will be at Slater Mill, an IA shrine. Pat Martin described an upcoming Study Tour of Catalonia, Spain. He is working with Spain's national museum of science and industry to bring registrants to see marvelous architecture, hydro facilities, and mining, paper-making, and leather-working sites. Packard added to these presentations that the board also was working on a possible annual conference in Milwaukee and a study tour to Cuba.

*Respectfully submitted,
Richard K. Anderson, Jr.
Secretary*

CONTRIBUTORS TO THIS ISSUE

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With Thanks.

SITES & STRUCTURES

Last of Greenfield (MA) Tap & Die Factory Turned to Rubble.

From humble beginnings as a cutlery maker in 1838, Greenfield Tap & Die evolved to become the world's largest producer of taps and dies by the mid-1910s. For nearly a century, the firm was the town's largest employer, but in an all-too-familiar story, the factory eventually closed and the abandoned buildings deteriorated. In Sept., the town government removed the last vestiges, a 100-ft.-tall, blonde-brick smokestack with black-glazed brick letters spelling out "GTD TOOLS," after failing to receive state money for the stack's restoration. David Engman [SIA] writes, "So closes another chapter in the tale of New England industry."

Syracuse Railroad Station Saved. Time Warner Cable has completed a multi-million dollar renovation of the former 1936 NY Central passenger station (tour site—2001 SIA Fall Tour, Syracuse). The limestone and brick, art-deco-style building had been sold by NY Central in 1962 when they moved to a much smaller suburban facility. It subsequently served as the Greyhound bus depot from 1964 to 1998. A fire, environmental issues, and abandonment caused local concern for the station's future, but the distinctive exterior and high visibility made it a promising site for reuse. Time Warner chose the building to house studios and offices for its new 24-hr. local news channel. The exterior has been returned to its original appearance with guidance from NY City architects Beyer-Blinder-Belle. The Onondaga Historical Assn. (host of the 2001 Fall Tour) has assembled an exhibit on the station's history. The exhibit is a permanent installation inside the station.

Eli Whitney Armory Designated ASM Historical Landmark. In Oct., a citation was presented to the Eli Whitney Museum in Hampden, CT, designating the armory an American Society for Materials (ASM) International Historical Landmark. The citation reads: "On this site between 1798 and 1825, Eli Whitney built the first significant independent American armory. The development of materials processing innovations began the tradition of precision production and interchangeable parts in America." ASM is an organization of technicians, engineers, scientists, and businessmen dedicated to advancing industry, technology, and applications of materials and metals. It currently has over 33,000 members worldwide. The landmark program, estab-

(continued on page 21)



Patrick Harshbarger

Heavy rains in early Sept. damage a number of IA sites in northern Delaware's Red Clay Creek Valley. Two bridges, a ca. 1860 Town lattice covered bridge at Wooddale (bottom right) and an 1885 pin-connected, Pratt pony truss (top right) at Greenbank, were swept away and demolished beyond recovery. The Wilmington & Western RR, a tourist line, saw much of its trackage torn up. Greenbank Mill, a carefully restored, combination grist mill and woolen mill from the early 19th-century, saw the highest water on record. More than 8.5-in. of rain fell in less than 12 hrs. The water rose to chest-high levels in the mill in less than 2 hrs., allowing no time for staff and volunteers to rescue equipment and artifacts, including a recently installed carding machine (left). Damage from water and mud was severe to the interior of the mill, and portions of the races were washed out, although fortunately the waterwheel and exterior of the buildings survived relatively unharmed. The damage is estimated to be about \$150,000. Greenbank Mill is looking for a historic truss bridge to replace the one lost. For further info and donations: Greenbank Mill Assn., 500 Greenbank Rd., Wilmington, DE 19808; www.greenbankmill.org.

NEWS OF MEMBERS

Eric DeLony retired as chief of the Historic American Engineering Record (HAER) in Sept. Eric became the first full-time employee of HAER in 1971 and has spent the past 32 years documenting historic engineering and industrial structures and advocating their preservation. He is a leading authority on historic bridges and developed a bridge program within HAER that received the Presidential Historic Preservation Award in 1992. His book, *Landmark American Bridges*, was published in 1993. Eric has a long and outstanding record of service to IA and has been a stalwart member of the Society since its inception. He received the SIA's General Tools Award for Distinguished Service to Industrial Archeology in 2000. Eric has relocated from Washington to Santa Fe, NM.

Patrick Martin, SIA Executive Secretary and journal editor, was elected to the Board of the International Committee for the Conservation of the Industrial Heritage (TICCIH) at the General Assembly in Nizhny Tagil on July 17.

SIA Loses One New and One Long-time Member

Garnet Garvin, a past president of the Southern Chapter of the SIA, died in Apr. in an automobile accident outside the Brierfield Ironworks Historical State Park in Alabama. She was 33. Garvin was an archeologist with the Alabama Historical Commission and a graduate of the University of Alabama Birmingham (M.A.). Garvin had been the crew chief for excavations at Brierfield's Civil War-era blast furnace and for Shelby Ironworks, and for the university's summer field schools, including the first official field school in industrial archeology held at Sloss Furnaces NHL.

Herbert J. Githens, historic architect, died of heart failure on Aug. 17, at age 52. Herb had been a member of the SIA for over 20 years and worked in the areas of HABS/HAER recordation, National Register nominations, and the restoration and stabilization of historic buildings, concentrating on sites in his native New Jersey. He produced plans for the Ridgewood Ave. RR Station, Historic Speedwell in Morristown, and the Morris Canal in Warren County. Herb was a longtime friend of Ed Rutsch and delivered the main eulogy at Rutsch's memorial service on July 26 (SIAN, Summer 2003). ■

SITE & STRUCTURES (continued from page 20)

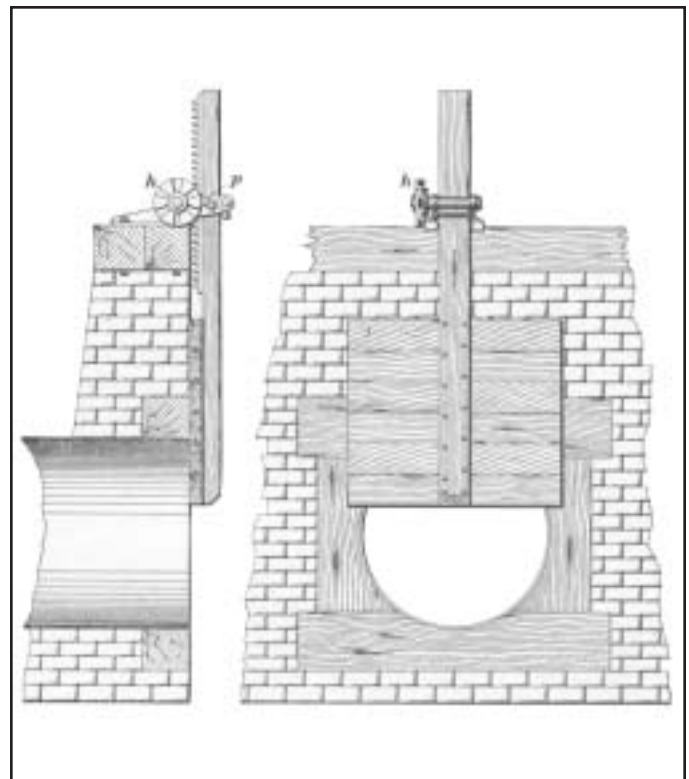
lished in 1969, is intended to identify sites and events that have played a prominent role in the discovery, development, and growth of materials. The Whitney Armory is the third site so designated in Connecticut, following Old New-Gate Prison and Copper Mine in East Granby (1976) and the Waterbury Brass mill in Waterbury (1977).

Domino Sugar Refinery in Brooklyn to Close. Domino Sugar (tour site - Annual Conference 2002, Brooklyn), which has operated its refinery and packaging plant on the East River in the Williamsburg section since the 1880s, will cease refining operations in Feb. 2004. The 11-acre plant, with its distinctive red-neon, rooftop sign, will continue to operate only as a packaging center, shedding some 190-200 unionized jobs. Domino is the last remaining of New York City's refineries, which at one point accounted for 60 percent of the nation's refined sugar production (NY Times, Aug. 21, 2003). ■

B&O RR Museum Will Rebuild

Last winter's Presidents' Day blizzard wrought disaster at Baltimore's B&O RR Museum. A record snowfall with 6-ft.-deep drifts piling up in the middle of the night led to the collapse of part of the roof of the museum's landmark "roundhouse," actually a polygonal 22-sided car shop built in 1884 and converted into a museum in 1953. Not only was the building severely damaged but much of the debris landed on the core of the museum's priceless collection of locomotives and cars (SIAN Spring 2003).

In October, the National Park Service's Save America's Treasures program announced a \$500,000 grant to help reconstruct the roof. The grant equals the largest award ever distributed by the program and recognizes the significance of the B&O Museum to the nation's industrial and railroading heritage. The museum has received strong support from Maryland's congressional delegation, which is also trying to secure an additional \$500,000 appropriation from Congress. The total cost of reconstructing the building and repairing the damaged locomotives, cars, and exhibits is estimated at more than \$15 million. Much, but not all, of that amount is being covered by insurance.



A simple form of head gate, consisting of a plank gate that slides over the inlet end of a sluice or penstock. From, A Textbook on Civil Engineering, International Correspondence Schools, Scranton, Pa., 1898.

NOTES & QUERIES

New HAER Documentation Guidelines Available On-line. As part of producing the second edition of *Recording Historic Structures*, the Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) have revised and updated the Secretary of the Interior's Guidelines for Architectural and Engineering Documentation. The guidelines were published in the Federal Register on July 21. The changes include the incorporation of HALS, E-size drawings, color transparencies, and elimination of Level IV (inventory card) documentation. Both the standards and guidelines will be published as an appendix in the second edition of *Recording Historic Structures*, due out in late 2003 to coincide with the HABS 70th anniversary celebration. Info: www.cr.nps.gov/habs/haer/pubs/standard.htm.

Heritage of Technology Conference, Gdansk, Poland. The May 4-7, 2005, conference will include international paper sessions on the conservation-interpretation of the industrial, technical, and engineering heritage. Tentatively planned is a pre-conference tour to "no-access" army zones housing the remnants of secret plants of WWII. A post-conference tour is planned to Tczew (lattice-truss, iron bridge over the Vistula River, 1857); Malbork (Teutonic Knights' Capital Castle); Kwidzyn (craft school of wicker weaving); Gniew (Hoffman's kiln in operation); Ciechocinek (saline graduation walls, 1832, and the salt works, 1884); Torun (Medieval Old and New Town, open air museum with operating windmill). Robert Kapsch [SIA] attended the last Gdansk conference (1999) and writes, "Based on my participation, I was asked to participate in the international organizing committee for the coming international conference, something I was very pleased to do. I think the SIA membership will also find this conference very worthwhile." Paper proposals are requested, due Mar. 31, 2004. Info: Robert Kapsch, (202) 619-6370; robert_kapsch@nps.gov; also <http://hotgo4.mech.pg.gda.pl/hot-go4.html> or Conference Coordinator, Bozena Klawon, Gdansk Univ. of Technology, ul. Narutowicza 11/12, 80-952, Gdansk, Poland; tel. + 48 58 347 2929; hotgo4@mech.pg.gda.pl.

Leonard's Bridge Patent & Lenticular Truss in Sacramento. I am seeking information about the design of a lenticular, wood-truss, wagon bridge built in 1858. It was replaced in 1869 by a railroad bridge of more traditional Howe-truss design. According to one source, the wagon bridge was built using Leonard's patent design. The lenticular trusses are in the approaches to a central swing span, which is also of interest. It's possible the central span is the Leonard's patent. I'd like to know the patent number for Leonard's patent, if it exists. There are several photos of the bridge on the Sacramento On-line Web site: www.sachistoryonline.org/category/record.cfm?catalogID=218&category=Maritime and [record.cfm?catalogID=220&category=Railroads](http://www.sachistoryonline.org/category/record.cfm?catalogID=220&category=Railroads). Reply to: Kyle K. Williams Wyatt, Curator of History & Technology, California State Railroad Museum, KyleWyatt@aol.com.

History of Tourism Business & Technology Conference, Call for Papers. Hagley Museum & Library seeks proposals for a conference to be held Nov. 12-13, 2004, that explore the practices, businesses, institutions, and technologies that have fabricated tourism as a means of creating "consuming experiences." Proposals may consider any portion of the globe since the mid-18th century and tourism of any variety. Interests include histories of travel agencies; railway, air, bus travel, and steamship lines; resorts, spas, and hotels; commercial photography and film; organized tours; guides, guidebooks, and the training of tourism man-

agers; and much else. Papers may come from any discipline but need to be historically grounded. Proposals are due by Mar. 1, 2004. Support may be available for travel by presenters. Info: Roger Horowitz, HML, Box 3630, Wilmington, DE 19807; rh@udel.edu; fax (302) 655-3188.

National Park Service's Archeological Prospection Workshop. Workshop on *Current Archeological Prospection Advances for Non-Destructive Investigations in the 21st Century* will be held May 17-21, 2004, at the Spiro Mounds Archaeological State Park in Spiro, OK. Lodging will be the Holiday Inn, Fort Smith, AR. This will be the 14th 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. This year's event will focus on data processing and interpretation, in addition to the more basic topics involving the theory of operation, methodology, and hands-on use of the equipment in the field. There is a tuition charge of \$475. Applications avail.: www.cr.nps.gov/mwac/. Info: Steven L. DeVore, Archeologist, NPS Midwest Archeological Center, Federal Bldg., Rm. 474, 100 Centennial Mall North, Lincoln, NE 68508-3873; (402) 437-5392 x 141; steve_de_vore@nps.gov.

Federal Pacific Electric Manufacturing Site, Newark, NJ. Researchers and attorneys are searching for documents such as company newsletters and old catalogs of switchgear and capacitors that might have been made by the Cornell-Dubilier Electronics division of Federal Pacific Electric (FPE) in the late 1950s and 1960s. FPE operated a plant on Ave. L in Newark, and the researchers are also looking for plans of the plant and any documents that might relate to its operations. The plant closed in 1965 and the site has been used as a storage facility for the past 25 years, but questions have arisen over the source of contaminants found at the site. The materials requested may be of use in litigation. Info: Henry Gluckstern, 101 Eisenhower Parkway, Roseland, NJ 07068-1067; (973) 228-5700.

Pennsylvania Resident Scholars Program. The Pennsylvania Historical and Museum Commission (PHMC) invites applications for its 2004-05 Scholars in Residence Program providing support for up to three months of full-time research and study in manuscript and artifact collections maintained by any PHMC facility, including the State Archives, State Museum, and 26 historic sites and museums around the state. Residency programs are open to all who are conducting research on Pennsylvania history, including academic scholars, public history professionals, independent scholars, graduate students, educators, writers, filmmakers, and others. Residencies are available for four to twelve weeks between May 1, 2004 and Apr. 30, 2005, at the rate of \$1,500 per month. Deadline for applications is Jan. 16, 2004. Info: Division of History, PHMC, Commonwealth Keystone Bldg. - Plaza Level, 400 North St., Harrisburg, PA 17120; Linda Shopes, 717-772-3257; lshopes@state.pa.us. Application materials online, www.phmc.state.pa.us.

Octagonal-Plan Iron Furnaces. Franconia, NH, has a stone iron furnace that is octagonal in plan. We are trying to determine if its is unique. The head ranger at Hopewell Iron Furnace (PA) knows of no other octagonal furnace. We are trying to raise money to buy the furnace, and if we can claim it is unique in its shape, that may help. The furnace was recorded by members of the Northern

(continued on page 23)

CHAPTER NEWS

Northern Ohio members gathered in Akron for a lighter-than-air theme tour in Sept. The group visited the area's historic municipal airports and the workshops of the Lighter-Than-Air Society, which celebrates the history of dirigible and blimp technology.



Ken Lavelle

Several Northern Ohio Chapter members, led by Ken Lavelle, took part in the dedication ceremony for the unveiling of a new Ohio Historical Marker commemorating the first brick rural road in the U. S., the Wooster Pike at Parma Heights, Cuyahoga County. The chapter was a sponsor organization for the marker, erected by the Ohio Historical Society and the Ohio Bicentennial Commission this past August. Local scout troops and town and state officials participated despite rainy weather. The program booklet included information on Ohio paving-brick manufacturers and early maps and photos. Unfortunately, the original brick road has long since been repaved and widened. The plaque reads, "In the late nineteenth century, a movement to improve inadequate plank and dirt roads was brought on by the popularity of bicycling, the introduction of the automobile, and the need to improve travel to and from rural areas. Ohio, as a leader in the manufacture of brick paving blocks, was quick to upgrade roads. Toll roads were waning in popularity and the need for free roads was recognized. An act passed in 1892 authorized Cuyahoga County to levy a road tax. With funds levied, the Commissioners selected the Wooster Pike as one of three road improvement projects."

Northern New England members took a grand tour of the Champlain Canal between Whitehall and Fort Edward, NY, in Oct. The group took in aspects of three phases of canal construction—the first of 1816-23, the enlargement from the 1850s to the mid-1870s, and the modern barge canal.

Roebling (Greater NY-NJ) held its annual corn roast at Gerry Weinstein and Mary Habstritt's country home in Sept., offering an occasion to visit Croton Dam and discuss the history of New York's water system. On Oct. 22, ten lucky members walked the High Line. In Nov. the chapter held a Trenton (NJ) industries bus tour led by Richard Hunter and Clifford Zink. The group took in 18th-c. mill sites, two Trenton Iron Co. plant sites, the Roebling wire rope works, and industrial potteries along the Delaware & Raritan Canal corridor.

Roebling once again sponsored the Drew Symposium (23rd annual) on the IA of NY and NJ at Drew Univ. in Oct. Illustrated presentations included: Bill Wilkie, *Edison's Iron Ore Operations at Ogdensburg, NJ*; Maggie Harrer, *Historic Hackensack Waterworks*; Pat Condell, *Tribute to Ed Rutsch*; and John Gomez and Tom Flagg, *The PRR's Greenville Yards, Jersey City*. The day ended with a screening of a historic Domino Sugar film.

During the Drew Symposium, the first annual Roebling Award was presented to **Conrad Milster** for his efforts to preserve, document, interpret, and recreate steam engine technology in New York and New Jersey and for sharing his knowledge with others. Conrad is chief engineer at Pratt Institute's power plant (tour site—2002 SIA Annual Conference, Brooklyn). Beginning his career at the age of 18 as an oiler on the Hudson River Day Line, he continues to challenge himself by building and re-building machines that most people have forgotten existed and then putting them to work. Since 1956, he has been documenting steam engines in photos, slides, sound recordings, and video, providing invaluable resources for preservation and restoration efforts. He speaks and writes frequently on the history of steam.

Samuel Knight (Northern California) held its annual meeting at the California State RR Museum in Oct. A highlight of the meeting was a tour of the Sacramento Shops of the Southern Pacific RR (tour site—1996 Annual Conference, Sacramento), once the largest industrial complex west of the Mississippi. ■

NOTES & QUERIES (continued from page 22)

New England Chapter in 1994-96 under the direction of Victor R. Rolando. If you know of any similar furnaces, or any sources of funding, we certainly would appreciate that information. Jewell Friedman, Curator, Franconia Heritage Museum and Iron Furnace Interpretive Center, Box 454, Franconia, NH 03580; (603) 823-5951; fax 823-5581; dwjaf@ncia.net; www.franconiaheritage.org.

Bloomery Ironmaking, from the most primitive local operations through sophisticated installations of the late-19th c., will be featured at a session of the Middle Atlantic Archaeological Conference, Mar. 14, in Rehoboth Beach, DE. The session is dedicated to the memory of the late Ed Rutsch, who inspired much of today's research into bloomery ironmaking. Papers range from a report of a small, probably human-powered, bloomery on a farm site in Delaware, through large-scale 19th-c. operations in New

York and Vermont. Sunday's events will include a luncheon meeting and informal updates of current research. The MAAC conference, of which this is a part, will be held Mar. 12-14, at the Atlantic Sands Hotel. Info: www.maamidatlanticarchaeology.org. Hotel registration e-mail address is sands@atlanticsandshotel.com. Mention the conference to obtain a special rate.

New England's Industrial Architecture, Call for Papers. The Univ. of Mass., Lowell, and Lowell National Historic Park will sponsor a one-day symposium, Apr. 23, 2004, on New England's Industrial Architecture. In addition to historical investigations, papers may also address issues of preservation and structural engineering. Abstracts of no more than 300 wds. should be submitted by Jan. 31 to: Marie Frank, Dept. of Cultural Studies, 850 Broadway, UMass, Lowell, MA 01854; Marie_Frank@uml.edu. ■

CALENDAR

2004

Jan. 7-11: Society for Historical Archaeology, Annual Meeting, St. Louis, MO. Info: www.sha.org/mt2004.htm.

Feb: 25-Mar. 10: SIA Study Tour to Catalonia, Spain. Info: Pat Martin, SIA-HQ; (906) 487-1889; pem-194@mtu.edu.

Mar. 12-14: Middle Atlantic Archaeological Conference, Rehoboth Beach, DE. Paper session on bloomery ironmaking. See article in this issue. Info: www.maacmidatlanticarchaeology.org.

Apr. 22-25: Preserving the Historic Road in America Conference, Portland, OR. Sponsored by the National Trust for Historic Preservation. Info: Historic Roads Conference, 1785 Massachusetts Ave., NW, Washington, D.C. 20036; (202) 588-6204; www.historicroads.org.

Apr. 23: New England's Industrial Architecture Symposium, Lowell, MA. Sponsored by Univ. of Mass., Lowell, and Lowell NHP. Paper proposals requested. See article in this issue. Info: Marie Frank, Dept. of Cultural Studies, 850 Broadway, U. Mass., Lowell, MA 01854; Marie_Frank@uml.edu.

May 12-16: Vernacular Architecture Forum, Annual Meeting, Harrisburg, PA. Theme: Architecture and Landscape of the Pennsylvania Germans. Farm and grist mill tours. Info: www.vernaculararchitectureforum.org.

May 17-21: National Park Service's Archeological Prospection Workshop, Spiro, OK. See article in this issue. Info: Steven L. DeVore, Archeologist, NPS Midwest Archeological Center, Federal Bldg., Rm. 474, 100 Centennial Mall North, Lincoln, NE 68508-3873; (402) 437-5392 x 141; steve_de_vore@nps.gov.

June 10-13: SIA 33rd Annual Conference, Providence, RI. See article in this issue. Watch the SIA Web site (www.sia-web.org) for updates. Info: Robert Stewart, robert.stewart13@worldnet.att.net.

2005

May 4-7: Heritage of Technology—Gdansk Outlook 4, Gdansk, Poland. See article in this issue. Info: Robert Kapsch, (202) 619-6370; robert_kapsch@nps.gov; also <http://hotgo4.mech.pg.gda.pl/hotgo4.html> or Conference Coordinator, Bozena Klawon, Gdansk Univ. of Technology, ul. Narutowicza 11/12, 80-952, Gdansk, Poland; tel. + 48 58 347 2929; hotgo4@mech.pg.gda.pl. ■

Last Chance to Register for Catalonia Study Tour!!!

The Catalonia Study Tour is filling up, and this will be the final notice to members who wish to register, first come - first serve. Contact Patrick Martin at pem-194@mtu.edu or call 906-487-2070 before December 31 to reserve a spot on the tour. See *SIAN* Volume 32, Number 3, page 10, or the SIA Website for description and dates.

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- New SIA Grants Program for Industrial Heritage Preservation. p. 7
- Call for Nominations for SIA Officers
Deadline: Jan. 15. p. 10
- Call for Papers for SIA Annual Conference, Providence, RI, June 10-14.
Deadline: Feb. 6. p. 3
- Student Travel Scholarships
Deadline: Apr. 15. p. 3

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