



# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

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Number 3

## SAVANNAH SIA— *Machines in the Garden* 1999 Annual Conference Review

Over 150 SIAers gathered in Savannah, June 3-6, at a memorable 28th Annual Conference in Georgia's coastal low country. Participants enjoyed a pleasant mix of Southern hospitality and charm, in a gracious city known for its historic architecture and gardens, but where behind the scenes there is ample historic and modern industrial activity to explore. As usual, it was a busy four days of touring, paper sessions, and good times with old and new SIA friends and colleagues.

On Thursday, traditional walking tours were offered of downtown Savannah's exquisite antebellum architecture and historic gardens. SIAers who signed up for the "Beyond the Historic District" early-bird half-day tour saw the **Riverside Plant of the Savannah Electric Power Co. (1912)**, a steam-powered electric generating facility that is still put on line in times of peak demand. It features a row of nine generators, each one larger than the one in front of it, visually illustrating changes in generator technology and the growth of the plant over time to meet increased electrical usage. The remainder of the afternoon included stops at **Fort Jackson**, the oldest standing fort in Georgia, in use since the 1740s; the **Tybee Island Lighthouse**, restored to its 1867 appearance; **Tybee Island Museum**

in the former Fort Screven; and the town of **Thunderbolt**, a center of the local shrimping industry, where the mayor boarded the bus to tell us about the local history.

An optional all-day early bird tour to the Baxley and Glenville area southeast of Savannah looked at industries associated with the region's natural resources, including pine rosins, Vidalia onions, and kaolin. The featured stop was **Akzo Nobel**, opened in 1947 as the Filtered Rosin Products Co. In the older parts of the plant, the firm filters and distills gum rosin from pine trees (of which there are plenty in Georgia!). The sappy gum rosin arrives at the plant full of bark, pine straw, and other impurities, so it is placed through a three-stage filtration process before distillation. The company claims to be the last steam-powered pine rosin distillation plant in the United States. The local gum rosins are sold for use in specialty products like solder and anti-fouling paints used by shipbuilders.

On Friday, conference organizers offered participants a choice of six different tour itineraries taking in the diversity of

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SIA Savannah group aboard the Central of Georgia Railway Shops turntable (1925).

John Reap photo

Freda Brown photo



**The Houlihan Bridge (1954), a swing span, was opened by special arrangement with Georgia DOT for the SIA's riverboat tour.**

historic and modern industrial processes in and around Savannah. Savannah's well-protected deep-water harbor is perhaps its most important, defining, geographic characteristic, and the port is active, lively, and surprisingly large (to some of us uninitiated SIA Yankees). The port stretches for miles along the Savannah River, and, day and night large ships passed our hotel on the waterfront. The **Georgia Ports Authority** (GPA) provided SIAers access to the marine terminals where we watched containers, bulk products, and automobiles being unloaded. In the 19th century, the port was known as one of the South's great exporters of cotton to Europe, but it fell into decline during the 1920s. By the end of World War II, the port was considered antiquated and on hard times due to the loss of cotton exports. In 1948, the GPA was established and it has since worked successfully to coordinate and fund the modernization of the port. In 1998, the GPA terminals handled a record 11.37 million tons of cargo. Although much of the port is modern in character, several blocks of 19th-century cotton warehouses in downtown have been preserved and adaptively reused as restaurants and shops.

Directly related to the port, shipbuilder **Intermarine USA** specializes in glass-reinforced plastic hulled ships and yachts, including Osprey Class minehunters for the U. S. Navy. The company is located at the site of the former Savannah Machine & Foundry Co., and it makes use of a World War II-era graving dock (an excavated shore dry dock), which was of special interest to SIAers.

In addition to the marine terminal, other transportation industries are represented in Savannah. **Great Dane Trucks and Trailers** traces its history back to about 1900 and the Savannah Blowpipe Co., which produced metal tubes for forcing air or gas into a flame. In 1931, the company shifted its steel shaping operations to the manufacture of road trailers, and in 1958, officially changed its name to Great Dane. SIAers took in the process by which the company now produces a variety of road, dry freight, cargo, and flatbed trailers, as well as refrigerated vans and trailer chassis. From roadways to airways, a tour stop for many conference participants was **Gulfstream Aerospace Corp.** The Savannah plant is a modern high-tech assembly and completion facility for luxury jet aircraft. Celebrities regularly visit the plant to custom-order avionics and furnishings installed by skilled craftspeople. Personal transportation of a different sort, but no less luxurious in its way, is produced by **Carreta Kayak**. Charlie Reeves is a master kayak builder who produces a small number of

exquisite hand-crafted wood kayaks each year. He graciously allowed SIAers to troop through his small shop, located in a former railroad station.

The food industry is also quite active in coastal Georgia. The drive down the lane toward **Savannah Foods & Industries** resembles an oak-lined avenue leading to a plantation, but looks deceive and soon SIAers could smell the pungent sweetness that could only mean a sugar refinery. The SIA has toured several sugar refineries in recent years, but none with as colorful a history. Benjamin Oxnard and Richard Prague moved over 300 Cajuns and African Americans knowledgeable in sugar refining from a Louisiana parish to Georgia in 1913. The community, which was a self-contained company town for many years, became famous for the production of refined sugar under the brand name "Dixie Crystals," popular throughout the South. The refining process has not greatly changed over the years. Another food processor visited by the SIA was **Rich-Seapak** in Brunswick. Established over 50 years ago, the firm's first successful product was "Quick Frozen Shrimp," using an innovative flash freezing technique. Since then the product line has expanded to include onion rings, hushpuppies, battered shrimp, fish sticks, french toast, and cheese sticks. **Hobart Corp.** manufactures and designs restaurant and food service equipment. They have been in business for over 100 years making refrigeration, baking, cooking, washing, and waste disposal equipment. Scores of machinists work aluminum, steel, and cast iron to produce machines rugged enough for institutional use.

SIAers who ventured across the southern Georgia landscape could not help but notice the thousands of acres of tree plantations. Many of these trees eventually end up at processing plants in and around Savannah. A huge variety of products are derived whole or in part from trees. **Atlantic Wood Industries** is the successor company of the Savannah Creosoting Co., established in 1919. The company mainly produces utility poles and marine pilings, but it also occasionally treats railroad ties. Creosote, a distillate of pine tar, is still used as a preservative, but for environmental reasons the company now mainly uses pentachlorophenol. The treatment process remains essentially the same as it was when the company was established: a bundle of poles is pushed into a cylinder by a rail car and then placed under pressure. This causes the preservative to replace the moisture in the wood's cells.

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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 annually. SIA promotes the identification, interpretation, preservation, and re-use of historic industrial and engineering sites, structures, and equipment. Annual membership: individual \$35; couple \$40; full-time student \$20; institutional \$40; contributing \$60; sustaining \$125; corporate \$250. Send check or money order payable in U.S. funds to the Society for Industrial Archeology to SIA-HQ, Dept. of Social Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295; (906) 487-1889; e-mail: [SIA@mtu.edu](mailto:SIA@mtu.edu). Website: [www.ss.mtu.edu/IA/SIA.html](http://www.ss.mtu.edu/IA/SIA.html).

Mailing date for Vol. 28,3 (Fall 1999), November 1999. If you have not received an issue, apply to SIA-HQ (address above) for a replacement copy.

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

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



Freda Brown photo

*The Talmadge Bridge, a modern cable-stay structure, crosses the Savannah River and frames the port of Savannah.*

**Rayonier Cellulose** operates a pulp mill in Jessup, southwest of Savannah. The plant is the world's largest producer of high-grade chemical cellulose, often called dissolving pulp, used in consumer products such as toothpaste, syrup, gum, and vitamins.

An unusual wood product manufactured in coastal Georgia is terpene aroma chemicals, the basis of a wide variety of flavors and fragrances found in detergents, soaps, and perfumes. At its Brunswick plant, **Millennium Specialty Products** creates the aromas and other byproducts from turpentine, derived from pine tar. Supporting Georgia's wood products industries is Savannah's **Herty Foundation**, established in 1938 in memory of Charles Herty, a chemist and proponent of southern industrialization, especially the paper industry. The foundation maintains a research laboratory and contracts with firms for small pilot projects to test equipment and materials.

**Hercules, Inc.** opened both its Brunswick and Savannah plants for SIA tours. At the Brunswick plant, the process of converting tree stumps into rosins has not changed much since the 1920s. About 1912, the Yaryan Rosin & Turpentine Co., faced with deforestation of southern pinelands and the collapse of the naval stores industry, looked for a way to make use of what was left over on its

lands—tree stumps. The stumps were blasted out, chipped, and then steam-treated and distilled to recover turpentine, low-grade rosins, and pine oils. Hercules took over the plant in 1920 (in part because it saw a market for explosives taking out tree stumps) but soon hit upon a breakthrough that permitted the production of specialty rosins from a solution of pine rosin, gasoline, and furfural, a byproduct of waste oat hulls. These new specialty rosins found a wide range of applications, including a depilatory for hog-slaughtering, and as a component in soap, varnish, linoleum, and wax production. At its Savannah plant, Hercules exploits the many links between the wood product and chemical industries. The main products are oils, rosins, and fatty acids derived from wood and the byproducts of the paper industry. These find their way into such things as paper sizing, adhesives, and cleansing agents.

Hercules is but one of several chemicals giants that have facilities in Savannah. The SIA also stopped at **EM Industries**, an American affiliate of German Merck that produces luster pigments used for automotive paints, wallpaper, floor coverings, and fingernail polishes. In its basic process, small particles of mica are coated with titanium oxide. **Engelhard** has a facility east of

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## Minutes of the 1999 Annual Business Meeting June 5, 1999

**P**resident Sandy Norman called the meeting to order in the main dining salon of the Hyatt Regency Hotel, Savannah. She remarked that the past year had been a sad one because such a large number of long-time SIA members had passed away including John Cotter, Victor Darnell, Cathryne Johnson, Kathy Kapsch, Dan Mayer, and Michael Stratton. The membership observed a moment of silence.

**Secretary's Report:** The minutes of the last business meeting were published in the Fall 1998 issue of the SIAN. Secretary Richard Anderson called for additions and corrections to the minutes. There being none, the Secretary's report was accepted by motion and unanimous vote.

**Treasurer's Report:** Treasurer Nanci Batchelor reported that the SIA began the calendar year 1998 with a total fund balance of \$103,958. Cash receipts for the year totaled \$105,352. Various membership categories accounted for \$64,317 of the total. The balance was made up of interest income, publication sales, contributions, and a few miscellaneous items, including \$29,538 from

the Whither IA symposium. The total expenditures for the year were \$76,868. The production costs of our publications were \$36,650. The Whither IA symposium incurred \$18,386. The balance of expenses consisted of postage, insurance, prizes, awards, and a few miscellaneous items. The year 1998 ended with \$28,484 excess income over expenses, and a \$133,752 fund balance, \$10,792 of which are restricted funds. The Treasurer's report was accepted by motion and unanimous vote.

**Annual Conference '99:** President Norman recognized Mark Finlay for his outstanding job as coordinator of this year's conference. The membership rose in applause to thank Mark and recognize the many other individuals and organizations that made the conference possible including Kelly Finlay; Charlotte Sauers and Scott Smith of the Coastal Heritage Society and their staff and volunteers; the Armstrong Atlantic State Univ. staff and students; Katherine Ferravia, and Paul Simo.

**Local Chapters:** President Norman cheerily reminded the assembly that those who are chapter presidents and officers should also be members of the national SIA. She also encouraged members to contact the Board of Directors if they would like to form a local chapter in their area. Representatives of all of the society's chapters were asked to stand.

**Publications and SIA HQ:** President Norman recognized Patrick Harshbarger, editor of the SIAN, and Pat Martin, editor of

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Mary Habstritt photo



**SIAers in flagrante tutu at the Henry Ford Kindergarten, Richmond Hill. Tutus compliments of Ashley Manufacturing. Mary Habstritt photo.**

Savannah that produces over one quarter of the world's fluid cracking catalysts (FCC's). The catalysts are used in petroleum refineries. Kaolin, mined in central Georgia, is used as a binder. **Kemira Pigments USA**, a subsidiary of Kemira Oy of Finland, pro-

duces titanium dioxide at a plant originally established in 1955 by American Cyanamid. Titanium ore is refined by either a sulfate or chloride process producing a purified white titanium dioxide with hundreds of applications. It commonly is used to whiten paints, plastics, paper, and to add luster to fabrics.

As with most cities visited by the SIA in recent years, Savannah has its share of specialty niche industries. Many SIAers toured **Lummus Corp.**, the world's leading manufacture of cotton gins and a variety of other man-made fiber processing equipment. The company relocated to a new manufacturing facility in Savannah in 1998 after deciding not to renovate its 19th-century plant in Columbus, Georgia. The company was established in Columbus by Franklin H. Lummus in 1872. At Lummus, SIAers took in precision machine work and engineering capable of producing fully integrated and automatic gins, as well as replacement parts for historic gins. The **Carson Products Co.** produces a line of over 70 ethnic hair care products such as hair relaxers. The company traces its origins to founder C. F. Jurgenson, who invented and marketed "Magic Shaving Power," a razorless beard remover in 1901. Surely, one of the most visually dazzling factories ever visited by the SIA is **Ashley Manufacturing**, maker of tutus, ballet shoes, and costumes. Located in Jesup, Ashley employees 75 costume designers and 50 shoemakers. A huge stockpile of brightly colored fabrics and taffeta, lace, sequins, and rhinestones greets the

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**Minutes** (continued from page 3)

IA. Pat Martin also serves as the SIA's Executive Secretary with the able assistance of Don Durfee, who stood to be recognized for his efforts managing the SIA's website, mailing lists, and other head-quarter's operations. The board is investigating the possibility of placing the journal on CD-ROM disks and eventually on the Internet.

**Student Scholarships:** Mary McCahon and Patrick Harshbarger administer the student scholarship program. The student they selected this year had a conflicting commitment and could not attend the conference. She commended the numerous society members who respond to the appeal for scholarship donations in their dues notice. It is hoped to have a larger pool of qualified students for next year's conference in Duluth.

**Membership Survey:** President Norman thanked all members who responded to the survey. Sixty percent of the membership returned their forms. Carol Poh Miller, Sandy Norman, and Tom Flagg are analyzing the responses. The positive responses to tours, conferences, and publications were rewarding. One of the most frequent requests was for new chapters. The board can give its support and information, but individual members must do the organizing work for chapters.

**Advocacy Activities:** President Norman addressed the request by the Save Our Bridge Committee, St. Augustine, FL, for a resolution of support in favor of preservation of the Bridge of Lions. Florida DOT is reviewing plans for either demolition or rehabilitation. A motion was made to adopt the resolution and it passed with majority ayes and no nays. The board will send a copy of the resolution to the U. S. Coast Guard, Florida DOT, and the Army Corps of Engineers.

Vice President Carol Poh Miller reported on Cleveland's Hulett unloaders. They will be removed from the C&P Ore Dock. One will be disassembled and mothballed with the hopes of reerecting it at another location. She thanked the SIA for all it has done to assist

the efforts to preserve the Hulett, and especially those people who have written letters of support and offered moral encouragement.

Charles Gergensen addressed the status of the Pullman Administration Building and Clock Tower in Pullman, IL. A fire consumed much of the building in December, but the structural integrity of the masonry walls of the original 1880 building and tower is sound. The SIA should maintain its pressure on appropriate people to insure that momentum is sustained to restore this structure.

**Awards:** Carolyn Cooper presented the Norton Prize to David Landon and Timothy Tumberg. The prize is for the best article to appear in the Society's journal. Jane Carolan presented the SIA General Tools Award for Distinguished Service to Industrial Archeology to Vance Packard.

**Charles and Isabel Emmerich Collection:** President Norman acknowledge all those members who have given items to the SIA Archives. Charles and Isabel Emmerich stand out for their exceptional gift. After Charles' heart attack, his wife Isabel assembled the various mementos that they had collected from years of SIA meetings and tours, and now she has presented them to the SIA Archives. The membership applauded to recognize the gift, which will be designated the Charles and Isabel Emmerich Collection.

**Upcoming Tours and Conferences:** Bode Morin gave a preview of this year's fall tour in Birmingham, AL. The 2000 annual conference will be in Duluth, MN, and the 2001 conference in Washington, D. C.

**Elections:** President Norman announced that three members of the board were ending their terms this year: Jack Bergstresser, David Simmons, and Ann Steele. They were thanked for their service. She invited Nominations Committee Chair Pat Malone to announce the election results. Elected to the Board of Directors were Lance Metz, Richard O'Connor, and Louise Trottier. Elected to the Nominations Committee was Patrick Harshbarger.

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

eye at Ashley, along with lines of sewing and lasting machines.

Saturday, as usual, was devoted to paper sessions and the annual business meeting. A diversity of papers were presented, but there was a special focus on southern industry, including sessions on HAER recording of textile mills, the technology of plantations, and the archeology of slave and prison labor.

A highpoint of the conference was the low-country boil at the **Historic Railroad Shops** (Central of Georgia Railway Shops and Terminal, HAER, NHL), operated by the **Coastal Heritage Society**. This is an important historic industrial landmark with 5 acres of buildings dating from the 1850s to the 1920s. The 1855 combination smokestack and watertank is an engineering marvel rising to 125 ft. above the complex, and it was used as part of the logo for the conference. The site is chock-full of exhibits and demonstrations that SIAers enjoyed at their leisure. The evening featured live entertainment, including a riveting (the holding of one's attention kind) performance of traditional music by the Sea Island Singers. It is a memory not to be soon forgotten and was greatly appreciated by the SIA audience with several standing ovations. Sunday, the last day of the conference, wound down with a morning riverboat tour of the port that offered a rare chance to travel through the 1954 **Houlihan swing-span bridge**. A second version of the "Beyond the Historic District" tour featured stops at the 1898 **municipal powder magazine**, and the 1826-30 **Savannah & Ogeechee Canal**, a slave-built, moss-draped example of Southern transportation heritage.

Mark Finlay, conference coordinator and history professor at Armstrong Atlantic State University, has the SIA's thanks for organizing the Savannah event. The staff and volunteers of the Coastal Heritage Society led by Charlotte Sauers handled all of the arrangements with registration, hotels, food, and entertainment without a hitch. Staff and students of Armstrong Atlantic State University contributed to the conference's success as website designers, co-authors for the guidebook, and as volunteers at registration desks. Thanks go too to the many Savannah area companies that welcomed the SIA to their facilities. Special thanks also to Neill Herring, who had the political contacts that helped open many industries' doors to our group, and who served as one of the most entertaining and well-informed tour guides in recent memory. Mark's group of helpers and co-sponsors published an excellent guidebook to Savannah industry, organized the tours, and did all of the other myriad things necessary to pull off a first-class event. The SIA's thanks go to each and everyone.

J. P. H.

### CONTRIBUTORS TO THIS ISSUE

Richard Anderson, Sumter, SC; Frank Beberdick, Chicago, IL; Freda Brown, Huber Heights, OH; Jane Carolan, Newburyport, MA; Carolyn Cooper, Hamden, CT; Don Durfee, Houghton, MI; Betsy Fahlman, Tempe, AZ; David Farrier, Warner Robins, GA; Mark Finlay, Savannah, GA; Jane Mork Gibson, Norristown, PA; Mary Habstritt, New York, NY; Arlene Johnson, Houghton, MI; Robert Kapsch, North Potomac, MD; Matt Kierstead, Pawtucket, RI; Kenneth Lavelle, North Royalton, OH; Leedom Lefferts, Madison, NJ; Carol Poh Miller, Cleveland, OH; Sandy Norman, Boca Raton, FL; David Poirier, Hartford, CT; John Reap, Syracuse, NY; Fred Rollins, Watertown, NY; David S. Rotenstein, Columbus, SC; T. J. Tremmel, St. Augustine, FL; Louise Trottier, Ottawa, ON; Robert Vogel, Washington D.C.; Gerry Weinstein, New York, NY.

With thanks

## CALL FOR NOMINATIONS

For those willing to commit their time and skills to direct the SIA, there are six openings to be filled in 2000: Vice President, Secretary, Treasurer, two Directors, and one member of the Nominations Committee. *Please note that all candidates must give their consent to be considered for nomination and must be members in good standing.*

**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 of leadership.

**Secretary** (3-year term) serves as a member of the Board of Directors, keeps the minutes of the annual business meeting and board meetings, sees that all notices are given in accordance with the provisions of the bylaws, and is custodian of official records.

**Treasurer** (3-year term) serves as a member of the Board of Directors, has charge of and manages the SIA's funds, and reports to the directors and members on the SIA's financial condition.

**Directors** (3-year term), two of seven directors on the Board of Directors which meets quarterly, including during the Annual Conference. Directors govern official business of the SIA and chair subcommittees convened for ongoing functions, such as publications, tours and conferences, local chapters, and special events.

**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 his/her term.

Nominations from the membership are requested by the Nominations Committee, which will then offer a slate of candidates to the membership. The committee welcomes your suggestions, including offering yourself as a candidate.

*Please submit nominations by Jan. 7, 2000, by mail to: Robert Casey, Henry Ford Museum, Box 1970, Dearborn, MI 48121-1970. Include the name, address and telephone numbers of the person nominated, and the position. Be certain that the person has given his/her consent to be nominated. Once the slate is selected, the Nominations Committee or SIA Headquarters will request a biographical statement (not to exceed 150 words) and a photograph from each nominee.*

*Editor's Note: The Board of Directors requested that this year's 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 (30) days prior to selection by the Nominations Committee, Section 2.05 (a). This is that printed announcement.*

### SIA Officers and Directors, 1999-2000

Sandra L. Norman, President (1998-2000)	Bierce Riley, Director (1998-2001)
Carol Poh Miller, Vice President (1998-2000)	John M. Stacier, Director (1997-2000)
Richard K. Anderson, Jr., Secretary (1997-2000)	Louise Trottier, Director (1999-2002)
Nanci K. Batchelor, Treasurer (1997-2000)	Patrick E. Martin, Executive Secretary and Editor IA
Fred Quivik, Past President (1998-2000)	Patrick Harshbarger, Editor SIAN
Gray Fitzsimons, Director (1998-2001)	<b>Nominations Committee</b>
John D. Light, Director (1997-2000)	Robert Casey, Chair (1997-2000)
Lance Metz, Director (1999-2002)	David Shayt (1998-2001)
Richard O'Connor (1999-2002)	Patrick Harshbarger (1999-2002)
	Fred Quivik, ex officio (1998-2000)

# A Superior Conference for 2000

Duluth—June 1 to 4



Sandy Norman photo

Grain elevators in Superior, Wisconsin

**S**IA's 29<sup>th</sup> Annual Conference, co-sponsored by the St. Louis County Historical Society, is scheduled for June 1 to 4 in Duluth, MN. Also known as "The Finnish Riviera," "The San Francisco of the North," and "Head of the Lake," the port of Duluth, as the westernmost point in the Great Lakes chain, is a center for bulk transfer of coal, grain and iron ore. The conference will also include visits to two of Minnesota's three iron ranges.

Our opening reception is planned for The Depot and The Lake Superior Railroad Museum. The Depot is the 1892 French Chateausque union station, closed in 1969 and renovated to house local arts and historic organizations. The railroad museum houses, among other attractions, the oldest known rotary snowplow and the *William Crooks*, Minnesota's first locomotive.

There are two tours proposed for Duluth itself, one oriented to production and the other to bulk handling. The production tour

will take in such sights as Cirrus Design, manufacturer of the SR20, a single-engine, reciprocating, 200 hp, airplane equipped with parachute; Diamond Brands, manufacturer of such indispensable items as toothpicks and corndog sticks; the city steam generating plant; a paper mill; and Luigino's food processing plant.

The bulk transfer tour may include the *William S. Irvin*, a former ore boat that is now a tourist attraction; ore docks; coal dock (coal was the port's biggest export in 1998); the *S.S. Meteor* in Superior, WI, the only remaining whaleback freighter in the world; Morgan Park, a US Steel company town; Duluth, Missabe & Iron Range Railway yards in Proctor; and many terminal grain elevators.

At least one tour will travel to the Soudan and Ely area. Sites here include the Soudan Mine. Iron ore was first shipped from this mine in 1884. It was closed and given to Minnesota for a state park in 1962. Visitors now have the opportunity of traveling 2,400 ft.

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## Call for Papers

SIA Annual Conference 2000 • Duluth, MN • June 1-4

**T**he SIA invites proposals for papers to be read at the Annual Conference in Duluth, Minnesota on Saturday, June 3. Presentations on all topics related to industrial archeology are welcome. This year, the program committee especially encourages presentations on bulk-commodities shipping and transcontinental transportation, and industrial archeology exploring the social history of the mining industry. Once again, landscape studies will be of particular interest.

**Presentation Formats:** Proposals may include individual papers (20 min.), organized panel discussions (90 min., typically three papers, formal commentator optional), reports on works in progress (10 min.), or symposia of related papers.

**Proposal Formats:** Each paper proposal must include: 1) title; 2) an abstract of not more than 250 wds.; 3) a one page resume for the presenter(s), including postal address, telephone/fax, and e-mail; 4) a list of audio-visual requirements. A panel or symposium organizer should submit all of the

paper proposals as a group, accompanied by a title and a brief description of the theme or purpose. All proposers must submit four (4) copies of their proposals.

**Deadline:** Jan. 15, 2000. Send paper copies of proposals to: Fredric L. Quivik, SIA Program Committee, 2830 Pearl Harbor Road, Alameda, CA 94501. Inquiries are welcome at the above address or by phone (510) 769-7855; e-mail: [fquivik@lmi.net](mailto:fquivik@lmi.net).

**Student Travel Scholarships:** The SIA has limited funds to help full-time students and professionals with less than three years of full-time experience attend the annual conference in Duluth. Those interested should submit a concise letter outlining their demonstrated interest in and commitment to the field of industrial archeology or a related field, and one letter of reference. Deadline for submissions is April 3, 2000. Info.: Mary E. McCahon, SIA Scholarship Comm., c/o A. G. Lichtenstein & Assoc., One Oxford Valley, Suite 818, Langhorne, PA 19047; (215) 752-2206; fax 752-1539. Notice of awards will be made by May 1. ■



## Vance Packard

### 1999 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 member in good standing. 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, though not required, that the recipient be a member of the SIA. And, finally, the award may be made only to living individuals.*

*The following citation was read by General Tools Award Committee Chairman Jane Carolan at the SIA's Annual Business Meeting, Savannah, GA. The award consists of this citation, a commissioned sculpture (the famous plumb bob), and an honorarium of \$1,000.*

The General Tools Award was established in 1992 through the generosity of SIA member Gerald Weinstein, chairman of the board of General Tools Manufacturing Company, and of its giving arm, the Abraham and Lillian Rosenberg Foundation. When I called Gerry to tell him of our selection this year, he said, "That's terrific, that's just the kind of person we had in mind when we devised the award." The entire committee is extremely pleased to announce that this year's winner of the General Tools Award is Vance Packard.

Vance has had a long and distinguished career as a jack-of-all-trades and a master of many. His contribution as a founding member of the Society for Industrial Archeology is well known. With a background in prehistoric archeology, Vance joined the Pennsylvania Historical and Museum Commission (PHMC) in 1969. He worked in classic prehistoric sites in the early seventies and then branched into historic archeology, inspired by the U. S. Bicentennial. He did pioneering archeological work at Valley Forge for two summers and at Washington's Crossing historic site. He then led an investigation of Benjamin Franklin's print shop in Philadelphia.

Vance's mechanical instincts seem to be always in the forefront. His early experiments with power screens really shook-up the archeology world, and then he gravitated to backhoes, bulldozers, and other big-boy excavating tools.

With this background, Vance jumped into the newly formed his-

toric preservation program at PHMC. He quickly established himself as a presence to be reckoned with. Yes, federal and state agencies feared his quick judgment ("Looks like a 4(f) to me.") but they also respected his deep knowledge and his creative deal-making.

In 1979, Vance became the director of the Drake Well historic site. There, he brought the site alive, making an elderly electric map function again, rebuilding the Drake Well replica with a working steam engine, and setting up a maze of working oil equipment. You could hear the site before you saw it.

And this does not even describe his dabbling in the management of the Titusville & Oil City short-line railroad.

Vance was made western regional director of PHMC's sites in 1983 and served in this position until 1994, when he became director of the Anthracite Regional Museum Complex. There he used his many skills to rehabilitate exhibits and whole villages, and even was the licensed sewer officer for the Eckley Miners' Village.

Vance was a mentor to many, both in PHMC and outside. He yelled, he complained, and he explained and encouraged. He retired from PHMC in 1997 but never stopped moving. He was recognized as PHMC's Lumber Museum volunteer of the year in 1998. His contributions continue.

Vance is truly a Renaissance man, combining archeology, history, interpretation, and, most importantly, a hands-on feeling for how things really work and an interest in knowing more. And, stealing a good line from Vance's retirement party from the Anthracite Museum: "Vance will retire to his home at Bear Lake, where he resides with his wife, Bonnie Smith. He will fly fish, play in his machine shop, and presumably continue to defend the coast of New England from the invasion of the wily bluefish."

Congratulations, Vance. ■



**Vance Packard, 1999 recipient of the SIA's General Tools Award for Distinguished Service to Industrial Archeology.**

Patrick Harsbarger photo

## David Landon and Timothy Tumberg Receive 1999 Norton Prize

Each year the SIA recognizes outstanding scholarship within the field of industrial archeology with its Norton Prize, inaugurated by the Norton Company, a century-old materials engineering firm in Worcester, MA. 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 with a plaque engraved with the recipient's name. At the Annual Business Meeting, this year's award was presented by Norton Prize Committee Chair Carolyn Cooper to David Landon and Timothy Tumberg for their article in Vol. 22, No. 2 (1996), entitled *Archeological Perspectives on the Diffusion of Technology, An Example from the Ohio Trap Rock Mine Site*.

This paper analyzes material evidence uncovered at the site of a stamp mill at a mid-19th-century copper mine in the Upper

Peninsula of Michigan and identifies it as an instance of transfer of advanced mining practice from Cornwall. The authors clearly describe the remains and explain the operation of two circular convex "buddles" for separation of water of copper from crushed rock, and distinguish them, using documentary and pictorial evidence, from the common buddles used for hundreds of years in Cornwall. These were high-tech buddles, running at a relatively primitive outpost of American mining at that time. The larger conclusions, in which material and documentary evidence corroborated each other, was not only that this technology transfer was carried out by Cornish workers, but also that it represented an over-extension by the mining company that proved unjustified by the actual amount of copper extractable from that mine, and helped drive the company out of business. The authors have deftly interwoven pictorial and documentary evidence with the material evidence to build up their narrative and amply illustrate it with maps, diagrams, and contemporary woodcuts. ■

# “KETCHUP VS. WOOL”: THE NATION’S LAST WOOL PULLERY WILL BE DEMOLISHED

David S. Rotenstein reports on the Pittsburgh Wool Co.

In early 1999, the City of Pittsburgh, on behalf of the H.J. Heinz Corp. began proceedings to condemn a small tract of land overlooking the Allegheny River, barely two miles above the Golden Triangle, site of the Pittsburgh Wool Co., the last survivor of a once-thriving livestock, meat packing and leather-producing district. Heinz gave the city an ultimatum: give us the land to expand with a new 75,000 sq.-ft. warehouse or we will take our plant elsewhere. Since May 1999, efforts to preserve Pittsburgh Wool have been unsuccessful. The Pittsburgh City Historic Review Commission determined that the building lacked merit as a historic structure, and the local flagship historic preservation organization, the Pittsburgh History and Landmarks Foundation, elected to promote a mitigation plan that involves the documentation of the structure, relocation of some artifacts and business records, and, finally, demolition.

Before sheepskins can be tanned, the hair—wool—must be removed. The process by which the wool is removed from a sheepskin is known as “pulling.” The craft of wool pulling emerged in post-medieval Europe, notably in Great Britain, as guild limitations on middlemen were eased during the 16th century. Wool pullers first were labeled “fellmongers”—craftsmen aligned closely with textile-industry middlemen but distinct from sheepskin tanners—because they derived their wool from fells, an Old English term for skins, rather than fleeces. By the middle of the 17th century, fellmongers dealing only with fellwool—as opposed to fleece wool (shorn wool)—were found throughout Britain. Like tanners, fellmongers purchased skins from butchers and they, in turn, sold the de-wooled sheepskins to whitawyers (light-leather makers who historically used alum rather than tanning liquors) and tanners. The intermediary processing position between the butcher and the tanner was profitable because the wool pulled from sheepskins might be worth in excess of four or five times the value of the skin. Wool removed from the pelts of slaughtered sheep and lambs was graded by breed, age at slaughter, and staple length or spinning counts. Pulled wool may be used in a wide array of textile products, including blankets, carpets, woven paper, mill felts, flannels, and dress goods. The whitawyers used the skins in turn for hatbands, prosthetic limbs, and gloves.

The commodity flow from butcher through fellmonger and the bifurcation of the wool flow towards the textile industry and the

skins toward the tanning industry has changed little since the 17th century. Not fully part of the meat, textile, nor leather industries, Pittsburgh Wool and similar wool pullers are historical anomalies. As the domestic lamb crop dwindled and the American leather industry moved overseas, wool pullers began to disappear from the industrial landscape. By 1997, there were only two wool pullers left in the United States; now, Pittsburgh Wool is the last survivor.

The building in which Pittsburgh Wool is located was built in 1883 as a tannery and converted to a wool pullery in 1918. It was built by Irish-immigrant tanner James Callery (1833-89). Callery built in brick, hoping to prevent a fire similar to the ones that had destroyed his two previous tannery buildings. He named the new building the Old Duquesne Tannery. Callery's sons continued tanning in the building until 1918, when they sold out to Patrick McGraw, a sheepskin tanner turned wool puller. McGraw operated the wool pullery until 1956 when it was sold to Pittsburgh Wool, which has occupied the building since 1958.

The founder of Pittsburgh Wool was William P. Lange, a dealer who bought hides, tallow, and hair from slaughterhouses and sold them to tanners and other byproducts processors. In 1903, he moved his business into a former tannery just a few hundred yards south of Callery's Old Duquesne Tannery and shortly thereafter began pulling wool from lamb pelts. In 1912, Lange and partners Charles B. Kumer and John Schaeffer incorporated the Pittsburgh Wool Co. The Kumer family eventually took control of Pittsburgh Wool, and Charles Kumer paved the way for his son Roy to enter the business during the 1930s. A third generation — Roy Kumer's son Jeff—entered the business during the 1950s. As Jeff Kumer was learning the family trade and the business was gearing up to move to its present location in 1958, Roy Kumer traveled to New York City, where he salvaged the company's present wool pulling equipment from the defunct Swift Co. pullery, which was being displaced to make way for construction of the United Nations.

Pelts are delivered to Pittsburgh Wool at its River Ave. loading dock. The plant's first floor consists of cleaning vats for the raw pelts, a station for applying the depilatory paste, and six large

*(continued on page 9)*



*Pittsburgh Wool workers unloading sheep pelts.*



*Revolving drums used to pickle sheepskins for shipment to tanneries and skin grading board (1st floor).*



## Contributors to the SIA during 1999

The major source of income for operating the SIA each year is membership dues. We occasionally receive grants and support from governmental sources and foundations to accomplish specific tasks, but the consistent generosity of our members in providing income above and beyond basic dues is a critical factor in allowing us to maintain a high quality of operation. Individuals who join at the Sustaining and Contributing membership levels regularly provide a margin of income above the basic operating costs, and those who also give an additional gift at renewal time make it possible for the SIA to do such things as support some students to attend our annual conferences and give papers. We take this opportunity to identify those members who made extra contributions during 1999, and to thank them.

J.J. Haines & Co., Inc.	Carl H. Gmoser	John R. Ricketts
Robert R. Alf	Barnett L. Golding	Mike Ritenour
Barbara P. Alf	H. Lois Golding	Howard Robbins
Frederick Allen	Karl Gurcke	Lynne Robbins
Robert W. Allington	Warren M. Hagist	Lorette Russenberger
Mark E. Andrews	James C. Haskell	Edward S. Rutsch
Leo T. Barber Jr.	Duncan E. Hay	Bill Rutter
Nanci K. Batchelor	James Heisel	Edward B. Seldin
Ronald G. Batchelor	Frederick N. Houser	James D. Sell
Dwight C. Baum	Jon D. Inners	Peter K. Shepherdson
Henry H. Baxter	Ramon B. Jenkins	Laurence A. Shiplett
Jon F. Bergenthal	R. Duren Johnson	Pamela S. Shiplett
Christopher Bidlack	Greg Johnson	Allan King Sloan
James E. Bouchard	Nolan T. Jones	Dwight A. Smith
Diana Bouchard	Richard L. Kelly	Larry M. Southwick
Robert Boyd	Thomas H. Kerwin	Peter B. Sparks
Patricia Boyd	Ida Claire Kerwin	Paula A. C. Spero
Terence J. Brennan	Emil B. Koller	Fred N. Spiess
Nancy J. Brighton	Gregory J. Kuebler	Sarah Spiess
Everett F. Britz Jr.	Raymond Lafrey	Debra S. Staley
Billie Sherrill Britz	Abba G. Lichtenstein	Robert Steffensen
Thomas V. G. Brown	David S. Lindquist	Robert P. Stupp
Mr. & Mrs. Rodney D. Brown	Doris G. Lommel	Robert L. Tate
John K. Brown	Patrick M. Malone	Mary F. Tate
Alberto Calderaro	Eugene Mandel	Evelyn R. Tecosky
Patricia J. Condell	Nick Marianos	Paul J. Toftness
Emmett A. Conway	Mary E. McCahon	Ann Barnard Toftness
Richard W. Craine	John A. McConnell	Derek H. Trelstad
Marilyn Craine	Jerry A. McGowan	John Van Scyoc III
Rodney Crawford	Beverly L. McGowan	Robert M. Vogel
Bernadine P. Crawford	Alan J. McRoberts	Nancy Waters
Indy Crowley	Clytie P. Mead	Ian Wheal
R. E. Crysler	R. Kent Mitchell	Donald A. Wood Jr.
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Michael J. DeBlasio	Stephen T. Murphy	Donald Stuart Young
Steven Delibert	Sandra L. Norman	Barbara Young
Paul E. Dietrich	Sandy Noyes	J. Mark Zdepski
Tim Dugan	Vance Packard	Richard Zidoweki
David R. Dyck	Thomas Phelan	
William J. Ellenberger	Suzanne Pilon	
David Engman	Robert G. Plumb	
Thomas P. Farrell	Anthony Quintavalla	
Thomas R. Flagg	Fredric L. Quivik	
David K. Ford	Mindy Quivik	
Gerard Fountain	Stewart W. Read	
Jacob J. Fraier	Dorothy Read	
Jerry Fritze	John J. Reap	
John H. Gannett	John F. Reeder Jr.	
Alan H. Gardiner	William S. Reid	
Phillip L. Gilbert	Henry A. Rentschler	
Brent D. Glass	Robert J. Reynolds	

# TICCIH 2000

Aug. 30–Sept. 3, London

*The International Committee for the Conservation of the Industrial Heritage (TICCIH)* will hold its millennium congress in Great Britain. It promises to be a major industrial archeology event and an important opportunity to consider the state of industrial heritage at the opening of the new century. TICCIH is the world organization for industrial archeology, promoting conservation, research, recording, and education in all aspects of industrial history. The conference's plenary sessions will be held on the theme of *The Industrial Revolution of the 18th Century and Mass Production and Consumerism, 1850-2000*. There will also be workshops on the following topics: methods of recording industrial buildings; training industrial archeologists; recording and conserving large-scale industrial sites; publication strategies on industrial heritage; demonstrating historic machinery; brownfield sites; trends in conservation legislation; designating and managing World Heritage Sites; promotion of industrial heritage through the Internet; air transport; urban transport systems; gender, race, and class issues in interpretation of industrial heritage; the future of the industrial museum; a century of shopping; the food industry; and telecommunications. Info: Rosy Hayward, The Science Museum, London SW7 2DD, UK; e-mail: [cc@conferencecontact.co.uk](mailto:cc@conferencecontact.co.uk).

TICCIH conference information and other news can now also be accessed on the Internet. A web page has been launched and can be found at [www.museu.mnACTEC.com/TICCIH](http://www.museu.mnACTEC.com/TICCIH). The page has been designed principally as an introduction to TICCIH, to improve communication between members and with the organization, make it easier to join, and to carry news about TICCIH activities. As such, it has an introductory page with links to pages with addresses of the Board and National Representatives, a membership form which can be completed and either printed or e-mailed directly, a news page with information about TICCIH conferences and meetings, and a summary of the current bulletin. ■

## “KETCHUP VS. WOOL”:

(Continued from page 8)

revolving pickling drums. The second floor contains beams, where the wool is pulled, a wool dryer, and a bale press. Denuded skins are dried on the third and fourth floors.

In August, Heinz and Pittsburgh Wool struck a deal that calls for closing the wool pullery by December and demolition of the building by the spring of 2000. In this author's opinion, a better solution would have been one that allowed Pittsburgh Wool to co-exist with Heinz. This would have been best for Pittsburgh's past, as well as its economic present and future. With the loss of the wool pullery, Pittsburgh will have lost another piece of its historic industrial heart and soul. Even with its new warehouse, there are no guarantees that Heinz will be able to maintain its manufacturing presence perpetually, and if someday they leave, Pittsburgh will be left with an “unremarkable” 1990s warehouse (to borrow Pittsburgh Historic Review Commission Chairman John DeSantis's description of Pittsburgh Wool). The agreement worked out between Pittsburgh Wool and Heinz executives tentatively calls for Historic American Engineering Record (HAER) documentation of the pullery, including video documentation. At the turn of the new millennium, wool pulling will have disappeared from the American economic landscape.

D. S. R.

# IA in Art

## *Toil* (1913) and *Bingham Mine* (1937) by Jonas Lie

**B**orn near Oslo, Jonas Lie (1880-1940) came to the United States in 1893, the year after his father's death. Academically trained at the National Academy of Design, the Cooper Union and the Art Students League, he made his major exhibition debut at the St. Louis Exposition in 1904. Throughout the next three and a half decades he established his painterly reputation. His most characteristic themes are landscape and marine scenes, inspired by sites around New York City, and the New England and Canadian coastlines.

Lie, little known today, maintained a lifelong interest in industrial subjects, and traveled widely in search of inspiration. One painting, *The Quarry* (unlocated) was one of four works he exhibited at the historic Armory Show of 1913. He found his most exciting subject in the Panama Canal, where he spent several months on site in 1913 as it



*Jonas Lie, Bingham Mine (1937), oil on canvas, 30" x 45"*  
Courtesy Phoenix Art Museum (Gift of Mrs. Louis Cates)



*Jonas Lie, Toil (1913), oil on canvas, 60 3/8" x 50"*  
Courtesy West Point Museum Collection, United States Military Academy

neared completion. The twenty-seven canvases he produced, exhibited together at the Albright Art Gallery of the Buffalo Fine Arts Academy in 1914, convey the optimism of progress implicit in this great "Wonder of Work." Like many of his contemporaries, he was fascinated by the realization of the great enterprise that linked the Atlantic and Pacific oceans. The creation of a 51-mile bridge of water across a continent in the form of a navigable passage was an unprecedented feat of civil engineering, galvanizing both visitors and distant observers with a positive vision of the future supported by advances in modern technology.

Several art events mark the historic transition of canal governance from the United States to Panama, which will take place on December 31, 1999. The Williams College Museum of Art in Williamstown, Massachusetts, has organized an exhibition titled "The Panama Canal and the Art of Construction" (through January 23). Approximately twenty paintings, prints, and photographs by North American artists and engineers dating from 1910-13 document its construction. Included are six paintings by Lie which celebrate the tremendous operational scale and coordination necessary to realize the project. Typical is *Toil*, one of twelve in the collection of the West Point Museum at the United States Military Academy (USMA). These were given in 1929 in memory of General George Washington Goethals, who had been appointed in 1907 by President Theodore Roosevelt as the canal's Chief Engineer. Many of the works in the series bear evocatively literary titles, such as *The Conquerors* (*Culebra Cut*) (Metropolitan Museum of Art, New York) and *Heavenly Host* (USMA), showing massive buckets lowered by cranes to remove the earth scoop by scoop. Views of construction scenes are dramatic, as is the equipment necessary to accomplish such a logistical marvel. Appropriately, one from his series, *Gates at Pedro Miguel* (USMA), was shown at the Panama-Pacific Exposition in San Francisco in 1915.

Also included in the Williams College show are prints by Joseph Pennell (1860-1926), which detail the heroic contrast

(continued on page 14)

# Kinne Collection of Water Turbines

## ASME Designates a Mechanical Engineering Heritage Collection

Fred Rollins photo.



**The Kinne Collection of water turbines are on exhibit at the Jefferson County Historical Society, Watertown, NY.**

In June, the Kinne Collection of Water Turbines at the Jefferson County Historical Society in Watertown, NY, was designated a Mechanical Engineering Heritage Collection at a ceremony by the American Society of Mechanical Engineers (ASME). This was the result of years of promotional activity by many people, including Jane Mork Gibson [SIA]. The collection of 34 turbines, assembled by engineer Clarence E. Kinne (1869-1950) between 1907 and 1937, is believed to be the largest in the world. Most of the turbines powered machine works, factories, and saw, grist, and paper mills in the northern counties of New York during the 19th and early 20th century. Examples range from crude, one-of-a-kind wheels, designed and built by users based largely on instinct and observation and incorporating parts of wood, to sophisticated, high-efficiency, all-metal machines by large builders dedicated solely to turbine work. The remarkable collection represents American turbine development from the early 19th century through inward-flow reaction turbines similar to those used in today's largest hydroelectric plants.

The ASME designation officially recognizes the Kinne Collection's importance to our understanding of America's industrial heritage, in which the use of waterpower played such a central role. Clarence Kinne was a mechanical engineer with an almost obsessive interest in waterpower and a dogged determination to preserve this aspect of northern New York's milling heritage. He collected the turbines at a time when many industrial activities were switching to electric power, and the turbines were being cast aside or scrapped. Not only was Kinne's interest most unusual, but his timing was fortuitous. The turbines, stashed in the basement of the Victorian mansion that houses the Jefferson County Historical Society (JCHS), escaped the period when everybody melted down those "ugly black iron things" for war or industry. The turbines are made that much more valuable by Kinne's copious notes about their provenance, and by the accompanying collection of trade catalogues and correspondence housed at Old Sturbridge Village and Clarkson University. There is nowhere else where students of waterpower can go to see such a wide and varied collection including center-discharge wheels, Jonval axial-flow turbines, radial-inward and mixed-flow turbines, register-gate and wicket-gate turbines, centrifugal wheels, and many other types.

The initial effort to gain ASME designation for the collection

came from Euan F. C. Somerscales, a professor at Rensselaer Polytechnic Institute and former chairman of the ASME History and Heritage Committee. He became interested after hearing Jane Mork Gibson's paper at the SIA annual conference in Buffalo in 1992. Margaret Schaeffer Dowd, a former executive director of the JCHS, valued the collection, as did her successor Fred Rollins, who took a strong interest in the turbines, but no one else in Watertown seemed to realize what a prize they had. There were discussions of breaking up the collection and putting some turbines out on a river walk. Gibson gave lectures to two Rotary groups and the historical society counseling them that they had "a sleeping giant in the basement." Tom Urling Walker, a mechanical engineer and a member of the ASME Syracuse Chapter, and a former mayor of Watertown, became an ally. With his prodding, the chapter proposed the Kinne Collection for ASME landmark designation, but it was not approved until the museum had undergone asbestos abatement and the exhibit labels were updated from the original 1920s labels installed by Kinne. It took several years to raise the funds, but now, the significance of the Kinne Collection has finally been recognized.

Info: Jane Mork Gibson, 2615 De Kalb Pike, #413, Norristown, PA 19401-1831; or, JCHS, 228 Washington St., Watertown, NY. For info. on the ASME History and Heritage Programs: Public Information, ASME International, 3 Park Ave., New York, NY 10016; (212) 591-7740.

J. P. H. & J. M. G.



Jane Mork Gibson photo.

**The 36-Inch New American Turbine built by the Dayton Globe Iron Works, Dayton, OH, is one of 34 turbines in the Kinne Collection. This turbine design is based on patents received during the 1850s and 1860s. The turbine operated at the Remington Paper Co., Watertown, NY.**

## Michael Stratton (1953-99)

Carl Stéphane Bouchereau photo



**Michael Stratton (L) at the 1994 TICCIH Conference in Montreal.**

**Michael Stratton (1953-99)**, our British colleague who died of cancer in April at the age of 45, will be remembered for his exceptional contributions over the last 19 years to the recognition of industrial archeology as part of the academic field, and to the development of new perspectives in the study and recording of industrial and commercial buildings. Over the years, Michael graciously hosted many SIA members traveling in Great Britain.

As with many industrial archaeologists, eclecticism is the most appropriate term to reflect Stratton's academic background and professional activities: after undergraduate studies in Geography at Durham University and in Town Planning at Sheffield University, he received an M.A. in Victorian studies at Leicester University. While pursuing his doctorate at the University of Aston, he began his career in 1980 as lecturer at the Ironbridge Institute, where he became Director in 1989. He occupied this position until 1994 when he joined the Institute of Advanced Architectural Studies at York University.

Stratton was held in high esteem by his peers for his creative approach in IA teaching and research methodology. For instance, he demonstrated that the discipline of industrial archeology should also be concerned with the study, preservation and interpretation of artifacts, images, sites, and structures illustrating the industrial activities of the 20th century, rather than being limited to the remains of the industrial revolution, as was traditional in the British context. In that respect his work had a profound influence on industrial heritage conservation policies that developed in England and other European countries. Under his guidance, the Ironbridge Institute acquired an international fame: students from Australia, Canada, the U. S., Germany, Japan, and Slovenia came to study there, and visiting scholars came to do research or participate in field trips.

Canadian students at the Ironbridge Institute were highly motivated by Stratton's enthusiastic and stimulating teaching. He would stir up the discussion regarding new concepts and controversial issues, such as the picturesque aspect of a derelict industrial landscape. In his lectures and meetings, Michael was keen on presenting details to foreign students and would not hesitate to explain at length the British geographical or histor-

ical context of the archeological sites or structures under study; as well, he was thoughtful in accepting modifications to research theories. He generously animated the field trips with humor, and with a selection of friendly pubs that might not have yet won a star or two in the Michelin guide.

In an article released in 1984, Stratton noted that the study of industrial architecture had received little consideration either from industrial archeology or from architectural history. Consequently, he abundantly explored this subject in his books where he brought forward a methodology that associated the technological and aesthetic achievements of factories and commercial buildings. *The Terra Cotta Revival: Building Innovation and the Image of the Industrial City in Britain and North America* (1993) illustrates the relations between the making of terra cotta and its use in the architecture of banks, cinemas, museums, hotels, railway stations, schools, and skyscrapers. The book shows examples of the contribution of American terra cotta

manufacturers to the work of architects like Adler and Sullivan, Burnham, Preston, and Zucker. *A Gazetteer or British Car Factories From 1896* (1993) documents the influence of Henry Ford's Highland Park plant in Detroit on multi-story layouts and concrete construction. His other publications include: *Ironbridge and the Electric Revolution* (1994), and *The English Heritage Book of Industrial England* (1997) with Barrie Trinder, as well as a number of articles on British textile mills, aircraft production, lead mines, and on the conservation of architectural ceramics. He also was associate editor and contributor to *The Blackwell Encyclopaedia of Industrial Archaeology* (1992).

Gifted with a vivacious spirit, Michael was able to blend harmoniously his stunning sense of humor with his dedication to IA matters: this is the impression he gave me when we first met at the TICCIH Conference held in Lowell and Boston, in 1984. Our subsequent meetings confirmed that impression. During my study trip to the Ironbridge Institute in 1988, besides providing me references on the development of the power system in England, he also kindly introduced me to the art of the limerick. The preparation of his book on terra cotta was another occasion for us to exchange information on ceramic tiles from Puebla and Oaxaca, in Mexico, where I had done field work for my M.A. in Museum Studies in the early 1980s. Besides delivering a brilliant presentation at the TICCIH Conference in Canada in 1994, Michael was eager to know more about Montreal's transit system. I was told later that he fancied early morning subway or bus rides when visiting a city for the first time. After the conference, Michael sent me a signed copy of his book on *Ironbridge and the Electric Revolution*: "With many thanks for a wonderful introduction to the joy of Québec." I am quite moved to return the compliment to Michael: Thank you for introducing us, your friends, colleagues, and students to the lively, eclectic and joyful environment of industrial archeology.

Besides a legacy of professional accomplishments in researching, writing, teaching, and promoting the fields of industrial archeology and history of architecture, Michael leaves behind his wife, Annabel Pears, whom he married in 1989, and their two sons.

*Louise Trottier*

## SITES & STRUCTURES

With the impending loss of Cleveland's four **Hulett unloaders** (one will be disassembled and mothballed), the pair of active Hulett unloaders at the **Chicago Coke Plant of LTV Steel Co.** will become the Great Lakes only remaining examples in situ. Frank Beberdick [SIA] reports that members of HAER's Chicago bridge project team visited LTV Steel's unloaders in June. Physically smaller than Cleveland's unloaders, Chicago's also are much newer, installed by the Defense Plant Corp. at the beginning of World War II. Republic Steel was the owner of the plant before LTV Steel. Today, these units are used for coal unloading since LTV no longer produces steel here and everything but the coke operation has been demolished. The coke is shipped by rail to a steel mill in northwest Indiana. Approximately 15, 1,500-ton capacity coal barges are unloaded per week by the two Hulett's. One has been converted to remote operation for safety considerations. The operator no longer rides in the cab above the clamshell bucket. LTV personnel were optimistic about the continued operation and future of their Hulett's.

The **McNeil Street Pumping Station** (NR, HAER) in Shreveport, LA, was named a National Historic Civil Engineering Landmark by the American Society of Civil Engineers at a ceremony in August. The 1887 water plant's 1921 Worthington-Snow steam pump was the last steam-powered equipment to deliver water to a major U. S. city when it closed in 1980. The local preservation society recently revived efforts to preserve and restore the pumping station. It joined forces with the ASCE's Shreveport branch to prepare the landmark nomination. Other sites receiving National Historic Civil Engineering Landmark status in 1999 were the **Cape Hatteras Lighthouse** (NC) and the **Blue Ridge Parkway** (NC-VA).

**The Bridge of Lions** (NR, 1925-27, St. Augustine, FL) has been slated for rehabilitation rather than demolition by the Florida DOT after a vigorous campaign to save the bridge by preservationists. The SIA passed a resolution in support of the bridge in June (see SIAN 28,2). The Bridge of Lions is a 23-span, 1,538 ft.-long arched steel deck girder bridge with a double-leaf bascule span. The two-story bascule operators' houses are in the Mediterranean-Revival style. The Florida DOT announced its decision after a period of public comment in which opinion rallied toward saving the bridge. The Save Our Bridge Committee, which made a presentation at the SIA's Savannah conference, was a key local supporter of the bridge. The decision to rehabilitate rather than replace is just the first step. There are still many important decisions to be made about the details of the proposed work. Members of the committee and other supporters of the bridge have been granted "consulting party" status for showing long-term demonstrated interest in the project, and they will be involved from here on as part of a memorandum of agreement with the DOT. A potential obstacle remains: the U. S. Coast Guard has threatened to block the project because of its desire for a new bridge with a wider navigational clearance.

Arlyne Reichert [SIA] reports excellent progress with the 1919-21 **10th Street Bridge** (NR) in Great Falls, MT, a 1,130-ft. long, reinforced-concrete, open-spandrel-arch bridge (see SIAN 25,2 & 27,2). In 1996, Montana DOT had let a contract to demolish the Great Plains states' oldest open-spandrel-arch bridge but a grass-roots preservation campaign helped save it at the last minute. The

DOT reallocated \$400,000 earmarked for demolition to rehabilitation on the condition that the city take ownership and that a local preservation group, Preservation Cascade, take on the job of raising the additional \$300,000 required to rehabilitate the bridge by 2002. In May, Preservation Cascade sponsored a historic bridges conference, attended by many of SIA's pontists, that helped raise regional awareness about historic bridge preservation. This summer work began removing the bridge's old deteriorated railings, which will be replicated. As a fundraising activity, the preservation group is selling the bridge's old urn-shaped balusters for \$50 each. Many of them are now appearing as birdbath stands and garden statuary in Great Falls's backyards. The bridge has been named by the National Trust as an *Official Project of Save America's Treasures*. This will qualify the bridge for funds from foundations and grants agencies. Over \$70,000 has already been raised locally. A videotape of the 2-day Montana historic bridges conference is available for \$80, with \$25 of the price going to the save the bridge fund. To order a videotape contact: MR Video (406) 761-6346.

The 1889 **Oberlin (OH) Gasholder House** (NR) is getting a new lease on life as city officials and committed residents explore ways to find an adaptive reuse for the structure. According to the *Chronicle-Telegram*, ideas for the gasholder house include a museum or a comfort station for a bike path. The structure was built by Albert H. Johnson to enclose a gasholder storing coal gas produced by his Oberlin Gas Lighting Co., which supplied gas to homes, industries, and streetlights throughout the city. The roughly 21-ft. high, circular brick structure with a conical roof is one of about 15 such gasholder houses remaining in the U. S. It was used for its original purpose until 1918. Since then, the gasholder was removed and the structure was converted to storage with the addition of a second floor and garage door. The current owner will donate the gasholder house to the city after funding has been secured for renovation.

The 1893 **Baltic Mill** in Sprague, CT, was engulfed in a fast-moving fire on Aug. 11 that left the eastern Connecticut landmark gutted. The four-story textile mill on the Shetucket River was noted for its beautiful, gray-granite ashlar construction and tower with arched belfry opening, corbeling, and parapet. It was considered by many in the community a beautiful, character-defining monument to the town's industrial past, but efforts to adaptively reuse the mill, closed since 1967, had been difficult and uncertain. Because of the mill's doubtful future, it was recorded by Bruce Clouette [SIA] for the Connecticut Historical Commission in 1998. The *Norwich Bulletin* (Aug. 12) noted that the Baltic Mill fire is the latest in a tragic series that have destroyed eastern Connecticut mills since the 1970s. Also on the casualty list are the Palmer Bros. Mill (Fitchville), Ashland Mill (Jewett City), Revere Textile Mill (Sterling), Occum Mill, and Putnam Mill.

**Richmond Furnace** (MA), the site of several weekend documentation projects conducted by the SIA New England Chapters in the 1990s, was listed in the National Register of Historic Places in August. The historic district encompasses over 290 acres and includes more than 180 individual resources associated with the Richmond Iron Works. The works produced merchant pig iron

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## Kathryn June Kapsch



**Kathy Kapsch**

**Kathryn June Kapsch** died at age 54 on March 25 at her home in North Potomac, MD, after a long illness with Amyotrophic Lateral Sclerosis (ALS, also known as Lou Gehrig's disease). An enthusiastic SIA member, Kathy was well known to members of SIA through her attendance, with her husband Robert Kapsch, at SIA annual meetings since 1980. Professionally, Kathy was a human resources director for several hotels in Washington,

D.C. Through her SIA membership, she became interested in a wide range of IA topics. She will be missed.

## IA in Art

(continued from page 10)

between the massive scale of construction and the diminutive people on site, many of which were published in his *Pictures of the Panama Canal* (1913). Drawings and photography by members of the Army Corps of Engineers provide a factual counterbalance to the artistic interpretations of canal construction. Stereographic photographs convey a view of Panama via the 3-D technology of 1912. The exhibition has been organized by a husband and wife team Professor George R. Goethals (the general's great-grandson), who teaches psychology at Williams, and Marion M. Goethals, the associate director of the museum.

At the West Point Museum, a second exhibition focused on the canal is titled "Major General George W. Goethals and an Artistic Excursion through the Panama Canal" (Dec. 1, 1999 thru Feb. 2000). Lie's other six canvases are included, as well as a series of watercolors dating from 1912 by William Pretyman, an amateur artist who was a friend of General Goethals, whose connection to the academy is also highlighted in the show.

Mining was the transformative industry of the American west, and the tremendous excavations typical of open-pit operations must have struck Lie as comparable to what he had witnessed in Panama nearly a quarter century earlier. His *Bingham Mine* was executed three years before his death. By the time he painted this unusual theme, he had become an advocate of conservative art values, serving as president of the National Academy of Design (1935-39). The enormous Utah copper mine is the largest open pit in the world. Located near Salt Lake City and operated by the Kennecott Corporation, the site featured the many structures typical of such installations, including trestles for the ore trains. As with the canal paintings, workers are scarcely visible, only the results of their hard labor. The energetic plumes of smoke indicate active production and recall the determinedly coordinated effort necessary to alter the landscape on an immense scale.

**AUTHOR:** Betsy Fahlman is a professor of art history at Arizona State. Readers are encouraged to suggest essay ideas for the column, or submit their own to her at: College of Fine Arts, Arizona State Univ., Box 871505, Tempe, AZ 85287-1505; e-mail:fahlman@asu.edu. ■

## A Superior Conference

(continued from page 6)



Sandy Norman photo

**Headframe at Pioneer Mine, Ely. We will be allowed to climb to the top!**

underground using 1880s hoisting machinery. The Pioneer Mine in Ely will offer the opportunity to climb to the top of the headframe. Ely is a gateway for the Boundary Waters Canoe Area and outfitting is a major industry. We're hoping to get a tour of Steger Moosehide Mukluks, owned by the ex-wife of polar explorer, Will Steger.

The Hoyt Lakes/Two Harbors tour will include the ore docks in Two Harbors. Other likely stops include Split Rock Lighthouse; the LTV taconite processing plant in Hoyt Lakes, operating the oldest pelletizing machinery in the area; and the original site of 3M, which began mining abrasives in the Two Harbors area; and, the Duluth, Missabe & Iron Range Railway tugboat, the *Edna G*.

The Hibbing tour will travel to the Hill Annex open pit mine; the Hibbing Taconite plant; the Greyhound Museum, commemorating the beginnings of the national bus company here in 1914; and Ironworld, which houses an interpretive center and operates a 1920s electric trolley car along the rim of the Glen open pit mine.

For pre- and post-conference tours we are planning to offer a harbor boat cruise and a train excursion.

For more information, contact SIA headquarters or check the Website at <http://www.ss.mtu.edu/IA/sia.html>. ■

## NOTES & QUERIES

The **New Jersey Historical Diving Association** (NJHDA) has recovered a **heat exchanger** from a shipwreck that they believe to be a fuel barge. The vessel may be the *Cecilia M. Dunlap*, built in 1876 and sunk in 1931. What is certain is that the vessel had no means of propulsion via propellers or side-wheels. She was either a sailer, de-masted sailer, or a barge-to-be-hauled design. She had a steam plant including a large boiler at her stern, but none of the parts remain interconnected. The group is attempting to discover the original configuration and purpose of the steam plant and the use of the heat exchanger. They are looking for SIA members with knowledge of marine steam power to assist them. Contact: Dan Lieb, NJHDA, 3 Main St., Avon-By-The-Sea, NJ 07717; e-mail: [aqualieb@aol.com](mailto:aqualieb@aol.com).

The **Soudan Mine Underground State Park** (Soudan, MN) is in search of a **hoist motor** of historical quality to serve as a nearly identical backup to one currently in use. The 2,400-ft. deep, inactive mine is open in the summer for tours. Their current motor is a ca. 1930 Westinghouse, Type CW wound motor, 600 hp, 2200 v, 60 cycles, 3 phase, 155 amps per terminal, 350 RPM, 551 amps per ring, 40 degree temp. rise, rotor circuit 477 v. It is in excellent working condition (having recently been rewound), but in the event of failure the park would like to maintain a similar operable backup. Contact: Dan Hestetune, PE, Minnesota Dept. of Natural Resources, Soudan Mine Underground SP, Box 335, Soudan, MN 55782; (218) 753-2245; e-mail: [dan.hestetune@dnr.state.mn.us](mailto:dan.hestetune@dnr.state.mn.us).

**National Preservation Institute** offers a wide range of seminars in historic preservation and cultural resources management for both the professional and community leader. The institute is a nonprofit organization that provides training for the management, development, and preservation of historic, cultural, and environmental resources, including help with understanding federal programs and regulations. The seminars are offered at various locations across the U.S. Info: NPI, Box 1702, Alexandria, VA 22313; (703) 765-0100. Website: [www.npi.org](http://www.npi.org).

**Minnesota Historical Society's Research Grants** each year make available funds to support original research and writing leading to interpretive works on the history of Minnesota.

Especially encouraged are projects that cover subjects not well represented in the published record, including (of interest to SIAers) workers and work. Applications are reviewed three times per year. Info: Deborah L. Miller, MHS, 345 Kellogg Blvd. West, St. Paul, MN 55102; (651) 296-6126; e-mail: [debbie.miller@mnhs.org](mailto:debbie.miller@mnhs.org).

**IA in Philately.** The U. S. Postal Service's commemorative stamps for 1999 include several issues of interest to SIAers wishing appropriately to adorn their mail. The heritage of America's railroads is celebrated by the All Aboard series of stamps picturing five renowned streamlined passenger locomotives of the 1930s and 1940s. The sesquicentennial of the 1849 California gold rush is commemorated with a stamp of prospectors at work in the Sierra Nevada Mts. The American Glass series of stamps features glassware from the Corning Museum of Glass. The stamps highlight four different glassmaking processes—free-blown, mold-blown, pressed, and art. Finally, a new stamped postcard features the Block Island (RI) lighthouse.

**Japanese IA Database On-line.** The Toyota Foundation has funded for the last 10 years an effort by the Japan Industrial Archaeology Society and Industrial Heritage Study Group to create a multi-media database with descriptions, images, and maps of Japan's industrial heritage. The database comprises over 7,000 entries, 20,000 image files, and geographical data links so that the location of an industrial site can be pinpointed on a map. Leedom Lefferts [SIA] writes that the website can be checked out at <http://toyotafound.or.jp/> by clicking on the engine on the left side of the screen. Although almost all of the text is in Japanese, an article by Hoshimi Uchida, "Short History of Japanese Technology," is in English. Most of the documented sites are in the Chibu region but there are efforts to fill out the database with the cooperation of researchers in other regions of Japan. *The Toyota Foundation Occasional Report No. 27* (July 1999) carries a lead article that describes the genesis of the project to document Japan's industrial heritage on computer.

**Correction.** *SIAN* (28,2), photo top of p. 7, incorrectly identified the location of the Chrysler engineering and design center. It was located in Highland Park, Michigan, not in Dearborn.

## CHAPTER NEWS

**Roebling** (Greater NY-NJ) toured Bethlehem Steel's Bethlehem plant in August. The plant remained in production until 1995. Historically significant sections have been slated for preservation as a national museum of American industry. The chapter's annual corn roast was at Gerry Weinstein's place at Croton-on-Hudson in September. *The 19th Annual Symposium on Industrial Archeology in the New York-New Jersey Area* was held at Drew University in October. The symposium featured presentations on the artistry of manhole covers, the Lehigh Valley RR in Perth Amboy, the terra-cotta industry in New Jersey, Conrail bridges in eastern Pennsylvania, steam at Bergen Vo-Tech, the Phelps-Dodge site in Queens, and historic timepieces in New York City.

**Oliver Evans** (Philadelphia) held its annual meeting at the Eastern State Penitentiary NHL in September. Oliver Evans flour mills were the theme of the chapter's tour to Lancaster County's Mascot Roller Mills (1760) and Rohrer's Mill (1834) in October.

**Montgomery C. Meigs (Original)** (Washington, DC) co-sponsored a tour of the Washington Navy Yard with the Latrobe Chapter of the Society of Architectural Historians in October. The shipyard, which is celebrating its bicentennial, was the nation's first official naval shipyard.

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## CALENDAR

2000

**March 16-19: American Society for Environmental History Annual Meeting, Tacoma, WA.** *Into the Next Millennium: The Past and Promise of Environmental History.* Info: Mart Stewart, Dept. of History, Western Washington Univ., Bellingham, WA 98225-9056; (360) 650-3455; e-mail: [smar4@cc.wwu.edu](mailto:smar4@cc.wwu.edu).

**April 6-9: Preserving the Historic Road in America, Morristown, NJ.** Sponsored by the National Trust for Historic Preservation. Info: Dan Marriott (202) 588-6279; e-mail: [dan\\_marriott@nthp.org](mailto:dan_marriott@nthp.org).

**June 1-4: SIA Annual Conference, Duluth, MN.** Co-sponsored by the St. Louis County Historical Society. Info: SIA-HQ, Michigan Tech Univ., 1400 Townsend Dr., Houghton, MI 49931; Website: [www.ss.mtu.edu/ia/sia.html](http://www.ss.mtu.edu/ia/sia.html).

**July 14-18: First International Conference, National Association of Mining History Organizations, Cornwall, England.** Sponsored by Carn Brea Mining Society and Camborne School of Mines. Info: Maureen Holmes, Rivergarth, Bar Meadows, Malpas, Truro TR1 1SS, UK.

**August 17-20: Society for the History of Technology (SHOT) Annual Meeting, Munich, Germany.** Info: SHOT Office, Dept. of History, Auburn Univ., Auburn, AL 36849. Website: <http://shot.press.jhu.edu/associations/shot>.

**August 23-26: Society for Commercial Archeology Annual Conference, Manitou Springs, CO.** Conference theme: Automobile culture in the Rocky Mt. West. Website: [www.sca-roadside.org](http://www.sca-roadside.org).

**Aug. 30-Sept. 7: TICCIH 2000: The Millennium Congress, London, England.** Three days of working sessions in London, followed by choice of four days of regional touring of industrial sites in either Cornwall, Wales or Scotland. Info: Rosy Hayward, The Science Museum, London SW7 2DD, UK; e-mail: [cc@conferencecontact.co.uk](mailto:cc@conferencecontact.co.uk).

**Oct. 11-13: Preserving the Recent Past II, Philadelphia, PA.** Info: Box 75207, Washington, D.C. 20013-5207. Website: [www2.cr.nps.gov/tps/recentpast2.htm](http://www2.cr.nps.gov/tps/recentpast2.htm).

## SITES & STRUCTURES

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between 1828 and 1923, and it constructed a network of iron ore mines, limestone quarries, and charcoal kilns to feed the blast furnace. The company also built the community of Richmond Furnace, which includes worker housing, an ironmaster's house, company office, and school. The NR nomination was prepared by Matt Kierstead, president of the SIA Southern New England Chapter. The 14-acre parcel that includes the blast furnace is for sale, raising concerns for the site's future. The property includes a picturesque two-story cottage (1931) built of stone scavenged from the old iron works. In addition to the blast furnace stack, the property includes remains of the mill pond, dam, wheel pit, raceways, charcoal kilns, ancillary furnace structures, and the salamander dump. This property needs an owner who can offer continued stewardship and research access. Info: Sheila K. Thunfors, Stone House Properties, (413) 232-4253. ■

## CHAPTER NEWS

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**Southern** held a program at Sloss Furnaces NHL in August. Jack Bergstresser gave a presentation on the archeological excavation of the original blacksmith shop. Southern chapter members have been busy volunteering significant amounts of time to organize the SIA's Fall Tour in Birmingham (Nov. 4-7). [Editor's Note: Thank you!]

**Southern New England** toured New England Ropes and PG&E's Brayton Point Power Plant in November. New England Ropes, established in New Bedford in 1967, is a maker of spun and braided ropes, some with unique and patented techniques that allow for extra strength and durability. Brayton Point (1964) is New England's largest fossil-fueled electric power plant. ■

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