

# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

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Number 1

### DYNAMITE, MURKY DEALS CLAIM BIG BRIDGES IN MN, NY



Smith Avenue High Bridge spans are blasted into the Mississippi River at St. Paul, Minn. *Steve Schluter photograph for the Minneapolis Star & Tribune.*

**ST. PAUL.** With the sequential detonation of some 76 lbs. of explosives, the river spans of the 1889 Smith Ave. High Bridge [NR; viewed from riverboat during 1983 Annual Conf.] were dropped into the Mississippi. Moments later, the Feb. 25th demolition toppled the supporting towers, leaving the lesser approach spans to be dismantled later by crane. At 2,770 ft., the largely wrought-iron, modified Warren, pin-connected deck truss was the Twin Cities' longest extant 19th-C bridge. Built across the river's flood plain, it rose at a 4% grade from 80 ft. above the river at its north (downtown) end to a towering 182 ft. at the south bluff. It was designed by the St. Paul city engineering dept., fabricated by the Keystone Bridge Co., and erected by Horace E. Horton, a Rochester, Minn. native who went on to head Chicago Bridge & Iron.

In 1904 a severe wind storm destroyed the south spans, which then were rebuilt in steel. By the 1970s, these steel spans were increasingly deteriorated while the original wrought-iron remained in relatively good condition. Over the past few years plans moved ahead on replacement and a modest recording project [HAER standards] was begun. Suddenly last summer, however, the bridge was closed by MNDOT, which expressed great concern for its structural condition. Important access to neighborhoods was cut off, and residents and merchants alike were outraged, having been promised the

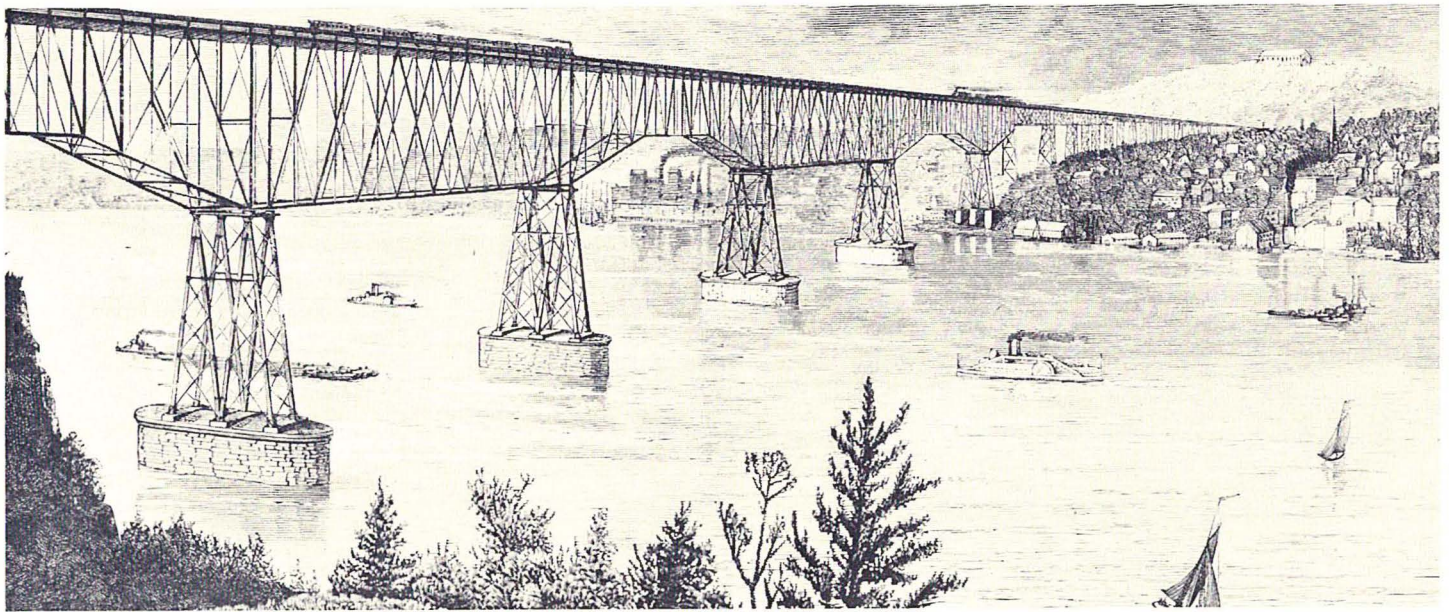
use of the old bridge until a new one was completed several years hence. It was clear that there would be no new bridge for some time, as the original replacement date was in the late 1980s. Those affected lobbied for new construction speedup, and funding now has moved faster than would otherwise have been the case. Residents on the city end, less dependent on the bridge for economic life, had never wanted the demolition, but finally settled for input on the new design, now to be a steel arch instead of the economical concrete box girder first requested by the state.

The closing also hurried demolition plans, of course, resulting in the Feb. razing. Long a landmark to St. Paulites, the bridge's last gasp drew some 25,000 witnesses, most aiming cameras in a seemingly compulsive urge to record the event, which was over in seconds. Two TV helicopters were stationed just upstream. Later, salvage crews fishing the tangled iron from the water reportedly found the huge connecting pins, subject of much DOT concern, to be in excellent shape.

**POUGHKEEPSIE.** The great double-track RR cantilever truss across the Hudson River at Poughkeepsie, N.Y. [NR], has become snarled in political and legal complexities while continuing to evade

*Continued on next page*





The great railroad bridge over the Hudson River at Poughkeepsie, New York.

*Continued from page 1*

demolition. A \$1 sale last year by Conrail to an obscure developer has raised concerns about the morality of a quick deal with an unknown newcomer, simply to avoid ongoing liability and demolition costs. Poughkeepsie officials and bridge preservationists are wondering what will happen next.

Lauded as "one of the great bridges of the century" by Carl Condit, it was built by the Hartford & Conn. Western Rwy. under an 1873 charter. After financial problems and delays, active work began in 1886 with completion in 1888. Construction was by the Manhattan Bridge Co., Union Bridge Co. of Buffalo, and Dawson, Symmes & Usher, foundation engineers of N.Y.C. The original 1879 design by the Poughkeepsie Bridge Co. was substantially reworked by structural engineers J.F. O'Rourke, P.P. Dickinson, and A.B. Paine.

Penn Central RR and Conrail marshalled New England-bound freight at Selkirk Yard near Albany, bypassing the bridge, which was closed by then-owner Conrail after being severely damaged in a 1974 fire. In late 1983, the *Poughkeepsie Jnl.* learned that Conrail was negotiating for demolition and a contractor, Jet Research Center of Arlington, Tex., had applied for a demolition permit. Concerned citizens formed a Save the Bridge Committee and a year later the bridge was purchased for \$1 by Railway Management Assocs. with the announced intention of preserving it. RMA is an anonymous limited partnership based in St. Davids, Pa., and its principals, offices, and financial organization have remained a mystery to those in Poughkeepsie who wonder about RMA's development plans. RMA agent Gordon S. Miller has said that the group will fund maintenance and insurance, some \$250,000, and intends to preserve the bridge and develop it into a tourist attraction during the next decade.

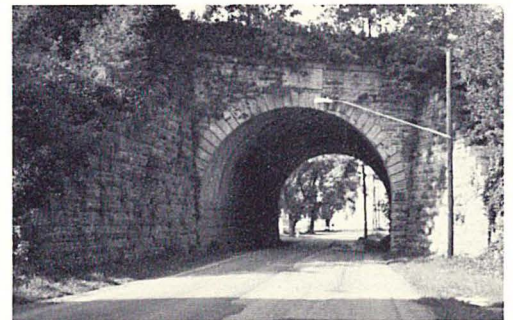
According to Condit, the overall length, including approaches, is 6,767 ft., with a 548-ft. channel span — both records for a steel structure and, for its time, "virtually in a class by itself." The central structure is described thusly: "The seven trusses of the river crossing are arranged symmetrically about a central pair of cantilevers and a suspended span, the three together having a length of 546 ft. From end to center span on each side there are, in order, an anchor span 201 ft. long, a pair of cantilevers and a floating span together 548 ft. long, and a connecting simple span 525 ft. long and 88 ft. deep." The cantilevers and anchors are modified Warren trusses with posts.

The fire damage could be repaired for an estimated \$9-25 million. But Conrail has removed the tracks from both sides at a cost of \$6,000 a mile, and putting them back would cost \$165,000 a mile — altogether an expensive obstacle to one reuse plan of running a new freight and passenger line across the bridge.

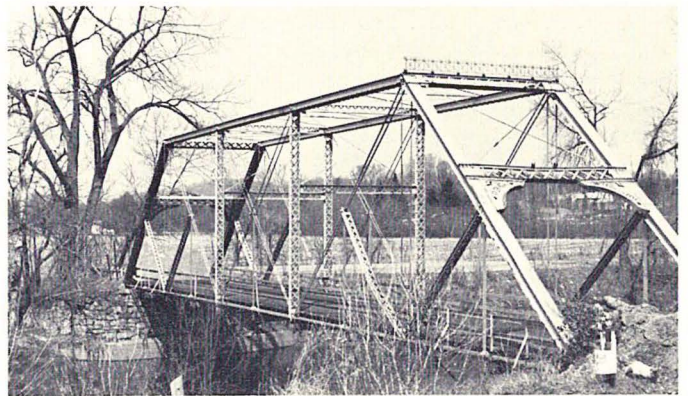
Meanwhile, the increasingly entangled affair has been getting more press coverage, including a lead story in the April *Preservation News*

which, unfortunately, said nary a word about the bridge's great engineering significance. *The Shoreliner* (New Haven RR Hist. & Tech. Assn. newsletter) has been following the story carefully for over a year.

**SILVER CREEK, N.Y.** The Silver Creek Hist. Soc. is seeking info. to assist them in preparing a Nat. Reg. nomination for their 1869 skewed stone-arch bridge, originally built for the Lake Shore RR to cross Jackson St. They are particularly interested in learning more about the designer, E. Laguerre. Contact L.F. Pelletter, S.C.H.S., 172 Central Ave., Silver Creek NY 14136.



Right: The 1869 skewed stone-arch bridge at Silver Creek, N.Y. Louis F. Pelletter photograph.  
Below: Available for the asking is this 1901 Baltimore throughtruss near Greenwich, N.Y. Peter L. Howard photograph.



**GREENWICH, N.Y.** The 1901 Hegeman-Hill Street Bridge [NR-elig.], a 162-ft. single-span Baltimore through-truss over the Battenkill River near Greenwich, Washington Co., N.Y., is available free from the N.Y. State Dept. of Trans. Built by the Owego [N.Y.] Bridge Co., the ornamental structure displays a cut-out "OB Co." on the left knee brace and "OWEGO NY" on the right. Moving costs are reimbursable. Deadline for inquiries is August. Contact Terrence P. Cummings, NYSDOT, 84 Holland Ave., Albany NY 12208 (518-474-9353).



# SIA AFFAIRS

The Society is pleased to announce receipt of a seventh royalty check for \$61.22, from sales of *Historical Archaeology: A Guide to Substantive & Theoretical Contributions*, ed. Robert L. Schuyler (\$19.50 ppd., Baywood Publishing Co., Inc., Farmingdale NY 11735).

**NORTON PRIZE ANNOUNCED.** The Norton prize is awarded to the author of the outstanding scholarly article published in *IA* during the last three years. It is intended to encourage and recognize scholarship within the broad discipline of industrial archeology. The Norton Prize recipient for 1985 is **Terry S. Reynolds** for "**The Soo Hydro: A Case Study of the Influence of Managerial and Topographical Constraints on Engineering Design**," *IA*, Vol. 8, No. 1, 1982.

**1986 ANNUAL CONFERENCE.** The SIA 15th Annual Conf. will be hosted by the Western Reserve Historical Society in Cleveland, O., June 12-15, 1986. Proposals for papers relating to the conference theme, "Industry and Urbanism in the Midwest," should be sent by Sept. 30 to Darwin H. Stapleton, Dept. of Interdisciplinary Studies, Case Western Reserve Univ., Cleveland OH 44106.

**1986 FALL TOUR,** a coastal tour of southeastern Conn. and adjacent R.I. featuring maritime industries, will be headquartered in Mystic, Conn., and cosponsored by the Conn. Historical Commn. and the Southern & Northern New England chapters, SIA. Tours will be chaired by Mary M. Donohue, CHC survey director, David A. Poirier, CHC archeologist, and Sarah C. Gleason, Rhode Island Dept. of Environmental Mgt.

## NEWS OF MEMBERS

**Mark R. Edwards**, Deputy State Historic Preservation Officer for Maryland, was appointed to the Board of Directors of the Nat. Conf. of State Historic Preservation Officers. Edwards also is administrator of the Survey & Planning Services Div., Md. Hist. Trust, the state's historic preservation office.

**Elliot Willensky**, coauthor of the *AIA Guide to New York City*, was appointed vice chairman of the New York City Landmarks Preservation Commission, where he has served since 1979.

**Margot Gayle** and Friends of Cast Iron Architecture, which she founded and continues to serve as president, were honored on FCIA's 15th Anniv., Mar. 18, with a congratulatory resolution by the New York City Council — whereupon, reports the *The N.Y. Times*, "Margot Gayle ignored protocol. She jumped up and publicly thanked the entire commission for its vote. . . 'Of course, you're supposed to sit there silently,' she said, but I couldn't resist. Isn't it nifty?" Coincidentally, albeit appropriately, a five-story, 1857 James Bogardus CI building had just been designated NYC's latest landmark.

**John T. Dizer, Jr.**, dean of technology & business, Mohawk Valley Community Coll., Utica, N.Y., has been named a Fellow of the American Society of Mechanical Engineers. Along with numerous professional papers, Dizer has authored *Tom Swift & Company* for young people.

When Mayor Wilson Goode declared Feb. to be Preservation Month in Philadelphia, the official proclamation was presented to **Gersil N. Kay** of Restore Philadelphia, Inc.

**Robert M. Vogel**, NMAH Smithsonian, and **Edward S. Rutsch**, Historic Conservation & Interpretation, Inc., are serving as Special Advisory Editors for the quarterly *North American Archaeologist*, Baywood Pub. Co., Farmingdale, NY 11735.

Among those contributing essays to *Built in the U.S.A.: American Buildings from Airports to Zoos* (Nat. Trust for Hist. Pres., 1985, paper, 192 pp., \$9) are **Dianne Newell** (breweries), **Donald Jackson** (bridges), **Robert Vogel** (industrial structures), and **Herbert Harwood** (RR stations).

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## LOCAL CHAPTERS

**SOUTHERN NEW ENGLAND CHAPTER (SNEC)** hosted a joint meeting with the Northern New England Chapter at Old Sturbridge Village on Nov. 3, 1984. The two chapters agreed to provide copies of their publications to more local institutions and libraries.

Following the morning meeting, a special guided tour of Sturbridge Village focused on the newly reconstructed vertical saw mill, a project initiated nearly a decade ago by SIA past president **Ted Penn**. It is now completed and interpreted by OSV staff. Ted provided an overview of the project, assisted by **John Worl**, director of OSV interpretation. **Myron Stachiw** of the OSV research staff provided additional interpretation of other OSV sites, including the traditional pottery shop.

The afternoon concluded with a tour of the last remaining commercial charcoal manufacturing facility in New England using circular kilns. Union, Conn., is the home of the Conn. Charcoal Co., established in 1939 by the Wells family, one of the founders of Old Sturbridge Village. As the result of the damage to large areas of local forests from the devastating hurricane of 1938, a number of portable sawmills were established to quickly dispatch the fallen trees into lumber, and three charcoal kilns were built the next year to take care of the massive amounts of slash and slabwood which resulted from these operations. The Rome family purchased the company in 1946 and operated it until 1980, when it came under the control of the Rossi Co.

Over the years the three kilns were expanded to seven, the last built in 1969. They are traditional in style, of battered-wall design and about 30-35 ft. in diameter and height. Each contains over 70,000 bricks. Iron bands about the circumference add stability. One of the 1939 kilns remains in operation today.

The process of making charcoal at Union is similar to traditional 19th-C efforts, with a few modern twists. Today, the kiln fire is started by igniting a few gals. of #2 fuel oil in the kiln, and the smoke is drawn out the lower loading door through filters in response to EPA clean air requirements. With the old method, the hot gasses and smoke passed out the top circular vent, drawing air into the kiln through rows of brick-size vent holes near the base.

The yield of the Union kilns is a surprising 45-50 bu. of charcoal per cord of wood. This compares favorably with traditional yields of 45-50 bu./cord in 19th-C coaling operations for similar kilns. Customers for the charcoal include various foundries in Conn., Mass., N.J., and N.Y. The Conn. Charcoal Co. also sells charcoal for starting coal stoves in winter and is establishing a retail barbecue market for the "clean coal"; briquette charcoal usually contains many non-charcoal additives.

New SNEC officers elected for 1985-86 include: **Jeffrey C. Howry**, president, and **Anne Booth**, program chairperson. *J.C.H.*

**ROEBLING.** Despite all the work with the Annual Conf., RCSIA managed to schedule a day-long June outing at the Easton Canal Museum and the private Mack Truck Museum. *T.F.*



## LETTERS

*Regarding "IA in Art" (SIAN Winter 84:13):*

I have seen Weller's GARMENT WORKER, and it is ugly. Not well placed at all, and somewhat misleading given the number of garment workers who were female. Also very retardataire. With so many jazzy artists working in NYC, surely they could have designed something more monumental and telling. A renegade opinion, perhaps.

*Betsy Fahlman  
Dept. of Art, Old Dominion Univ.*



## NOTES & QUERIES

**PATENT NAME INDEX.** Preparation of a composite name index of the 1,700,000 patents registered in the U.S. before 1930 is proposed by John H. White, who invites suggestions about funding and managing such a project: JHW, NMAH Smithsonian Inst., Wash. DC 20560.

**A SHOCKING EXPERIENCE** awaited members of the Baltimore Museum of Industry who joined the museum's tour in March of nearby Locke Insulators Inc., the largest high-voltage insulator manufacturer in the U.S. Tour-goers watched huge lathes turn chunks of clay into massive insulators, similar to one on display in the museum's "Turning on the Power" exhibit. The tour concluded in a special room where the insulators are shot through with an artificial lightning bolt as part of a quality check.

**PRESERVATION WORKSHOP SERIES.** The Campbell Center for Historic Preservation Studies has announced its 6th season of summer workshops, featuring three sequences: Architectural Preservation (8 sessions, June 10-July 11), Care of Museum Objects (7 sessions, June 3-July 17), and Furniture Conservation (7 sessions, June 17-July 13). Individual sessions are one to five days each. The Campbell Center is located on 14-acre campus in the Mt. Carroll, Ill., National Register Historic Dist. of 19th-C, largely Georgian Revival, structures. A not-for-profit organization, the Center was established in 1980 and is the only school in the U.S. devoted exclusively to offering short courses in the conservation and preservation of cultural resources, thus allowing practicing professionals and others to continue their training without interrupting their careers.

The Architectural Preservation series includes: "Measuring & Recording Historic Buildings," K. Edward Lay, U. of Va.; "Photography of Historic Architecture," Jeff Dean, Wisc. SHPO; "Historic Preservation Maintenance," Norman Weiss, Columbia U., & Martin Weaver, Heritage Canada; "Masonry Cleaning & Repair," Weiss & Weaver; "Surveys & Inventories of Cultural Resources," Maureen Gustafson, Ill. National Trust Advisor; "National Register: How to List a Place," Keith Sculle (SIA), Ill. Nat. Reg. Coordinator; "Historic Architectural Paint," Frank Welsh, Consultant; and "Buildings & Collections: In Search of a Balance," Nathan Stelow, Colonial Williamsburg.

Registration is \$64/day of instruction for Center members (+ \$25 per course for nonmembers), plus room & board. Info.: Laurie Scott or Margery Douglass, Campbell Center, P.O. Box 66, Mt. Carroll IL 61053 (815-244-1173).

**IA IN THE COURTROOM.** A lawsuit involving historical IA-oriented research is noted in a recent (vols. 11-2, 1981-82, published 1984) issue of the *Historical Geography Newsletter* (Calif. State Univ. at Northridge). The 1972 collapse of a levee in the estuarine Sacramento-San Joaquin Delta resulted in a class action against the State of Calif. for damages aggregating over \$58.5 million. Known as the Brannan-Andrus Island case, it was tried before a jury in mid-1977. The instructed verdict against the State was reversed by an appellate court in late 1979. A historical geographer collaborated with a civil engineer on the research to advise a State's attorney in preparing for trial. The work involved an archival and newspaper search for the 1850-1920 period in order to reconstruct several historical events: the land and water relationship of 1850; how and when the levee in question was built; the formal and informal relationships between associations of landowners who built the levee and the agencies of the State and of Sacramento County; the nature of past flood events. The entire process was discussed in a paper presented by John Thompson at CUKANZUS '81, an Int'l Conf. of Historical Geographers held at the Univ. of Toronto in 1981. Thompson, who was involved, wrote an abstract for *HGN*, referring to "the sweet and bitter of a three-day experience as first witness for the defense." The paper was in a session on Applied Historical Geography.

**SHOT CALL-FOR-PAPERS.** The Program Committee, Soc. for the History of Technology, has issued the following call for session and paper proposals for the 1985 Annual Meeting, Dearborn, Mich., Oct. 17-19:

"We seek a diverse and well-balanced program and would like to encourage participants to address topics that have received relatively little attention at recent meetings. We will particularly welcome contributions in the following areas: nonwestern technology; technology transfer and its effects on recipient cultures; pre-industrial technology; material culture; technology and capitalism; computers and the new communications technologies. We also are especially interested in interdisciplinary proposals concerning the role of workers, women, blacks, and other minorities in technical development or which analyze the organizational context in which technical change has occurred. In addition, we would like to see at least one session or panel discussion focus on recent theoretical and methodological approaches in the history of technology, such as innovation theory, technology as knowledge, or the systems concept. In keeping with tradition, we plan to schedule both works-in-progress sessions and sessions sponsored by SHOT's special interest groups. We encourage these groups to submit proposals.

"Individual proposals must include a 150-word abstract of the paper and a one-page curriculum vita. Session proposals should include a statement of the general theme as well as an abstract and CV for each participant. Please send four copies of each proposal and CV to Susan J. Douglas, School of Communications, Hampshire Coll., Amherst MA 01002 (413-549-4600 X559)."

**OHIO'S GLASS BOOM, 1885-1920,** is the focus of a television documentary being written by Joseph Arpad, Bowling Green St. Univ., and funded by the Ohio Humanities Council. The program will trace the glass industry from handcraft through the machine process, with some research materials provided by Owens Illinois Co., Toledo; Ball Bros. Corp., Muncie, Ind.; and the archives of the Flint Glass Workers' Union in Toledo. Originating in Pittsburgh, Pa., the glass industry moved to northwest Ohio in the late 19th C because the region offered free gas and free land. At the end of the boom, glass production moved west to Indiana. Arpad is tracing a lineage of itinerant glass artists in Pa., Ohio, and Ind. He also produced a TV documentary on the region's gas and oil boom. *G.S.*

**RECORDS OPENED FOR RESEARCH.** The Hagley Museum & Library has opened the following for research: records of the Bank of Delaware, 1812-1960 (117 lin. ft.); records of the Phila. Quartz Co., mfr. of soap, candles, detergents & industrial silicates, 1831-1960 (40 lin. ft.). Info.: Research & Ref. Dept., HM&L, P.O. Box 3630, Wilmington DE 19807 (302-658-2400).

**DIGITIZING ITALY.** The entire country of Italy is being digitally mapped in a massive 5½ year project by their central mapping agency, the Centro di Calcolo Catasto Numerico (CCCN), according to *Computer Graphics World* (Mar. 1985; inc. sample printouts). Raw data includes property ownership maps dating back centuries, 5,064 province maps, 298 municipality maps, and all supporting documentation on the property transfer. Of IA interest is an attempt to establish boundaries around historic sites. Once an area has been established as belonging to this category, the oldest maps that can be located are used to establish boundaries and a survey is conducted to ascertain existing conditions. The survey maps are then laid over the old maps and the resulting information hand-digitized into the database. CCCN will be able to provide up-to-date information on the location, ownership, and boundaries of every tract and building in the nation! In the future, photogrammetric techniques will be used to update maps and the system programmed to accept digital input from photogrammetry equipment.



## AVAILABLE

**HILL RESEARCH GRANTS.** The James Jerome Hill Reference Library will award grants in 1986 of up to \$2,000 to support scholarly research in the James J. Hill Papers. The personal and business papers of Gt. Northern Rwy. entrepreneur James J. Hill include almost 500 lin. ft. of correspondence, letterpress books, financial records, and other materials from the 1860s through Hill's death in 1916. Special collections within the papers include the records of a flour mill, lumber company, experimental farms, mining and coal operations, and other enterprises. Projects funded in 1985 include studies of architect Cass Gilbert, Great Plains coal-mining, Minn.'s Iron Range, a lumber company town, and the Canadian Pacific RR. The application deadline is Dec. 1 and grants may be awarded for any time in 1986. Info.: W. Thomas White, Curator, Hill Reference Library, 80 W. 4th St., St. Paul MN 55102.

**TEXTILE HISTORY GRANTS.** Applicants are being solicited by the Museum of American Textile History for grants-in-aid from the William F. Sullivan Research Fund. Topics of special interest include but are not limited to: history of cloth-making techniques in the U.S.; the role of the corporation in community development; the impact of the industry on the regional economy; architecture; engineering; labor systems; biographies and institutional histories. The Fund trustees are particularly interested in aiding doctoral students writing dissertations and young historians preparing their first books. Several SIA members have been Sullivan Fellows. Applications are received until July 31 for projects that begin not earlier than the following Jan. 1. Following a review process, candidates are notified about Dec. 1. For more info. contact: Editorial & Research Comm., Mus. of Am. Textile Hist., 800 Massachusetts Ave., N. Andover MA 01845 (617-686-0191).

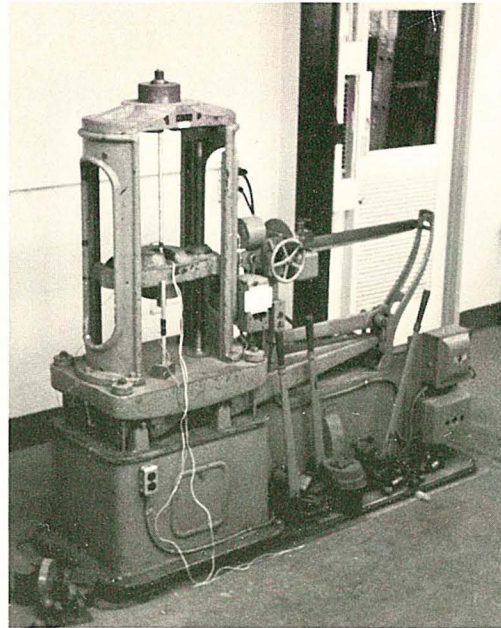
**BUSINESS ARCHIVES NEWSLETTER**, a semiannual publication of the Business Archives Section of the Soc. of American Archivists, carries notes about new corporate archives and new acquisitions in business and industrial collections, along with info. about archival programs, exhibits, meetings, publications, &c. Contact the editor for a copy: Anne Millbrooke, Corporate Archivist, United Technologies — Archive, 400 Main St., MS 124-22, E. Hartford CT 06108 (203-565-5401).

**"BANK STREET WATERFRONT"** is a brief but enlightening pamphlet outlining the results of an archeological and historical data recovery project in New London, Conn. Maps and photos reveal surviving structures and recovered artifacts from this wharf area of seaport industry, 1646-1984. Copies from Conn. Hist. Commn., 59 S. Prospect St., Hartford CT 06106.

**KAHLER RESEARCH FELLOWSHIP.** Eastern National Park & Monument Assn., a non-profit educational-service institution co-operating with the Nat. Park Service in support of its educational and interpretive programs, has announced the establishment of the Herbert E. Kahler Research Fellowship. Chief historian of NPS for many years, Kahler was the first chairman of EN's board in 1947 and currently serves as secy.-treas.

The fellowship of up to \$5,000 will be granted annually to support a scholarly study other than a doctoral thesis focusing on cultural, historical, and natural resources of the Nat. Park system. The award money may be used for travel and support during the period of research and writing. There is no application form, but applicants must present a comprehensive research proposal, together with a research and writing schedule. Letters and applications should be sent no later than Aug. 1 to Frederick L. Rath Jr., Executive Dir., Eastern Nat., P.O. Box 671, Cooperstown NY 13326 (607-547-8511).

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One of two Riehle Testing Machines that may be scrapped at Lehigh Univ.

**TWO RIEHLE TESTING MACHINES** in Fritz Engineering Laboratory, Lehigh Univ., Bethlehem, Pa, will be removed and may be scrapped if no one wants them. Both are in working condition and have been used recently in the student testing lab. Each weighs approximately 3,500 lbs., is 6½ ft. long, 3½ ft. wide, and 6 ft high. They have crosshead speeds of 5.75, 0.77, 0.37, and 0.05 inches per minute. Capacity is 50,000 lbs. If interested, contact Prof. Roger G. Slutter, Fritz Engng. Lab. Bldg 13, Lehigh Univ., Bethlehem PA 18015 (215-861-3566).

## WANTED

**MILLSTONE DRESSERS.** The Technical Advisory Program of the Soc. for the Preservation of Old Mills is compiling a national Millstone Dressers List in response to an increasing need for the services of this historic craft. If you dress stones and are interested in doing so for others, contact Stephen J. Kindig [SIA], Gristmill at Lobachsville, R.D. 2, Oley PA 19547.

**WATER TANK PHOTOS.** The Steel Plate Fabricators Assn., in cooperation with the Am. Iron & Steel Inst., is looking for photographs of early steel water storage tanks for a historical brochure. Send photos and info. to SPFA, 2901 Finely Rd., Suite 103, Downers Grove IL 60515.

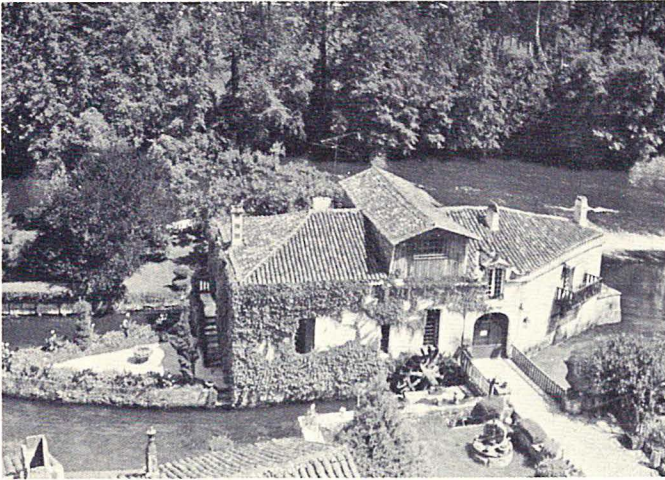
**BRIDGE REHAB CASE STUDIES WANTED.** The Transportation Research Board's Subcommittee on Historic & Archeological Considerations in Trans., in cooperation with the Comm. on General Structures, is developing program material for a session to be held at the Annual Meeting in Wash., D.C., Jan. 13-17, 1986. The session will focus on the successful rehabilitation of historically significant bridges to meet code requirement for continued use by vehicular traffic.

While all types of projects are welcome, of particular interest are projects involving "typical" bridges as opposed to "monumental" structures. With limited presentation time, it is anticipated that three or four case studies will be included. However, depending on the quantity and quality of proposals, a larger number of cases may be published. The final program will be established in July.

Send a one-page proposal and photocopies of illustrations to Howard Newlon, Jr., Director, Va. Highway & Transportation Research Council, P.O. Box 3817, Univ. Sta., Charlottesville VA 22903-0817 (804) 293-1921).



## SITES & STRUCTURES



### FRENCH WALNUT-OIL MILL.

*Above:* Le vieux moulin en forme de barque dans les eaux vertes de la Dronne. "Le vieux moulin" is now a private residence.

*Right:* The mill's paddle wheel. William Ellenberger photograph.



**WALNUT OIL.** William Ellenberger [SIA] reports the reuse, as a house, of a walnut-oil mill on the River Dronne in the Dordogne region of France. The owners have retained the original paddle undershot wheel. Nearby, another walnut-oil mill has been converted to a restaurant (Michelin two-star, at Champagnac-de-Belair), with the original grinding machinery still intact.

**ASME LANDMARK.** The first pressure vessels used in developing hot isostatic processing (HIP) were designated an Intl. Historic Mechanical Engineering Landmark by the American Soc. of Mech. Engineers in April ceremonies at Battelle Memorial Institute's Columbus [Ohio] Div. Conceived by Battelle researchers in 1955, the process now is used worldwide by several hundred organizations for manufacturing ceramics and advanced alloys and for fabricating complex-shaped parts such as jet-engine turbine blades and cutting tools.

With the process, materials are placed in a vessel, where intense heat and gas pressure are applied simultaneously and on all sides. HIP can consolidate powders of metals, ceramics, or combinations of the two into complex shapes with little need for machining; bond hard-to-weld materials together; heal defective castings; rejuvenate worn parts; or pressure infiltrate liquids into porous solids.

Battelle-Columbus is the original contract research and development center of Battelle Memorial Inst., the world's largest independent research institute. This is Battelle's second ASME landmark, the first being for its role in the development of xerography.

**STEEL PLANT STUDIES.** U.S. Steel is undertaking a reuse study of its 19th-C, 170-acre complex in Joliet, Ill., according to the National Trust for Hist. Pres. The core of the complex is a collection of brick and limestone mill buildings dating from 1869, once used to hot-roll steel rods. The plant controls access to the Illinois & Michigan Canal National Heritage Corridor, a federally designated 100-mile strip of the 1848 canal, which is supposed to spur investment in old buildings, new businesses, and historical parks along the Chicago-to-Peru, Ill., route. Half of the Joliet acreage includes now-empty buildings, thanks to a major 1980 shutdown. Moreover, the entire steel plant area is located in an urban enterprise zone designated by Illinois law. The study is funded by a \$45,000 National Trust Critical Issues Fund grant, matched by the U.S. Steel Realty Div. of USS Corp. Expressing a sentiment rarely heard from companies holding outmoded (and usually historic) plants, Louis Walsh of USS's realty division said: "We felt that since we have a historic site, we gain very little by razing it." However. . .

Back in Pa., USS delayed the planned demolition of the Dorothy Six blast furnace (1964) at its Duquesne works outside Pittsburgh. Named for the wife of a former USS chairman, Dorothy Six was the world's largest blast furnace when built. The company agreed to review an economic study backed by a coalition of worker groups hoping to retain steel-making jobs at Dorothy Six and a companion basic oxygen furnace. A hundred acres of the plant along the Monogahela River are slated to go. In Jan., the Rev. Jesse Jackson spoke to steelworkers at Dorothy Six in support of their struggles.

**LEFFEL CO. SOLD.** The Kvaerner Group of Norway has announced their purchase of The James Leffel & Co. of Springfield, Ohio, historic manufacturer of water turbines. Acquisition plans involve the transfer of assets consisting of the Leffel and Samson names, engineering records and drawings, patterns, dies, and model test data to Kvaerner Hydro Power, Inc. in Aptos, Calif. KHP is the American subsidiary of Kvaerner Brug, Sorumsand Verksted & Nohab Turbinteknik. Staffed by American and Norwegian engineers, KHP furnishes equipment packages and uprating services in the U.S. hydropower market. They will provide Leffel customers with continued service and parts for all Leffel and Samson turbines built to date. Info.: KHP, Inc., 9057 Soquel Dr., Aptos CA 95003 (408-688-6464).

**MAINE SAWMILL ACQUIRED.** The working parts of an up-and-down sawmill, possibly dating to the late-18th C, have been acquired by the Maine State Museum, Augusta. Following a long and futile search for mill machinery in rural Maine, the equipment was located only a few miles from the State House, in Augusta's pre-1789 Bond Brook Mill. In the building were found the fender posts, used to guide the sash-saw frame, and the rocker arm, used to crank forward the ratchet advancing the carriage holding the log. Discovered in a pile of parts beneath one corner of the building was the complete woodwork for the frame of the sash saw and the end block for the saw carriage with the iron dogs still in place.

**VIADUCT RECONSTRUCTION.** Reconstruction was completed last year of a replica of the 1884 metal Devil's Gate Viaduct on the Colorado Central RR's Georgetown Loop over Clear Creek. The Loop, joining Georgetown and Silver Plume, became part of the Colorado & Southern in 1898. When the line was abandoned in 1939, the bridge was scrapped. The new structure, using tubular steel instead of the original Phoenix columns, carried two narrow-gauge locomotives on June 1, 1984, and regular passenger service over the rebuilt Loop began on Aug. 1. The bridge is part of the Colorado Hist. Soc.'s Georgetown Loop Historic Mining & RR Park Project and is funded with a \$1 million grant from the Boettcher Found.

*Burlington Bulletin*

*SIA Newsletter*, Vol. 14, No. 1, 1985



**RR STRUCTURES.** The brick, one-story 1911 **Pennsylvania RR Station** [NR] in Hobart, Ind., is scheduled for restoration, thanks to efforts of the Hobart Hist. Soc., the city's mayor, and the Save Our Station Committee, who arranged purchase from Conrail.  
*Indiana Preservationist*

Amtrak's *Empire Builder* has been stopping at an empty platform at Wisconsin Dells (the town of Kilbourn until 1931), since a 1982 derailment damaged the original station, resulting in demolition. Now, the **Wisc. Dells Community Transportation Assn.** awaits approval from Amtrak and the Milwaukee Road to erect passenger shelters on the platform. The shelters have been built at Sandley Light Rwy. & Equip. Co. at the Dells from 1890s standard plans.  
*M-C.R.H.S. Rwy. Gazette*

In the center of Carson City, Nev., is the old **Virginia & Truckee RR shops**, and the Carson City Tourism Authority and the Redevelopment Authority Board agree that the 105-year-old structure should be purchased from its owner and made into a combination of shops and displays. Meanwhile, in Ely, civic leaders are trying to get Kennecott Minerals Co. to donate the depot of the now-closed Nevada Northern plus equipment and line to make possible a museum display and tourist rwy. This would feature NN steam locomotive No. 40, now stored, and the ride could go to the mile-wide Liberty Pit at Ruth, 12 miles away.  
*Pacific Rail News*

Interested in setting up shop to restore and maintain a large steam locomotive? A machine-by-machine description of the old **Ann Arbor backshop at Owosso** is in the Spring 1985 *Project 1225*, newsletter of the Mich. State Trust for Rwy. Pres. Inc. & Mich. St. Univ. RR Club. MSTRP is restoring Pere Marquette Rwy. Berkshire No. 1225 for excursion service. Aarne Frobom's article, "Machines Make the Difference," is a tour through the shop layout, including assorted lathes, presses, compressors, &c. Avail.: MSTRP, P.O. Box 1761, E. Lansing MI 48823-6761.

**FLORY MILL FIRE.** Built c1800, Flory's Mill at Rohrerstown, Pa., was badly burned on Oct. 9, 1984. Owner Tom Flory said the fire started on the top floor where a pulley-driven belt with buckets was filling a bin. The bin apparently filled sooner than expected, causing the belt to slip, with the resulting friction starting the blaze. Extensive damage was done to the roof, machinery, and second floor. A local restoration fund drive is under way to raise \$150,000 to restore the structure and \$100,000 to replace the equipment. Contributions can be sent to Save the Mill, Commonwealth Nat. Bank, P.O. Box 3389, Lancaster PA 17604. (Tom Flory's father, Paul, is the donor of a millstone collection to the Nat. Mus. of Am. Hist., Smithsonian.)  
*Old Mill News*

## NOTES

**IRONBRIDGE SOUVENIRS.** It's a bit late for Christmas, but you still may want to write for a copy of the full color *Ironbridge Gorge Museum Christmas Gift Catalogue* (8 p.). For sale are unique items featuring the iron bridge, including silver and iron-slag jewelry, scarves, paperweights, coloring and painting books, an elegant English enamel box, cast-iron miscellany, fine Coalport China Co. dinnerware manufactured nearby, and other things. Ironbridge Gorge Museum, Ironbridge, Telford, Shropshire TF8 7AW, England.

**END OF THE CORD BOARD.** The last telephone cord-board switching office in the U.S. has been taken out of service by AT&T. The remaining board was in tiny Sidney, Neb., whose telephone traffic office opened in 1920 and whose operators once fielded calls for ten Neb. counties, as well as parts of S. Dak. and Wyoming. At 11:15 a.m. last Nov. 13, chief operator Harriet DeBolt, who started at the board in 1944, officially routed the last phone call, from a local pay phone to a small town in Colorado. Then it was over and the office was closed. *Communications Workers of Am. News SIA Newsletter*, Vol. 14, No. 1, 1985

**LINDSAY'S TECHNICAL BOOKS** is an idiosyncratic catalog of technical reprints, including items such as articles from the 1909 *American Machinist*, plans from the 1901 *American Electrical Magazine*, Wm. Auchincloss's *Slide Valve & Link Motion* (1881 ed.), a 1903 textbook on green-sand casting, and an increasingly weird assortment of other stuff, like embalming texts from 1900 and 1908. Lindsay's sales blurbs would be at home in the *National Enquirer*, except that they're for technical books: "Build a large metal lathe! No castings needed!" or "Master the Secrets of Steam Engine Operation!" or "Learn the secrets of making cores!" or "Melt aluminum with charcoal! Incredible book shows how!" or even "Make TNT (die young. . .)." If this sounds interesting, the Spring 1985 catalog (#34, 71 pp.) is \$1 from Lindsay Publications Inc., P.O. Box 12, Bradley IL 60915-0012 (815-933-3696).

**BUFFALO'S "INDUSTRIAL EXPERIENCE."** Created in fall 1984 by the Preservation Coalition of Erie County (N.Y.), the "Great Lakes Industrial Experience" interprets the industrial development of the Buffalo area. Proponents hope it will help to expand tourism and thereby create jobs, turning industrial history into an economic resource. The "Experience" will be decentralized, drawing on significant buildings and sites throughout Western N.Y. that will be linked through a "nucleus network" concept into tours. Tour-takers will be oriented at a central historic site housing exhibits, machines, &c., and then continue to other sites and process tours, perhaps via a canal boat ride or other historical transportation. The project has been joined by the Western N.Y. Labor Hall of Fame Steering Committee, a group of union members and labor historians who want to establish a Buffalo Labor Museum. For info., contact Susan Turner, Pres. Coal. of Erie Co., 20 Angle St., Buffalo NY 14214.

**"MARYLAND TIME EXPOSURES"** is a photographic travelling exhibit prepared by the Maryland State Archives, with much attention to the state's bridges, roads, RRs, canals, and other public works. A large-format, cased book (333 pp.) including 585 photographs from the exhibit is available for \$37.50 from Time Exposures Ltd., P.O. Box 1508, Annapolis, MD 21404 (or \$30 from Crown Books). A brochure on the exhibit is available for \$1 from MSA, Annapolis MD 21204.

**"ROANOKE DESIGNED, BUILT & RUN,"** the Roanoke Transportation Museum's first major in-house exhibit, opened in April for a six-month run in the Museum's restored Norfolk & Western shops. The exhibit follows the design and erection of a locomotive, from the engineer's drawings through shop assembly to the final product on the rails. It includes photographs and artifacts, such as tools, patterns, molds, and blueprints. Special attention is given to the Class J engine, an ASME Nat'l Historic Mechanical Engineering Landmark. An exhibit guidebook is available. Info.: Roanoke Trans. Mus., 802 Wiley Dr. S.W., Roanoke VA 24015 (703-342-5670).

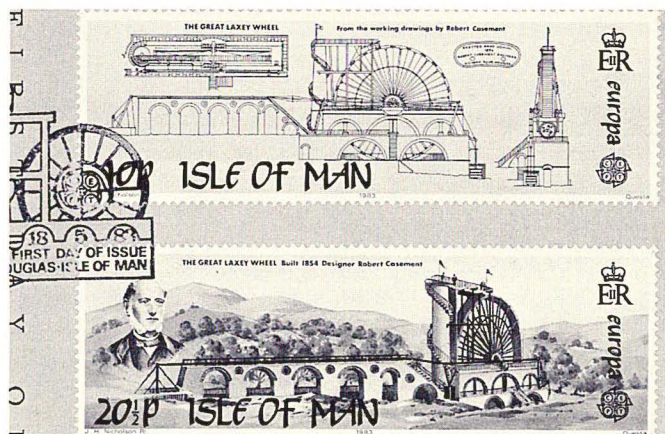
**"CHRISTOPHER POLHEM, 1661-1751: THE SWEDISH DAEDALUS"** is a travelling exhibit from the Swedish Institute in association with the Nat'l Museum of Science & Technology, Stockholm. One of Sweden's greatest inventors and engineers, Polhem's works ranged from mining to the textile industry, from agriculture to weapons. He became famous for his "*laboratorium mechanicum*," one of the first attempts to establish a place where mechanics could be taught in Sweden, for his "mechanical alphabet, as well as for clock-making at Stiernsund. During 1985 the exhibit will be shown in Merseyside County Museums, Liverpool, England (May-July), Deutsches Museum, Munich, Germany (Sept.-Nov.), and Deutsches Bergbaumuseum, Bochum, Germany (Dec.). It is unscheduled and available for Feb. 1986. An accompanying catalog (60 pp., paper, ISBN 91-7616-012-2) is available from Sveriges Tekniska Museum, Stockholm.

**SUPER MOVER.** Terry Emmert, the acknowledged "Superman" of moving, recently engineered a three-block trip for the 1,600-ton 1906 Fairmont Hotel in San Antonio, Tex. — the largest building ever moved on wheels. His custom-built truck has 104 forward gears.  
*Pres. News*



# IA in Music & Philately

Music to our IA ears is *Symphonie Automatique*, a composition by Richard Einhorn incorporating the sounds of machines in the factories of Conn.'s Emhart Corp., which commissioned the project. Emhart, an international manufacturer of industrial machinery, had produced a video tour of some 20 plants in the U.S. and six foreign countries. Listening to the results, vice president John F. Budd Jr. found the rhythmic sounds compelling. Budd gave the audio outtakes to composer/arranger Einhorn, who produced the miniature industrial symphony, a three-minute syncopated capriccio in the French "Musique Concrete" genre. Intertwined with conventional instrumentation are the rhythmic tattoo of computer plotters, the flip-flap of biscuits being packed into boxes, the bibbity-bip of rivets being punched out of strip sheet metal, the whoosh of molten glass shooting into a bottle mold, and the cadence of computerized stitching machines sewing shoes. Thanks to V.P. Budd, a cassette recording is available gratis to SIA members. Write John F. Budd Jr., Emhart Corp., P.O. Box 2730, Hartford CT 06101.



Recent Isle of Man stamps feature the Lady Isabella Waterwheel of the Great Laxey Mining Co. Erected in 1854 for lead-mine dewatering, she is the largest diameter waterwheel (72 ft.) ever built (but not the most powerful — that's the Burden wheel). Still stands, though now as a historic monument.

## CALENDAR

*Have a meeting, conference, or event of interest to SIA members? Submit announcements to the Editor, SIAN.*

**July 7-Aug. 10:** Summer Institute in Hist. Archeology, Flowerdew Hundred, Va. Info.: Program Specialist, Flowerdew Hundred Found., 1617 Flowerdew Hundred Rd., Hopewell VA 23860 (804-541-8997).

**July 14-20:** 6th Symposium, The Int'l Molinological Society (TIMS), Ghent, Belgium. Contact Paul Bauters, Batavierenstraat 51, B-1040 Brussels, Belgium.

**To July 17:** Photographic exhibit documenting the construction and impact of America's widest and busiest expressway, the Dan Ryan. At the Chicago Historical Society.

**July 22:** "Mr. Watt's Stupendous Steam Engine' Bicentenary Celebrations," Sydney, Australia. Info.: Louise Crossley, Power House Museum, P.O. Box K346, Haymarket, Sydney, 2007.

**Aug. 22-25:** 36th Annual Old Thresherman's Reunion, near Lancaster, Pa. Info.: Rough & Tumble Engineers Hist. Assn., Kinzers PA 17535.

**Sept. 4-7:** Annual Meeting, Assn. for Preservation Technology, San Francisco.

**Sept. 10-13:** Annual Meeting, Am. Assn. for State & Local Hist., Topeka, Kan.

**Sept. 20-21:** 4th Annual Conf., Soc. for the Preservation of Old Mills, Lancaster, Pa. Inc. tours of five operating mills. Info.: Roy

Wagner, Box 19, R.D. 2, Quarryville PA 17566.

**To Oct.:** Exhibit, "Roanoke Designed, Built & Run," Roanoke Transportation Museum, Va.\*

**Oct. 7:** Conference, "The R&D Pioneers: A Critical Look at General Electric, DuPont, AT&T Bell Laboratories, and Eastman Kodak, 1900-1985," Hagley Museum & Library. Info.: Hagley R&D Pioneers Conf., P.O. Box 3630, Wilmington DE 19807 (302-658-2400).

**Oct. 9-13:** Annual Meeting, Nat. Trust for Hist. Pres., Seattle.

**Oct. 17-19:** Annual Meeting, Society for the History of Technology, Dearborn, Mich.\*

**Oct. 24-27: SIA FALL TOUR, SLOSS FURNACE, BIRMINGHAM, ALA.**

**Nov. 1-3:** 6th Annual Lowell Conf. on Industrial History, on "The Popular Perception of Industrial History," Lowell, Mass. Info.: Robert Weible, Lowell Nat. Historical Park, 169 Merrimack St., Lowell MA 01852 (617-459-1027).

**Dec. 27-30:** Annual Meeting, Am. Hist. Assn., New York City.

**To Sept. 1986:** Traveling exhibit, "Rhode Island's Lighthouses: Past, Present, Future," opening at the Newport Tourism & Convention Center. Info. & schedule: Sarah Gleason, R.I. Office of Info. & Ed., 83 Park St., Providence 02903 (401-277-6800).

*\*Find details on this event elsewhere in this SIAN.*



### CONTRIBUTORS TO THIS ISSUE

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