

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

Volume 16

Fall 1987

Number 3

THE TEXAS LENTICULARS: 1 DOWN, 8 SURVIVE

MINERAL SPRINGS BRIDGE Caldwell County, Texas

Right: The 40-ft. lenticular truss in 1985. *Tex. St. Dept. of Hwys. & Trans. photograph.*

Below: The c1890s Berlin Iron Bridge Co. structure this year, after Charlie Johnson (*L*) and Wayne Plant (*R*) starting working on it. *Luling (Tex.) Newsboy & Signal photograph.*



In Sept., a bulldozer finished off the diminutive Mineral Springs Bridge over Westfork Creek in Caldwell Co., Texas, near Austin. This 40-ft., c1890s pony truss, reportedly the victim of heavy June rains, was one of a rare cluster of lenticular trusses that have managed to survive, like an isolated flock of whooping cranes, in the Austin-San Antonio area of central Texas.

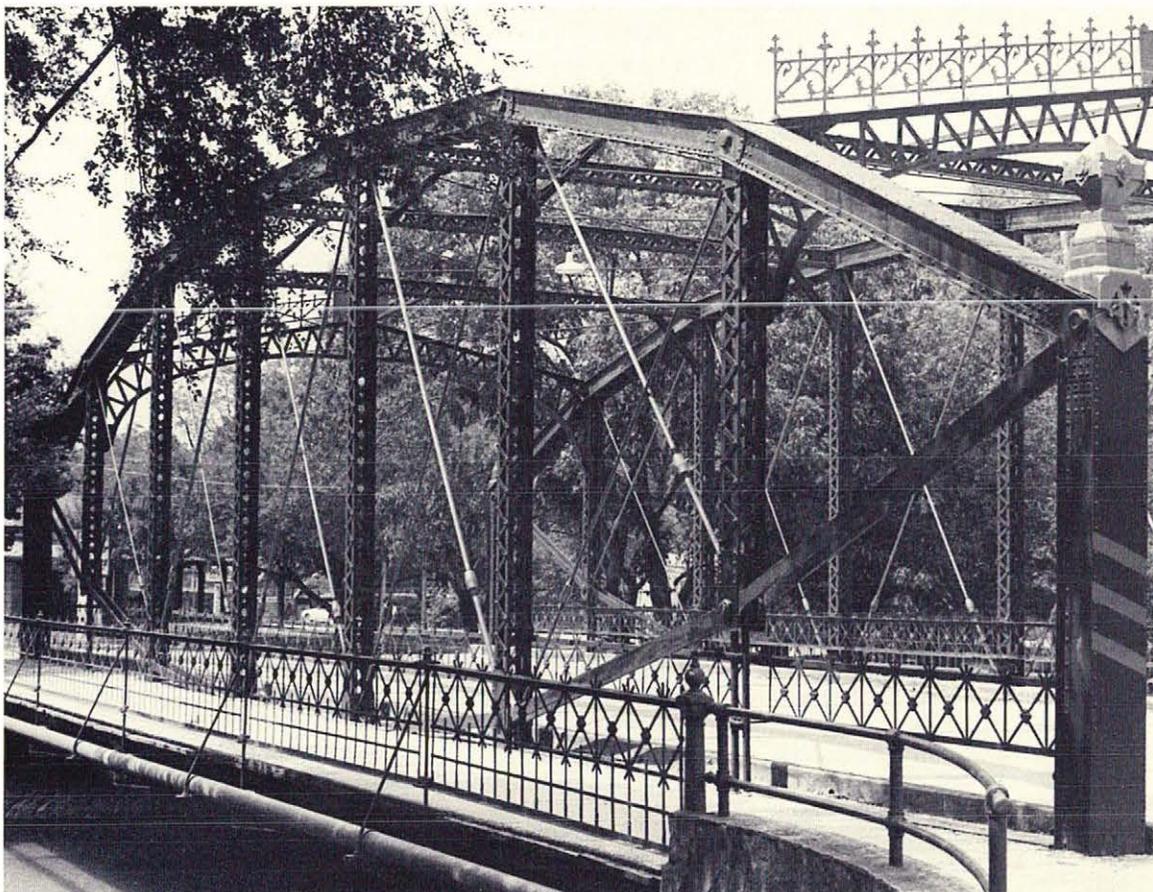
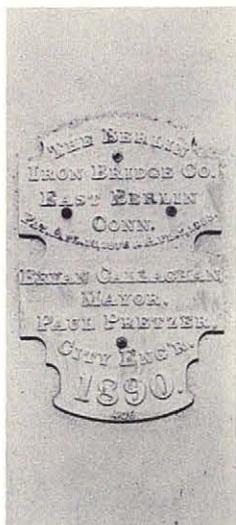
Most are familiar with the lenticular as the spectacularly undulating, 720-ft. Smithfield St. Bridge [NHL, HAER] in Pittsburgh, Pa., designed by Gustav Lindenthal and built 1879-83. In contrast, the Texas group consists of quite small, very angular, single-span structures, of which Mineral Springs was the shortest. Still standing are six pony trusses and two through trusses. Three are along the famous San Antonio River Walk. All were fabricated in the 1890s by the Berlin Iron Bridge Co. of East Berlin, Conn. Bridge historian Victor Darnell (author of the SIA's *Directory of American Bridge-Building Cos.*) believes that these are the only extant lenticular trusses west of the Mississippi.

The Mineral Springs demolition involved no federal funds, so the State Dept. of Highways & Public Trans. remained unaware of the loss until it was spotted in a newspaper article. The county engineer replaced the truss with an 89-ft. railroad flatcar, with the county's road administrator declaring, "This is a prototype and if it works then we can use it in other places." (He probably hadn't checked *SIAN* for Spring 1984, which carried a photo of a stream spanned by a defunct Great Northern cattle car.) For further info., contact Tom Eisenhour [SIA], SDHPT, Austin TX 78701-2483 (512-463-8790).
T.E.



Turn page for more bridges...

SPECTACULAR LENTICULAR!



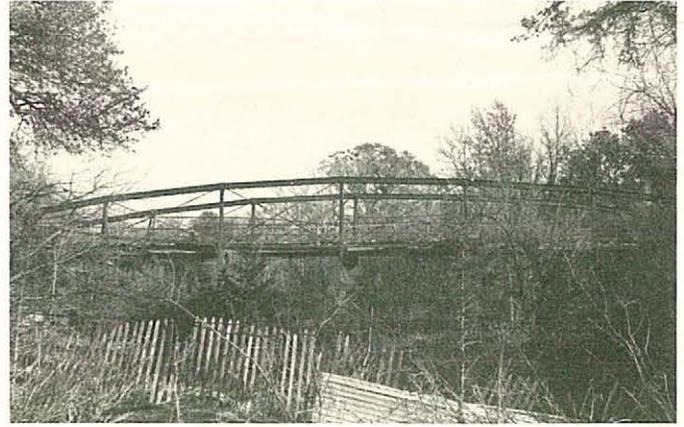
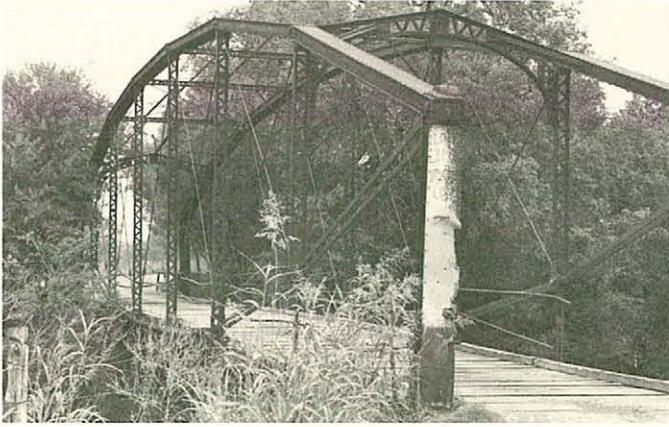
SURVIVING LENTICULAR TRUSSES IN SAN ANTONIO, TEXAS. All were built by the Berlin Iron Bridge Co. in the 1890s, and all cross the San Antonio River. The Augusta, Crockett, and South Presa bridges are along the city's famous River Walk (Paseo del Rio). *Tex. St. Dept. of Hwys. & Trans. photographs.*

Top center: Augusta Street Bridge (1890). This bridge has been rehabilitated. *At left* is the builder's plate. *At right* is a detail from the end post. The small "406" at the bottom is believed to be the contract number.

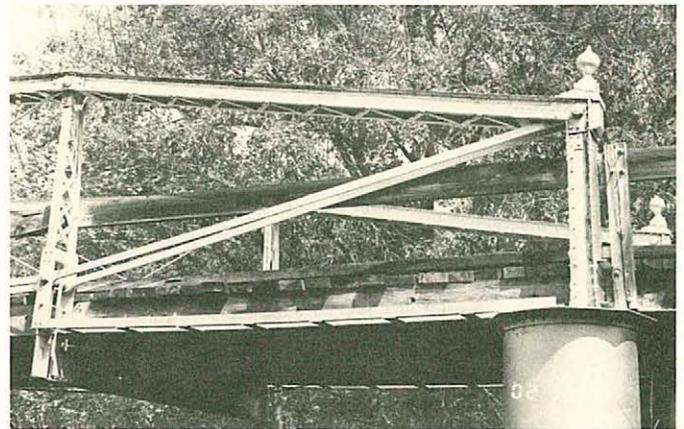
Above left: Crockett Street Bridge (1891), with its top-chord-mounted light standards.

Above right: South Presa Street Bridge (1890), showing the lower chord connections with the floor beams.

Left: Brackenridge Road Bridge (1890), with its extraordinary cresting. This is one of the state's two lenticular through-trusses.



TEXAS LENTICULAR TRUSSES OUTSIDE SAN ANTONIO. All were built in the 1890s by the Berlin Iron Bridge Co. *Above left:* Yancey Road Bridge over Hondo Creek, Frio County. This is one of the state's two lenticular through-trusses. *Above right:* County Road 133 Bridge at Dodds Creek, Coryell County, revealing the characteristic double-convex-lens profile created by the top and bottom chords. *Below left:* County Road 173 Bridge over Plum Creek, Caldwell County. *Below right:* End panel of County Road 230 Bridge over Plum Creek, Caldwell County. *Tex. St. Dept. of Hwys. & Trans. photographs.*



DOUBLEHEADER PRESERVATION AWARDS

A unique two-part nationwide awards program to honor historic preservation efforts, marking 20 years under the Natl. Historic Preservation Act of 1966, seeks nominees. The program is jointly sponsored by the White House, the Advisory Council on Hist. Pres., and the Dept. of the Interior, under the auspices of the "Take Pride in America" public awareness campaign.

The first category, **President's Historic Preservation Awards**, will recognize private citizens whose achievements exemplify the contributions of free enterprise to historic preservation. The second category, **National Historic Preservation Awards**, will honor projects and programs that have been federally assisted in some way. Awards will be presented by the Sec. of the Interior and the Chair of the Advisory Council.

A range of disciplines will be eligible for consideration, including architecture, landscape architecture, community planning or revitalization, archeology, materials conservation, architectural history, rural preservation, maritime preservation, and preservation of historic engineering. Entries must have resulted in the preservation of specific, identifiable historic properties listed in or eligible for the Natl. Register. Projects must have been completed within the past ten years; programs must be currently in effect.

Nominations for both categories will be open until Feb. 19, 1988, with presentation ceremonies planned for mid-summer. The Advisory Council Chair has appointed a task force to oversee the program and to serve as a selection jury. Entry forms and further information are avail. from the Office of Executive Dir., Advisory Council, 1100 Pennsylvania Ave., N.W., #809, Wash. DC 20004 (202-786-0503).

In addition to the special awards program, the 20th anniversary of the NHPA is being celebrated with *Twenty Years of the National Historic*

Preservation Act (128 pp.), a special commemorative edition of the Advisory Council's *Report to the President & the Congress 1986*. Copies avail. free while supply lasts from Pubs. Office, Advisory Council, address above.

GREAT FALLS HYDRO GOES ON STREAM

Erected in 1912-14 to harness directly the water power of the Great Falls of the Passaic River at Paterson, N.J., the Society for Establishing Useful Manufactures Hydroelectric Plant [NHL, HAER] was rededicated in June as an operating facility. The ceremony was significant enough to attract US Sen. Frank R. Lautenberg and Rep. Robert A. Roe. The plant is within the Great Falls Historic District, which encompasses the SUM's power canal system, designed originally by Pierre l'Enfant and dating to 1792-1846. This is the site of the first planned industrial development in the US, and had been encouraged by Alexander Hamilton.

Originally designed to produce 5,000 KW using four generators, it operated until 1969, when the low cost of fossil fuels and the high cost of replacing aging equipment forced it to close. Its refurbishing was financed by a \$1.3 million grant from the Federal Dept. of Energy and about \$13 million in loans and private investment. Today's capacity is 11,000 KW, which is being sold to the Public Service Electric & Gas Co. for transmission throughout N.J.

ROEBLING'S AQUEDUCT RESTORED, REOPENED

After six years of patience and painstaking restoration work, John A. Roebling's Delaware Aqueduct [NHL, HAER; see *SIA* Spring 86:1] was re-opened to general automobile traffic (10-ton limit) on June 13. The aqueduct was completed in 1849 and operated for the next half-century. The National Park Service bought the structure from the last private owner in 1980.

The ribbon-cutting rite climaxing the \$5 million project attracted a variety of notables, including Howard Swope, who was a boatman in the

1920s; Edward Huber, who owned the aqueduct toll-bridge for 30 years; the last living direct descendent of John Roebling; an assortment of political figures, and even a message from Pres. Reagan. Commenting at the ceremony were SIA President Thorwald Torgersen and Director Robert M. Vogel. Among the politicians was the infamous (to the NPS and most RR historians) U.S. Rep. Joseph M. McDade from Scranton, the clever legislator who engineered a pork-barrel, spending-bill amendment that bought his city's Steamtown for the Park Service and set in motion an enormously expensive and controversial museum project [*SIA* Spring 87:4].

The Roebling project was not without its own controversy, since travel between Lackawaxen, Pa., and Highland, N.Y., had been disrupted ever since the crossing was closed about 1980. "River politics," as it is known locally, had generated an anti-NPS faction. Protestors showed up at the re-opening ceremony and a small plane circled overhead, trailing a banner reading "NPS get out."

The reworked bridge has enough width for only one lane of traffic; traffic lights at each end signal drivers when it's okay to cross. The N.Y. light defaults to green, because there is no room there for a line of vehicles, while on the Pa. side approaching autos trip a pressure-sensitive switch to get the green.

NOTES

EAIA'S "OTHER" WORTHY PROJECTS. Like many grants-in-aid programs, that of the Early American Industries Assn. receives many more applications than it can fund. In an unusual—but commendable—effort, the EAIA has published a list of projects that did *not* win awards, urging its membership "to encourage these studies in other ways." Many of these also will be of interest to SIA members:

—"Investigation of the transition of earthenware to stoneware pottery production in 19th-C North Carolina"—focuses on a major technological change c1800-24, including changes in clay extraction and kiln structure. Linda Flowers Carnes, Rt. 5, Box 113, Pittsboro NC 27312.

—"Archaeological investigations at Nunagiatchiak, a late 19th-C shore whaling station in N. Alaska"—a study of technology and social organization of the shore-whaling industry. Marks S. Cassell, Dept. of Anthropology, SUNY, Binghamton NY 13901.

—"Cleveland [New Mexico] roller-mill historic preservation project: Phase 4, machinery & mill works"—a study to identify, classify, & develop a flow chart of the mill's works & machinery, leading toward an operating mill. Daniel Casidy, POB 287, Cleveland NM 87715.

—"The factories of the wampum-bead industry"—a project to locate & document the factories making wampum in the colonial and early Independence period. Peter Francis Jr., Center for Bead Research, 4 Essex St., Lake Placid NY 12946.

—"The New Netherland/N.Y. Ceramic Chemistry Archive: trace element analysis of provenience & technology in the early brick industry"—to provide data on place of mfr. & technological change for a wide range of early American pyrotechnical industries, furthering research on the earliest pottery, brick, & tile production in the region. Allan S. Gilbert, Dept. of Soc./Anth., Fordham U., Bronx NY 10458.

—"Fulper pottery"—using 19th-C tools & techniques well into the 20th C in the Flemington, N.J., area, Fulper illustrates the transition from handcraft to small-scale mass production. Gordon William Gray, 52 Jefferson Rd., Princeton NJ 08540.

—"The potters of Brookfield, Mass., 1790-1840"—includes a study of the interplay of pottery & brickmaking. Richard Hamelin, 5 Main St., Sturbridge MA 01566.

—"An investigation of the technology employed in the early 17th-C cod fisheries of New England." Faith Harrington, 305A2 Charles Hill Rd., Kittery Point ME 03905.

—"The Deats Agricultural Works," mfrs of plows & tools, 1830s-c1900, Hunterdon Co., N.J. Thomas F. Harrington, POB 1978, New Brunswick NJ 08903.

—"The development of Mauch Chunk, Pa., 1791-1862," focusing on anthracite industry, towpath canal technology, and wire-rope mfr. Michael Knies, 326 E. Abbott St., Lansford PA 18232.

—"An archaeological & historical study of grist milling in central Mass., 1730-1860," to provide additional research for the mill exhibit at Old Sturbridge Village. Martha B. Lance, 14 Cushman St. #5, Monson MA 01057.

—"Industrial landscapes of Baltimore, Md." Mollie Ridout, 15 E. Eager St., Balt. MD 21202.

—"The beginning of alternating current generation," focusing on the 1896 plant of the Telluride Power Co. Charles R. Wright, 720 Everett St., Lakewood Co 80215.



NAT'L MUSEUM OF ELECTRICITY PROPOSED FOR BALTIMORE

Baltimore Gas & Electric's historic Westport Station, completed in 1906, has been targeted as the site of a future National Museum of Electricity. In a proposal prepared by Massey Maxwell Assoc., Historic Preservation Consultants, James Massey [past SIA director] states: "Americans tend to accept the great modern miracle of electricity without pausing to realize the importance of the contribution that electric power has made to the development and progress of American life." A museum of electricity in the Westport Station, "splendidly sited on Baltimore Harbor's middle branch, with its early and historic equipment still in place, offers . . . the powerful experience of a real power plant replete with its historic equipment and with ample space for new displays as well."

The approximately 120,000 sq.ft. of exhibits would focus on power generation and transmission; the history and science of electricity; and energy consumption. The museum also would include a children's room. Domestic appliances, meters, switches, wires and cables, lights, fuses, and the station's generators and turbines are some of the types of artifacts being considered for the displays.

Another 20-28,000 sq.ft. has been allocated for an archives and library. According to Massey, the museum "must be an institution for research and scholarly pursuits as well for public enjoyment and education. A key feature of such an institution would be a central national library of the electric industry, with historical books, documents and research papers, and trade catalogs. It should also include a nationwide archives for electric power and equipment companies' materials, including drawings, photographs, printed matter and files."

It is anticipated that funding for the development of the museum will come primarily from contributions from the electric-power industry. In addition, close professional coordination with other museums, especially the Smithsonian's National Museum of American History, is expected. Though no dates have been set for the museum, potential artifacts already are being identified. For more info., contact James Massey, Massey Maxwell Assoc., POB 263, Strasburg VA 22657 (703-465-4566).

Artifactory

NOTES & QUERIES

APT JOB OPEN. The Assn. for Preservation Technology has an opening for Executive Director. The job starts May 1, 1988, and can be located in Ottawa, Ont., or Wash., D.C. Salary \$30-35,000 Canadian (\$23-27,000 US). Detailed info.: APT, Box 2487, Station D, Ottawa, Ont. K1P 5W6, Canada.

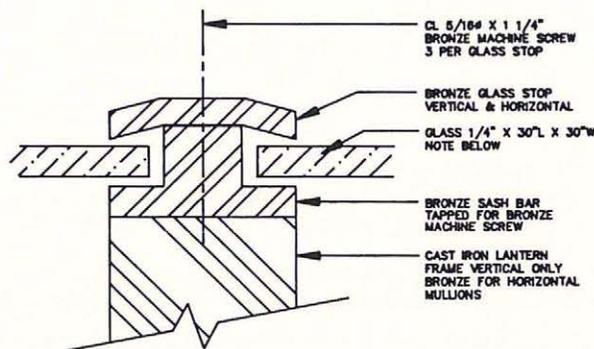
APT STUDY-TOUR IN GB. A major event in the 20th anniv. celebration of the Assn. for Preservation Technology will be a historic conservation technology study-tour in England, April 24-May 6, 1988. Visits to significant historic sites will be led by prominent British conservationists. Day-long stops of IA interest include the maze of structures in the London Docks Development Project, and the famed bridge and iron furnaces at Ironbridge Gorge Museum (featuring Director Stuart B. Smith). Info.: APT Study Tour, Box 2487, Station D, Ottawa, Canada K1P 5W6 (613-238-1972).

HABS/HAER SUMMER JOBS. The Historic American Buildings Survey/Historic American Engineering Record of the Nat. Park Service will be hiring graduate students and other professionals in the fields of architectural history, American history, history of technology, maritime history, and material culture for temporary positions during the summer of 1988. Historians will work on individual field teams along with architects, architectural draftsmen, and photographers to document historic buildings, engineering structures, and ships at various sites throughout the country. The field team's completed documentation package of written historical data, measured drawings, and documentary photography will be added to the HABS/HAER Collection at the Library of Congress, a major collection of architectural and engineering documentation. Applicants must submit the following by Feb. 7: a U.S. Govt. Standard Form 171, a letter of recommendation, and a sample of writing/research abilities. For more info., contact Summer Program Administrator, HABS/HAER Div. (429), NPS, Dept. of Interior, Wash. DC 20013-7127 (202-343-9625).

CALL FOR PAPERS. Ferris State College welcomes proposals for papers or entire sessions for its **First Annual Conf. on Humanities, Science & Technology**, Mar. 11-12, 1988. This interdisciplinary conf. will include sessions on the history of science & tech., medical ethics, the politics of scientific research, and art & technical innovation. Proposals, due Dec. 1, should include a 300-word abstract and CV. Please indicate interest in being a session chair or commentator. Submit to Coordinating/Program Committee, Dept. of Humanities, Ferris St. Coll., Big Rapids MI 49307 (616-592-2758 or 2771).

CALL FOR ARTICLES. *American Studies*, in cooperation with the Center for the Historical Studies of Technology & Science at Iowa State U., invites papers for a special issue devoted to technology, medicine, and science in American culture and society, guest-edited by Hamilton Cravens of ISU. Especially welcome will be articles that address the influence of American society on American technology, rather than the conventional other way around. Deadline is Sept. 15, 1988. Address inquiries to Cravens, Program in History of Technology & Culture, Dept. of History, ISU, Ames IA 50011-1202 (515-294-1156).

"TRADITIONAL DWELLINGS & SETTLEMENTS IN A COMPARATIVE PERSPECTIVE" is an intl. symposium slated for April 7-10 at the Univ. of Calif., Berkeley. Keynote speakers include Henry Glassie, Spiro Kostof, Paul Oliver, Amos Rapoport, and Yi-Fu Tuan. Presentations of IA interest include "Replication: The Key to Interpreting American Vernacular," by Herbert Gottfried [SIA]; and "Vernacular Architecture & New Technology," by Richard Schoen. Registration (\$80) deadline is Dec. 31. Info.: Intl. Symposium, Center for Environmental Design Research, U. of C., Berkeley CA 94702 (415-642-2896).



CAPE MAY LIGHTHOUSE. Detail of glazing at lantern, vertical frame.

PECULIAR LIGHTHOUSE WINDOWS. "During investigation preceding the restoration of the 1858 Cape May [N.J.] Lighthouse, we have discovered that the lantern used a glazing system we have not previously encountered. Iron posts and bronze sills, lintels, muntins, and stops supported glass 1/4" to 5/16" thick. The glass was cushioned in the frame by an unknown substance, possibly oakum saturated with putty. Since the iron lantern frame is exposed to a wide range of temperatures (-10°F to 115°F), the glazing material had to accommodate expansion and contraction between the glass and the frame. The stops were screwed to the iron posts on the exterior of the lantern, accessible from the outside gallery. The cushioning substance was replaced in this century by modern caulk. We believe the system was meant to provide for the rapid replacement of glass under emergency conditions. If you have had experience with this or similar mid-19th-C glazing systems, please contact us." Michael C. Henry PE, Watson & Henry Assoc., 5 McCormick Place, Bridgeton NJ 08302 (609-451-1779).

GRADUATE PROGRAMS. The Cooperstown Graduate Program is accepting applications for its MA program in **History Museum Studies**, preparing students for positions in museum administration, collections management, interpretation, and education, with fellowships available for 1988 enrollment. A new curriculum was instituted in 1987, with a stronger core of museum courses and more comprehensive requirements. The program is co-sponsored by the N.Y. State Historical Assn. and the State Univ. of N.Y. Info.: Cooperstown Graduate Program, POB 800, Cooperstown NY 13326.

The Hagley Museum & Library announces its **Hagley Program in the History of Industrial America**, a two- to four-year program leading either to a MA or PhD for students interested in careers as professionals in museums and historical agencies or as college teachers. Financial aid for Hagley Fellows consists of an annual stipend of \$7,450 for MA candidates and \$8,250 for PhD candidates, plus full tuition, renewable for up to three years. Application deadline is Feb. 1. Info.: Coordinator, Hagley Program in the History of Indus. Am., HM&L, POB 3630, Wilmington DE 19807 (302-658-2400).

Hagley also announces **advanced research fellowships** for 1988-89, funded by the Nat. Endowment for the Humanities and the Andrew W. Mellon Foundation, to support independent study in Hagley's fields of interest at its Center for the History of Business, Technology, & Society. Scholars working in the humanities or in those aspects of the social sciences that employ historical or philosophical approaches are encouraged to apply. Fellowships are offered for 6 to 12 months work with a maximum stipend of \$27,500.

These fellowships are restricted to those pursuing advanced research; awards will not be made to degree candidates or to persons seeking work leading to a degree. NEH guidelines apply. Completed applications must be received by Feb. 15, 1988; awards will be announced by April 1.

Short-term **grants-in-aid** also are offered for calendar-year 1988. These support two- to eight-week research in Hagley's imprint, manuscript, pictorial, and artifact collections. They are available to both degree candidates and advanced scholars. Applications will be accepted throughout the year. Awards in 1988 will not exceed \$750 per month of study.

Info. on both grants: Elizabeth Gray Kogen, CHBTS, Hagley Museum & Library, POB 3630, Wilmington DE 19807 (302-658-2400 x244).

NOTES & QUERIES



From the exhibit "Bread & Steel": 15-ton Wellman reloading bridges command flooded ore yard and stocking trestle high line at Bethlehem Steel's Lackawanna plant. *Jet Lowe photograph for HAER (1985).*

BUFFALO INDUSTRIAL EXHIBITS. The Buffalo & Erie County [N.Y.] Historical Society presents exhibitions by two major photographers of industrial America during the coming winter. *Bread & Steel*, which opened Nov. 14, features photos by Jet Lowe of the Historic American Engineering Record. Recent work by David Plowden is presented in *Buffalo & the Great Lakes*, opening Dec. 13. Both shows continue through April 10, 1988.

Over the past two years, BECHS collaborated with HAER to document decaying steel plants and grain elevators that once symbolized Western N.Y.'s manufacturing base. *Bread & Steel* includes photos taken at Bethlehem Steel's partially demolished Lackawanna plant (flourished 1903-83) and at the dormant works formerly owned by Republic Steel in Buffalo (flourished 1907-82). Among the Lackawanna facilities illustrated are the c1900 plant and forge shops, gas blowing-engines installed during the 1920s, and the 32-in. rail mill, the centerpiece of the original plant. The Republic site study concentrated on the 1920 semi-continuous bar mill. Buffalo's inventory of waterfront grain-elevators includes the mothballed Great Northern, an 1897 combination of steel bin construction and electric power.

Bread & Steel also presents views of work and technology in contemporary brass production and aircraft maintenance. Lowe photographed the modern facilities at American Brass, the last large-scale, hot-metal operation remaining in Buffalo. In the US Air hangar at Buffalo Intl. Airport, Lowe recorded overnight maintenance procedures.

Plowden's work is a visual essay on the industrial ecology of the Great Lakes littoral. He follows some of the last lake boats still powered by coal-fired boilers and reciprocating steam-engines, tracking the vessels to the ports where they meet the equipment that handles their bulk cargoes of grain, coal, and taconite. Plowden also records the workers, focusing on the grain scoopers who labor in the holds of the boats alongside Buffalo's active elevators. Info.: T.E. Leary [SIA], BECHS, 25 Nottingham Ct., Buffalo NY 14216 (716-873-9644).

MORE INDIANA BRIDGE PROTECTION. A significant result of the successful struggle to preserve the covered bridges in Rush Co., Ind. [*SIA*N Fall 86:8, Summer 87:9], is a new state law providing \$500 annually per bridge to counties with covered bridges on their road systems. House Bill 1686, authored by Rep. Dan Pool, whose district contains the state's largest concentration of covered bridges, went into effect on July 1. The bill had received statewide, bipartisan support in House and Senate hearings. Indiana has 64 covered bridges remaining on county road systems, and this bridge type often is used as a state symbol. While supporters acknowledge that \$500 won't answer county bridge maintenance needs, they are excited about the wide support for bridge preservation and the symbolic legislative breakthrough.

The Indiana Preservationist

ACTION IN AKRON. You may not know much about the **National Inventors Hall of Fame**, squeezed into the lobby of the U.S. Patent & Trademark Offices, Arlington, Va., where its tombstone-like displays honor the 68 inventors inducted since the Hall's inception in 1973. By 1990, however, all will change when the Hall moves to Akron, O., where it will occupy a new, privately funded, \$16.7 million center as part of a program to stimulate economic redevelopment in this industrial city which—like so many others—has seen its industry disappear. In Sept., the Hall's board approved the move, and Akron officials predict a "world-class" hands-on exhibit. Akron considers this acquisition a major coup, and Mayor Tom Sawyer made the announcement at the Quaker Square Hilton, which was visited during the 1986 SIA Annual Conf. Other attractions surrounding the new Hall will include the [Ohio] Canal Marketplace with its "canal walkway," a major convention center, and the Polymer Science Institute. Planners want the new Hall to be a center for science and technology education in addition to housing exhibits, and suggestions from SIA members are welcome. Contact James Phelps, Dept. of Econ. Dev., Municipal Bldg., Akron OH 44308.

Now, perhaps attracted by the Inventors Hall project, officials of the two-year-old Tire Industry Hall of Fame are interested in moving their Wash., DC.-based exhibit to Akron. Presently the 24-plaque exhibit is in the office of the Natl. Tire Dealers & Retreaders Assn. The charter group of Tire inductees included three giants of the Akron rubber companies: Frank A. Seiberling (1859-1955), founder of Goodyear; Harvey S. Firestone (1868-1938), founder of Firestone; and William F. O'Neil (1885-1960), founder of General Tire.

W.A.S.

THE 7TH ANNUAL CANAL HISTORY & TECHNOLOGY SYMPOSIUM will be held Mar. 26, 1988, at Lafayette College, Easton, Pa., and will include the following papers:

—"Morris, Foxall & the Eagle Works: A Pioneer Steam-Engine Boring Cannon," by Charles L. Peterson.

—"Charles Ellet & the Army Corps of Engineers: The Fight Over the Navigation of the Ohio & Mississippi River Systems," by Donald Sayenga.

—"Iron & Zinc at Franklin, N.J.," by Kenneth Hanson.

—"Matthew Carey & the Pa. Society for Internal Improvements," by Bernard Carlsson.

—"The Middlesex Canal: A Prototype for American Canals," by Thomas L. Proctor.

—"An Engineering History of the Schuylkill Navigation," by Larry Whyte.

The papers will be published in the conf. *Proceedings*, available at the Symposium and included in the registration package. The Symposium is co-sponsored by the Center for Canal History & Technology of the Hugh Moore Historical Park & Museums, Inc., and the Northeastern Pa. Regional Studies Program of Lafayette College. Registration is \$20, including lunch. Info.: CCHT Canal Museum, POB 877, Easton PA 18044-0877 (215-250-6700).

INDUSTRIAL AGE: The Journal of Steam, Industrial News & Preservation is completing its first year as the bi-monthly of the Canadian Steam Preservation & Industrial Archaeology Assn. (Cansteam). The current issue (vol. 1, no. 6) contains 18 pages of brief articles, reviews, and notes, focusing largely on historic steam power of all kinds. Cansteam was founded in 1979 to promote the preservation and restoration of steam and other industrial artifacts with emphasis on Canada, and particularly British Columbia. The group's major project has been the restoration of a rwy. crane found on the banks of the Fraser River, some distance from the nearest tracks. Work on the Ohio Crane was completed in 1986, and it received its debut at Vancouver's SteamExpo. *Industrial Age* editor Colin Ming believes it to be the oldest operating rwy. crane in Canada. Cansteam has restored other equipment, including a 1910 Ruston steamroller, and currently is negotiating with the municipality of Surrey in suburban Vancouver to build a \$4.5 million, operating steam & industrial museum. A nonmember subscription to *IA* is \$15 (Canada) & \$20 (other): Colin Ming, *IA*, 14070—110th Ave., Surrey, B.C., Canada V3R 1Z2.

SIA Newsletter, Vol. 16, No. 3, Fall 1987



SOCIETY FOR INDUSTRIAL ARCHEOLOGY NEWSLETTER

PUBLICATIONS OF INTEREST

A SUPPLEMENT TO VOL. 16 NO. 3

1987

Compiled by Robert M. Vogel & Helena E. Wright,
National Museum of American History

GENERAL SUBJECTS

- Oliver V. Allen, **THE FIRST FAMILY OF INVENTORS**. In *Invention & Technology*, Fall 1987, pp. 50-58. The Stevenses of Hoboken and their many RR, maritime, and other inventions and innovations that for the first 3/4 of the 19th C changed transport.
- Norman Ball [SIA], **MIND, HEART, & VISION: PROFESSIONAL ENGINEERING IN CANADA, 1887-1987**. U. of Toronto Pr. (5201 Dufferin St., Downsview, ONT M3H 5T8 [Canada]) or U. of Chicago Pr. (5801 S. Ellis Ave., Chicago, IL 60637 [US]), 1987. 200 pp., 200 b/w illus. \$39.95 US. Celebrating the centennial of the Canadian Society of Civil Engineers and many of the nation's major engineering accomplishments of the past century: the St. Clair (RR) Tunnel; the CN Tower; the Quebec Bridge; the Trans-Canada Highway; &c, &c.
- Maxine Berg, **THE AGE OF MANUFACTURES: INDUSTRY, INNOVATION, & WORK IN BRITAIN, 1700-1820**. Oxford U. Pr. (NY), 1986. 378 pp., illus. \$4.95. Rev.: *Business History Review*, Summer 1987.
- Cam Cavanaugh, Barbara Hoskins, & Frances D. Pigeon, **AT SPEEDWELL IN THE 19th CENTURY**. Historic Speedwell (333 Speedwell Ave., Morristown, NJ 17960), 1981. 92 pp., illus. \$6. (Won the 1981 AASLH Award for best publ. on local history.) The complete story of Speedwell Iron Works, general machine works; builder of RR machinery; and the place where Samuel Morse largely developed his telegraph technology and had built the early instruments.
- Joetta M. Cramm, **A PICTORIAL HISTORY OF HOWARD COUNTY**. The Donning Co. (5959 Virginia Beach Blvd., Norfolk, VA 23502), 1987. 244 pp., illus. Howard County, Md. was separated from Ann Arundel in 1851, the line between being the B&O's Washington Branch, a rare instance of a railroad forming a political boundary. A county of mills, RRs, and misc IA, all duly noted and depicted here. (Incl. sole surviving Bollman truss.)
- Jan Jennings & Herbert Gottfried [SIA], **AMERICAN VERNACULAR INTERIOR ARCHITECTURE**. Van Nostrand Reinhold (7625 Empire Dr., Florence, KY 41042). 1987. 448 pp., illus by 306 line dwgs. \$39.95. The elements and details of interior architecture, 1870-1940, incl. much on the mechanical organs of buildings. A useful guide for preservationists, architects, builders, and developers, or, simply those interested.
- Walter Minchinton [SIA], **DEVON'S INDUSTRIAL PAST: A GUIDE**. 4th edn. Dartington Centre for Education & Research (Dartington, Devon, UK), 1986. 36 pp., illus. (1st publ. 1968 as **INDUSTRIAL ARCHAEOLOGY IN DEVON**.) A heavily revised and enlarged version of this very useful guide to the IA of one of England's most interesting counties.
- Andrew Nahum (ed), **THE SCIENCE MUSEUM REVIEW 1987**. The Science Museum (London SW7 2DD), 1987. 72 pp., illus. £5.00 Ppd. A new annual forming the Museum's annual report and a quality journal on a selection of its more important projects and specimens. First-rate effort both intellectually and graphically, promising to be a significant offering in the worlds of technological history and museology.
- Eberhardt G. Neumann, **GEDANKEN ZUR INDUSTRIEARCHÄOLOGIE** (Thoughts on IA: Lectures, Writings, Critiques). Georg Olms Verlag (111 W. 57th St., NYC 10019), 1986. 196 pp., 40 illus. DM 37.80 (± \$18.). Recapitulation of the work of an early and important practitioner.
- C. Pearson, **THE CONSERVATION OF MARINE ARCHAEOLOGICAL OBJECTS**. Butterworth Publs. (80 Montvale Ave., Stoneham, MA 02180), 1988. \$130 (est.) Avail.: Feb. 1988.
- RESTORATION DIRECTORY: A LISTING OF SERVICES IN THE N.Y. CITY AREA, 1987 EDN**. N.Y. Landmarks Conservancy. (Avail.: Publ. Center for Cultural Resources, 625 Broadway, NYC 10012-2662.) \$18. + post. Includes designers, restoration consultants, masons in all materials, cleaners, suppliers, millwork houses, &c, &c. The lot.
- Christine Rosen, **THE LIMITS OF POWER: GREAT FIRES & THE PROCESS OF CITY GROWTH IN AMERICA**. Cambridge U. Pr. (NY), 1986. The effects of the great fires in Boston, Chicago, and Baltimore on future growth and development with respect to the politics and other factors.
- William C. Shopsin, **RESTORING OLD BUILDINGS FOR CONTEMPORARY USES: AN AMERICAN SOURCEBOOK FOR ARCHITECTS & PRESERVATIONISTS**. Whitney Library of Design. 208 pp., illus. \$29.95. Feasibility, approvals, and other pre-design considerations, with several case studies. No industrial buildings but presumably a certain amount of extrapolation might be possible thereto from herein.
- Darwin Stapleton [SIA], **ACCOUNTS OF EUROPEAN SCIENCE, TECHNOLOGY, AND MEDICINE WRITTEN BY AMERICAN TRAVELERS ABROAD, 1735-1860, IN THE COLLECTIONS OF THE AMERICAN PHILOSOPHICAL SOCIETY**. APS Library (Philadelphia), 1985. 48 pp. Wonderful collection of these accounts, many of them containing graphic as well as verbal notes, all fully described.
- Cecelia Tichi, **SHIFTING GEARS: TECHNOLOGY, LITERATURE, CULTURE IN MODERNIST AMERICA**. U. North Carolina Pr. (Box 2288, Chapel Hill 27514), 1987. 350 pp., illus. \$35./14.95. "... exploration of the American era of 'gear-&-girder' technology. From the 1890s to the 1920s machines and structures shaped by this technology emerges in many forms, from automobiles and harvesting machines to bridges and skyscrapers." And so forth.
- Robert Weible, **ESSAYS FROM THE LOWELL CONFERENCE ON INDUSTRIAL HISTORY 1982 & 1983: THE ARTS & INDUSTRIALISM/THE INDUSTRIAL CITY**. Museum of American Textile History (N. Andover, MA), 1985. 329 pp., illus. \$15. The usual wide-ranging, provocative, and mostly interesting papers on industrialism brought forth at these annual conferences. Rev.: *Technology & Culture*, April 1987, pp. 369-71.

MATERIALS

Stephen Ash, **TENNESSEE'S IRON INDUSTRY REVISITED: THE STEWART COUNTY STORY**. Land Between the Lakes (Golden Pond, KY 42231), 1987. 41 pp., illus. \$2. Ppd. The blast furnaces that flourished in NW Tennessee throughout the 19th century.

Reynier Banham, A CONCRETE ATLANTIS: U.S. INDUSTRIAL BUILDING AND EUROPEAN MODERN ARCHITECTURE 1900-1925. MIT Pr. (Cambridge, MA), 1986. 266 pp., illus. \$27.50. "Daylight" factories, grain elevators, and various European equivalents. (Mixed) rev.: *Construction History*, vol. 3, 1987.

Patricia Cusack, AGENTS OF CHANGE: HENNEBIQUE, MOUCHEL, AND FERRO-CONCRETE IN BRITAIN, 1897-1908. In *Construction History*, vol. 3, 1987, pp. 61-74.

_____, FRANCOIS HENNEBIQUE: THE SPECIALIST ORGANISATION AND THE SUCCESS OF FERRO-CONCRETE: 1892-1909. In *Transactions of the Newcomen Society*, vol. 56 (1984-85), pp. 71-86. Principally H's methods of promoting his important system of concrete reinforcing and his business methods, especially in Great Britain.

Tom Greeves, THE MINES & MINERS OF DARTMOOR. Devon Books (avail.: Town & Country Books, Box 31, Newton Abbott, Devon TQ12 5AQ, UK), 1986. 86 pp., 79 illus. £4.95. Extensive account of the tin mines of the area--which operated until ca1900--based largely on oral history and contemporary photos. Reviewer bills it a model of IA research and presentation!

Raymond Heun & Harry R. Moss, THOMAS A. EDISON'S ADVENTURES IN CONCRETE. Concrete Construction Inst., Inc. (520 Fifth Ave., NYC 10036), 1987. Short monograph, illus., avail gratis from CCI. TAE's essay ca1905-10 into concrete construction, an offshoot of his venture into cement manufacture. He should of stuck to light bulbs.

MISC. INDUSTRIES

Christopher Armstrong & H.V. Nelles, MONOPOLY'S MOMENT: THE ORGANIZATION & REGULATION OF CANADIAN UTILITIES, 1830-1930. Temple U. Pr. (Philadelphia), 1986. The public and private efforts to provide utility service to both urban and rural areas.

James R. Chiles, THE CABLE UNDER THE SEA. In *Invention & Technology*, Fall, 1987, pp. 34-41. While no new ground, a solid account of this endlessly fascinating saga of submarine communication, from the first cable of 1858 to the current fiber-optic lines.

Richard E. Jensen, NEBRASKA'S WORLD WAR I POTASH INDUSTRY. In *Nebraska History*, Spring 1987, pp. 28-42. (Box 82554, Lincoln 68501). The rise and decline of the industry that mined the great dry lakes in western Nebraska. It was not, as widely believed at the time and since, for munitions, but for fertilizer! How wrong can you be?

Howard M. Patterson, GUNPOWDER TECHNOLOGY & INCORPORATION. The Faversham Soc. (Avail.: Fleur de Lis Heritage Centre, Faversham ME13 8NS, UK), 1986. £2.00. The final days of the industry in the UK, in Scotland. Main emphasis on the 'incorporating' phase of the process.

William L. Sims, 200 YEARS OF HISTORY & EVOLUTION OF WOODWORKING MACHINERY. Walders Pr. (Cross Lane, Burton Lazars, Leics. LE14 2HU, UK), 1985. £18. From the earliest attempts to mechanize the wood-working processes, esp. for military goods, then after the mid-19th C for RR carriages, cabinet making, wheelwrighting, cooperage, and piano making. Comes right up to the present. A review says that the illus. are not of wonderful quality but that what with the dearth of material on this subject, that is a minor defect.

TRANSPORT

Gordon Biddle, THE GREAT RAILWAY STATIONS OF BRITAIN: THEIR ARCHITECTURE, GROWTH, & DEVELOPMENT. David & Charles (Newton Abbott & N. Pomfret, Vt.), 1986. 240 pp., illus. £16. Unusual among this family of books in concentrating on track and traffic layout, with many track diagrams, and operations, while not neglecting architecture.

R.J.M. Carr (ed), DOCKLAND. AN ILLUSTRATED HISTORICAL SURVEY OF LIFE AND WORK IN EAST LONDON. North East London Polytechnic & The Greater London County Council, 1986. 304 pp., 375 illus. £9.95. The rapid contraction of the shipping industry of the area following the introduction of the container ship. A series of essays on all aspects of this, incl. the cargo ships displaced, the warehouses, the workers, &c, &c.

Mary Stetson Clarke, THE OLD MIDDLESEX CANAL (reprint of original 1974 edn.) (Avail.: Canal History & Technology Center, Box 877, Easton, PA 18044-0877.) 191 pp., illus. \$20.25/11.25 PPD in US + \$2. per order outside US. Providing the last word on one of the earliest point-to-point American canals: between Boston and what came to be Lowell, 1803. (The Center also has a good list of other canal literature. Ask for list.)

Kevin Crisman, OF SAILING SHIPS & SIDEWHEELERS: THE HISTORY & NAUTICAL ARCHAEOLOGY OF LAKE CHAMPLAIN. Divn. for Historic Preservation, State of Vermont (Montpelier 05602), 1986. 40 pp., illus. Full data on 10 wrecks on the bottom, incl. the *Phoenix* (the sole sidewheeler, in fact), and a curious horse-powered ferry plus a bridge pier. Wonderful drawings by the author; altogether fine.

Donald T. Critchlow, STUDEBAKER: WAGONMAKER/AUTOMAKER. In *Timeline* (Ohio Hist. Soc.), vol. 4 no. 2: 16-19. Southbend is in Indiana, afterall, but neighborly contiguosity apparently counts for all.

Elinor De Wire, GUIDE TO FLORIDA'S LIGHTHOUSES. Pineapple Pr. (Box 314, Englewood, FL 33533), 1987. 96 pp., 60 color/b-w photos and dwgs. \$17.95. The entire coast, both masonry and iron-skeleton types, 30 in all.

Wilbur E. Garrett, GEORGE WASHINGTON'S PATOWMACK CANAL. In *National Geographic*, June 1987, pp. 716-53. The NG's usual class production: full history and present state of the remains of this essentially abortive 18th-C bypass canal around the Great Falls of the Potomac in Virginia, above Georgetown. Finely illus. with photography and renderings of the PC and its many features when in their prime. Much contribution by Virginia canal historian Wm. Trout [SIA].

Arthur J. Kuhn, GM PASSES FORD, 1918-1938: DESIGNING THE GENERAL MOTORS PERFORMANCE-CONTROL SYSTEM. Penn. State U. Pr. (Univ. Pk.), 1986. 380 pp. \$29.75. An assessment of GM's more rational management systems in gaining the ascendancy over Ford, where under Henry I's autocracy a high level of scientific management was conspicuous by its absence. Rev.: *Business Hist. Rev.*, Summer 1987

Michael Lane, THE STORY OF THE "FATHER OF OUR CLIFF RAILWAYS," BARON MARKS OF WOOLWICH. Quiller Pr. (50 Albemarle St., London W1X 4BD), 1986(?) 146 pp., 53 illus. £11.95. George Marks (1858-1938) became the leading practitioner in the design and construction of the little inclines (funiculars) that ascended (and descended) the cliffs of many European cities and towns. A number survive today, powered by electricity, and in some cases, by water balance, one car descending (and pulling up its mate) by being overloaded with water, which is dumped at the bottom causing the other car then to be heavier. Ingeniously simple and simply ingenious.

William D. Middleton, FROM STREETCARS TO LIGHT RAIL: A CENTENNIAL PERSPECTIVE. In *Railway Age*, Sept. 1987, pp. 55-65. A capsule history of the streetcar in the U.S., and its astonishing rebirth as (ta da!) Light Rail!!

Charles F. Petrillo, ANTHRACITE & SLACKWATER. Center for Canal History & Technology (Box 877, Easton, PA 18044-0877), 1986. 280 pp. 55 photos & illus. \$26./15. Pennsylvania's North Branch Canal, one of the lesser-known anthracite haulers.

David Plowden, [SIA], A TIME OF TRAINS. W.W. Norton (NY), 1987. 160 pp., 130 duotone photos by the author. \$45. Plowden's customary breathtaking, evocative photographs hardly need comment. This collection presents a group of his best, taken during the final days of steam railroading in America. Not only the machines but all the supporting elements of the railroad and the land through which it ran. Introduced by a haunting reminiscence of the author/photographer's feelings about and experiences of the steam railroad. Must be seen & had.

Paul E. Rivard [SIA], LION: THE HISTORY OF AN 1846 LOCOMOTIVE ENGINE IN MAINE. The Maine State Museum (Augusta 04333), 1987. 63 pp., illus. Saga of the working life and recent restoration of this Boston-built engine, now safe and secure in the Museum's collection

STEAM PASSENGER SERVICE DIRECTORY 1987. Empire State Railway Museum (Box 666, Middletown, NY 10940), 1987. 216 pp. \$6.50. The 'official guide' to all operating steam, diesel, and trolley lines in N. America, incl. summary descriptions of all rolling stock.

Robert Tomaine, THE DELAWARE & HUDSON GRAVITY RAILROAD. In *Live Steam*, Sept. 1987, pp. 17-23. Coal haulage from the 1830s until 1890 between Honesdale and Carbondale, Penna. by inclines and gravity on a wondrous complex system, of which there are some remains.

Levin Wright, THE MORRIS CANAL & THE GROWTH OF WATERLOO VILLAGE. Center for Canal History & Technology (Box 877, Easton, PA 18042). One of the few American canals with water-powered inclines rather than locks.

ENERGY & POWER

Edward J. Kealey, HARVESTING THE AIR: WINDMILL PIONEERS IN 12th-CENTURY ENGLAND. U. Calif. Pr. (Berkeley), 1987. 307 pp., illus. The technology, particular mills, and the mill in culture and society.

Ronald Kline, SCIENCE & ENGINEERING THEORY IN THE INVENTION & DEVELOPMENT OF THE INDUCTION MOTOR, 1880-1900. In *Technology & Culture*, April 1987, pp. 283-313.

Joe Maynor, DUKE POWER--THE FIRST 75 YEARS. Delmar. N.D. (1979??). 180 pp., illus. Company history; looks fairly typical. Hydroelectric and steam stations and into nuclear, with all progress forward and correct; no fumbles or missteps.

Martin V. Melosi, COPING WITH ABUNDANCE: ENERGY & ENVIRONMENT IN INDUSTRIAL AMERICA. Temple U. Pr. (Philadelphia) (cloth) & Alfred A. Knopf (NY) (paper), 1985. 355 pp. \$29.95/10.95. Cites 3 major transitions in energy production and use: 1) 19th-C shift from renewable sources (wind, water, wood) to non-renewable (coal); 2) the early-20th-C shift from coal to oil; and 3) from the 1970s the concern with scarcity. Rev.: *Technology & Culture*, April 1987, p. 374.

Richard M. Mitchell, THE FORE RIVER ENGINE CO. In *Live Steam*, June 1987, pp. 24-27. Boston-area marine-engine builder, organized by A. G. Bell's assistant Thomas Watson ("Come here Dr Watson . . .")

NORTHEAST UTILITIES INTO THE ELECTRIC AGE: THE STORY OF NORTHEAST UTILITIES' FIRST ELECTRIC GENERATOR. Northeast Utilities (174 Brush Hill Ave., W. Springfield, MA 01089), 1987. 16 pp., illus. Gratis. Hartford Electric Light's 1st plant--an Armington & Sims engine and a Thompson-Houston dynamo driving arc lights, April 1883. Engine and (like) dynamo now preserved.

STRUCTURE

T.M. Charlton, INNOVATION IN STRUCTURAL THEORY IN THE 19th CENTURY. In *Construction History*, vol. 3, 1987, pp. 55-60. Very general survey of the landmarks.

Russell Fay, GRACE SPANS THE TRINITY. In *Aura*, May/June 1987, pp. 39-41. A family of handsome concrete bridges crossing the Trinity River in Fort Worth, Texas.

FLOATING CREW KEEPS TRAINS RUNNING. In *Engineering News-Record*, June 11, 1987, pp. 32-33. Replacement of 1883 timber trestle over Lake Pontchartrain (La.), 5 miles long, with concrete spans.

Bertrand Lemoine, GUSTAVE EIFFEL. Fernand Hazan (Paris), 1986. 136 pp., illus. \$fr 150. Nice account of his principal works, leading up to the Tower, 1889. Good and plentiful illustrations.

Jane Morley [SIA], BUILDING THEMES IN CONSTRUCTION HISTORY: RECENT WORK BY THE DELAWARE VALLEY GROUP. In *Construction History*, vol 3, 1987, pp. 17-30. The DVG is a loose affiliation of scholars and others in a variety of institutions along the central Atlantic seaboard, all interested in construction history. A wide-ranging synopsis of some of their collective and individual works.

C. O'Connor, SELECTION OF BRIDGES FOR THE AUSTRALIAN REGISTER OF THE NATIONAL ESTATE. Research Report No. CE69. Dept. of Civil Engineering, Univ. of Queensland (St. Lucia, Q-4067, Australia), 1986. 62 pp. Methodology for the selection of 250 historic bridges, with strong statistical basis. Good model for such projects.

Tom F. Peters, THE RISE OF THE SKYSCRAPER FROM THE ASHES OF CHICAGO. In *Invention & Technology*, Fall 1987, pp. 14-23. Absolutely superb essay on the evolution of the skyscraper, all of which didn't occur in Chicago after all. Fine discussion and understanding of the structural technologies involved. New insights.

_____, TRANSITIONS IN ENGINEERING: GUILLAUME HENRI DUFOUR & THE EARLY 19th CENTURY CABLE SUSPENSION BRIDGES. Birkhäuser Verlag (Box 151, CH-4106 Therwil/Basel, Switz. In US: Box 2007, Cambridge, MA 02139), 1987. 244 pp., illus. \$fr 80. (± \$52.) Examination of

one of the pioneer practitioners of the wire-cable suspension bridge. Dufour (1787-1875) a man of many parts, one of the founders of modern Switzerland, erected a number of wire spans.

Peter Stackpole, BRIDGE BUILDERS: PHOTOGRAPHS & DOCUMENTS OF THE RAISING OF THE SAN FRANCISCO BAY BRIDGE, 1934-1936. (Avail.: Amer. Soc. of Civil Engineers, 345 E. 47th St., NYC 10017), 1984. \$22./15. The Bay Area's other great bridge, so often overshadowed by the nearly contemporary Golden Gate Bridge.

Ray Warburton, THE FACTORY CHIMNEY: SOME TECHNICAL ASPECTS. In *Industrial Archaeology Review*, Spring 1987, pp. 195-98. The theory and practice of both draft and structural stability.

LABOR & SOCIAL HISTORY

Edith Abbott, WOMEN IN INDUSTRY. Ayer Co. Publ. (Box 958, Salem, NH 03079), 1985(?). 433 pp. \$27.50. Originally publ. 1910; a classic that has never been bettered. Separate chapters on individual industries, incl. textiles, and boots & shoes. Compares wages &c with men's work and child labor from 1840 to 1900.

Victoria Byerly, HARD TIMES COTTON MILL GIRLS: PERSONAL HISTORIES OF WOMANHOOD & POVERTY IN THE SOUTH. ILR Pr. of Cornell U. (Ithaca, NY 14851), 1986. 223 pp. Oral histories and interpretive essays on same.

Susan Levine, LABOR'S TRUE WOMEN: CARPET WEAVERS, INDUSTRIALIZATION, AND LABOR REFORM IN THE GUILDED AGE. Temple U. Pr. (Philadelphia), 1984. 191 pp. \$24.95. The story of industrialization in the carpet industry, post-Civil War, when unskilled women replaced skilled male weavers in Philadelphia and Yonkers. The change in the labor force (and from hand to power looms), brought strikes and organization by the Knights of Labor in the 1880s. Revs.: *Business History Rev.*, Winter 1986; *Technology & Culture*, Apr, 1987.

Robert D. Parmet, LABOR & IMMIGRATION IN INDUSTRIAL AMERICA. Krieger Publ. Co. (Box 9542, Melbourne, FL 32901-9542), 1981. (Reprinted 1986.) 268 pp. \$10.50. The views of American labor toward immigrants and the resulting effect on immigration laws, 1850-1945.

Michael Santos, LABORING ON THE PERIPHERY: MANAGERS & WORKERS AT THE A.M. BYERS COMPANY, 1900-1956. In *Business History Review*, Spring 1987, pp. 113-33. Labor policies at a small, family-owned wrought-iron and pipe manufacturer near Pittsburgh.

BIBLIOGRAPHIC NOTES

OUR PERIODIC COMMENTARY: We shall combine a number of past admonitions and notes for the sake of new users of P.O.I.:

1) We depend heavily upon you to provide the raw material. Please do advise us of publications (books, articles, misc. notes) of which you may become aware that would appear to fit this format; and most especially your own works, major and minor. Many of these things tend to appear in publications just beyond the fringes of the mainstream, and although we wander in that direction as far as we can, we can't pick it all up. Please help. All communications to Room 5020. With thanks.

2) Where an item of information is absent from a citation--date, price, name of publisher, &c-- it means simply that likewise it was absent from our reference. We regret that time does not permit tracking down these elusive data, and thus we must leave you on your own if you desire them. Most libraries have a variety of reference books on the publishing industry that will help.

3) Nor can we provide ordering service as occasionally we are asked to do. Most things can be located through your local bookstore or directly from the publisher, their addresses obtainable from the reference works noted above.

4) A few of the abbreviations used: Ppd = postage paid; \$15.95/8.95 = the price for hardbound/paperbound, when a book is offered both ways.

ARQUEOLOGIA INDUSTRIAL, vol. 1 no. 1 has just appeared. This is the quarterly organ of the Unidade de Arqueologia da Universidade do Minho (of Portugal), and is edited by Jose Lopes Cordeiro. This initial effort of 20 pp. treats a number of subjects of IA interest in the country and will be of value to all who can read the Portuguese language, in which, of course, it is rendered. Subscriptions are available from the Uda/UdM at Av. Central 39, P-4700 BRAGA, Portugal.

DE ARCHAEOLOGISCHE PERS (Zeelstraat 147, NL-5652, EE Eindhoven, Netherlands) offers a select list of important titles on such subjects as the history of textiles, metallurgy, steam engines, and other aspects of the history of technology. Eight-pp flyer is available.

CURRENT BIBLIOGRAPHY IN THE HISTORY OF TECHNOLOGY (1985). This astonishingly comprehensive and useful annual listing has appeared for the 24th time in last April's *Technology & Culture* (pp. 401-538). It presently is conducted by Stephen H. Cutcliffe and Christine M. Roysdon of Lehigh Univ. and Judith A. Adams of Auburn Univ. Its arrangement is by time period, subdivided by topic. *Must be seen.*

INDUSTRIAL AGE, a new bi-monthly journal of the Canadian Steam Preservation & Industrial Archaeological Assn. (CANSTEAM), covering the IA of, mainly, Canada and Europe, has appeared. Colin A. Ming is editor (14070 110th Ave., Surry, BC V3R 1Z2, Canada). Single issues: \$2.95; annual membership: \$15.

THE EISEN-BIBLIOTHEK. A note by Thomas J. Misa in last April's *Technology & Culture* (pp. 324-27) describes this important library near Schaffhausen, Switzerland. It has been assembled since WW II by the steel-casting firm Georg Fischer, and consists of 35,000 volumes covering all aspects of iron and steel making, from mining to the use of the metals, and from the 13th century to the present.

RAILROAD FILMS & VIDEOS. The Interurban Press (Box 6444, Glendale, CA 91205-0444. 818-24009130) publishes a 16-pp catalog containing a quite astonishing array of these covering every aspect of railroading: steam, electric, diesel; past and present. Apparently these are for sale only--no rentals.

REMAINDERS OF BOOKS PREVIOUSLY NOTED HERE, avail. from the Strand Book Store (828 Broadway, NYC 10003. 212-473-1452), List A-2:

K. Baynes & F. Pugh, *THE ART OF THE ENGINEER* (1981) \$29.95. (#8)
DIDEROT'S ENCYCLOPEDIA: THE COMPLETE ILLUSTRATIONS in 5 vols. (1978) \$89.95. (#195)

K. Hudson, *THE ARCHAEOLOGY OF INDUSTRY* (1976) \$3.95 (#371)

D. Plowden, *AN AMERICAN CHRONOLOGY: THE PHOTOGRAPHS OF DAVID PLOWDEN* (1982) \$14.95 (#635)

Postage: \$2.00 per order within U.S.; Foreign orders: \$2.00 first book, \$1.00 each additional book. Minimum credit card order \$15.

RAILROAD DRAWINGS & MAPS. The Chesapeake & Ohio Historical Soc. offers a large selection of diazo (ozalid) prints from original tracings of RR structures, maps, and some passenger cars from the C&O, Hocking Valley, and Pere Marquette railroads. These are listed in a small catalog available from C&OHS, c/o T.W. Dixon, Jr. 303 Aaron Court, Sterling, VA 22170.

NOTES & QUERIES

URGENT—SHEET-METAL FURNACE NEEDED for exhibit at the National Building Museum. NBM wants a 19th- or early-20th-C, gravity, hot-air furnace (like the Sears Hercules), with the original octopus ducting. Although it would have a cast-iron core, NBM wants the sheet-metal shell. They were installed in houses, churches, and other small-to-medium buildings. "Sheet Metal Craftmanship: Progress in Building" runs Jan. 25 through Aug. 31 in the Pension Building, Wash. DC. If you have a furnace (or good photos), call David Chase or Carolyn Laray at 202-272-2448.

RR DRAWINGS IN THE ARCHIVES. Pullman Technology, Inc., has donated some 75,000 Pullman Standard Car Co. linen tracings to the Illinois Rwy. Museum. They range from the mid-19th C through 1932, and also include the builder's specifications, drawing lists, and lot lists from the Osgood Bradley Car Co., Standard Steel Car Co., Middletown Car Co., Haskell & Barker Car Co., and the Pullman Car Co. Info.: Jim Kehrein, IRM, POB 431, Union IL 60181 (312-699-0002).

F.W.A.

The DeGolyer Library at Southern Methodist Univ. has announced the completion of a project to index its collection of 8,500 original inked linen Baldwin Locomotive Works engineering drawings. The majority are for steam locomotives, 1900-20. The index was compiled on a computer database from information on the drawings. Vol. 1, *Erecting Card Drawings*, 3,315 drawings indexed, sorted by RR name, BLW class, & foreign roads; data includes loco no. and date (139 pp., \$12 ppd.). Vol. 2, *Detail Drawings*, 5,272 drawings indexed, sorted by RR name and BLW class; data includes part name and date (199 pp., \$14 ppd.). Both vols. \$24 ppd. Checks to "DeGolyer Library-SMU." Mail to Dawn Letson, DeGolyer Library, POB 396, Dallas TX 75275.

The Chesapeake & Ohio Historical Society is seeking advice on grants and archival processing for its C&O-related collection of 25,000 measured drawings and 50,000 photos. Info.: Mark W. DeLawyer, Grants Research, C&OHS, Box 2107, 550 S. Clinton St., Syracuse NY 13202.

OVER 2 TONS OF ENGINEERING DRAWINGS of White Corp. vehicles were given to the Vintage White Truck Assn. by Volvo Corp., and VWTA now rightly claims to be the world source for White technical information. The ink-on-linen or vellum drawings, with a few brown-lines thrown in, date c1920-60, and are the original vehicular working drawings, but do not include plants or assembly equipment. Although White had disposed of correspondence and related archival materials, there reportedly are thousands of photos remaining in company storage in Cleveland, according to VWTA officers.

White was established about 1870 to manufacture sewing machines and advanced to automatic screw machines and bicycles. About 1900 they built a steam car and in 1910 they produced their first gas-powered vehicle. Shortly they dropped steam in favor of the internal-combustion engine and in 1918 devoted their production exclusively to trucks. Always an acquisitive company, White bought Indiana, Sterling, Autocar, Diamond-T, Reo, Montpelier, Hercules, and other companies. In the 1970s they bought Minneapolis-Moline, Oliver, and too much else, an overextension which, in concert with a weak economy, precipitated bankruptcy. In 1981 Volvo bought White's truck division, and Volvo White—now Volvo-GM—produces Class 7 & 8 trucks under the White, Autocar, and GM Co. names. VWTA was organized to further interest in White Motor Co. vehicles and to supply owner-restorers with parts and documentation. For further info., contact VWTA, 719 Ohms Way, Costa Mesa CA 92627.

Historical truck info. is readily available in *Wheels of Time*, the publication of the American Truck Historical Society, POB 59200, Birmingham AL 35259 (205-879-2131).

L.K.

GIVING BIRTH TO EFRC. Louisiana Tech Univ. has proposed establishing the Engineering Film Research Center to identify, locate, acquire, catalog, and preserve records of engineering activities which have been documented on film and video tape. La. Tech has identified three film categories—"landmark achievement" documentaries, instructional films, and historical documentaries—and initially will focus on obtaining the first. Examples of films no longer available for general distribution include *Building the Golden Gate Bridge* (produced by Bethlehem Steel), *Turnpike* (Asphalt Inst.), *Concrete's Finest Fifty Years* (Portland Cement Assn.), *The Story of Hoover Dam* (U.S. Dept. of the Interior), *From Brimstone to Bread* (Freeport Sulphur Co.), and *Miles Over Marsh* (La. Dept. of Hwys.).

EFRC has defined several objectives: to obtain initial funding and establish a permanent financial base; to survey private and government sources on engineering film holdings; to solicit contributions of original or first-copy reproductions of films for archival purposes; to secure rights to release copies of visual records for education and research; to obtain proper, long-term film storage facilities; to reproduce archived films for day-to-day use; to restore films that have deteriorated.

Currently, La. Tech seeks contributions of money, films and equipment, and printing and film reproduction services. A full-color brochure outlining EFRC's program includes endorsements by SIA President Thorwald Torgersen and former director David H. Shayt. Info.: Engng. Film Research Center, La. Tech Univ., Ruston LA 71272.

AVAILABLE

MICHIGAN MUSEUMS: A LOCATOR GUIDE is a glove-compartment map keyed to 313 museums and historical societies, including many of IA interest. Not to be missed is the exhibit on concrete-block-making machinery at the Jesse Besser Museum of Alpena, or the hulk of Ephraim Shay's steel steam yacht at Fort Michilimackinac. These make up for the passing of "Auto World" at Flint, with its assembly-line amusement-park rides. Write for a copy from The Michigan Museums Assn., c/o Frankenmuth Historical Museum, 613 S. Main St., Frankenmuth MI 48734.

A.H.F.

RR TUNNEL VIDEO. *From the Car Window* is a b/w 1930 film produced by the Gt. Northern Rwy. to promote passenger traffic. Featured is the construction and 1929 opening ceremonies of the eight-mile Cascade Tunnel, along with associated steam and electric motive power. The film is part of a new Burlington Northern video, which also includes *Empire on Parade*, a 1940s-50s color film which follows GN freight 401 from Union yard in Minneapolis through its run to Seattle, including views of trackside industry. 1 hr., VHS, \$40. Avail.: BNRR, 777 Main St., Ft. Worth TX 76102.

"ENGINES OF CHANGE: THE AMERICAN INDUSTRIAL REVOLUTION, 1790-1860" is a new full-color poster from the Nat. Museum of Am. History, featuring John F. Weir's 1866 *The Gun Foundry*, one of the finest paintings ever executed of an American industrial scene. The publication celebrates a new exhibit of the same name. Weir portrays stages in the casting of a Parrott gun, including melting of iron in the furnace, the use of T.J. Rodman's cooling apparatus, and Robert Parrott's patented wrought-iron barrel jacketing. The 24x30 poster is avail. for \$6 from Smithsonian Inst., NMAH, Dept. of Public Programs, Publications Office Rm BB53, Wash. DC 20560.

"BREWERYTOWN, PHILA." is an 18"x25" b/w poster with an insurance-map-like treatment of a nine-block industrial neighborhood which was home to many of Phila.'s breweries. Surrounding the map are nine bird's eye drawings of breweries, with descriptive text. This is a companion poster to "Brewery Architecture in Pa." [*SIANS* Spring 87:7] and is avail. for \$7 ppd (or both for \$10; checks payable to "Soy World"). Poster, Box 22, Lock Haven PA 17745.

SITES & STRUCTURES

MAJOR BRIDGE TORCHED. The longest remaining covered RR bridge in the US, at Swanton, Vt., was destroyed in a June fire accidentally set by partying teenagers. The 369-ft., three-span, Town-Pratt double-lattice wooden bridge was built across the Missisquoi River in 1898 for the St. Johnsbury & Lake Champlain RR, onetime owner of many covered bridges. Unused since 1968, the Swanton bridge had become a state historic property, had had its rail connections removed, and had received about \$150,000 in restoration work. A park was planned for the former StJ&LC roundhouse site nearby. The bridge was insured for \$823,000, but reconstruction is unlikely.

Locomotive & Rwy. Preservation

1833 LIGHTHOUSE RE-LIT. One of the symbols of Buffalo, N.Y., the 1833 Buffalo Lighthouse [NR; aka "Chinaman's Light"], was re-lit in July. The light has been converted to electricity and is now solar-powered. The Fresnel lens requires only a five-watt bulb. In an ironic twist of circumstances, the light will shine only toward shore, since the lighthouse has long been removed from navigation charts and a seaward beam would confuse mariners.

Preservation Coalition of Erie Co.

WHO'S OLDEST, NEWEST, BIGGEST, SMALLEST IN PUBLIC POWER? According to a recent issue of *Public Power*, Los Angeles remains the nation's largest public power system, with 1,254,946 customers, while Radium, Kan., is the smallest, with 32. The newest is in Fredonia, Ariz., and it began operation this year. The oldest may be open to question, but editor Vic Reinemer has nominated Butler, Mo., as the oldest electric power system in continuous operation in the U.S. (since 1881), and still operating as a municipal. Reinemer uncovered this while compiling the 1987 edition of the *Public Power Directory*, when he double-checked the establishment dates appearing on directory questionnaires sent to municipalities. Sometimes the dates turned out to be the beginning of the water system or other municipal service, so Reinemer requested verification. Butler apparently submitted the most persuasive evidence, noting, in passing, that Brush Electric Co.'s secretary, F.J. Tygard, at one point had been mayor of Butler. Butler historians believe that the town underwrote the operation virtually from its 1881 beginning, thus giving it the honor of being the earliest, continuous *public* power system.

THE TITAN MISSILE MUSEUM in Green Valley, Ariz. (on I-19, 25 mi. south of Tucson) is an obscure and unusual military engineering site, preserved—IA fashion—in *situ*, unlike the National Air & Space Museum in Wash., DC. When the last of the nation's old Titan 2 missiles are dismantled this Oct., this site will house the only remaining specimen of 110-ft. tall, liquid-fueled, intercontinental nuclear giant, the largest missile ever built by the U.S., and carrying the largest payload. Open to the public for the past year, the site was constructed about 1962 and deactivated in 1983, after 19 years of round-the-clock operation. The \$4 tour includes the nine-tiered silo, three-level egg-shaped control center, and spartan four-man barracks. Except for the missile, the complex is in working order, with power, communications, alert siren, emergency phones, loudspeakers, and maintenance platforms left untouched. This particular Titan was a training version and never fueled, and was chosen for the museum since that lack enhanced its safety. The site is leased by the Air Force to the Pima Air Museum, which operates the museum.

TWO NEW ASME LANDMARKS. The American Society of Mechanical Engineers designated the NASA Lewis **Icing Research Tunnel**, Cleveland, O., as its 21st Int'l Historic Mechanical Engineering Landmark in May. It was used to duplicate a cloud's icing pattern for testing large aircraft components. The oldest and largest refrigerated icing wind tunnel in the world, it was built as part of the National Advisory Committee for Aeronautics, Aircraft Engine Research Laboratory (now NASA Lewis Research Center) and ran its first icing test in 1944. The tunnel was a standard design, but the creation of a freezing cloud was an

important achievement, involving a unique heat exchanger and spray system that simulates a natural icing cloud of tiny droplets. The refrigeration plant is the largest direct-expansion system in the world, with a 21,000-ton cap. The IRT was renovated last year and functions in even larger capacities today.

In April, ASME designated the **McKinley Climatic Lab** at Elgin Air Force Base, near Pensacola, Fla., as the 85th Nat'l Historic Mechanical Engineering Landmark. Designed and constructed in the mid-1940s and originally known as the Climatic Hangar, it is a lab capable of simulating every feasible climatic condition—desert winds, jungle humidity, and ice storms. Beginning in 1947, it was used for testing full-scale aircraft, ground vehicles, sensors, and even humans. In 1971 it was renamed for Col. Ashley C. McKinley, USAF, who first recognized the need for an all-weather testing facility and made major contributions to its design.

REHAB PLANS FOR 1ST CYCLE WORKS. Built in stages between 1895 and 1918, the **Indian Motorcycle** [sic] **Building** [NR] in Springfield, Mass., housed America's first motorcycle factory. Abandoned in 1975, it since has been the center of a local preservation controversy. The oldest section of the structure burned and was razed in 1984. Arguments about the ultimate success of the Indian Motorcycle project to reuse the building for apartments hinge on whether or not the deteriorated surrounding neighborhood also is appropriately developed.

NTHP Preservation News

CHICAGO BRIDGE RAZING WAS DOUBLE LOSS. Both industrial and commercial archeology lost artifacts when the 1937 Strauss Engineering/PWA-designed Outer Drive Bridge was removed for scrap in 1984, and the Chicago Art Deco Society is outraged. In particular, they were involved in a struggle to save the aluminum luminaire, "the most aesthetically successful grouping of all the handsome Deco lights anywhere on our glorious Outer Drive." When demolition began, the CADS "was concerned about the careless fashion in which the aluminum fixtures were being taken down and left in the gutter. After speaking with several officials in the municipal government, we were assured in writing that no harm would come to them." The CADS president contacted five TV stations, several columnists (including Studs Terkel and Mike Royko), and numerous newspapers and magazines. No one covered the story or published available CADS photos of the lights until the CADS newsletter did this year. In the interim, it turns out, the city sold one lot of the lights for \$250. "These lights are now on a wall surrounding a swimming pool in Glencoe and on cocktail tables somewhere. Only God knows where else they will end up being seen. They belong only one place: on our Outer Drive. The public bought and paid for them. They should be there for all of us to enjoy."

CADS Newsletter

RR STRUCTURES IN THE NEWS. The Erie RR's Susquehanna Station & Hotel, "**Starrucca House**" [1865; HAER], in Susquehanna, Pa., is in its eighth year of private restoration by a local businessman who bought it for \$3,500 and has since sunk some \$300,000 into the work. It is the last surviving major RR station-hotel in the U.S. Two stories of workers' sleeping quarters were removed from inside the famous Great Hall, a 125- x 40-ft. room whose 36-ft. arched beams are again exposed. The room is expected to be open to the public sometime during this summer.

Meanwhile, down in Bermuda, the grade of the former **Bermuda Railway** has been converted to the Bermuda Railway Trail. From 1931 to 1948, the BR provided local rail transportation from the village of Somerset on the west end to the former colonial capital of St. George on the east end. Because of excessive military use during WWII and soaring maintenance costs, the entire line was sold to Guyana. Then, in 1984, the gov't dedicated the RR lands to public use and began to clear, sign, and pave the trail. Among the many natural and historical sites along the trail are several of IA interest, including the 19th C. Fort Scur, the 117-ft., cast-iron, Gibbs Hill Lighthouse [c1846], a lime kiln, and the Bermuda Maritime Museum. A history of the RR and maps of the new trail, including site details, are in the Bermuda Railway Trail Map, available free from the Bermuda Dept. of Tourism, 34 Church St., Hamilton 5-24, Bermuda (809-292-0023).

JOSEPH E.B. ELLIOTT'S 'BETHLEHEM, PA, 1985'

Contemporary artists employ industrial themes to generate unusual images in a wide variety of media, particularly in black & white photography, to which they are well suited.

Joseph E.B. Elliott is one of several contemporary photographers who have been exploring the aesthetic possibilities of the current industrial scene. Elliott's work was featured in an exhibition mounted last year at Muhlenberg College in Allentown, Pa., where he currently teaches. Titled *Man-Altered Landscapes: Three Photographic Perspectives*, the show, which also presented photographs by Larry Fink and Cosmo Prete, was accompanied by a short catalog containing an essay by Jadviga M. da Costa Nunes on the social and aesthetic implications of their work. While maintaining that "an aesthetic appreciation for the man-altered landscape . . . has never developed to rival our appreciation of the natural landscape," Nunes notes that Elliott's "carefully ordered compositions call attention to the innate, often overlooked beauty residing in many of our industrial landscapes."

Elliott, who received his undergraduate degree from the Univ. of Minnesota and an M.F.A. from the Pratt Institute in Brooklyn, dates his interest in industrial themes to a youthful enthusiasm for railroads. This fascination soon led to his making models, to reading technical railroad magazines, and, when older, to producing photographs.

He works only in black and white in the straight, disciplined tradition of Alfred Steiglitz, Paul Strand, and Edward Weston, though his subjects are never the classically formalist ones favored by these earlier artists. The distinctly American imagery of the painters Edward Hopper, Charles Burchfield, and precisionist Charles Sheeler also represent important aesthetic predecessors.

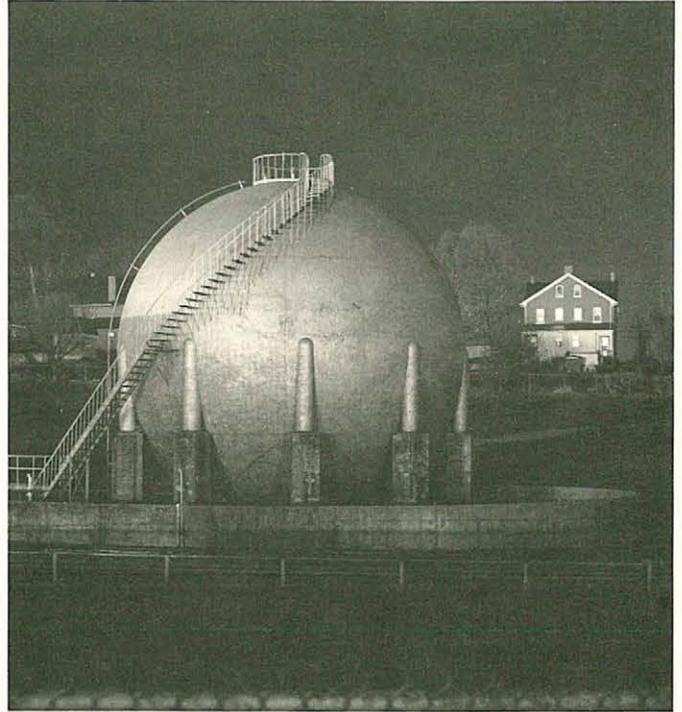
His favorite subjects are bridges, railroads, and factories, and he is drawn to aging, often abandoned, sites. He has produced views of such representative and declining industrial centers as Jersey City, Newark, and Kearney, N.J.; and Bethlehem and Easton, Pa., as well as recording images in N.Y.C. In his photographs of the natural environment altered by human intrusion, Elliott exposes the viewer to the ironical and untraditional beauties of the industrialized landscape, achieving a kind of visual reclamation process.

Employing a controversial technique, he generally does not obtain permission prior to exploring the industrial sites he wishes to photograph, preferring to scale fences and prowl in the dark to enhance his sense of adventure and challenge. The resulting apprehension and anxiety, he feels, add to the overall mysteriousness of the experience, and the subsequent tension enables him to secure satisfying images. When he has secured official permission to visit a site, his photographs rarely seem to him to be as successful as those made during his unsanctioned forays.

Elliott prefers to work at night, which he finds maximizes "a mood of isolation and utter quiet." He searches out settings from which he can produce a strong polarity of bright light and deep blackness in the final print. Elliott works only with available light to obtain hauntingly eerie contrasts in his images. Favoring unusual angles and perspectives, his images achieve a striking balance between the real and the seemingly unreal, as mundane settings are transformed into an almost extraterrestrial aura. Even when he works in daylight, his views take on a powerfully surreal quality.

Elliott has sought to equalize his dual aesthetic concerns of "the subject for its own sake" and the artistic medium, desiring to avoid what he regards as the naive and dull of the former and the studied academic lifelessness of the latter. Not wanting technical complications to overwhelm his primarily visual interests, he works with a relatively simple camera set up, and without elaborate encumbering apparatus, he can move more easily about a site. At once a discipline and a liberation, the capabilities and limitations of his camera determine just how far he can take an image.

Working on an intuitive rather than analytical level, he approaches his subjects from the artist's point of view, not an industrial archeologist's.



Joseph E.B. Elliott. *Bethlehem, PA, 1985*. Gelatin silver print.

Intrigued by exploring the visual possibilities presented by the subjects he has chosen, he is not interested in conveying detailed technical information, and too much data actually bores him.

Often deeply unsettled, even frightened, by the subjects he photographs, Elliott's work is informed by an attitude point that is simultaneously post-industrial and post-modernist. His work reflects his own personal contradictions; he loves old things, yet prefers rust and decay over museums. He is an environmentalist fascinated by open-pit mines, a devotee of Pa. steel mills who drives a Toyota. Elliott's images are the product of an era where the altered landscape is more characteristic than one that is natural and untouched.

Bethlehem, PA, 1985 is part of an ongoing series of scenes recording that industrial municipality which he titles simply by city and date. Elliott could not enter this site and was forced to set up his camera on its periphery. Working at night, he sought to capture the particularized illumination caused by the glow of the Bethlehem steel plant to create a striking visual document.

Author's note: I would like to thank Joseph E.B. Elliott and Hedy da Costa Nunes for their kind assistance.

B.F.

CONTRIBUTORS TO THIS ISSUE

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SIA AFFAIRS

NOT AGAIN?! Yep, the SIA again departs an Annual Conf. city and leaves disaster in its wake. In Cleveland, Goodyear sold the Airdock; in Newark, the hotel folded; and in Detroit there's hardly anything left. Now in Troy, Wheeler Bros. foundry, which we toured on Thursday just before the Ross Valve Co. visit, has burned (Ross is okay), and two weeks after we left, our HQ Holiday Inn saw its two upper floors go up in smoke. Look out, Wheeling, here we come.

FUTURE MEETINGS & TOURS SET. On Sept. 19, the Executive Board agreed to the following schedule of conferences and fall tours for the Society. This long-range planning has been done to allow adequate lead-time for conference coordinators.

1988 Annual Conf.: **Wheeling, W.Va.**
1988 Fall Tour: **Easton-Bethlehem-Allentown, Pa.**
1989 Annual Conf.: **Quebec, Canada**
1989 Fall Tour: **Butte, Mont.**
1990 Annual Conf.: **Philadelphia, Pa.**
1990 Fall Tour: **Alaska-Dawson City, Yukon**

The Dawson City visit will be a major new venture, a study tour. The Board is looking into the possibility of establishing a pre-payment plan to make the trip feasible for the greatest number of SIA members. We have the cooperation of Parks Canada and the Alaska section of the National Park Service.

If you have suggestions for tour or meeting sites, and can offer the on-site staffing for the area, please forward your suggestions to the Board. The next president, who takes office at the 1988 Annual Conf., will need your suggestions.

Thorwald Torgersen
President



LOCAL CHAPTERS

NORTHERN NEW ENGLAND. The Fall Meeting & Tour in Bellows Falls, Vt., began with registration and the business meeting at the Moore & Thompson Paper Co. building, followed by a tour of New England Power Co.'s unique hydroelectric generating station and fish ladder. Next was a tour of the 1831 Adams Grist mill whose turbines remain although the mill was converted to electricity in the 1920s. It operated until the early 1960s and now is maintained by the Bellows Falls Hist. Soc. There was a lunch tour of the 1925 Union Station and nearby N.E. Power Co. dam, with an afternoon visit of the former Boston & Maine (now Green Mt.) RR yard & shops. Then it was all aboard the Green Mt. Flyer, with its first-generation ALCO diesel-electric locomotive, for a round trip to Chester, Vt.

KLEPETKO (Montana). Vice President **Fred Quivik** has stepped up to the presidency following the resignation of **Mark Fiege**, who begins a Ph.D. program at the Univ. of Utah in Salt Lake.

The chapter Fall Tour in Oct. featured Red Bluff and other portions of the Hot Spring Mining District, and included visits to c1930s mining sites.

The chapter's Sept. newsletter included fine historical studies of the Butte Sewer Pipe & Tile Co. and Helena's Gt. Northern Rwy. Terminal & Offices (1913), the latter reportedly in the way of proposed new construction of the U.S. Treasury's Federal Reserve branch office.

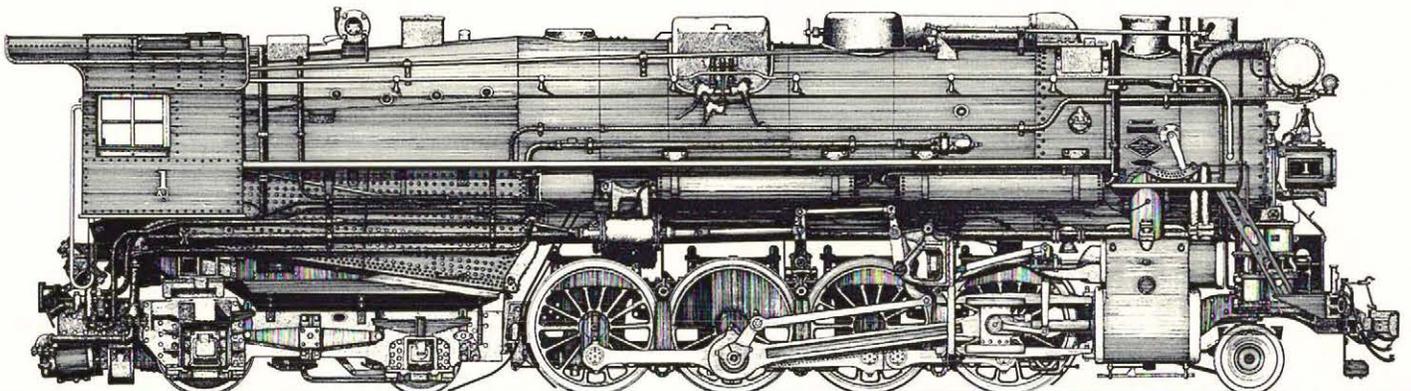
ROEBLING (Greater N.Y. area). The Annual Corn Roast (at Charlie Emmerich's farm) and Riegel Paper plant tour (Warren Glen, N.J.) was enjoyed in Aug. From 1895 to 1920 Riegel built a series of paper mills in the lower Musconetcong Valley, using water both for power and for processing. Their premier product was coated paper, the technology for which came from Germany. Now they make the paper used by Polaroid. Viewed were the raceway, two Pelton wheels, and a 1920s GE turbine (similar to that viewed at the Mechanicville hydro plant during the SIA annual conf.).

Icon freaks can buy authenticated pieces of the Brooklyn Bridge for a \$25 donation to the Roebling Chapter, according to the chapter newsletter. [*What are these "authenticated pieces" and where did they come from? Ed.*] Contact Thorwald Torgersen, Box 429, Hackettstown NJ 07840 (201-852-8630).

NEWS OF MEMBERS

T. Lindsay Baker, recently appointed curator of history at the Fort Worth [Tex.] Museum of Science & History, was awarded the Ralph Coats Roe Medal by the American Society of Mechanical engineers for *Building the Lone Star: An Illustrated Guide to Historic Engineering Sites in Texas* (College Station, Tex.: Texas A&M Pr., 1986). The Roe Medal, with its \$2,500 prize, is awarded annually to an individual who has made a significant contribution to a better public understanding of the engineer's worth to contemporary society. Baker's volume has garnered five awards, including the Annual Book Award from the Public Works Historical Society.

Superpower: The Making of a Steam Locomotive (Boston: David R. Godine, 1987; 108 pp., \$20) is a breathtaking new large-format volume by the prolific **David Weitzman**. He chronicles the story of a young boy following the tradition of his father and grandfather at the great loco works in Lima, Ohio. Ben is 18 when he first comes as an apprentice, encountering the building of the 1070 Berkshire. The story follows Ben through 50 buildings over 65 acres, and includes the drafting room, foundry, and machine shop. Weitzman visited Lima to research the factory



David Weitzman's cover drawing from his new book, *Superpower: The Making of a Steam Locomotive*.

and workers, and spent a couple of years preparing the book's 35 line drawings. Following ceremonies marking publication, the original drawings are being exhibited through Nov. 20 at the Allen Co. Museum, 620 W. Market St., Lima, and will be available as a traveling exhibit (info: American House, POB 5283, Lima OH 45802; 419-224-6873).

Brent D. Glass, formerly executive director of the N. Carolina Humanities Committee and a former SIA board member, was appointed executive director of the Pa. Historical & Museum Commission.

Betsy Woodman had her personal "15 mins. of fame" this summer when she worked with a BBC crew from Stockwell Films, London, on "Holiday Makers at Salisbury Beach [Mass.]," interviewing local seaside folks such as cotton candy hero Gerald Hay, and waterslide entrepreneur Roger Shaheen. According to BW, this film experience is topped only by her network TV appearance as the Egg Beater Queen of Newburyport in a promo for a local collectibles show, featuring her historic-egg-beater collection.

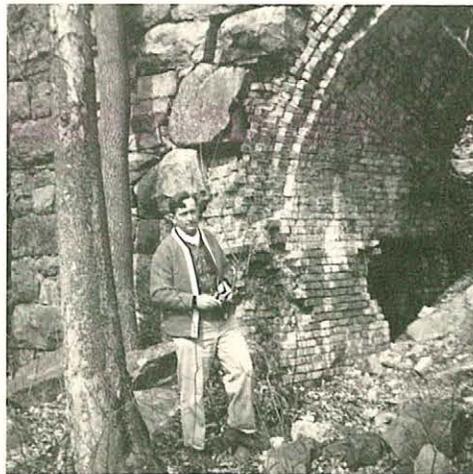
Donald C. Jackson has just completed *Great American Bridges & Dams*, a volume in the Great American Places Series (Wash., D.C.: Preservation Press, 1987; 300 pp., \$17 paper). This guidebook includes 325 photographs to illustrate entries on 300 historic bridges and dams built primarily during the 19th and 20th Cs. Sites are arranged by region, state, and location, and each entry lists the structure name, feature crossed or dammed, location, designer/builder, date, and National Register status, followed by a brief note on history and significance.

Views from Donald C. Jackson's new book, *Great American Bridges & Dams*. Photographs courtesy Library of Congress.

Right: Fort Keogh [Mont.] Bridge, a Pa. truss built across the Yellowstone River by WS. Hewett & Co. in 1902.

Below: Detroit-Superior High Level Bridge (1917), Cleveland, Oh.

Bottom: Hume Lake Dam (1909), Sequoia Nat. Forest, Calif.



Roland Wells Robbins standing next to 1860s blast furnace at Long Pond Ironworks, West Milford, N.J., in 1966. E.J. Lenik photograph.

ROLAND WELLS ROBBINS, 1908-1987

A PERSONAL REMINISCENCE

Roland Wells Robbins died in February at his home in Lincoln, Mass., at the age of 78. Robbins came to national attention for his 1948+ excavation and restoration of the Saugus Ironworks in Saugus, Mass., now a national historic landmark.

Robbins specialized in uncovering the sites of early American industry, including ironworks, mills, and docks. Among his many projects were the John Winthrop Jr. blast furnace in Quincy, Mass., Dupont's Black Powder Rolling Mills near Wilmington, Del. [c1956], the Puddle Dock Area in Strawberry Banke, N.H., and the Oliver Mill Park Restoration in Middleborough, Mass. [1969-71]. He authored *Hidden America* with Evan Jones in 1959.

His continuing interest in America's early iron industry brought him to N.Y. and N.J., where he worked on the excavation and restoration of the Sterling Furnace in Tuxedo, N.Y. [1961], the Clove Furnace at Arden, N.Y. [1982-83], the colonial-era blast furnace at Long Pond in West Milford, N.J. [1963], and at Batsto in the N.J. Pine Barrens. In addition, his intense interest in all phases of American history led him to excavations at Colonial Crown Point on Lake Champlain [1968+], at Philipsburg Manor Upper Mills in Tarrytown, N.Y. [1956-57], and at the Steuben House in River Edge, N.J. Area residents, concerned with the preservation of their state's historic sites, found Robbins knowledgeable, enthusiastic, energetic, and good company. I share my memories of Robbins as I look back over more than 20 years of friendship and professional association.

Roland Robbins is regarded as one of the first historical archaeologists in the U.S. He, however, called himself an excavator and consultant of colonial and early American landmarks and their restoration. He was self-trained and his goal in preserving a site was to recreate it, giving the public a place that would teach what had gone on in the past. He was a pick and shovel archaeologist who often brought in mechanical excavating equipment. His controversial methods destroyed much of the archaeological evidence, but he saved many sites that would have disappeared entirely without his efforts. He revealed history in a very accessible and tangible way. Our current respect for archaeological evidence as a non-renewable natural resource fills books and artifact bags—preserving much knowledge, but having little impact on the general public.

Through his restorations, publications, and lectures, Robbins validated interest in local history. His enthusiasm supported many local projects and attracted local volunteers. He established a place for the contract archaeologist working with local citizens groups, the academic community, and governmental agencies to preserve historic sites. He leaves a legacy not only in his restored sites, but also in his pioneering efforts which inspire and instruct those of us who carry on the good work he began.

Edward J. Lenik
Wayne, N.J.

CALENDAR

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

1988

Mar. 11-12: 1st Annual Conf. on Humanities, Science, & Technology, Ferris State College, Big Rapids MI 49307 (616-592-2758 or 2771). Proposal deadline Dec. 1.*

Mar. 18-20: 34th Annual Meeting, Business History Conf., Atlanta, Ga. Info.: Wayne Broehl, Amos Tuck School of Bus. Admin., Dartmouth Coll., Hanover NH 03755.

Mar. 26: 7th Annual Canal History & Technology Symposium, Lafayette College, Easton, Pa. Info.: Lance Metz [SIA], Canal Museum, POB 877, Easton PA 18044-0877 (215-250-6700).*

MAY 19-22: SIA 17TH ANNUAL CONFERENCE, WHEELING, W.VA. (Deadline for paper proposals was Nov. 1.) Info.: Emory L. Kemp, Hist. of Sci. & Tech., Woodburn Hall Rm. G-14, W.Va. Univ., Morgantown WVA 25606 (O: 304-293-3867, H: 304-599-4838)*

Sept. 19-23: Intl. Symposium on Engineering Geology as Related to the Study, Preservation, & Protection of Ancient Works, Monuments, & Historical Sites, Athens, Greece. Info.: Greek Committee of Engineering Geology, 1988 Symposium Secretariat, P.O. Box 19140, GR-117 10 Athens, Greece (TELEX: 45 4312 POLX (c/o Paul G. Marinos).

Dec. 7-9: The Interiors Conf. for Historic Buildings, Wash., DC. Includes history of interiors (mills, firehouses, tenements, etc.), reusing historic elevators and systems, and other topics. Deadline for paper proposals is Jan. 31. Info.: Program Director, ICHB, POB 27080, Central Station, Wash. DC 20038 (202-343-9578).

*Find details on this event elsewhere in this issue.

TOASTED OATS

The H-O Oats complex in Buffalo, N.Y., sustained \$1 million damage—including early equipment—in a July blaze, thanks to the familiar old story of sparks from a worker's torch igniting stored materials. The complex consists of a mill building, packing and mixing plant, warehouse and storage plant, and grain elevators, all built between c1895 and 1931. It was closed in 1976, a casualty of the city's declining grain industry, and has been used since for general storage.

Alexander Hornby, early innovator in the development of rolled-oat breakfast food, established the first Hornby's Oats mill at Craigville, N.Y., in the 1870s. He later sold his rights to Edward Elsworth, who began large-scale manufacture in N.Y. City, forming H-O Co. The business was moved to Buffalo in 1895.

Most tragic is the loss of the mill's original equipment, which had survived on the upper floors, including hardwood cabinetry containing 1893 Ohio-built grain-processing apparatus, reportedly the only remnants of such machinery surviving *in situ* in Buffalo. On the ground floor were six round brick ovens with thick steel plates, used to pan-toast the oats. These ovens are now buried beneath rubble.

Preservation Coalition of Erie Co.

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 \$25; couple, \$30; institutions \$30; contributing, \$50; sustaining, \$100; student, \$20. Send check payable to SIA to Treasurer, Room 5020, National Museum of American History, Smithsonian Institution, Washington, D.C. 20560; all business correspondence should be sent to that office. Editorial correspondence should be sent to ROBERT M. FRAME III, Editor *SIA Newsletter*, P.O. Box 65158, St. Paul, Minn. 55165-0158. ISSN0160-1067

Submission deadlines: Feb. 1 (Spring), May 1 (Summer), Aug. 1 (Fall), and Nov. 1 (Winter).

The *SIA Newsletter* is included in the *Avery Index to Architectural Periodicals*, Avery Architectural & Fine Arts Library, Columbia University.

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