

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

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Valentine museum leads rescue of rare 19th-C pump



Valentine museum crew (L-R: Lyle Browning, Gregg Kimble, and Greg Galer) removes muck from around the larger of two 1852-53 archimedes screw pumps found in a drained section of the James River & Kanawha Canal, Richmond, Va. Later, the wood-stave pump was lifted out by a Chinook helicopter provided by the U.S. Army Corps of Engineers, whose personnel also had helped dig out the rare 38-ft. artifact. *Photo courtesy of Kathy Franz, Valentine Museum.*

When the City of Richmond drained a section of the James River & Kanawha Canal to repair a lock, the metal-detector buffs arrived in droves. Luckily, members of the Virginia Canal & Navigation Society were keeping an eye on things. They contacted me at The Valentine in Richmond when they found an archimedes screw pump buried in the canal basin in July. Realizing that the city might be unwilling to drain the canal again, I decided to attempt the pump removal.

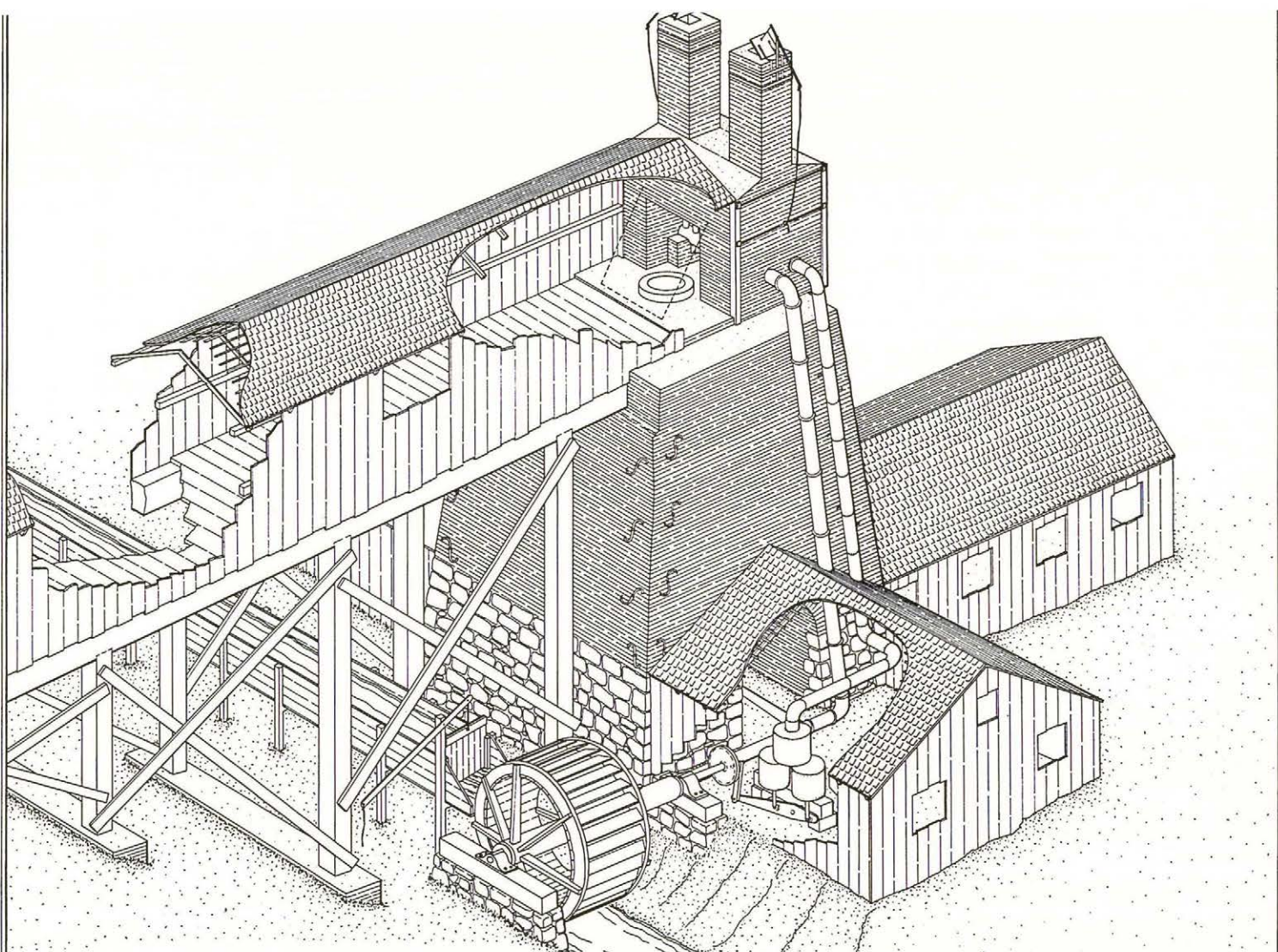
Three weeks later, the pump was out. Significant help came from Lyle Browning, president-elect of the Archaeological Society of Va. With cooperation and donations from local firms and with the aid of Fort Lee U.S. Army personnel and a Chinook chopper, the rare pump was removed and stored submerged until conservation can begin.

The screw pump dates from 1852-53 and was used as a trash pump during the construction of the canal's Great Ship Lock. In fact, during the dig, another pump was uncovered, but it was reburied in the canal basin. Large rocks found at the ends of the pump appear to have been carefully placed for support, evidence that the pumps were floated about 250 yards from the lock where they operated and sunk to the bottom. Over the years, silting covered the pumps with about two to six feet of dense mud and sand, which preserved them in a near pristine state.

The cylindrical pump is 38' long, 3½' in diameter, and weighs about 8 tons. The cylinder is formed of wooden staves and iron bands, with an iron pulley at one end. Running through the center of the hollow cylinder is a central shaft with a cup bearing on one end and an iron journal on the other. Between the shaft and inner surface of the cylinder are two wooden augers that run the length of the shaft, 180 degrees counterposed. When operating, the pump would sit at an angle with its base in water, and be rotated by steam or animal power via the iron pulley. As the cylinder rotated, the water would be carried up the augers and flow out the top.

The pump may be the oldest and largest of its type extant in the U.S. An 1890s screw pump near San Francisco and a 1913 New Orleans pump have been designated Mechanical Engineering Landmarks by the American Society of Mechanical Engineers. Info: Greg Galer, The Valentine, Museum of the Life & History of Richmond, 1015 E. Clay St., Richmond, VA 23219 (804-649-0711). *G.G.*

CORRECTION: The cover of the Summer 1989 Newsletter was numbered incorrectly. The correct designation for the Summer 1989 issue is Vol. 18, No. 2.



NASSAWANGO IRON FURNACE.

Above: "Conjectural View of Furnace," delineated by John R. Bowie & Dianne M. Pohlsander, 1989, for the Historical American Engineering Record, Natl. Park Service.

Below: The furnace as it survives today. *Furnace Town photo.*



Two-year effort records Nassawango Iron Furnace for HAER

The completion of a two-year Historic American Engineering Record documentation study of the Nassawango Iron Furnace by John R. Bowie [SIA] was announced by Furnace Town Foundation, Inc., a nonprofit organization dedicated to the restoration and interpretation of the furnace site. The furnace survives as a rare representative of the transition from cold to hot blast in American ironmaking. While only remnants of the bellows and water wheel exist, the hot blast stove remains intact on top of the furnace.

Nassawango Furnace is the heart of Furnace Town, the recreation of a 19th-C village on SR 12 in the Pocomoke Forest near Snow Hill, Md. This water-powered, cold-blast furnace, built in 1830 by the Maryland Iron Co., used local bog ore, oyster and clam shells, and charcoal to produce iron, which was shipped in pigs or cast products to Baltimore, Phila., and New York. The hot-blast equipment was added in the mid-1830s. It operated until 1847. By the turn of the century, the furnace was becoming overgrown and Furnace Town was in ruins.

Between the 1930s and '60s, interest in the furnace revived and stabilization efforts were begun. The property was deeded to the Worcester County Historical Society in 1962, and additional archeological work was done, continued after 1982 by Furnace Town Foundation, Inc. For further info., contact Kathy Fisher, Ex. Dir., Furnace Town, POB 207, Snow Hill MD 21863 (301-632-2032).

'OLDEST OTIS' ODYSSEY

"The Oldest Otis." The title caught my eye. As the corporate archivist in charge of the Otis Elevator Co.'s historical records, I am regularly asked, "Where is the oldest Otis elevator?" Surviving 19th-C sales records reveal where Elisha Otis and his sons shipped their earliest elevators, but there are no files indicating if any particular installation has survived to the present.

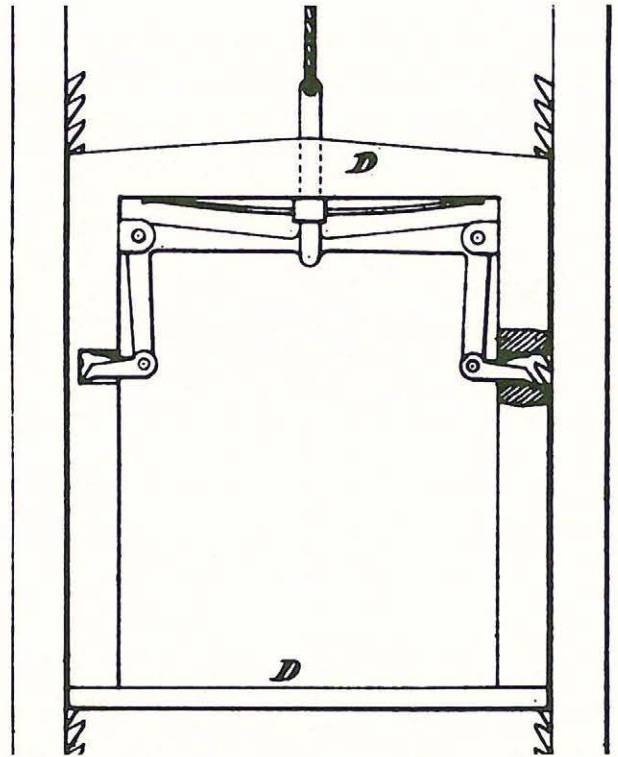
The answer, I hoped, lay before me in Richard F. Snow's article, "The Oldest Otis" (*American Heritage of Invention & Technology* 2 [Summer 1986]: 6-7). Snow described an old freight elevator still operating in a three-story building on Indiana Ave. in Wash., D.C. Snow, who had interviewed Fred Litwin, current owner and proprietor of the building's used-furniture store, identified the elevator as a pre-May 1854 Otis machine, the "oldest Otis."

From Snow's article, I turned to Otis historical records, particularly old sales ledgers, for additional information about this Litwin elevator. But, records revealed that Otis shipped no elevators to Washington through 1854. Was the Litwin elevator a later model? Was it even an Otis?

Elisha Graves Otis (1811-61) built a hoisting machine or freight elevator in 1852 for the Yonkers, N.Y., factory where he worked. The machine had a unique safety mechanism that prevented the platform from falling if the hoisting rope broke. The safety was a spring held taut by the rope, which, if broken, released the spring, allowing its ends ("pawls") to catch in ratchets on the car guides in the hoistway.

In 1853, Otis established an elevator manufactory, building three freight elevators that were shipped to New York City customers. The first 1854 shipment, on May 5th, went to the Crystal Palace at the New York World's Fair, where Otis demonstrated his safety device by riding up and down and dramatically cutting the hoisting rope. Later that year he shipped freight elevators to textile mills and other customers in New York State.

The Otis archives raised questions about Snow's identification of the



Above: From the E.G. Otis elevator patent No. 4270, as reissued Feb. 21, 1871.
Below left: The "Ratchet Safety Platform." Archive, United Technologies Corp.

Litwin elevator, but suggested no solutions. I accepted Litwin's invitation to see the machine for myself. On the ground floor I examined the car, safety device, and roller guides. On the third floor I studied the hoisting wheel, gears, sheave, and ropes.

First, Snow had correctly identified the safety as an Otis-type spring, but simpler than the safety Otis displayed at the Crystal Palace, and simpler than subsequent Otis safeties. The *Scientific American* of Nov. 25, 1854, carried an illustration of the Crystal Palace example, clearly showing pivots securing pawls and levers. The Litwin car has no pivots.

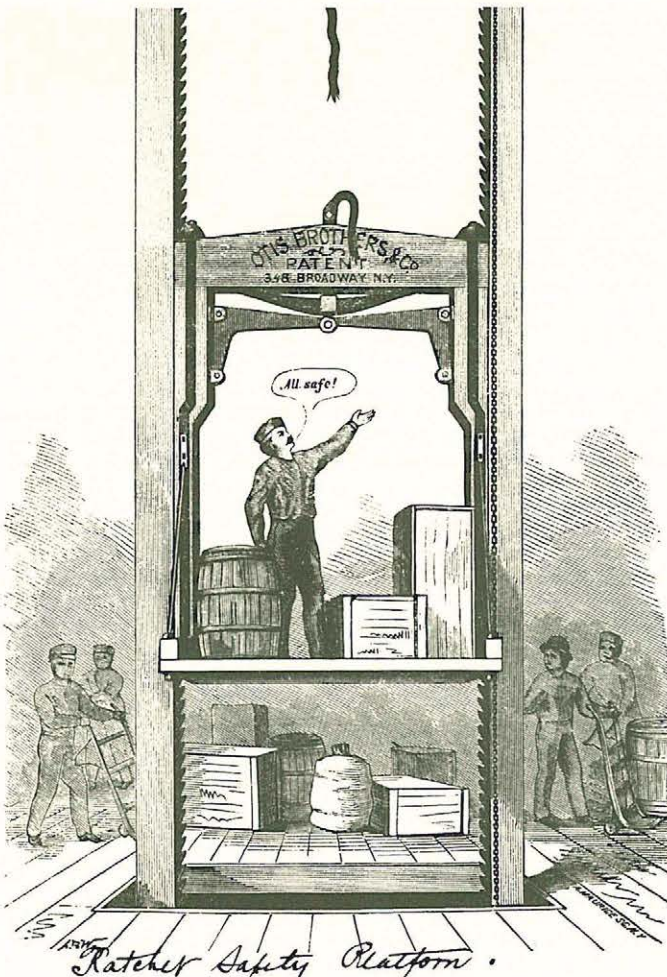
Atop the Litwin platform frame, on each side, are roller guides, an 1860s innovation. In 1868, an Otis Brothers & Co. (successors to E.G. Otis) brochure explained that "rubber-faced wheels" help guide the elevator car through the hatchway. Similarly, an 1869 Otis catalog described the "rubber-faced guide wheels or friction rollers" that are brought to bear in pairs at right angles. The Litwin example was different. Finally, the hoisting wheel, gears, and sheave arrangement in Litwin's building did not resemble the equipment in the Otis illustrations, and the Litwin hoisting wheel carried the name "Bates."

I researched the Baltimore and Washington city directories and located advertisements for James Bates, manufacturer. Established in 1840 in Baltimore, the Bates iron foundry and machine shop specialized in hoisting equipment. During the 1850s, Bates advertised large hoisting wheels for warehouses. Later ads showed Bates freight elevators that resembled the Litwin machine.

At the Smithsonian Institution archives I found correspondence from James Bates revealing that the Smithsonian had bought a Bates dumbwaiter in 1867 and a Bates elevator in 1879, demonstrating that Washington was in fact a market for Bates equipment. The 1879 Bates letterhead stated that Bates won the highest premium for hand-powered elevators at the 1876 Centennial Exhibition in Phila.

The U.S. Patent Office issued Patent No. 113,836 to Bates in 1871 (reissued as No. 7,236 in 1876), for a hand-powered freight elevator, with descriptions and illustrations that match the Litwin model. Case closed, I concluded. The Litwin elevator is, more correctly, an 1870s James Bates elevator, product of one of Otis's many competitors.

Thus, the search for the "oldest Otis" continues. If you can add to the Otis story, or have information about any other old elevators, please contact me, Anne Millbrooke, United Technologies, Archive Building, MS 124-22, 400 Main St., East Hartford CT 06108 (203-565-5401). [The Otis Elevator Co. is a subsidiary of United Technologies. Ed.]



NOTES & QUERIES

EXECUTIVE DIRECTOR VACANCY. Slater Mill Historic Site has announced a search for an executive director. SMHS is a private non-profit dedicated to the preservation and interpretation of the American industrial heritage, with emphasis on the textile and machine-tool industries. The preferred candidate will have a strong history background as well as proven fundraising and management skills. The executive director will administer all museum operations, including long-range planning and financial management, and will oversee a major development campaign. Send resume, letter, and references to Search Committee, Slater Mill Historic Site, POB 727, Pawtucket RI 02862 (401-725-8638).

MAJOR ELECTRIC Rwy. RESEARCH ACQUISITION. Full runs, dating from 1884, of *Street Rwy. Jnl.*, and its successors, *Electric Rwy. Rev.*, *Electric Rwy. Jnl.*, and *Transit Jnl.* have been donated by original publisher McGraw-Hill to the New England Electric Rwy. Hist. Soc., owners and operators of Seashore Trolley Museum, Kennebunkport, Me. *Street Rwy. Jnl.* was McGraw-Hill's first publication and the foundation of its trade-periodicals empire, and the \$100,000 donation was the publisher's official archival copy. Also donated were whole and partial runs of eight other electric rwy., transit and electric rwy. investment periodicals from 1883 to 1942. Info.: Donald G. Curry, Dir., Seashore Trolley Museum, P.O. Drawer A, Kennebunkport ME 04046 (207-967-2712).

HABS/HAER Pubs FREE WHILE THEY LAST. The following publications of the Historic American Buildings Survey/Historic American Engineering Record are available to SIA members free, according to HABS/HAER Chief Robert Kapsch [SIA]: HABS brochure (new in 1989); Natl. Park Service *Catalog of Historic Preservation Publications* (1989-90); Richard Anderson [SIA], *Guidelines for Recording Historic Ships* (1988); John Burns, *Energy Conserving Features Inherent in Older Homes; Pueblo of Laguna; HABS/HAER Annual Report for 1988 and . . . for 1989*. Write: Jean Yearby, Pubs. Specialist, HABS/HAER Div., NPS, POB 37127, Wash. DC 20013-7127.

UK IA PIONEER HONORED. R. Angus Buchanan, British IA pioneer and one of the founders of the Assn. for Industrial Archaeology, the SIA's sister society in England, was awarded the Leonardo da Vinci Medal by the Society for the History of Technology at its annual meeting in Sacramento. The medal is SHOT's highest recognition, presented to individuals making an outstanding contribution to the history of technology. Buchanan was cited for the breadth of his contributions, including his role as a pioneer in industrial archeology. The presentation was made by Terry Reynolds [SIA], chair of SHOT's Awards Committee.

The citation reads in part: "Professor Buchanan was one of the pioneers of industrial archeology. As a scholar in this field he has contributed, as author or joint author, more than a half-dozen books and booklets dealing with the industrial archeology of England. His 1972 volume, *Industrial Archaeology in Britain*, was the most comprehensive treatment to date of the physical remains of the British industrial revolution. In this book, in many of his journal articles, in his addresses, and in his book reviews, Buchanan has sought to place industrial archeology within the larger contexts of social, economic, and technological history, while simultaneously working to persuade historians of technology that they neglect the surviving physical evidence of historical industrial processes at their peril. Largely due to the efforts of Buchanan and his contemporaries in the field, industrial archeology has provided historians of technology with important new sources of information while simultaneously having an enormous impact on museum work. As in the history of technology, proper, R. Angus Buchanan also played a role in the creation of institutions for furthering the study of industrial archeology. He was active, for example, in founding Britain's Association for Industrial Archaeology and served as one of its early presidents (1974-77). He worked for over a decade as editor of the journal of the British Industrial Archaeological

Society and has served on numerous committees and councils dealing with the preservation of historic sites in Britain, including the Royal Commission on Historical Monuments."

Reynolds later commented that Buchanan received the award despite the continuing inability of our British colleagues to spell "archaeology" correctly.

WOLMAN AWARD NOMINEES WANTED. The Public Works Historical Society is soliciting nominations for the \$1,000 1990 Abel Wolman Award, presented annually for the best book in public works history published in the preceding year. Individual authors or their publishers may submit a book for consideration. The award is presented to the primary author(s). Submissions must be made by Feb. 15, 1990, to PWHHS, 1313 E. 60th St., Chicago IL 60637 (312-667-2200).

NY MINING HISTORY QUERY. For a projected history of mining in New York State, Mark W. DeLawyer [SIA] seeks communication from interested persons, as well as geologists or rock hounds willing to contribute to a collection of geological specimens documenting the state's mining industry. According to DeLawyer, NY boasts the world's largest talc and garnet mines, the deepest salt mine in the western hemisphere, and the world's largest (inactive) titanium and magnetite mines. Contact DeLawyer at 550 S. Clinton St., Syracuse NY 13202

GREAT LAKES NAVIGATION QUERY. LeRoy G. Barnett [SIA] seeks additional input for a union list of all printed materials ever issued by navigation companies operating on the Great Lakes. The list will include sailing schedules, tourist promotional literature, employee rule books, annual reports, and related materials. Although Barnett has visited virtually all likely repositories in the U.S. and Canada, he wants to be sure he has not missed any items. Anyone with leads to little-known public collections containing printed items generated by Great Lakes shipping firms should contact Barnett at the State Archives of Michigan, 3405 N. Logan St., Lansing MI 48918 (517-335-9165).

REFERENCE MATERIALS AWARDS. The National Endowment for the Humanities Reference Materials program supports projects that organize essential resources for scholarship and improve access to information and collections. Awards are made in two categories: "tools" and "access." Dictionaries, historical or linguistic atlases, encyclopedias, concordances, catalogues raisonnées, linguistic grammars, descriptive catalogues, and data bases are eligible in the "tools" category. Archival arrangement and description projects, bibliographies, bibliographical data bases, records surveys, cataloguing projects, indexes, and guides to documentation are eligible in the "access" category. Info.: Reference Materials, Rm 318, NEH, Wash. DC 20506.

CALL FOR PAPERS. The History Dept. at California Univ. of Pa. solicits session and paper proposals for a one-day conf. April 21, 1990, on "19th Cen. River Transportation." One session will be devoted to the 175th anniv. of Capt. Henry Shreve's successful round trip in the steamboat *Enterprise* from Brownsville, Pa., to New Orleans, 1814-15. Send proposal abstract & cv. by Jan. 15 to J.K. Folmar, Dept. of History & Urban Studies, CU, California PA 15419 (412-938-4053 or 7856).

1990 ADVISORY COUNCIL TRAINING SCHEDULE. The Advisory Council on Historic Preservation has announced its 1990 schedule for presentations of the 3-day course, "Introduction to Federal Projects & Historic Preservation Law," designed to teach federal, state, local, and tribal officials and contractors the basics of the projects review process, known as "Section 106 review," that is mandated by Sec. 106 of the Natl. Historic Preservation Act. The Council cosponsors the course with the General Services Admin. Training Center. Session registration is \$210. Info.: GSA Training Center, P.O. Box 15608, Arlington VA 22215, Attn: John Hansley; request brochure announcing "Intro. to Federal Projects & Historic Preservation Law."

1990 schedule: Jan. 23-25, Wash., D.C.; Feb. 5-7, Austin, Tex.; Feb. 26-28, Savannah, Ga.; Mar. 12-14, Memphis, Tenn.; Mar. 28-30, Santa Fe, N.M.; April 18-20, Columbus, Oh.; May 2-4, Los Angeles, Calif.; May 16-18, Albany, N.Y.; May 29-31, Denver, Colo.; June 11-13, Kansas City, Mo.; June 27-29, Seattle, Wash.; July 17-19, Wash., D.C.; and Aug. 8-10, Honolulu.



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A SUPPLEMENT TO VOL. 18 NO. 3

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Compiled by John M. Wickre

GENERAL SUBJECTS

Dean C. Allard, "Naval Technology during the American Civil War." In *American Neptune* 49, Summer 1989, p114-22.

Frederick Allen, "The Tower of Tools." In *Amer. Heritage of Invention & Technology* 5, Spring/Summer 1989, p26-31.

Mario Amendola & Jean-Luc Gaffard, **The Innovative Choice: An Economic Analysis of the Dynamics of Technology.** Basil Blackwell (NY), 1988. 128p. \$40. Rev.: *JEH* 49, Sept. 1989, p793-4. Incl. influence of learning & heterogeneous labor skills on the rate & direction of economic growth.

Wiebe E. Bijker et al, eds., **The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology.** MIT Pr. (Cambridge MA), 1987. 415p. \$35; now avail. in pap.: \$13. Rev.: *T&C* 30, July 1989, p705-7.

John Bowditch [SIA], "The Big, the Bad, & the Ugly: Collecting Industrial Artifacts for History Museums." In *Pittsburgh History* 72, Summer 1989, p88-95.

Business History 31, July 1989, includes articles on British coal, steel & telegraph industries. Avail.: Frank Cass & Co., 11 Gainsborough Road, London E11 1RS, UK. Quarterly, \$50 individuals / \$95 institutions.

Mark Casson, **The Firm and the Market: Studies on Multinational Enterprise and the Scope of the Firm.** MIT Pr. (Cambridge MA), 1987. 240p. charts, tables, bibliog., index. \$28. Incl. construction, shipbuilding, and automobile industries. Rev.: *BHR* 62, Winter 1988, p724-5.

Wilbur Cross, **History of the ASME Boiler & Pressure Vessel Code.** Amer. Soc. of Mech. Engrs. (22 Law Drive, Fairfield NJ 07007-2300), 1989? \$20. In honor of the 75th anniv. of the Code's first publication in 1914, the work of an ASME committee formed in 1911 to establish a uniform code superseding conflicting state requirements; all in response to the 10,000+ boiler explosions in North America between 1870 and 1910.

Marianne Dozema, "The Clean Machine: Technology in American Magazine Illustration." In *J. of Amer. Culture* 11, Winter 1988, p73-92.

The Papers of Thomas A. Edison. Vol. 1: The Making of an Inventor, Feb. 1847 - June 1873. Reese V. Jenkins, ed.; Robert A. Rosenberg, mng. ed., book edition. John Hopkins U. Pr. (Baltimore MD), 1989? Illus. \$65. 1st of a projected 20-vol. series [complement to the projected 300-reel microfilm ed. by Univ. Pubs. of Amer]. Vol. 1 documents E to age 26; incl. telegraphy inventions.

Encyclopedia of American Business History and Biography. Facts on File (460 Park Ave. S., New York, NY 10016).

— **Vol. 1, Railroads in the Age of Regulation, 1900-1980,** 1988. Keith L. Bryant, Jr., ed. 560p. \$75. Rev.: *RR Hist.* No. 159, Autumn 1988, p81-2.

— **Vol. 2, Railroads in the 19th C.,** 1988? Robert L. Frey, ed. 352p. \$75.

— **Vol. 3, The Iron & Steel Industry in the 20th C.,** forthcoming. Paul Paskoff, ed. 352p. \$75.

Burton W. Folsom, Jr., **Entrepreneurs vs. The State: A New Look at the Rise of Big Business in America, 1840-1920.** Young America's Foundation (Reston, Va.), 1987. 156p. \$17. Conservative polemic; incl. Cornelius Vanderbilt, James J. Hill, John D. Rockefeller. Rev.: *AHR* 94, Dec. 1989, p1491-2.

David C. Goodman, **Power & Penury: Govt., Technology & Science in Philip II's Spain.** Cambridge U. Pr. (NY), 1988. 287p. illus., notes, bibliog., index. Incl. effect of war on research and invention; training of ship pilots; copper and bronze; silver and mercury mining. Rev.: *T&C* 30, July 1989, p673-4.

Myron P. Gutman, **Toward the Modern Economy: Early Industry in Europe, 1500-1800.** Knopf (NY), 1988. 278p. \$?? Background to the Industrial Revolution; distinguishes "early industry" from "mechanized industry." Rev.: *Histoire sociale—Social History* 21, Nov. 1988, p385-6.

Howard Harris, "Town-people & Country People: The Acquackanonk Dutch & the Rise of Industry in Paterson, N.J., 1793-1831." In *New Jersey History* 106, Fall/Winter 1988, p23-52.

Royden Harrison & Jonathan Zeitlin, eds., **Divisions of Labour: Skilled Workers & Technological Change in 19th C Britain.** Harvester Pr. (Brighton, Sussex) and U. of Ill. Pr. (Champaign), 1985. 263p. tables, notes, index. \$30. Incl. cabinetmaking, baking, sailmaking, pottery, shipbuilding, and engineering/compositing.

Jean-Pierre Hirsch, "Revolutionary France, Cradle of Free Enterprise." In *AHR* 94, Dec. 1989, p1281-89. Laissez-faire policies dominated political talk, c.1790s, but merchants and mfrs. were unwilling to abandon state regulation. Incl. examples from Lille textile industry.

Histoire sociale—Social History (Université d'Ottawa, 155, rue Séraphin-Marion, Ottawa, Ontario K1N 6N5 (Canada). Published twice yearly. Subscription: \$15 individuals / \$25 organizations. Articles variously in French or English, as submitted, with a summary paragraph in the alternate language. Some good IA possibilities, e.g., a series of papers on historical databases (Vol. 21, Nov. 1988 [rec'd Nov. 1989], p283-317), including mention of 1861 and 1871 census schedules of manufacturing and industries. See Burrill & McKay, this PoFI, for example.

Michael K. Honey, **Labor & Civil Rights in the South: The Industrial Labor Movement & Black Workers in Memphis, 1929-45.** Ph.D. thesis, Northern Ill. U., 1987.

Image File is the new title of the former *Postcard Journal*. Vol. 5, No. 4, 1989, includes an account of the June bus tour of Albany & Schenectady, N.Y., co-sponsored by Cornell U. & the Society for Commercial Archeology (SCA, our sister organization, or kissing cousin, hq'd next door to SIA in Room 5010, Smithsonian); and an illus. review of Don Jackson's *Great American Bridges & Dams*. Published quarterly and avail. as a benefit of a \$15 membership in the Curt Teich Postcard Collection (Lake County Museum, Lakewood Forest Preserve, Wauconda IL 60084), if now accepts manuscripts for publication. Newly avail. are 1- to 3-page location lists of the Collection's images (\$2 for each U.S. state or foreign country, with cities in alphabetical order within each list).

The Inventive Yankee. Yankee Books (Dublin, N.H.), 1989. 223p. illus., index. \$25. 200 years of New England inventors and inventions.

Andrew Jamison, "Technology's Theorists: Conceptions of Innovation in Relation to Science and Technology Policy." In *T&C* 30, July 1989, p505-33. 16th-20th C.

Mother Jones, **The Speeches & Writings of Mother Jones.** Ed. by Edward M. Steel. U. of Pittsburgh Pr. (Pittsburgh, Pa.), 1988. 340p. \$33. Socialist; involved in most U.S. labor struggles from 1877 to 1920. Rev.: *JAH* 76, Sept. 1989, p634-5.

Hartmut Keil, ed., **German Workers' Culture in the U.S., 1850 to 1920.** Smithsonian Inst. Pr. (Wash. DC), 1988. 352p. \$25. Mostly Chicago, but also Milwaukee & N.Y. Rev.: *JEH* 49, Sept. 1989, p771-2.

Alfred Kelly (ed.), **The German Worker: Working-Class Autobiographies from the Age of Industrialization.** U. of Calif. Pr. (Berkeley & Los Angeles), 1987. 453p. \$45/13 pap. English translations of excerpts from German language autobiographies both outside and within the prewar German empire; incl. factory workers and miners. Rev.: *AHR* 94, Dec. 1989, p1417-18.

The Kentucky Archaeological Registry: Landowner Participation in Site Preservation. National Park Service (Archeological Assistance Div., POB 37127, Wash. DC 20013-7127), Technical Brief No. 6, 1989. Gratis. Protecting archeological sites on private property.

Gary J. Kornblith, "'Cementing the Mechanic Interest': Origins of the Providence Assn. of Mechanics & Manufacturers." In *J. of the Early Republic* 8, Winter 1988, p355-87. Providence, R.I.

Joan P. Kreig, ed., **Long Island Studies: Evoking a Sense of Place.** Heart of the Lakes Pr. (Interlaken NY), 1988. 196p. illus., maps, notes, index. \$14 pap. Section on commerce and transportation includes essays on Oyster Bay & the intl. economy in the mid-18th C, the Long Island RR, and women in aviation. Rev.: *Public Historian* 11, Spring 1989, p82-84.

Jack Larkin, **The Reshaping of Everyday Life, 1790-1840.** Harper & Row (NY), 1988. 366p. \$20. Incl. tools, housing, transport; for nonspecialists. Rev.: *JAH* 76, Dec. 1989, p925.

Benj. Latrobe, **The Corresp. & Misc. Papers of Benjamin Henry Latrobe.** Ed. by John C. Van Horne, Darwin H. Stapleton, Jeffrey A. Cohen, et al. Yale U. Pr. (New Haven, Conn.) for the Maryland Hist. Soc. Illus., notes, index. — **Vol. 2: 1805-1810,** 1986. 1021p. \$75. U.S. Capitol, Cathedral of Baltimore, Chesapeake & Del. Canal, Wash. Canal, Wash. and N.Y. Navy yards, Phila. and New Orleans waterworks. — **Vol. 3: 1811-1820,** 1988. 1161p. \$140. New Orleans waterworks, Robert Fulton's Ohio Steam Boat Co., U.S. Capitol (again).

Labor Hist. 30, Spring 1989, focuses on labor law: — Raymond L. Hogler, "Labor History and Critical Labor Law: An Interdisciplinary Approach to Workers' Control", p165-92. Critical Legal Theory in development of 4 cycles of American labor law: criminal conspiracy, 1806-1870s; employment at will, 1880s-1937; collective bargaining, 1937-1970s; and 1970s-present. — Christopher L. Tomlins, "The Ties that Bind: Master & Servant in Mass., 1800-1850", p193-227. — Nancy S. Erickson, "Muller V. Oregon Reconsidered: The Origins of a Sex-Based Doctrine of Liberty of Contract", p228-50. Shorter hours for women. — Daniel Ernst, "The Yellow-Dog Contract & Liberal Reform, 1917-1932", p251-74. — Wythe Holt, "The New American Labor Law History" p275-93.

Richard D. Lakes, **From Manual Training to Trade Instruction: the Evolution of Industrial Education in Cincinnati, 1886-1920.** Ph.D. dissertation, Ohio St. U., 1988.

Susan Lehrer, **Origins of Protective Labor Legislation for Women, 1905-1925.** State U. of N.Y. Pr. (Albany), 1987. 300p. \$35. Rev.: *Labor History* 30, Winter 1989, p142-3; *JAH* 76, Sept. 1989, p627-8.

David Lodge, **Nice Work.** Penguin (London), 1988. Hilarious campus novel with industrial angle. Dr. Robyn Penrose, lecturer in English Lit. at the Univ. of Rumbridge and specialist in the 19th-C industrial novel, describes herself as a semiotic materialist, and enthusiastically embraces the trendiest impenetrable feminist and structuralist literary theories. When her univ. nominates her as the "Faculty of Arts Industry Shadow" she is assigned to observe Victor Wilcox, Managing Director of the engineering firm of J. Pringle & Sons, a local subdivision of Midland Amalgamated. Rumbridge is based on Birmingham, England, where Lodge resides, and which served as the setting for his two previous novels in this genre: *Changing Places* (1975) and *Small World* (1984). —B.F.

Odd S. Lovoll, **A Century of Urban Life: The Norwegians in Chicago Before 1930.** Norwegian-Amer. Historical Assn. (Northfield, Minn.), 1988. 380p. \$30. The world's largest urban Norwegian population outside of Oslo & Bergen "... clustered heavily in woodworking, furniture making, & Great Lakes sailing jobs and almost completely avoided the stockyards & butchering trades..." Rev.: *JAH* 76, Sept. 1989, p601-2.

Gerald Markowitz & Marlene Park, "Not by Bread Alone: Post Office Art of the New Deal." In *Timeline* (Ohio Hist. Soc.) 6, June-July 1989, p2-19. Color illus., incl. RR, steamboats, steel mills.

Robert C. McMath, **Engineering in the New South: Georgia Tech, 1885-1985.** U. of Ga. Pr. (Athens), 1985. 576p. illus. \$45.

Billie Melman, **Women and the Popular Imagination in the Twenties: Flappers & Nymphs.** St. Martin's (NY), 1988. 206p. \$25. Incl. analysis of "factory lass" stories in popular fiction. Rev.: *AHR* 94, Dec. 1989, p1383.

Joanne J. Meyerowitz, **Women Adrift: Independent Wage Earners in Chicago, 1880-1930.** U. of Chicago Pr. (Chicago), 1988. 247p. \$30. Incl. dressmakers & factory workers. Rev.: *JAH* 76, Sept. 1989, p619-20.

Conrad Milster [SIA], "The Engine House: The Parker-Stern Rubber Co." In *Live Steam* 24, Jan. 1990, p26-29. Corliss steam engine built by Watts-Campbell Co. driving both DC generator and line shafting in Parker-Stern factory, NYC, shut down in 1974.

Arthur P. Mollela, "America's Golden Age: An Interview with Thomas P. Hughes." In *Amer. Heritage of Invention & Technology* 5, Spring/Summer 1989, p18-24.

Eric H. Monkkenon, **America Becomes Urban: The Development of U.S. Cities & Towns, 1780-1980.** U. of Cal. Pr. (Berkeley), 1988. 348p. \$25. Mostly 1830-1930; incl. transport, housing. Rev.: *JAH* 76, Dec. 1989, p901.

David Montgomery, **The Fall of the House of Labor: The Workplace, the State, and American Labor Activism, 1865-1925.** Cambridge U. Pr. (NY, et al), 1987. 494 p. \$28. Subject of *A Symposium in Labor History* 30, Winter 1989, p93-137 (6 short articles and a response by Montgomery). [Noted in 17-2 S 88]

Jane Morley, "International Symposium on Lewis Mumford—U. of Pa., Nov. 5-7, 1987." In *T&C* 30, Jan. 1989, p122-7. Conference report, incl. descr. of papers related to T&C issues.

Edward K. Muller, "The Legacy of Industrial Rivers." In *Pittsburgh History* 72, Summer 1989, p64-75.

Lewis Mumford, "The Lewis Mumford Reader," ed. by Donald L. Miller. Pantheon (NY), 1986. 398p, sources, index. \$24/15 pap. Rev.: *T&C* 30, Jan. 1989, p128-130.

Stanley Nadel, "From the Barricades of Paris to the Sidewalks of New York: German American Artisans and the European Roots of American Labor Radicalism." In *Labor History* 30, Winter 1989, p47-75.

David Neufeld [SIA], "C. J. Mackenzie & the Challenge of the Prairies." In *Sask. History* 41, Spring 1988, p41-51. Chalmers Jack Mackenzie (1888-), western Canadian engineer; esp. reinforced concrete; Borden rainbow arch Bridge at Ceepee, Sask., c.1936.

Maurice F. Neufeld, Daniel J. Leab & Dorothy Swanson, **American Working Class History: a Representative Bibliography.** R.R. Bowker (Ann Arbor, MI), 1983. 356 pp. \$33. Now avail. for \$10 "cash with order" from B.P. INK, Box 236, Washington CT 06793. Contains 7,000 entries, both popular and technical works, non-print media, fiction, film, etc., on American labor from colonial period to the present, 75 subject headings plus access by region, industry, etc. Author index too.

Arthur J. Pulos, **The American Design Adventure: 1940-1975.** MIT Pr. (Cambridge MA), 1988. 455p. \$50. Industrial designers & design of a wide variety of products from soap cartons to autos; sequel to Pulos's *Amer. Design Ethic* covering design to 1940. Rev.: *JAH* 76, Dec. 1989, p977.

Edward C. Relf, **The Modern Urban Landscape: 1880 to the Present.** Johns Hopkins U. Pr., (Baltimore), 1987. 279p, illus., bibliog., index. \$35/15 pap. Rev.: *T&C* 30, June 1989, p456-7.

Ron I. Rothbart, **Work, Family & Protest: Immigrant Labor in the Steel, Meatpacking, and Anthracite Industries, 1880-1920.** Ph.D. thesis, U. of Cal., Berkeley, 1988.

James Michael Russell, **Atlanta, 1847-1890: City Building in the Old South & the New.** La. St. U. Pr. (Baton Rouge), 1988. 332p. \$33. City "launched by RR development" & inspired by "a firm belief in an industrial future." Rev.: *JAH* 76, Sept. 1989, p602-3.

John A. Salmond, **Miss Lucy of the GIO; the Life & Times of Lucy Randolph Mason, 1882-1959.** U. of Ga. Pr. (Athens), 1988. 240p, illus. CIO organizer, 1937-1953; incl. southern textile industry?

Nicolas Sanchez-Albornoz (ed.), **The Economic Modernization of Spain, 1830-1930.** NY U. Pr. (NY), 1987. 310p. \$45. English trans. from the Spanish. Problems included failure of nerve of industrialists, who opted for high tariffs and domestic markets rather than intl. competition; high-cost transport. Rev.: *AHR* 94, Dec. 1989, p1406-7.

Terri A. Schorzman, "Smithsonian Videohistory Program Symposium—Wash., D.C., May 5, 1988." Conference report in *T&C* 30, Jan. 1989, p118-21.

Judith Sealander, **Grand Plan: Business Progressivism & Social Change in Ohio's Miami Valley, 1890-1929**. U. Pr. of Ky. (Lexington), 1988. 271p. \$26. Incl. Dayton, Ohio; innovative employee benefits at Natl. Cash Register; Arthur Morgan & the Miami Conservancy District as response to 1913 flood. Rev.: *JAH* 76, Dec. 1989, p953-4.

Harley Shaiken, **Work Transformed: Automation and Labor in the Computer Age**. Lexington Books (Lexington MA), 1986. 320p, notes, index. \$11 pap. Rev.: *T&C* 29, Oct. 1988, p941-2. Incl. manufacturing.

Solomos Solomou, **Phases of Economic Growth, 1850-1973: Kondratieff Waves & Kuznets Swings**. Cambridge U. Pr. (N.Y.), 1988. 212p. \$45. Statistical. Rev. in *JEH* 49, Sept. 1989, p790-91, might be summarized thus: Solomou deplors the neglect of the Kuznets 20-year swing by proponents of the Kondratieff 50- to 60-year long wave & substitutes the concept of "shocked Gerschenkronian catching-up waves." One Kuznets swing, of course, is approximated by two 8- to 11-year Juglar business cycles. Has Solomou "substituted one statistical mirage for another"? Also rev. in *BHR* 62, Winter 1988, p727-8.

Friedrich A. Sorge's **Labor Movement in the U.S.: A History of the American Working Class from 1890 to 1896**. Tr. from the German by Kai Schoenhals. Greenwood (NY), 1987. 211p. \$30. Marxist; incl. 1892 Tennessee miners' strike, 1894 Pullman strike, Brooklyn streetcar strike. This is 2d vol. in series; 1st vol., ed. by Philip Foner, 1977, covers earlier period, dates not specified by rev. in *JAH* 76, Sept. 1989, p625-6.

"**Symbols & Images of American Labor.**" NMAH/Smithsonian exhibition. "**Badges of Pride: Symbols & Images of American Labor.**" Traveling exhibition, Smithsonian Institution Traveling Exhibition Service. Illus. rev. in *JAH* 76, Dec. 1989, p867-74; list of locations and dates for traveling exhibit, p867.

Joel A. Tarr & Gabriel Dupuy (eds.), **Technology & the Rise of the Networked City in Europe & America**. Temple U. Pr. (Phila.), 1988. 359p. \$35. First publ. in French in 1984. Incl. water, sewerage, lighting, transport and communications systems in the U.S., France, Germany, & England. Rev.: *JAH* 76, Dec. 1989, p956-7.

Technology & Culture 30, July 1989, includes:
— Bruce Sinclair, "**Presidential Address: An Agenda for SHOT**" (p596-600). Proposing creation of materials for teaching the history of technology, incl. courses for secondary American history classes and college engineering classes; pamphlet series.
— "**The Dibner Award**" (p601-3) for excellence in exhibits of history of technology and culture to "**The Automobile in American Life**," Henry Ford Museum, Dearborn, Mich.; "**Sheet Metal Craftsmanship: Progress in Building**," National Building Museum, Wash., D.C.; and "**Tools of Change: The Work, Workers and Tools of the Lower Fox River Valley, ca.1840-1950**," Outagamie Museum, Appleton, Wis.
— A list of sessions and paper presented at the 1988 SHOT conference in Wilmington, Del. (p621-27).
— A report on the 1987 **Industrialization and Urbanization** conference of SENCSA (Southeastern 19th-C Studies Assn.) held at Birmingham, Ala. (p627-34).
— Exhibit reviews (p635-42) of the Phila. Museum of Art's "**The Fairmount Waterworks, 1812-1911**" and its accompanying catalog written by Jane Mork Gibson (both warmly reviewed by Donald C. Jackson, p638-39), and the exhibits of the National Atomic Museum (Albuquerque, N.M.), "where 'weapon shapes' are not enough."
— **Current Bibliography in the History of Technology (1987)** (p723-877). With author and subject indexes.

Alain Touraine, et al, **The Workers' Movement**. Cambridge U. Pr. (NY) & Editions de la Maison des Sciences de l'Homme (Paris), 1987. 342p. \$50. Orig. publ. in French in 1984. Discussions with workers, 1979-1983; incl. iron & steel workers from Lorraine, rwy. workers from Perigueux, chemical workers from Lyons. Rev.: *AHR* 94, Dec. 1989, p1405-6.

David F. Trask, "**Does Official History Have a Future?**" In *Public Historian* 11, Spring 1989, p47-52. Discusses shortcomings in all 3 areas of official histories: conventional historical works, policy-related historical works, and the systematic release of official records.

Martin van Creveld, **Technology and War: From 2000 B.C. to the Present**. Free Press (NY), 1988. 352p. \$23. Rev.: *JAH* 76, Dec. 1989, p897-8.

Donald R. Walker, **Penology for Profit: A History of the Texas Prison System, 1867-1912**. Texas A&M U. Pr. (College Station), 1988. 229p. \$25. Leasing of convict labor for road work, mfg., etc. Rev.: *JAH* 76, Sept. 1989, p614.

Betty Peh-T'i Wei, **Shanghai: Crucible of Modern China**. Oxford U. Pr. (NY), 1987. 310p. \$18. Incl. late 19th-C factory workers; development of early 20th-C industry. Rev.: *AHR* 94, Dec. 1989, p1455-6.

Donald M. Wells, **Empty Promises: Quality of Working Life Programs & the Labor Movement**. Monthly Rev. Pr. (NY) 1987. 167p. \$8 pap. QWL programs examined, based on studies at 2 Canadian auto & electronics factories. Rev.: *Labor Hist.* 30, Spring 1989, p311-12.

Heinrich August Winkler, **Der Weg in die Katastrophe: Arbeiter und Arbeiterbewegung in der Weimar Republik 1930 bis 1933**. J.H.W. Dietz Nachf. (Berlin/Bonn), 1987. 1025p. Last of a 3-vol. history [1918-1924 publ. 1984; 1924-1930 publ. 1985]; itself part of a projected 7-vol. history of the German worker in the 19th & 20th C. Rev.: *J. of Social Hist.* 22, Summer 1989, p776-8.

Thomas R. Winpenny, "**From Peripatetic Boilermaker to Successful Industrialist: A World-Class Apprenticeship Pays Off for John Best.**" In *Essays in Economic & Business History* 7, 1989, p190-204.

"**The Working People.**" Dual exhibition, Lowell Heritage State Park/Lowell National Historical Park, Lowell, Mass. "**The Mill Girls**" by the national park; and "**The Immigrants**", developed by the Lowell Historic Preservation Commission (history in the service of ethnicity and commerce). Rev.: *JAH* 76, Dec. 1989, p874-9.

E. A. Wrigley, **Continuity, Chance, & Change: The Character of the Industrial Revolution in England**. Cambridge U. Pr. (NY), 1988. 154p. \$30.

Peter J. Wylie, "**Technological Adaptation in Canadian Manufacturing, 1900-1929.**" In *JEH* 49, Sept. 1989, p569-91.

MISC. INDUSTRIES

David Bensman & Roberta Lynch, **Rusted Dreams: Hard Times in a Steel Community**. U. of Cal. Pr. (Berkeley), 1988. 250p. \$25. Rev.: *Labor Hist.* 30, Spring 1989, p294-300. Wisconsin Steel and U.S. Steel South Works mills, South Chicago, Ill., 1980s.

Mary Louise Brown, "**The Stork & Anheuser-Busch Imagery, 1913-33.**" In *Gateway Heritage* 9, Fall 1988, p18-23. Beer; St. Louis, Mo.

Gary Burrill & Ian McKay (eds.), **People, Resources and Power: Critical Perspectives on Underdevelopment and Primary Industries in the Atlantic Region**. Academicsus Pr. (Fredericton [Canada?]), 1987. 208p. \$?? Atlantic Canadian region; late 19th/early 20th C.; incl. fishing, forestry, mining, energy. Rev.: *Histoire sociale—Social History* 21, Nov. 1988, p371-2.

Business History Review [herein abbrev. *BHR*] 62, Winter 1988 [rec'd fall 1989], focuses on **Resource-Based Industries**. See Lance Davis, Judd, Newell [this section], and Derickson [Materials section] for full citations.

David Butcher, **Following the Fishing**. David & Charles (N. Pomfret, VT), 1987. 128p. \$6 pap. 4th in a series of oral histories on the British fishing industry, this one covering shoreworkers: packers, merchants, coopers, ice makers, net braiders, etc. Rev.: *Oral Hist. Rev.* 17, Spring 1989, p185-7.

Jerry W. Calvert, **The Gibraltar: Socialism & Labor in Butte, Mont., 1895-1920**. Mont. Hist. Soc. Pr. (Helena), 1988. 197p. \$22. Rev.: *JAH* 76, Sept. 1989, p626.

[**Cotton & jute milling**, Gt. Britain & India, c.1900-1912; incl. claim by Clark that inefficient labor was the major obstacle to industrial development of poor countries:]

— Gregory Clark, "**Why Isn't the Whole World Developed? Lessons from the Cotton Mills.**" In *JEH* 47, Mar. 1987, p141-74.

— John R. Hanson II, "**Why Isn't the Whole World Developed? A Traditional View.**" In *JEH* 48, Sept. 1988, p668-75.

— Gregory Clark, "**Why Isn't the Whole World Developed? A Reply to Hanson.**" In *JEH* 49, Sept. 1989, p707-14.

Donald Finlay Davis, **Conspicuous Production: Automobiles & Elites in Detroit, 1899-1930**. Temple U. Pr. (Phila., Pa.), 1988. 293p. \$30. Production of luxury cars by automakers to gain acceptance by the established elites, rather than for sound market reasons. Rev.: *JEH* 49, Sept. 1989, p777-8; *JAH* 76, Dec. 1989, p956.

Lance E. Davis, et al, "**The Decline of U.S. Whaling: Was the Stock of Whales Running Out?**" In *BHR* 62, Winter 1988, p569-95. Decline of industry after 1820-60 "Golden Age" prob. not due to declining stock.

Henry C. Dethloff, **A History of the American Rice Industry, 1685-1985**. Tex. A&M U. Pr. (College Station), 1988. Geographic changes, from S.E. to S. & W. U.S.; & technological changes, from slave labor to airplane seeding & massive combines; irrigation; lack of research in primary sources. Rev.: *JEH* 49, Sept. 1989, p762-3; *JAH* 76, Dec. 1989, p901-2.

Anthony DiFilippo, **Military Spending & Industrial Decline: A Study of the American Machine Tool Industry**. Greenwood Pr. (Westport CT), 1986. 212p, charts, tables, notes, bibliog., index. \$35. Incl. National Machine Tool Builders Assn. Good on quantitative measures; but "fails to engage the historical, human process of how machine tools are made and employed," according to rev. in *T&C* 30, July 1989, p709-710.

Elizabeth Dore, **The Peruvian Mining Industry: Growth, Stagnation, & Crisis**. Westview Pr. (Boulder), 1988. 320 p. \$34. Incl. copper & gold, c.1900-1974. Rev.: *JEH* 49, Sept. 1989, p756-7.

Richard Feldman & Michael Betzold, eds., **End of the Line: Autoworkers and the American Dream**. Weidenfeld & Nicolson (NY), 1988. 297p, photos of interviewees, bibliog. Oral history of current workers; esp. Ford trucks.

Rosemary Feurer, "Shoe City, Factory Towns: St. Louis Shoe Companies & the Turbulent Drive for Cheap Rural Labor, 1900-1940." In *Gateway Heritage* 9, Fall 1988, p2-17.

The Fighting Ministers. David Soul/Bill Jersey Productions (Avail.: Calif. Newsreel, 630 Natoma St., San Francisco CA 94103), c.1988? Video (VHS), 60 min., color. Social protest against steel company policies, Monongahela Valley, Pa. Rev.: *Oral Hist. Rev.* 17, Spring 1989, p154-5.

Howard M. Gitelman, **Legacy of the Ludlow Massacre: A Chapter in American Industrial Relations**. U. of Pa. Pr. (Phila.), 1988. 370p. \$30. MacKenzie King, John D. Rockefeller, Jr., & the Colorado Industrial Plan for non-union employee representation, following the 1914 Ludlow Massacre in the Colo. coal fields. Rev.: *JEH* 49, Sept. 1989, p781-3; *AHR* 94, Dec. 1989, p1497-8.

Terry Gourvish, **Norfolk Beers from English Barley: A History of Steward & Patterson, 1793-1963**. Centre of East Anglian Studies (Norwich), 1987. 206p, maps, illus., tables, appendixes, notes, index. Rev.: *BHR* 62, Winter 1988, p739-40.

Jack High & Clayton A. Coppin, "Wiley & the Whiskey Industry: Strategic Behavior in the Passage of the Pure Food Act." In *BHR* 62, Summer 1988, p286-309.

Richard Hills, **Papermaking in Britain, 1488-1988: A Short History**. Athlone Pr. (London), 1988. 258p, illus. \$35. Good technical descriptions, incl. chapter on Britain's earliest known paper-maker, John Tate, but no historical context. Rev.: *Papers of the Bibliographical Soc. of Amer.* 83, Mar. 1989, p125. Avail.: Humanities Pr. Intl., Atlantic Highlands, NJ.

Donald Hoke, "British & Amer. Horology: A Reply to Bolino." In *JEH* 49, Sept. 1989, p715-19. Failure of British to adopt Amer. technology in mfr. of watches & clocks. Continuation of discussion in *JEH* by Hoke, June 1987, p321-27, and August C. Bolino, Sept. 1988, p665-7.

Max Holland, **When the Machine Stopped: A Cautionary Tale from Industrial America**. Harvard Bus. Sch. Pr. (Boston MA), 1988? \$23. Life and death of Amer. machine tool mfr. Burgmaster.

Adrienne D. Hood, **Organization and Extent of Textile Mfr. in 18th-C Rural Pa.: A Case Study of Chester County**. Ph.D. thesis, U. of Cal., San Diego, 1988.

Clarence O. Hooker, **Builders of the Model T: Some Aspects of the Quality of Life & Social History of Highland Park, 1910-1927**. Ph.D. dissertation, Mich. St. U., 1988.

David A. Hounshell & John Kenly Smith, Jr., **Science and Corporate Strategy: Du Pont R&D, 1902-1980**. \$40. Cambridge U. Pr. (Cambridge), 1988. 776p. \$40. Incl. explosives, Rayon, celluloid, paints, dyes, Neoprene, Nylon. Rev.: *JAH* 76, Dec. 1989, p961-2.

Robert P. Ingalls, **Urban Vigilantes in the New South: Tampa, 1882-1936**. U. of Tenn. Pr. (Knoxville), 1988. 307p. \$30. Incl. attempts to crush cigar workers unions. Rev.: *JAH* 76, Dec. 1989, p950-51.

Michael Jackson, **The New World Guide to Beer**. Running Press (Phila., PA), 1988 256p, illus. (some color), maps, index. \$30. Orig. publ. in Gt. Brit.; covers mostly N. and W. Europe; incl. technology.

Abbreviations used in this Poff:

- **AHR**: American Historical Review
- **BHR**: Business History Review
- **JAH**: Journal of American History
- **JEH**: Journal of Economic History
- **RRH**: Railroad History
- **T&C**: Technology & Culture

Readers are urged to send all notices of pertinent publications to John M. Wickre, Compiler, Publications of Interest, SIA Newsletter, P.O. Box 66158, St. Paul MN 55165-0158 (612-222-5628 or 224-0028).

IA ON SALE from Johns Hopkins U. Pr., 701 W. 40th St., Suite 275, Baltimore MD 21211 (1-800-537-5487):

— John Bodnar, **Workers' World; Kinship, Community & Protest in an Industrial Society, 1900-1940**. 256p. \$9.50 (reg. \$28).

— Edward W. Constant II, **The Origins of the Turbojet Revolution**. 328p. \$17.50 (reg. \$38).

— Susan J. Douglas, **Inventing American Broadcasting, 1899-1922**. 400p. \$28 (reg. \$45).

— Burton W. Folsom, **Urban Capitalists: Entrepreneurs & City Growth in Pa.'s Lackawanna & Lehigh Regions, 1800-1920**. 208p. \$5.50 (reg. \$25).

— James B. Gilbert, **Work Without Salvation; America's Intellectuals & Industrial Alienation, 1880-1910**. 256p. \$14.50 (reg. \$30).

— Robert N. Gwynne, **Industrialization & Urbanization in Latin America**. 274p. \$16 (reg. \$32).

— Leslie Hannah, **Electricity Before Nationalisation: A Study of the Development of the Electricity Supply Industry in Britain to 1948**. 488p. \$19 (reg. \$53).

— Leslie Hannah, **Engineers, Managers, & Politicians: The First 15 Years of Nationalised Electricity Supply in Britain**. 350p. \$16 (reg. \$39.50).

— Thomas P. Hughes, **Networks of Power: Electrification in Western Society, 1880-1930**. 488p. \$19.50 (reg. \$45).

— Edwin T. Layton, **The Revolt of the Engineers: Social Responsibility & the American Engineering Profession**. 312p. \$22 (reg. \$35).

— Jeanne McHugh, **Alexander Holley & the Makers of Steel**. 416p. \$20 (reg. \$48).

— Robert Multhauf, **Neptune's Gift: A History of Common Salt**. 344p. \$15 (reg. \$39). "... detailed development of the whole alkaline industry."

— Sherry H. Olsen, **Baltimore: The Building of an American City**. 464p. \$18 (reg. \$39).

— Paul F. Paskoff, **Industrial Evolution: The Organization, Structure, & Growth of the Pa. Iron Industry, 1750-1860**. 208p. \$10 (reg. \$24).

— Terry S. Reynolds [SIA], **Stronger Than a Hundred Men: A History of the Vertical Water Wheel**. 472p. \$18 (reg. \$50).

— Laura Wood Roper, **F.L.O.: A Biography of Frederick Law Olmsted**. 573p. \$14 (reg. \$45).

— Cynthia J. Shelton, **The Mills of Manayunk: Industrialization & Social Conflict in the Phila. Region, 1787-1837**. 240p. \$17.50 (reg. \$28).

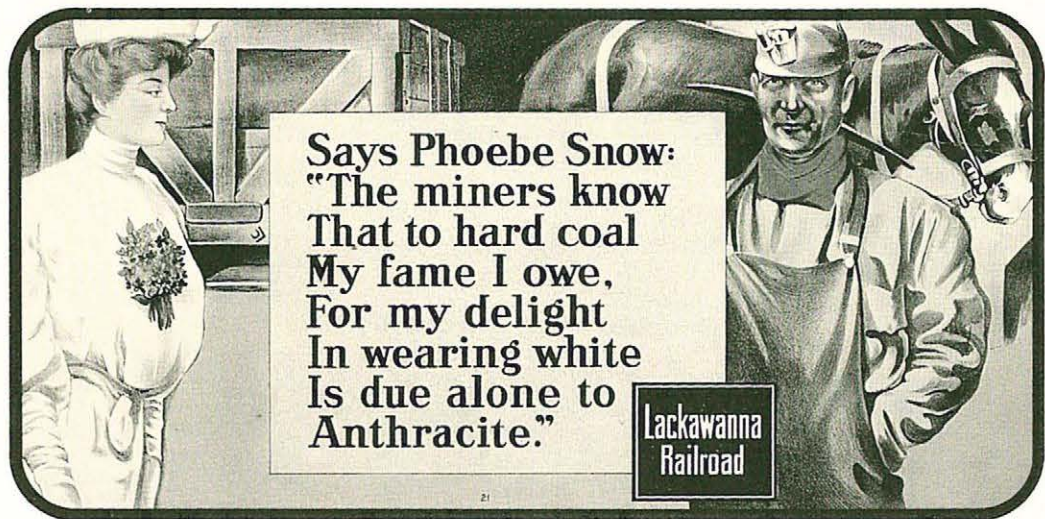
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With thanks.

NOTES

Phoebe Snow ad No. 8 (c1910) for the Lackawanna Railroad's "Road of Anthracite" campaign. The series is reproduced in full color as cards and posters, available from the Anthracite Museum (see below).



HISTORIC BRIDGE SLIDES BACK IN STOCK. The set of 12 slides of historic bridges photographed by Jet Lowe [SIA] of the Historic American Engineering Record [HAER] is again available, following a sell-out of the original stock. Reproduced in color directly from large-format HAER transparencies, these slides have been selected to represent important bridge types. Some of the examples are well known, while others are obscure, but each is interesting, instructive, and, not incidentally, handsome. They range from Calvert Vaux's graceful 1861 Gothic cast-iron arch in Central Park, N.Y.C., to a magnificent 1932 three-hinged arch carrying a road high above the Feather River in Butte County, Calif.

In their own right, the images will be of interest to anyone concerned with IA or with the relationship between the built environment and the landscape. They can be used as excellent teaching tools in these areas, as well as in engineering, the history of technology, and geography. The slides are captioned and accompanied by a leaflet providing basic info. on each structure. Additional slide sets are planned. Order today for \$20 ppd. (checks payable to "SIA Slides"; \$25 outside US.; US\$ only, please), from Anthracite Heritage Museum, RD 1, Bald Mt. Rd., Scranton PA 18504 (717-963-4804).

While ordering bridge slide sets from Scranton, consider the series of striking full-color cards illustrating the famous "Phoebe Snow" jingles that originally advertised the Lackawanna RR. Phoebe symbolized the cleanliness of passenger service on one of the few lines whose locomotives burned hard coal—the "Road of Anthracite." The series is available as postcards, note cards, holiday cards, and posters. Write or call the Anthracite Museum.

EXHIBIT ON SURVEYING. Historic surveying instruments are on display at the Michigan Museum of Surveying, 220 S. Museum Dr., Lansing, the nation's first and only museum devoted to the profession of surveying. Founded by the Mich. Society of Registered Land Surveyors Foundation, it is open Tues.-Fri., 10 a.m. to 3 p.m., and located next to the R.E. Olds Museum of Lansing automotive history, and the Impression 5 children's science & technology museum, both in rehabed c1900 factories. Info.: Ruth Armitage, MMS, 517-484-6605.

A.H.F.

"A CENTURY OF INDUSTRIAL IMAGES, 1889-1989," an exhibit featuring the work of four Pa. industrial photographers, opens Feb. 4, 1990, at the Canal Museum, Easton, Pa. Included are George Bretz, William H. Rau, George Harvan, and Joseph Elliott, interpreting the evolution of Pa.'s coal mining, RR, and ferrous metals industries. Bretz (1842-1910) was the earliest Pa. photographer to successfully photograph in a working underground mine. Rau (1855-1920) displayed a remarkable talent for the artistic integration of RR and industrial structures into the natural landscape. The contemporary work of Harvan deals with the emotional interrelationship between anthracite coal miners and steel laborers with their working environment. Elliott's work from the 1970s and '80s exhibits a fascination for the interplay of mass and shadow, which emphasizes the monumentality of industrial

facilities [see "IA in Art," *SIA* Fall 87:9]. The exhibit, which closes Sept. 30, is accompanied by a free lecture series, including an April 12 talk on "The Art of Industrial Photography" by Joseph Elliott. Info.: Canal Museum, 200 S. Delaware Dr., POB 877, Easton PA 18044-0877 (215-250-6700).

KEEPING IT UP IN N.Y.C. The on-again, off-again repairs to the arson-damaged High Bridge Water Tower (pictured on the SIA membership brochure), are moving along with a \$864,000 capital appropriation from the city Parks Dept. When the work is completed, the interior stairs will be replaced but no longer open to the public; the carillon, destroyed in the 1984 torching, is gone forever.

G.W.

PARKING FACILITIES QUERY. James I. Meyer, an engineer who designs parking facilities, is interested in exchanging information on the history of structures built for automobile parking. Contact Meyer at Walker Parking Consultants/Engineers, Inc., 410 Thresher Sq., 700 3rd St. S., Minneapolis MN 55415 (612-332-7275; FAX 612-332-1657).

WINTERTHUR FELLOWSHIPS. Winterthur Museum & Gardens will award a number of fellowships to encourage research in American history, art & design; history, and material culture, in 1990-91. Scholars pursuing advanced research can apply for Natl. Endowment for the Humanities (NEH) fellowships with stipends up to \$27,500 for six to twelve months' work. Short-term fellowships with monthly stipends ranging from \$1-2,000 are available to academic, museum, and independent scholars, and to support dissertation research. Application deadline is Feb. 28, 1990. Info.: Katharine Martinez, Visiting Research Fellowship Program, WM&G, Winterthur DE 19735 (302-888-4649).

1990 HARTFORD BOILER CALENDAR. The Hartford Steam Boiler Inspection & Insurance Co. has published a "1990 Vacation Calendar" featuring a color rendering of the April 1865 explosion of the Mississippi River Steamboat *Sultana*, the worst boiler disaster in history. Also avail. are boiler wall charts "suitable for posting in your boiler room": "Power Boilers," "Heating Boilers," & "Heating Boiler in French." The Hartford publishes *The Locomotive*, a small periodical containing occasional historical notes on steam boilers. Info.: Marketing Services, THSBI&IC, One State St., Hartford CT 06102.

IEEE FELLOWSHIP IN ELECTRICAL HISTORY. The Institute of Electrical & Electronics Engineers (IEEE) invites applications for its 1990-91 Fellowship in Electrical History, supporting either one year of full-time graduate work in the history of electrical engineering and technology at a college or university of recognized standing or up to one full year of post-doctoral work in the same field for a recent graduate. The stipend is \$14,000. The fellowship is made possible by a grant from the IEEE Life Member fund and is administered by the IEEE History Committee. Application deadline is Feb. 1, 1990. Info.: Director, Center for the History of Electrical Engineering, IEEE, 345 East 47th St., NY NY 10017.

Big state push for IA in Pa.

The Bureau for Historic Preservation, Pa. Historical & Museum Commission, is undertaking a broad range of efforts to identify and preserve historic industrial resources across the state. The BHP's activities include publication of an overview history of Pa. industry, a survey and nomination of various Pa. iron and steel sites to the National Register (NR), nomination of one county's industrial resources to the NR in cooperation with HAER, and creation of a newsletter that reports on statewide industrial survey efforts.

A draft overview of Pa.'s industrial history has been completed by the BHP, identifying the state's most historically important industries, and briefly outlining their evolution over three centuries. The five most significant industries have been iron and steel, coal, textiles, foundries, and transportation. These were the state's largest industrial employers and producers, and among the top manufacturers within their industries nationally. Together with a wide array of other important industries, such as oil drilling and refining, lumber, grist milling, and electrical goods, these industries have made Pa. one of the two foremost industrial states in the nation, particularly from the mid-19th to the mid-20th-century. Publication of the state industrial overview is scheduled for late 1989.

Last Jan., the BHP also initiated a statewide survey of iron and steel industry sites to identify significant properties not previously surveyed or nominated to the NR. Some 20 state sites will be surveyed, including several large steel plants, resulting in a NR Multiple Property nomination and several individual nominations. The BHP will prepare an iron and steel industry history for publication. All projects are scheduled for completion by mid-1991.

In addition to the other efforts, the BHP is cooperating with HAER, America's Industrial Heritage Project, and the NR office to list industrial resources in Huntingdon County in central Pa. The county has a wealth of IA sites, including iron furnaces, coal-mining towns,

brick works, and railroad structures. A HAER survey identified some 25 sites that are being nominated to the NR. Using NR software, HAER and BHP have entered site info. in a computer database, forming the basis for individual nomination forms and for an overall Multiple Property form. The project will be completed in late 1990.

Finally, in July the BHP launched *Penndustry*, a biannual newsletter reporting on the many Pa. industrial survey and preservation programs. In addition to the above projects, for example, there is the Steel Industry Heritage Task Force to establish a steel museum in the Pittsburgh area. To get on the *Penndustry* mailing list (next issue in Jan. 1990), contact Bill Sisson, BHP, PH&MC, Box 1026, Harrisburg PA 17108-1026 (717-783-9922).



Above: Two surviving refractory brick kilns at the still-operating N. American Refractories, Huntingdon County, Pa. *Nancy Shedd photo, HAER.*

Left: Eliza Furnace (c1846 hot blast), Vintondale, Pa.

Below: Carrick Furnace (c1826 cold blast), with 1879 blowing engine, Franklin County, Pa. *Diane Kallmann photos, PH&MC.*



SIA AFFAIRS

18TH ANNUAL BUSINESS MEETING

June 3, 1989

The Society met in the Hotel Le Concorde, Quebec City, in conjunction with its Annual Conference. The meeting was called to order at 1:50 p.m. by President Emory Kemp.

President's Report

The 1989 Annual Conf. This year's conference attracted 255 registrants, the largest ever. This was the 18th Annual Conf. and the first held outside the U.S. Barrie Trinder from Ironbridge Gorge Museum Trust and the Inst. for I.A. (U.K.) travelled farthest to attend.

President Kemp thanked the conf. organizing committee—Adelard Buillemette, Claire Mousseau, Jean LeVoie, Andre Berube, and Jacques LeCours—for their superb efforts. Each was presented with an SIA hard hat in appreciation.

News of Members. President Kemp reported the recent death of founding member Mary Jane Rutsch and announced that SIA had sent condolences and a memorial gift. He also reported Past-President Torgersen's recent stroke and strong recovery.

News of Chapters. President Kemp reported briefly on the "Elizabethan progression" he has conducted in order to attend chapter activities throughout the U.S. He lauded the general vitality of SIA chapters.

Report on Elections

President Kemp reported that Nominations Committee chair Charles Hyde had suddenly been hospitalized and was unable to attend the Annual Conf. The ballots had been mailed to Conf. HQ, but had been impounded by Canadian Customs, who had misread the customs label as "bullets"! The membership was forced to wait in suspense to learn the outcome of the vote.

[The results of the SIA annual election subsequently have been reported as follows: secretary, Nicholas Westbrook; directors, Thomas R. Flagg, Carol Poh Miller, David A. Simmons; nominations committee member, Robert Casey.]

Treasurer's Report

Treasurer Nanci Batchelor reported annual income of approximately \$45,000 and expenses of approximately \$35,000. In 1988, the Society enjoyed a fund balance increase of \$9,285.

Long-Range Planning

President Kemp reported briefly on the Board's focussed attention to long-range planning during the previous year. The four cornerstones of the Society will remain its two publications, *IA* and the *Newsletter*, and its two meetings, the annual conference and the fall tour. The Board hopes to expand the Society's educational services.

President Kemp noted that finances now permit two issues of *IA* annually. He reported that a strong committee structure was in place to facilitate the work of the organization. Committees are chaired as follows: Publications, Laurence Gross; Conferences, Robert M. Vogel; Membership, David A. Simmons.

Up Coming Conferences & Tours

Members were reminded of the 1989 Fall Tour to Butte, Mont. Director Chris Andreae reported on progress in planning a 1990 Fall Tour to the Yukon. Planning has involved the Canadian and U.S. park services. Ron Malis and Alec Barbour have been central to the planning. The ten-day tour will be Sat., Aug. 18, through Sun., Aug. 26, at a cost of \$1,679 (CAN\$2,099) from Vancouver.

Cooperative Agreement with HAER

President Kemp reported that, with leadership from Eric DeLony [SIA], Chief of the Historic American Engineering Record, SIA had concluded a Cooperative Agreement with HAER to undertake a variety of mutually beneficial projects. The first project will be an SIA/HAER fellowship to support scholarly use of the HAER collections.

The Norton Prize

President Kemp reviewed the previous winners of the Norton Prize, the Society's highest award for scholarship, which recognizes the outstanding scholarly article published in *IA* during the previous three years. The 1989 winner is Patrick Malone, director of the Slater Mill Historic site and senior lecturer at Brown University. Malone's award was for "Little Kinks and Devices at the Springfield Armory, 1892-1918," in *IA* 14 (1988).

New Business

Elizabeth Beaton, Sydney, Nova Scotia, is coordinator of a project to document steel production on Cape Breton. She asked for and received endorsement of the objectives of her project, viz. to record the existing plant and develop a plan for its future.

Lance Metz, Easton, Pa., announced two IA-related meetings scheduled for Sept. and Oct., 1989.

With no further business, the meeting was adjourned at 2:30 p.m.

NICHOLAS WESTBROOK
Secretary

1990 Fall Tour Registration Opens

An information & registration brochure has been mailed with the final itinerary and fees for "The Trail of '98," the SIA 1990 Fall Study Tour of the Yukon and Alaska. The tour begins Sat., Aug. 18, with a flight from Vancouver, B.C., to Whitehorse, for the opening reception. It concludes with a return to Vancouver on Sun., Aug. 26. In between are tours of the White Pass & Yukon Rwy., Skagway, Whitehorse, and Dawson, including a vintage DC-3 "flightseeing" tour over the gold fields. The study tour is sponsored by the SIA, in cooperation with the Canadian Parks Service and the U.S. National Park Service.

The fare covers travel, admissions, accommodation (double occupancy), and most meals: from Vancouver, \$1,679 (CAN. \$2,099); from Whitehorse, \$1,348 (CAN \$1,685). A deposit of \$200 (CAN \$250) is necessary for registration, with the balance due June 18. Payment can be by check, money order, Visa, or MasterCard.

For a copy of the registration brochure, containing the full itinerary and all tour and fare details, write SIA HQ, Rm. 5020 NMAH, Smithsonian Inst., Wash. DC 20560, or phone Chris Andreae [SIA] at 519-657-1851.

TICCIH UPDATE

The 7th Intl. Conf. on the Conservation of the Industrial Heritage will be held Sept. 2-9, 1990, in Brussels, Belgium, sponsored by the Belgian section of The Intl. Committee for the Conservation of the Industrial Heritage (TICCIH). The conf. theme is "Technology, Organization of Labor, and the Shaping of the Industrial Landscape." Official languages of the conf. are English, Dutch, and French, and plenary sessions will have simultaneous translation. There will be a number of tours and field trips, including a trip on the canals of Charleroi and Willebroeck; a bus tour of Brussels IA; visits to Brussels' Air, Car, Tramway- and Railway Museum; tours in Flanders, Wallonia, and the provinces of Hainault, Limbert, West Flanders, and Liege. Info.: Stephen Victor [SIA], TICCIH U.S. Rep., 166 E. Rock Rd., New Haven CT 06511 (203-789-8223) or Guido Vanderhulst, TICCIH Belgium, rue Ransfort 27, B-1080 Brussels, Belgium.

The IA of bridge rehab



CORNISH-WINDSOR BRIDGE REHABILITATION.

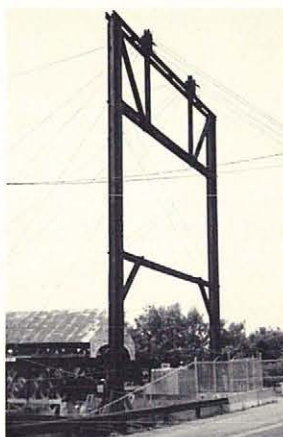
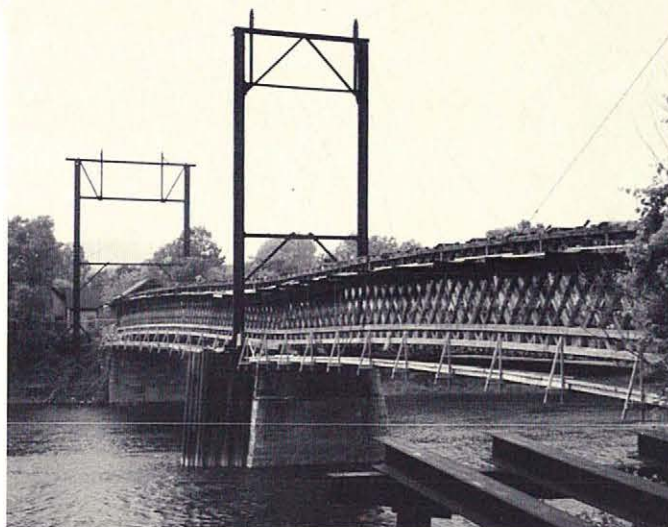
Above: The bridge during repairs.

Top right: The mid-span and Vt.-end structures and cables.

Near right: N.H.-end structure for cables.

Far right: One of four cable-anchors.

William J. Ellenberger photos, June 1989.



The rehabilitation of Cornish-Windsor bridge [NR, HAER, NHCEL] over the Connecticut River between Cornish, N.H., and Windsor, Vt., has been of special interest because of the temporary cable-stay suspension structure supporting the bridge while the contractor replaced deteriorated structural members and corrected the warpage resulting from sunlight on the south face of the bridge.

The bridge was built in 1866 by James F. Tasker of Cornish, in association with Bela J. Fletcher of Claremont, N.H. The design follows the Town plan, except that heavy squared timbers, rather than planks, were used in the lattice web. The structure is 480' long, and includes two spans (203'7" & 204'6"; 408' between abutment faces) plus overhang at each end.

The bridge is owned by the State of N.H. and the work is under direction of its Dept. of Trans. In planning the work, consideration was given to its historic value and the preservation of as much of the original fabric as possible. The repair increased the bridge's live load capacity to meet modern highway standards and extended the bridge's life well into the next century.

W.J.E.

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.

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TO CONTACT THE EDITOR — WRITE: Robert M. Frame III, Editor, *SIA Newsletter*, P.O. Box 65158, St. Paul, MN 55165-0158.

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