

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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What's in store for Toronto lakefront elevator?

Built for \$700,000 in 1928 by Canada Malting Co., a 107-ft.-high concrete elevator is a controversial artifact on Bathurst Quay along Toronto's lakefront. Like other concrete giants in cities like Minneapolis and Buffalo, this remnant of the Port of Toronto's 20th-C grain trade is at the center of a historic preservation dispute. It was designed by the firm of John S. Metcalf Co. Ltd., according to original plans. Until its abandonment last November, it produced 124 tons of malt daily. Now, depending on which side you're on, it's either a horrendously ugly obstacle to a waterfront view, or it's a piece of modern architecture with IA significance. The Toronto city council is struggling with the issue.

Some council members simply want to demolish what they insist is an eyesore. "It's so ugly that it's a crime to have this building continue to stand," said one. But others point out that five years ago, when the nearby Maple Leaf Mills (formerly Toronto Elevators Ltd.) 52-bin, 2 million bushel, Monarch elevator (1928) was smashed, it took a full year, cost \$1 million, and bankrupted the Thunder Bay wrecking company.

Estimates are \$2 to 5 million to demolish Canada Malting, thanks in part to its 7-in.-thick walls. It might be cheaper and easier to save it. Preservation architects point to the 1932 Quaker Oats elevator in Akron, Ohio, which was successfully converted into the 196-room Quaker Square Hilton Hotel. The 1980 project was featured in the SIA-produced film *Working Places*, and in 1986 SIA members toured the Akron Hilton during the 15th Annual Conf.

Compounding the problem is that the elevator is within Harbourfront, a massive 100-acre waterfront development site managed by Harbourfront Corp., a non-profit federal Crown agency. The lost Monarch elevator stood near the center of Harbourfront, while Canada Malting rises at one end. It was expropriated in 1973 as future park land and leased back to Canada Malting. Once touted as the savior of a "derelict industrial waterfront," the corporation lately has been criticized for overbuilding, catering to the affluent with condos, and crowding an area once envisioned as public park land. How many other cities have ridden the same rollercoaster, watching their industrial heritage smashed in the name of jobs and growth, only to see the economic dream evaporate.

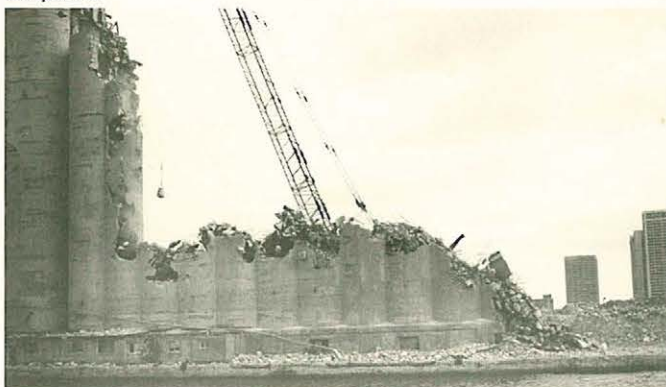
Since the elevator stands on federal land, only Ottawa can save it. Toronto's Historical Board urged the city to ask Ottawa to have the structure designated as a historic structure under the federal heritage buildings policy. The council voted no. Nevertheless, the Ontario Heritage Foundation has granted \$10,000 to a neighborhood committee to study the elevator's significance as a "historical basis for preservation." A survey taken last Nov. showed that two-thirds of Harbourfront residents want the IA landmark preserved, and some architects have viewed reuse as an exciting design challenge. The elevator issue now seems trapped in the larger controversy over the entire Harbourfront affair.

S.T.



Above: Threatened Canada Malting Co. elevator (1928) in Toronto. Greg Tjepkema photo for Harbourfront Magazine.

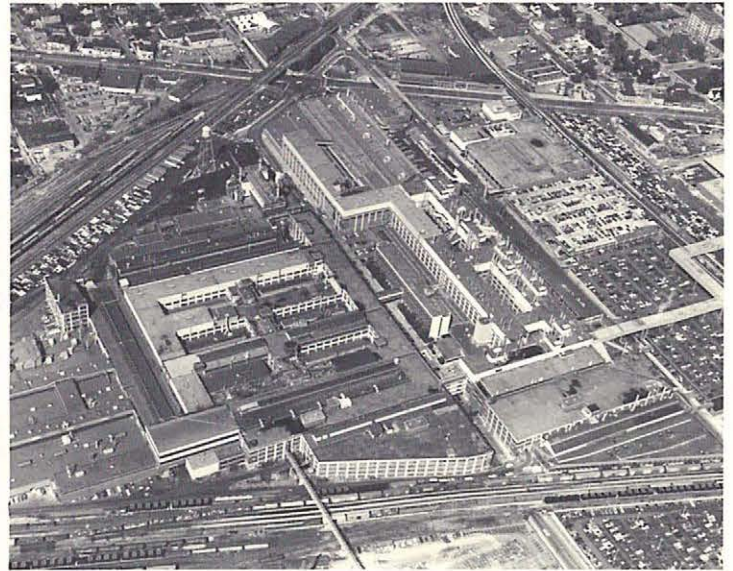
Below: Expensive \$1 million demolition in 1983 of nearby Maple Leaf Mills (formerly Toronto Elevators Ltd.) 1928 Monarch elevator. Stewart Thompson photo.



Charlie Hyde's 'Motown Review II' updates Detroit IA for '88



Left: Historic view of West End Plant, Fisher Body Corp., later known as the Cadillac Fleetwood Plant. Photo courtesy Cadillac Div., General Motors Corp.



Right: The Cadillac Clark Street Plant. Photo courtesy Albert Kahn Assoc.

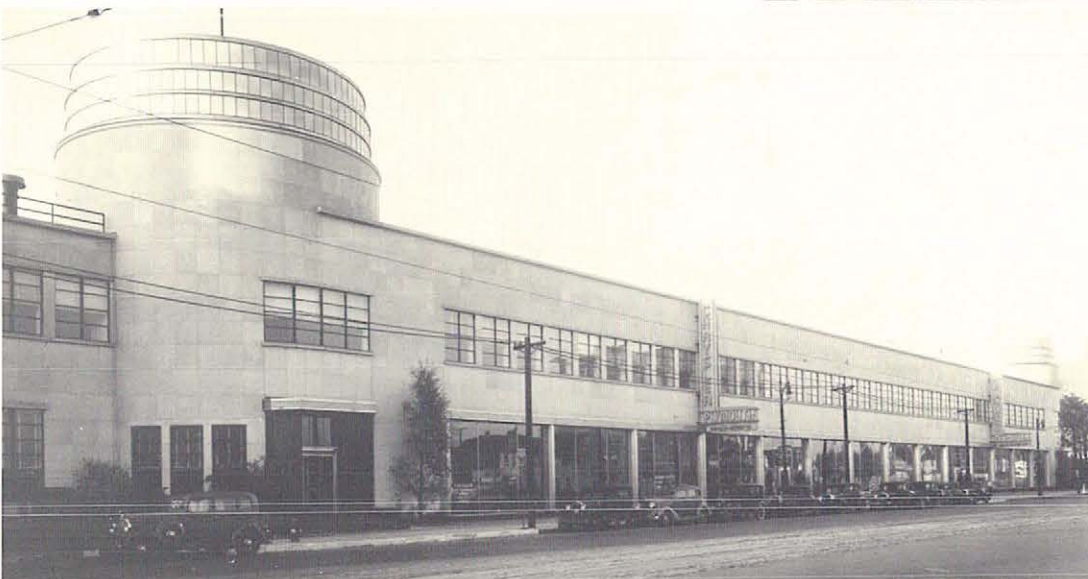
The years since my 1985 "Motown Review" [SIAN Winter 85:1] have been marginally kinder to Detroit's IA monuments than the previous five. More vintage factories, particularly auto plants, have shut down, but none has fallen to the wrecker's ball . . . yet. More promising news includes several substantial IA rehabilitation projects currently under way.

First, the bad news. General Motors permanently closed the huge Clark Street Cadillac manufacturing complex and its sister facility, the Fisher Body Fleetwood plant, last Dec. 18, wiping out some 3,000 jobs. The Du Pont Engineering Co. of Delaware designed Clark Street, which opened in 1921 and was the only Cadillac assembly plant for most of its history, with a remarkable production record of 7,782,466 cars. The oldest parts of the Fleetwood plant date from 1917, but Albert Kahn designed the landmark six-story, reinforced-concrete building, 100 ft. wide and nearly 1,000 ft. long, which opened in 1922. GM will try selling Fleetwood, but getting rid of the 2.1 million sq. ft. giant won't be easy.

On Detroit's far east riverfront, the Chrysler Corp. soon will build a new assembly plant to replace its venerable Jefferson Ave. complex nearby. Some IA sites will fall, including a largely intact 1914 Detroit Edison substation, a U.A.W. local union hall, also 1914 but occupied by the autoworkers only since 1937, and the Chrysler Kercheval Ave. plant

(1919), another Albert Kahn automobile factory. The Draft Environmental Impact Statement did not recognize the historical significance of any of those buildings, but because of the efforts of the author, the substation and union hall will be documented according to HABS/HAER standards. After the new Chrysler plant opens, perhaps in 1991, the aging plant now in use likely will be demolished. Albert Kahn designed the oldest portion for the Chalmers Motor Co. in 1907, and most of the complex dates from 1907-16, except for an office building completed in 1934, also by Kahn.

Now, some good news. Detroit's near east riverfront is the site of many of the city's new construction and rehabilitation projects. As part

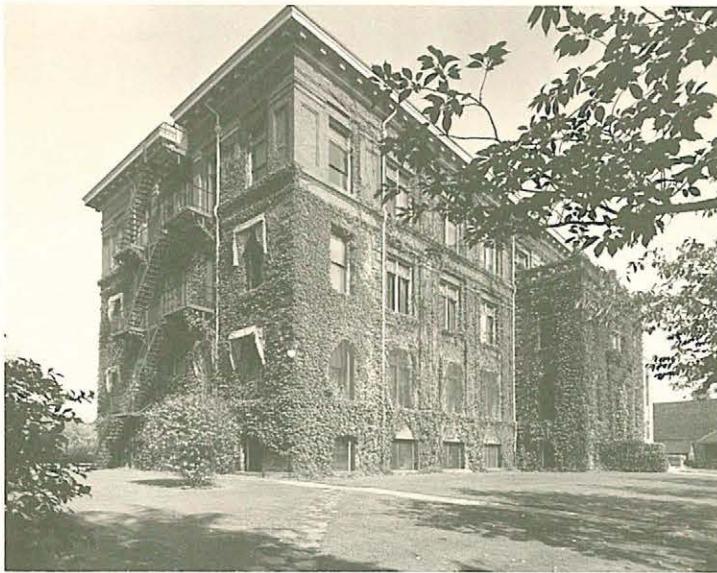


THREATENED BUILDINGS.

Left: Designed by Albert Kahn, Chrysler Corp.'s Sales & Service Building on E. Jefferson Ave. may go. Photographed when completed in 1934. Photo courtesy Albert Kahn Assoc.

Above: Albert Kahn's 1907 Chalmers Motor Car Co. (later Chrysler Jefferson Ave. plant), photographed c1923. Chrysler Historical Collection photo.

Right (next page): Detroit Edison's Hart St. Substation (1914) will be razed. Carla Anderson photo, 1988.



PRESERVED BUILDINGS. *Left:* The Park-Davis & Co. research laboratory (1902) will become a luxury hotel. *Photo 1941 courtesy Manning Bros., Commercial Photographers.* *Right:* Frederick A. Stearns & Co.'s Kahn-designed building on Jefferson Ave. *Photo courtesy Albert Kahn Assoc.*

of the \$250 million rehabilitation of the former Parke-Davis pharmaceutical complex, the firm's laboratory building will become a 125-room luxury hotel at a cost of \$15 million. Allegedly the first industrial research laboratory in the drug industry when it opened in 1902, the building underwent substantial alterations in 1941, when Kahn designed a large addition. Not far away, overlooking the vacant city-owned 44-acre site of the demolished Uniroyal plant, stands the long-vacant factory of Frederick Stearns & Co., another prominent Detroit pharmaceutical manufacturer. The complex, dating from 1899, with Kahn additions in the 1920s, will be converted into 178 luxury loft apartments, a \$16 million project largely financed by the private sector.

Another positive development is the City of Detroit's plan to develop a new park on the Detroit River using the industrial and commercial history of the riverfront as the theme. I have worked closely with the Recreation Dept. to develop plans to convert the former Detroit Lighthouse Depot (1874), the oldest U.S. Lighthouse Service warehouse on the Great Lakes, into an interpretive center which will consider the industrial history of the riverfront, including the district's social and labor history. The Detroit Depot, nominated to the National Register by Carol Poh Miller [SIA] in 1980, was designed by Orlando Poe, whose career with the U.S. Army Corps of Engineers included substantial work at the Soo Locks linking Lake Superior with the lower lakes. The Poe Locks were named after him. The proposed interpretive center will

be the centerpiece of the new Mt. Elliott Park, which will contain outdoor exhibits as well.

Overlooking the park site is the abandoned factory complex (1892-1907) of the Ireland & Matthews Manufacturing Co., a major producer of plumbing supplies, stove hardware, and chrome trim for automobiles. Private investors plan to spend \$13 million to convert the factory buildings into luxury condominiums. Rumors of additional rehabilitation projects involving industrial buildings continue to surface every few months, indicating that private developers are finally beginning to see Detroit as an investment opportunity. This reporter will update the Detroit situation from time to time. *C.K.H.*

Tsongas Industrial History Center opens

The Univ. of Lowell and the Lowell Natl. Historical Park announced in Jan. the opening of the Tsongas Industrial History Center, a joint project of the two institutions. The Center's primary goal is to encourage the teaching of industrial history by using the city of Lowell and the Lowell Natl. and state parks as primary historical resources.

Named for former Sen. Paul E. Tsongas, the center took up temporary residence in Jan. in the historic Boott Mill #8. Its permanent facility will be in the Natl. Park Service's Boott Mill #6, currently under renovation. The Boott Cotton Mills [HAER] was among the last of the major Lowell mills to be founded (1835) and one of the last to go out of business when it closed (1954) [see *SIA* Spring 87:2]. By Fall 1990 the center will have over 10,000 sq. ft. of hands-on exhibits and workshops for school groups and the general public.

In its temporary facility and with limited staff through 1988, the center's first phase of operation will be curriculum development, teacher training, and exhibit development. The center is funded by the state, through the university. In addition, it has already received several grants to support this work and will submit other applications to state, federal, and private sources.

The center is seeking interested educators to develop and test new curricula in industrial history for elementary and secondary schools. Topics in industrial history cover a broad range of issues relating to the industrial development of America, and will be developed not only for use in history classes, but also for science, mathematics, and computer classes. The center's director is Edward J. Pershey [SIA], whose goal is to encourage teachers to integrate the study of science, technology, and industry into other areas of the curriculum. The present staff includes a school liaison, administrative assistant, and curriculum specialist. For further information and a free brochure, write the center at Boott Mill #8, Foot of John Street, Lowell MA 01852 (617-459-2237).



Archival database uncovers 'IA in the Slammer'

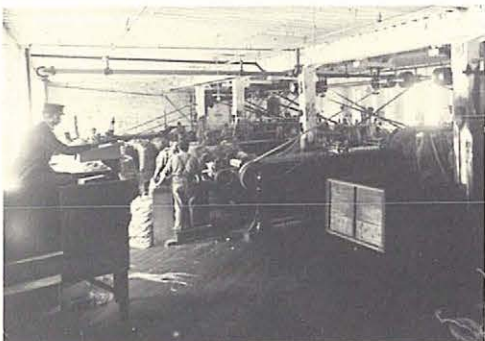
Among the 10,000 records recently entered into the RLIN [Research Libraries Information Network] online database by the Minn. State Archives (Minn. Hist. Soc., 1500 Mississippi St., St. Paul, Minn. 55101; 612-296-6980) are those including information on the history of the state's prison industries. Particularly important has been twine- and agricultural-machinery manufacturing in Stillwater State Prison and other state correctional facilities.

Stillwater began operation in 1853 and until 1895 allowed the leasing of prisoners to local industries. The Northwestern Car & Mfg. Co., for example, made railroad cars and threshing machines using prison labor. Seymour, Sabin & Co. of Stillwater used Minnesota striped-suited convicts side by side with other workers to manufacture the Minnesota Chief Threshing Machine. An 1879 account of a tour through their works reported on the "horse thieves, petty thieves, forgers, defaulters and murderers... all filing, fitting, cutting and hammering at the various parts that go to make up the perfect machine." Three were of special note: "As you go through one room, blue-eyed Bob Younger looks up from his work, and Cole gives you a look like a startled wolf, while Jim hangs his head sullenly. They are busily engaged making belts, rakes and riddles, doing excellent work." The notorious Youngers had been put in Stillwater (where Bob Younger later died) following their infamous 1876 bank raid with the legendary James gang at Northfield, Minn.

Minn. State Archives materials related to prison industries include records produced by all levels of administration: Governor, Department of Corrections (Commissioner, Industry Section, and Education Section), Board of Managers, prison warden, and the prison's own Industrial Department. Most of the early information is in the form of financial records, including hemp and twine sales journals (1887-1902)

and cost statements and comparisons (1919-1939) that give extensive monthly cost and production statistics; farm machinery sales books and journals (1910-1916); prison industries annual statements (1923-1974); and many other journals, ledgers, and reports (mostly 1890s-1950s). Other records vary from warden's correspondence (1891-1906) to Dept. of Corrections Education Section files on the "Free Venture Project" to set up model shops within the framework of the private industry program in the correctional facilities (1970s?).

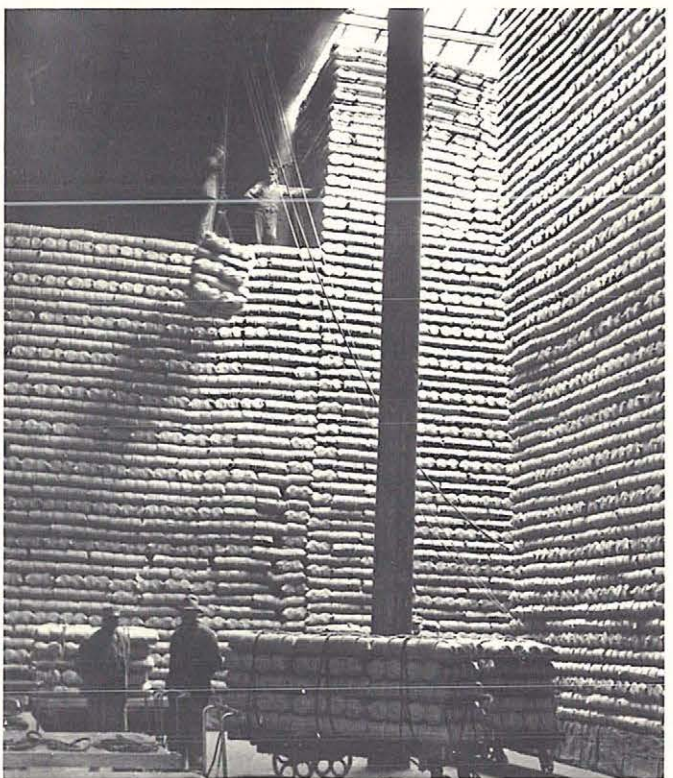
An RLIN search also turned up State Archives records of the State Reformatory at St. Cloud (including a shoe-shop daybook, 1902-1907) and broom-factory accounting records from the St. Paul Workhouse (19th C?); a volume describing expenditures for broom, hollow ware, and iron-castings industries at Auburn Prison, N.Y. (1893-97); and a few entries related to prison industries in California and Wisconsin. State Ar-

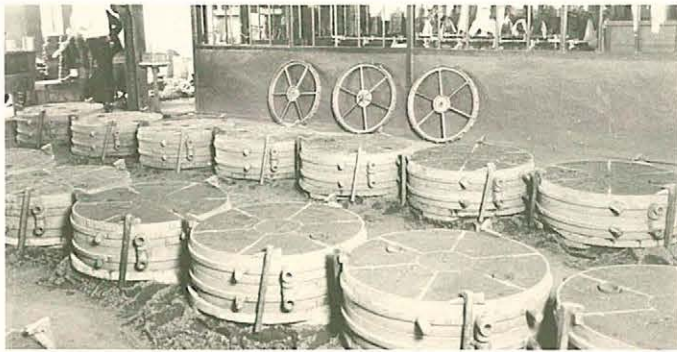


Inside the twine factory at the Stillwater [Minn.] State Prison, c1900, where agricultural twine is being manufactured from hemp. Note the vigilant security officer in the top photo. *Minnesota Historical Society Collections.*



STILLWATER [Minn.] STATE PRISON. Above: Interior of a twine factory building in 1925. Note the concrete flat-slab, mushroom-column construction. Below: The twine warehouse, Bayport, Minn., in 1925. *Minnesota Historical Society Collections.*





Casting wheels for agricultural equipment in the prison foundry, Stillwater [Minn.] State Prison, c1900. *Minnesota Historical Society Collections.*

chives elsewhere probably contain much material on prison industries. Information about these records will become more easily accessible as they are entered into RLIN or other national databases.

MORE IA IN THE ARCHIVES...

The historical records of the **Morris Canal** have been arranged and microfilmed for research by the N.J. State Archives in Trenton. The Canal Society of N.J. celebrated the conclusion of the four-year project at a presentation ceremony in Morristown last Sept. The massive collection fills over 120 reels.

One of the state's most ambitious 19th-C engineering enterprises, the Morris Canal linked towns across northern N.J., from Phillipsburg to Jersey City, from the 1830s to the 1920s. In the '20s the canal's corporate entity (Morris Canal & Banking Co.) and its records passed into the control of the State of N.J. The State Archives received the records from the N.J. Dept. of Environmental Protection in 1979. In 1982 the Canal Society of N.J. (CSNJ) and the Hugh Moore Historical Park & Museum recommended microfilming. Funded by grants from CSNJ, HMHP&M, and the N.J. Hist. Commn., work began in 1983. The Morris County Hist. Soc. added funds in 1984. Total cost was \$15,000. The film is available at the State Archives, 185 W. State St., Trenton; Morris County Library, E. Hanover Ave., Whippany, N.J.; and HMHP&M, POB 877, Easton, PA 18044.

The Univ. of Illinois at Chicago has received the papers and library of Chicago structural engineer **William F. Schmidt**, considered a pioneer in the use of flat-plate design for apartment and office buildings and in the use of high-strength concrete. Schmidt was author of *Ultimate Strength Design Simplified—An Equivalent Stress Method*. The collection includes engineering books; the business records of his company, William F. Schmidt & Assoc.; personal papers; and a complete file on the Illinois & Chicago Property Owner's League.

If you're interested in RR structures, write for a copy of the **Chesapeake & Ohio Historical Society's** latest sales catalog (and any supplements) of drawings, listing 16 pages of plans, elevations, and maps selected from the thousands in the C&OHS collections, donated by the C&O Rwy. Co. Most are C&O, but some Pere Marquette and Hocking Valley are included, although many drawings from these predecessor companies were destroyed before entering C&O files. Diazo "blackline" copies are made from inked-linen originals. Structures range from stations, houses, and shelters, to bridges and water tanks. Maps include yard maps and fire-prevention maps. The C&OHS supports a permanent archives for either in-person or mail reference service, comprising 40,000 negatives, 5,000 mechanical drawings, and 15,000 civil-engineering drawings. All are being cataloged by computer. Info.: C&OHS, c/o T.W. Dixon, Jr. [SIA], POB 47114, Wash. DC 20050-7114.

A plan service also is available from Friends of the East Broad Top, Inc., a non-profit society dedicated to the restoration and preservation of the East Broad Top RR, a Nat. Hist. Landmark in Huntingdon County, Pa. Their list of drawings includes a turntable, tunnel, coal trestles, other structures and maps (most c1915-30). Info.: Michael Mitzelfeld, FEBT Plan Service, 6301 N. Canfield Rd., Chicago IL 60631.

NOTES & QUERIES

HABS/HAER ANNUAL REPORT AVAILABLE. Keep up to speed on the multifarious activities of the Historic American Buildings Survey/Historic American Engineering Record by demanding your copy of the encyclopedic *1987 Annual Report*. The 61-page volume summarizes 26 summer recording projects, lists documentation for over 1,000 structures transmitted to the Library of Congress, and discusses interactions with fellow professional societies, including a number of joint projects with the SIA. Write Robert J. Kapsch [SIA], Chief, HABS/HAER Div. (429), Nat. Park Service, POB 37127, Wash. DC 20013-7127.

MICH. BRIDGE POSTER & GUIDE is available from the Mich. Dept. of Trans. On one side, the full-color, 17x21-in. brochure has photos and descriptions of 14 bridges, including an 1867 covered bridge, a 1922 concrete through-girder resembling a rainbow arch, an 1886 Whipple truss, and the 1959 Houghton-Hancock double-deck lift span (viewed during the 1981 SIA Fall Tour). The other side of the brochure is devoted to the famous Mackinac Suspension Bridge (1957). Copies free from MDOT Public Information Office, POB 30050, Lansing MI 48909.

A.H.F.

TRAVEL GRANTS. The Walter P. Reuther Archives of Labor & Urban Affairs at Wayne State Univ., Detroit, will award grants of up to \$700 to cover travel and expenses related to research for scholars using the archives. The funds are available through a grant from the Henry J. Kaiser Family Foundation of Menlo Park, Calif. The grants are intended primarily to aid graduate students working on doctoral dissertations and junior faculty needing financial assistance to pursue research projects. Info. & application forms avail. from Philip P. Mason, Director, Archives of Labor & Urban Affairs, Walter P. Reuther Library, Wayne St. U., Detroit MI 48202 (313-577-4024).

RECENT CONFERENCES. The **7th Canal History & Technology Symposium**, held Mar. 26 at Lafayette College, Easton, Pa., and co-sponsored by the college's Northeastern Regional Studies Program and the Center for Canal Hist. & Tech., included the following presentations, which will be published as Vol. 7 of *Proceedings*:

"The Ohio Mississippi Waterway: Ellet's Dream, Army's Reality," by Donald Sayenga; "Franklinite: Zinc, Iron & Manganese," by Kenneth Hanson [SIA], about N.J.'s zinc industry; "The Cambria Iron Co. of Johnstown, Pa.," by Sharon Brown; "Morris, Foxall & the Eagle Works: A Pioneer Steam Engine for Boring Cannon," by Charles Peterson [SIA]; "The Pa. Soc. for Internal Improvements: A Case Study in the Political Uses of Technological Knowledge," by W. Bernard Carlson; "The Life & Times of Pearl R. Nye: Balladeer, Historian & Survivor of Ohio's Canal Era," by Terry Woods; and "The Middlesex Canal: Prototype for American Canal Building," by Thomas C. Proctor.

In Feb., the 1st annual **Conference on Industrial Archeology in New England**, co-sponsored by the Northern and Southern New England chapters of the SIA and the Inst. for New Hampshire Studies of Plymouth State College, was held at the college in Plymouth, N.H. The program included "IA in New England," by David Starbuck [SIA]; "Industrial Resources of Boston's Central Artery Project," by Beth Bower [SIA]; "Waste Treatment on Deer Island, Boston Harbor: Its Past & Present," by Jeffrey C. Howry [SIA]; "Preservation Planning & IA in New England," a SHPO panel moderated by Chester H. Liebs [SIA]; "Excavation & Research on a Searsburg, Vt., Mill Site," by Peter A. Thomas & Prudence Doherty; "An Up-&-Down Sawmill in Washington, N.J.," by Harold Yeaton; "The Ford Motor Car as an IA Object," by Michael B. Folsom [SIA]; "Preserving the Heritage of the Portsmouth Naval Shipyard," by Jon Dolph; "Bridge Surveys in Vt. & R.I.," by Bruce Clouette; "The Mass. Dept. of Public Works Historic Bridge Inventory," by Stephen J. Roper [SIA]; and "Documentation of a Vertical-lift Bridge: The Maine-N.H. Interstate Bridge," by Woodard D. Openo [SIA]. Info.: William L. Taylor, Inst. for N.H. Studies, Plymouth St. College, Plymouth NH 03264.

NOTES & QUERIES

A NORDBERG-CROSS COMPOUND ENGINE & STRAIGHT LINE BLOWER, installed in 1909, is available from K.C. Collins, V.P., State Street Industrial Park, 1160 State St., POB 363, Perth Amboy NJ 08862 (201-442-6400). Specs on the prime mover: 600 hp., 22"x48"x48", exhaust & condensing system. Driven unit: 48"x48"x48", 200.8 cu. ft., air/rpm 10,000 at 50, converter air only, 15 lb. Overall 41' 10" long, 17' 1" wide, 14' high.

GN DEPOT PHOTOS. Twelve-print sets of 4x6-in. color photos of Great Northern Rwy. depots in Minn., S. & N. Dak., Mont., and Wash. are available for \$12 ea. ppd. (both for \$22) from the GN Rwy. Hist. Soc. Each print is accompanied by a brief description of the station's construction and history. Check or MO to GNRHS Pres. Peter M. Thompson, 353 Maple Island Rd., Burnsville MN 55337.

In a related project, the GNRHS is compiling an inventory of ex-GN equipment and, in a commendable IA-oriented effort, extant structures. They have recorded surviving depots, engine houses, and section houses.

NEW PUBLISHING OPPORTUNITY. *Locus*, a new historical journal to begin publication in the fall, invites manuscripts that illuminate national topics from the perspective of local sources, including cultural resources. Locality is broadly defined and may be a geographical area such as a state, a portion of a state, or a political-social entity within a nation. *Locus* will differ from many journals devoted to state and local history in its insistence that local topics be related to the broader national experience. Manuscripts should be submitted to *Locus*, Dept. of Hist., North Texas State Univ., POB 13735, Denton TX 76203-3735.

IRONBRIDGE INSTITUTE PROGRAMS. The Short Course Programme for 1988 is under way at the Ironbridge Institute, a center for research and professional training in IA and heritage studies based in Ironbridge, England, and administered jointly by the Univ. of Birmingham and the Ironbridge Gorge Museum. It includes a series, offered Mar. through Nov., of conferences, seminars and "active learning sessions," with fieldwork within Ironbridge Gorge site and elsewhere in Britain. Forthcoming include:

—Sept. 19-30: "The Ironbridge Training Excavation in IA," with excavation work in Ironbridge Gorge.

—Oct. 27: "The Early Days of the Internal Combustion Engine," examining "forgotten British pioneers."

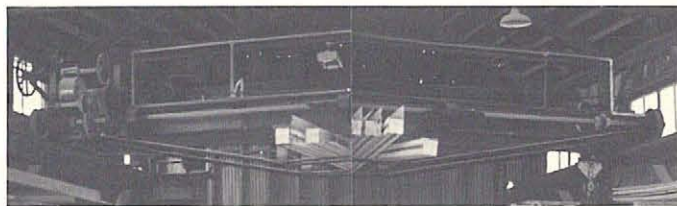
—Nov. 7: "Selling Industry: The Promotion of Industry Through Exhibitions & Museums in the 19th C."

—Nov. 11: "Industrial Archaeology as Archaeology." Considers whether IA is the "handmaiden to history or genuinely part of archaeology."

—Nov. 17: "The Origins of Industrial Housing."

A brochure and booking form for each course will be available about three months prior to date of offering. Info.: Ironbridge Inst., Ironbridge Gorge Museum, Ironbridge, Telford, Shropshire, England TF8 7AW.

NEW NATIONAL REGISTER BULLETINS. The Natl. Park Service announces that draft copies of two Natl. Register of Historic Places bulletins soon will be available for comment. NR Bulletin 30, "How to Evaluate & Register Rural Historic Landscapes," will focus on the procedures for identifying, evaluating, and nominating historically significant rural landscapes. NR Bulletin 36, "How to Evaluate and Nominate Historical Archeological Resources," will advise nomination preparers on documenting the significance and integrity of historical archeological resources. Those interested in providing comments on draft copies of either one should contact NR staff members Linda McClelland regarding Bulletin 30 (202-343-9544) and/or John Knoerl regarding Bulletin 36 (202-343-9518).



A 1920s TRUSSED TRAVELLING CRANE needs a good home. The operating, 10,000-lb.-cap. crane is constructed of two 40-ft.-long, 18-in.-sq. wood beams, each supported by a pair of truss rods. On one end is the wood operator's cab and an electric motor. It was designed to lift gravestones in what originally was a gravestone factory, now converted to a stainless-steel distributing center. Modern equipment has rendered the crane obsolete. If interested, contact Gail N. Jotantos, International Corp., 660 Ramsey Ave., Hillside NJ 07205 (1-800-526-4938 or 201-686-8100).

NMAH EXHIBIT VIDEO. The Natl. Museum of American History is making available the video presentations in its current exhibit, *Engines of Change: The American Industrial Revolution, 1790-1860*. This 25-min. video includes five segments of operating machines: a Blanchard copying lathe, an 1840 John Howe straight-pin machine, and three pre-1860 machine tools. It also includes a movie of the John Bull locomotive running on its sesqui-centennial in 1981, and a seven-minute movie on the course of the industrial revolution from 1860 to 1920. At the end are some 300 still images. The VHS video is \$25 from the Dept. of Public Programs, Rm. BB53, NMAH Smithsonian, Wash. DC 20560.

GOOD INTENTIONS DEPT. What the U.S. Postal Service giveth to IA it also diminisheth. They made a fine effort in 1983 when the Brooklyn Bridge appeared on a commemorative issue. But in the 1988 *Postal Service Guide to U.S. Stamps* (featuring locomotive stamps on its cover), we discover that the Brooklyn Bridge was the work of father and son, "John and Washington Rowling," and that "John Rowling died while supervising the final surveys for the bridge." Maybe the archivists at RPI will get serious about finding those lost Rowling Papers and stop spending so much time on that Roebling stuff.

And who should know better about locomotives than a railroad company, right? Last fall the Burlington Northern began a story in *BN News* with the following time warp: "Puffs of smoke spurt out as the locomotive winds its way through town. Hot, simmering arms shovel coal into a furnace. . . . These are scenes from an era gone by, *before the days of steam engines* . . ."

BN then asked its employees a rhetorical question that must have left a lot of them scratching their heads: "When was the last time you thought about how long the railroad industry has served America?"

PRESERVATION TECHNIQUES, INC., the Phila.-based non-profit group headed by Gersil N. Kay [SIA], adds a for-credit college lecture series to its array of programs stressing the role of trades and crafts in historic preservation. "Profitable Commercial Building Conservation," is sponsored by the General Building Contractors' Assn. at Spring Garden College, 7500 Germantown Ave., Phila, Pa., Feb.-June. The 15 presentations include sessions on installing modern mechanical and electrical systems while retaining historical and structural integrity, audiovisual and lighting systems in old theaters, workable building hardware, structural soundness, restoring lighting fixtures, and restoration case studies of the Rainbow Room in Rockefeller Center and the N.Y. Public Library dome.

Also co-sponsored with General Building Contractors' Assn. is a Historic Preservation Advisory Team which will bring the PTI gospel to apprentice-training schools in the commercial construction industry. PTI's video tapes also are available.

Finally, for a book on the installation of modern mechanical/electrical systems in older commercial/institutional buildings, *Keeping the Architectural Integrity of the Structure*, PTI is interested in hearing about cost-effective preservation work involving heating/ventilation/air conditioning, plumbing, elevators, exterior floodlighting, interior historic lighting, life safety & security systems, low-voltage power systems and power to these systems, and emergency generators. Info.: Gersil N. Kay, PTI, 1924 Arch St., Phila. PA 19103 (215-567-0547).



SOCIETY FOR INDUSTRIAL ARCHEOLOGY NEWSLETTER

PUBLICATIONS OF INTEREST

A SUPPLEMENT TO VOL. 17 NO. 1

SPRING 1988

Compiled by John M. Wickre, Minnesota Historical Society

GENERAL SUBJECTS

Ronald Amann and Julian Cooper, eds., **Technical Progress and Soviet Economic Development**. Basil Blackwell (Oxford and NY), 1986. 222 pp., tables, notes, index. \$45. "... the book suggests that improved innovative performance will require a fundamental transformation in some central behavioral features of the Soviet system," according to review in *Technology and Culture*, Vol. 29, Jan. 1988, pp. 181-183.

Vern L. Bullough, "Technology for the Prevention of 'Les Maladies Produites par la Masturbation'" In *Technology and Culture*, Vol. 28, Oct. 1987, pp. 828-832. American inventive genius meeting the needs of society; comprehensive list of indicators of masturbation (e.g., acne, shifty eyes); notes on patented preventative devices; 3 painful illus.

[Canadian IA] **Preservation Action** (Heritage Canada Foundation newsletter), Vol. 3, Feb. 1988. Incl. notes on Crowsnest Pass region, S.W. Alberta (mining, as well as Head-Smashed-In-Buffalo Jump site), on guilty verdict against CP Rail for the 1982 demolition of its West Toronto RR station without permission (the \$1000 fine will be appealed), and Welland Canals Society plans for restoration / development of the 1829-1932 canals vicinity (Niagara region). Avail.: P.O. Box 1358, Station B, Ottawa, Ontario, K1P 5R4.

T.J. Clark, **The Painting of Modern Life: Paris in the Art of Manet and His Followers**. Princeton Univ. Pr. (Princeton, NJ), 1984. 338 pp. "The Impressionists were uneasy in the presence of hard physical labor, and they were eager enough to include factories in their landscapes but not the workmen at their trades." Quote from rev. in *J. of Social History*, Vol. 21, Winter 1987, pp. 392-394.

David Dary, **Entrepreneurs of the Old West**. Knopf (New York), 1986. 377 pp., illus., tables, notes, bibliog., index. \$23. Incl. wagon freighters, railroadmen, and miners; mostly Great Plains and S.W. regions. Rev.: *Western Hist. Quarterly*, Jan. 1988, pp. 63-64.

["Engineering, Science, and/or Engineering Science?"] A "controversy" of articles in *Technology and Culture*, Vol. 29, Jan. 1988: Michael Fores, "Transformation and the Myth of 'Engineering Science': Magic in a White Coat," pp. 62-81, attacking the concept of engineering science; with replies by Edwin T. Layton, "Science as a Form of Action: The Role of the Engineering Sciences," pp. 82-97, and David F. Channell, "Engineering Science as Theory and Practice," pp. 98-103.

Karen J. Freeze and James C. Williams, "Technology and Technical Sciences in History—ICOHTEC Symposium, Dresden, Aug. 25-29, 1986." In *Technology and Culture*, Vol. 28, Oct. 1987, pp. 842-849. Conference report on the 12th symposium of the Intl. Committee for the Hist. of Technology; incl. chemical, electrical, semiconductor, textile industries; theoretical vs. practical education in science and engineering; tours of Meissen porcelain works, steamboat excursion with look at boat's engines, visits to indigo cloth factory and granite quarry in Oberslausitz region.

Ian A. Glover and Michael P. Kelly, **Engineers in Britain: A Sociological Study of the Engineering Dimension**. Allen & Unwin (London), 1987. 269 pp. The current status of engineering in Britain and its social and historical background. The central theme: the tragic irony that while engineers are pivotal in the productive and mfg. structure of GB, they tend to be at the margins of economic and political decision making, organizationally and nationally.

R.M.V.

Barton C. Hacker and Sally L. Hacker, "Military Institutions and the Labor Process: Noneconomic Sources of Technological Change, Women's Subordination, and the Organization of Work." In *Technology and Culture*, Vol. 28, Oct. 1987, pp. 743-775. Interaction between military and other social institutions; the "structure and operation of the modern industrial state can be properly understood only in terms of its military antecedents."

[Henry Ford Museum / Greenfield Village / Edison Institute, Dearborn, Mich.]. Reviews in *Technology and Culture*, Vol. 29, Jan. 1988:

—John M. Staudenmaier, "The Giant Wakens: Revising Henry Ford's History Book," pp. 118-124.

—Charles K. Hyde [SIA], "Streamlining America, An Exhibit at the Henry Ford Museum, Dearborn, Mich.," pp. 125-129. Exhibit covers 1930s-1950s period.

Fannia Weingartner, ed., **Streamlining America: A Henry Ford Museum Exhibit**. Henry Ford Museum and Greenfield Village (Dearborn, Mich.), 1986. 100 pp., illus., bibliog. \$22 pap. Exhibit catalog. Rev.: pp. 174-175.

Brooke Hindle and Stephen Lubar [both SIA], **Engines of Change: The American Industrial Revolution, 1790-1860**. Smithsonian Institution Pr. (Washington, DC), 1986. 309 pp., illus., bibliog., index. \$35/15 pap. Related to an exhibition of the same name at the Smithsonian's National Museum of American History. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 151-152.

[Irrigation in Idaho]. A special issue of *Idaho Yesterdays*, Vol. 30, Spring/Summer 1986. 76 pp. 10 articles; Snake River Valley, 1880s-present, incl. historical overview; some hist. photos of dams, electrical power structures, incl. Deer Flat Reservoir embankments [c1906; NR!]; no useful map.

M.R. Jackson, "Industrial Output in Romania and the Historical Regions, 1880-1930." In *J. of European Economic Hist.*, Vol. 15, Spring 1986, pp. 59-111, and Fall 1986, pp. 231-257.

Thomas E. Jeffrey, ed., **A Guide to Thomas A. Edison Papers: a Selective Microfilm Edition. Part 1 (1850-1878)**. Univ. Publications of Amer. (Frederick, MD), 1985. 125 pp., indexes to authors and recipients, technical notes and drawings, and financial documents. \$25. With 28 reels of microfilm, \$1650. The first of a projected 6-part microfilm ed. Corresp., notebooks, scrapbooks, etc., mostly related to work on telegraph. Rev.: *Business History Rev.*, Summer 1986, pp. 304-306.

Angela John, ed., **Unequal Opportunities: Women's Employment in England, 1800-1918**. Basil Blackwell (New York), 1986. \$15 pap. Incl. domestic service in Rochdale; West Riding textile trade unions. Rev.: *J. of Social History*, Vol. 21, Winter 1987, pp. 368-369.

Michael Kazin, **Barons of Labor: The San Francisco Building Trades and Union Power in the Progressive Era**. Univ. of Ill. Pr. (Urbana), 1987. 333 pp., illus., map, charts, table, appendixes, notes, index. \$25. Rev.: *Western Hist. Quarterly*, Jan. 1988, pp. 85.

Randolph S. Klein, ed., **Science and Society in Early America: Essays in Honor of Whitfield J. Bell, Jr.** Amer. Philosophical Soc. (Philadelphia), 1986. 426 pp., illus., notes, index. \$30. Essays included: Edward Carter, on Benjamin Benjamin H. Latrobe's efforts to establish himself as a professional engineer-scientist; Thomas Cochran, on Philadelphia mills and machine shops as the cradle of the Industrial Revolution in America; and Brooke Hindle, answering Cochran, on American industrial development based on technology transfer from England. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 149-150.

Yves Lequin, ed. **Histoire des Français XIXe-XXe siècles**. Armand Colin (Paris), 1984. 3 vol., 1733 pp. Vol. 2, 1880-1940, includes essays by Louis Bergeron, on northern textile entrepreneurs, and Henri Morsel, on family connections between industrialists and "elite-trained engineers." Rev.: *J. of Social History*, Vol. 21, Winter 1987, pp. 390-392.

D. Lindenlaub, **Maschinenbau-unternehmen in der deutschen inflation 1919-1923**. Walter de Gruyter (Berlin / NY), 1985. 274 pp. Incl. production and managerial strategies in the German engineering industry.

Alan Macfarlane, **Marriage and Love in England, 1300-1840**. Basil Blackwell (Oxford and New York), 1986. 396 pp. Suggests that "it was not the Industrial Revolution which created the nuclear family, but rather the pattern of family life which led to capital formation and ultimately, to industrialization." Quote from rev. in *J. of Social Hist.* 21, Winter 1987, pp. 365-368.

Gary Wray McDonough, **Good Families of Barcelona: A Social History of Power in the Industrial Era**. Princeton Univ. Pr. (Princeton, NJ), 1986. 277 pp. Rev.: *J. of Social Hist.*, Vol. 21, Winter 1987, pp. 386-388. "The modern Catalan economic oligarchy was the first major modernizing elite to emerge in Spain, leading a process of industrialization that made Catalonia the first generally modern . . . part of the peninsula."

Harold A. Meeks, **Time and Change in Vermont: A Human Geography**. Globe Pequot Pr. (Chester, CT), 1986. 367 pp., illus., maps, tables, bibliog., index. \$12. Incl. Revolutionary War military roads, Bellows Falls and other canals, RRs, mfg.

Conrad Milster, **The Engine House**. Periodical column in *Live Steam* (Box 629, Traverse City, MI 49685), 1986-present. Essays on his visits to stationary steam engines in pumping stations, mills, and factories, U.S. and U.K. Apr. 1988 column, for example, includes discussion and illus. of the "Kew 90," a 90-in. bore by 11-ft. stroke Cornish engine at the Kew Bridge Steam Museum.

P.K. O'Brien, "Do We Have a Typology for the Study of European Industrialization in the XIXth Century?" In *J. of European Economic Hist.*, Vol. 15, Fall 1986, pp. 291-333. Distinguishes three basic varieties of economic studies: "the heavy clarets of scholarly surveys, the bubbly champagne of studies purporting to test grand theories of economic development and the dry whites of an inductive statistical approach." Advocates the production of more good dry whites.

Carlos Schwantes, "Patterns of Radicalism on the Wagerworkers Frontier." In *Idaho Yesterdays*, Vol. 30, Fall 1986, pp. 25-30. Labor on the U.S. western frontier, c1850-1920s; argues that western workers consciously resisted being reduced "to the servile status they perceived to be the lot of eastern labor." Noted in *J. of Forest Hist.*, Apr. 1988.

Darwin H. Stapleton with Roger Shumaker, **The History of Civil Engineering Since 1600: An Annotated Bibliography**. Garland (NY), 1986. 265 pp., index. \$40. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 145-146.

Carlene Stephens, "Time: the Greatest Innovator," an Exhibition at the Folger Shakespeare Library, Washington, D.C." Exhibit rev. in *Technology and Culture*, Vol. 28, Oct. 1987, pp. 833-838. Engravings from the Folger, with 16 Renaissance clocks and watches from the Time Museum, Rockford, Ill. Excellent exhibit catalog, 116 pp., avail. from the Folger (Dept. of Public Programs, Folger Shakespeare Library, 201 E. Capitol St., S.E., Washington DC 20003, pap., \$14).

Larry Thompson, **Montana's Explorers: the Pioneer Naturalists, 1805-1864**. Montana Magazine, Inc. (Helena), 1985. 109 pp., illus., maps, bibliog. \$14 pap. Incl. railroad surveyors and U.S.-Canadian boundary surveyors.

Raymond R. Townsend, "Blasting Tools and Accessories." In *Fine Tool J.*, Vol. 36, Mar.-Apr. 1988, pp. 7-9. Illus. Other short illus. articles in same issue on parallel rules and on griddle plates and griddles.

Peter Whalley, **The Social Production of Technical Work: The Case of British Engineers**. State Univ. of NY Pr. (Albany), 1986. 251 pp., tables, notes, appendix, bibliog., index. \$30. Engineers in modern industry and society; study of two anonymous firms. ". . . long on jargon and short on historical analysis," according to review in *Technology and Culture*, Vol. 29, Jan. 1988, pp. 179-180.

Michael Welsh, **U.S. Army Corps of Engineers: Albuquerque District, 1935-1985**. Univ. of NM Pr. (Albuquerque), 1987. 274 pp., illus., footnotes, bibliog., index. \$23. Incl. Rio Grande and Pecos rivers.

Edward V. Williams, **The Bells of Russia: History and Technology**. Princeton Univ. Pr. (Princeton NJ), 1985. 295 pp., illus., tables, notes, glossary, appendixes, bibliog., index. Bronze bells, 11th-C to the end of Russian bell founding in 1917, incl. problems of founding (coordinating pours of up to 6 tons/minute), raising (bells of over 100 tons to heights of 100-200 feet), and tuning (through mold design and mechanical cutting). Rev.: *Technology and Culture*, Vol. 28, Oct. 1987, pp. 853-854.

Trevor I. Williams, **The History of Invention: From Stone Axes to Silicon Chips**. Facts on File Publications (New York, NY, and Oxford, England), 1987. 352 pp., illus. (many color), biog. dictionary, bibliography, index. By the editor of the 8-vol. *History of Technology*.

A. P. Woolrich, **Industrial Spies**: two books published by De Archaeologische Pers (Zeelsterstraat 147, NL-5652 EE Eindhoven, Netherlands), 1986, reviewed together in *Technology and Culture*, Vol. 29, Jan. 1988, pp. 146-148:

—**Mechanical Arts & Merchandise: Industrial Espionage and Travellers' Accounts as a Source for Technical Historians**. By A. P. Woolrich. 160 pp., illus., notes, appendixes, bibliog. Fl 27.50/20 pap.

—**Ferrner's Journal 1759/1760: An Industrial Spy in Bath and Bristol**. Edited by A. P. Woolrich. Translated by A. den Ouden. 59 pp., illus., notes, index. Fl 7.50 pap.

Daniel Alan Wren, **White Collar Hobo: the Travels of Whiting Williams**. Iowa State Univ. Pr. (Ames), 1987. 166 pp., illus., \$17. Biog. of a prosperous Ohio businessman who joined the ranks of blue-collar workers and became a pioneer in the study of industrial and labor relations. Focuses on Williams' travels in the 1920s and 1930s in the U.S., Gt. Britain, France, Germany and Russia.

FOREST INDUSTRIES

David N. Bengston, et al, "Seesawing Across the Forty-ninth Parallel: The International Diffusion of a Wood-Based Technology." In *J. of Forest Hist.*, Vol. 32, Apr. 1988, pp. 82-88. Structural particleboard (waferboard and oriented strandboard) developed in U.S. in 1950s to utilize lumber species previously considered unusable; first commercialized in Canada in 1960s and in then in U.S. beginning in 1970s; now spreading to Europe and Asia.

Bill Carson, "The Lombard Log Haulers" and "The Lombard Patents." In *Timberbeast*, Vol. 5, Summer 1986, pp. 8-11, 12-13. Tracked vehicle, invented c1901-05, mfd. in ME, c1905-30s.

William T. Childers, **Echoes from the Millpond: A Brief History of the Louisiana Central Lumber Co., Clarks, La., 1902-1953**. Caldwell Parish Library (Columbia, La.), 1987. 160 pp., illus., appendix, footnotes, bibliog. \$12.

Ben Crookshanks, "The Meadow River Lumber Co." In *Northern Logger*, Vol. 36, Aug. 1987, pp. 16-17, 28-30. Ohio R. watershed, 1906-70; built world's largest hardwood sawmill, Greenbriar County, W.Va.

Dan Downing, "Finkbine-Guild and Rockport." In *Timberbeast*, Vol. 4, Fall-Winter 1985, pp. 18-23. Sawmills and lumberyards, northern Calif., 1875-1970s.

Robert E. Ficken, **The Forested Land: A History of Lumbering in Western Wash.** Univ. of Wash. Pr. (Seattle), 1987. 339 pp., illus., map, footnotes, bibliog., index. \$25. Economic history; early 1800s-1930s.

Dennis Joos, "Wild Rides." In *New Hampshire Profiles*, Vol. 35, July 1986, pp. 28-31. Northern N.H. log drives.

Douglas McCalla, "Forest Products and Upper Canadian Development, 1815-46." In *Canadian Hist. Rev.*, Vol. 58, June 1987, pp. 159-198. Quebec/Ontario; incl. timber, barrel staves, potash. Quantitative hist.

Robert Kuhn McGregor, "Changing Technologies and Forest Consumption in the Upper Delaware Valley, 1790-1880." In *J. of Forest Hist.*, Vol. 32, Apr. 1988, pp. 69-81. Mostly 1840s-1850s; change from water- to steam-powered sawmills; effect of tanneries (consumers of hemlock bark), plank roads and railways on deforestation.

John Muir, "Shake-Making in Southern Oregon — 1897." In *The Chronicle of the Early American Industries Assn.*, Vol. 40, June 1987, pp. 33-34. Reprint of an 1897 article in *American Forests*.

Jussi Raumolin, "Recent Trends in the Development of the Forest Sector in Finland and Eastern Canada." In *Zeitschrift der Gesellschaft für Kanada-Studien*, Vol. 11, pp. 89-114. 1920-80.

Keith C. Peterson, **Company Town: Potlatch, Idaho, and the Potlatch Lumber Co.** Wash. St. Univ. Pr. (Pullman), 1987. 303 pp., illus., maps, footnotes, bibliog., index. \$25/15 pap. Sawmill on Paulouse River; logging from 1870s to 1957, when town became self-governing.

Timberbeast, Vols. 4 and 5. Summer 1985: incl. articles on donkey engines, Sugar Pine Door and Lumber Co. (Grant's Pass, OR), Elk River Mill and Lumber Co. (Arcata, Calif.) redwood sawmill and "Falk" gypsy locomotive. Fall-Winter 1985: cable locomotives. Spring 1986: donkey engines, Ohio Loggers' Special log-loading crane. Summer 1986: Dolbeer 1880s stationary steam engine used in yarding logs. See also Carson and Downing, this section.

Alice H. Ulrich, **U.S. Timber Production, Trade, Consumption, and Price Statistics, 1950-1985**. U.S. GPO (Washington, DC), 1987. 86 pp., tables, graphs, maps, bibliog. Incl. logs, plywood, particleboard, pulp, paper.

James A. Young and Jerry D. Budy, **"Adaptation of Tracklaying Tractors for Forest Road and Trail Construction."** In *J. of Forest Hist.*, Vol. 31, July 1987, pp. 122-132. Use of bulldozer blades on tracklayers, primarily for logging road construction, W. U.S., c1920s-30s.

TRANSPORT

Edward N. Akin, **Flagler: Rockefeller Partner and Florida Baron**. Kent St. Univ. Pr. (Kent, OH), 1988. 306 pp., slightly illus. Co-founder of Standard Oil, inventor of Florida (as a resort region), builder of the Key West extension of the Florida East Coast Ry. Good, scholarly biography of a real bird. *R.M.V.*

E. E. Bauer, **China Takes Off: Technology Transfer and Modernization**. Univ. of WA Pr. (Seattle), 1986. 246 pp., illus., notes. \$20. A personal account of Boeing's customer support manager, 1980-1984, in overseeing the modernization of China's commercial aircraft fleet, incl. jet engine repair. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 180-181.

Brian Bond, **"The Fugate Lumber Companies."** In *Narrow Gauge and Shortline Gazette*, Vol. 13, July/Aug. 1987, pp.52-54. VA and TN logging railroads, 1902-1931.

Erin Christensen, **"Lifelines: The Story of Colorado's Public Road."** In *Colorado Heritage*, Number 3, 1987.

Rod Crossley, **"California Railway Post Office Monograph, Part VI: Main Lines in California."** In *LaPosta*, Vol. 18, June-July 1987.

Francois Cadieux, **"Western Technology and Early Russian Pipelines, 1877-1917."** In *J. of European Economic Hist.*, Vol. 15, Fall 1986, pp. 335-344. Kerosene pipeline from Baku oilfields to Batum on the Black Sea, 883 km., built 1892-1906. On its completion the longest and most technologically advanced in the world, its 200mm pipes used U.S. pipethreading technology and Worthington pumps to provide a rated capacity of 215,000 poods of kerosene per day (900,000 tonnes/year).

J.H. Coatsworth, **Growth against Economic Development: the Economic Impact of Railroads in Porfirian Mexico**. Northern IL Univ. Pr. (DeKalb, IL), 1981. 262 pp., tables, figures, maps, bibliog., index. 1876-1910 period. Rev.: *J. of European Economic Hist.*, Vol. 15, Spring 1986, pp. 197-199.

Susan Danly and Leo Marx, **The Railroad in American Art: Representations of Technological Change**. MIT Pr. (Cambridge, MA), 1988. Illus. (some color). \$35.

William D. Edson, **"Research Note: The Interstate Commerce Commission Valuation Records on Railroads."** In *Railroad History*, Bulletin 157, pp. 116-118. Printed materials and archival records of the 1913-1919 property evaluation project; incl. data on track, structures and equipment.

William D. Edson, **"Steam Locomotives of the Mobile & Ohio."** In *Railroad History*, Bulletin 157, pp. 85-111. Roster and history, 1851-1910; RR from Mobile, AL, to St. Louis, MO.

Vernon J. Glover and Joseph P. Hereford, Jr., **Zuni Mountain Railroads, Cibola National Forest, New Mexico**. Hist. Soc. of N.M. (Albuquerque), 1987. Cultural Resources Management Report No. 6. 92 pp., illus., tables, maps, bibliog. \$7 pap. North-central N.M., mostly logging RRs, 1890-1940.

H. Roger Grant, ed., **"Building the Kansas Pacific Rwy.: The Letters of Charles M. Knight, 1869-1870."** In *Kansas Hist.*, Vol. 10, Summer 1987.

[Henry Ford Museum and Greenfield Museum automobile collections]. Three notes in *Motor Trend*, June 1988: "The Smithsonian of the West[!]," exhibition review of "The Automobile in American Life," pp. 108; research services, pp. 120; Henry Austin Clark library collection ("largest private automotive collection in the world"), incl. periodicals, brochures, catalogs, 1,000,000+ auto photos, 500,000+ Mack truck photos, pp. 121. Museum address: Box 1970, Dearborn MI 48121.

George Hilton, **"The Well Known Narrow Gauge Railway Champion: Colonel Edward Hulburt of Georgia."** In *Railroad History*, Bulletin 157, pp. 16-44. National advocate of narrow-gauge RRs, 1870s.

Eric Hirsimaki and John B. Corns, **"The Universal Backshop."** In *Trains*, January 1988, pp. 42-49. Steam locomotive repair business, 1921-1923 (a time of RR shop crafts strikes) of Morgan Engineering Co., Alliance, Oh., a mfr. of machinery, overhead cranes and heavy ordnance. Incl. descr. of repair process.

Roger Ingbreetsen, **"Pend Oreille Railroad."** In *Mainline Modeler*, Apr. 1988, pp. 52-54. A diesel trip on Pend Oreille Valley RR Co. (ex Idaho, Washington & Northern / Milwaukee Road / Kyle Industries, now operated by Port of Pend Oreille) in N.E. Wash. pulling cement hoppers from the Lehigh Cement Plant.

Steven Lubar [SIA], **"Promoting the Hudson River Railroad."** In *Railroad History*, Bulletin 157, pp. 55-63. Justifying construction of a line from N.Y. City to Albany, 1840s; cultural, social and psychological factors, as well as economic and engineering considerations.

Merrill J. Mattes, **The Great Platte River Road: The Covered Wagon Mainline via Fort Kearney to Fort Laramie**. Univ. of Neb. Pr. (Lincoln), 1987? 640 pp., illus., maps, bibliog., index. \$35/15 pap.

Emilia Gay Means, **"East Texas and the Transcontinental Railroad."** In *East Texas Hist. J.*, Vol. 25, No. 2, 1987.

Claus-M. Naske, **Paving Alaska's Trails: The Work of the Alaska Road Commission**. Univ. Pr. of Amer. (Lanham, Md.), 1986. 350 pp., illus., maps, chart, tables, appendixes, notes, index. \$47/\$35 pap. "Minutiae," 1905-1950s. Rev.: *Western Hist. Quarterly*, Jan. 1988, pp. 89-90.

19th-C American Carriages: Their Manufacture, Decoration and Use. The Museums at Stony Brook (1208 Route 25A, Stony Brook, NY 11790), 1987. 174 pp., illus. (some color), footnotes. Five essays, incl. Joanne Abel Goldman, "From Carriage Shop to Carriage Factory; the Effect of Industrialization on the Process of Manufacturing Carriages," (pp. 9-33); other essays on painting and aesthetics, relationship between horses and carriages, and horse-drawn vehicles in N.Y. state and on Long Island.

William W. O'Gara, **"Foster's and Nobody Else's: the N.C. Foster Enterprises**. Mid-Continent Rwy. Historical Soc. (P.O. Box 55, North Freedom WI 53951), 1988. 72 pp., maps, photos, illus., end notes, bibliog., financial summaries, locomotive roster, inventory of RR property, index. \$9. W. central WI lumber, land and railroad, incl. Fairchild & North-Eastern Rwy. Co., 1878-1930. The 65-mi. F&NE was the shortest RR to be taken over by the U.S. RR Admin. in WWI.

David J. St. Clair, **The Motorization of American Cities**. Praeger (NY), 1986. 203 pp., tables, notes, appendix, index. \$33. Auto industry "social entrepreneurship" using influence and lobbying to help shape cities around personal transportation. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 169-170.

Roy V. Scott, **Railroad Development Programs in the Twentieth Century**. Iowa State Univ. Pr. (Ames), 1986. 231 pp. Agricultural and industrial (mfg., mining, lumber) development, c1890s-1950. Study based on primary printed materials but not on RR company archives. Rev.: *Business History Rev.*, Summer 1986, pp. 303-304.

John R. Stevens, **"A Piece of the True Cross: The Derby Horse Railway's 'Electrical Line Motor' of 1888."** In *Railroad History*, Bulletin 157, pp. 65-84. History and reconstruction of the only complete, operable, full-size locomotive from the developmental period of railway electrification, 1879-88, now in operation at the Shore Line [formerly Branford] Trolley Museum, CT.

STRUCTURE

Mardges Bacon, **Ernest Flag: Beaux-Arts Architect and Urban Reformer**. MIT Pr. (Cambridge, Mass.) and Architectural Hist. Foundation (NY), 1986. 418 pp., illus, notes, index. \$40. Weak in its treatment of the structural engineering of Flag's buildings. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 165-167.

T. Lindsay Baker, **Ghost Towns of Texas**. Univ. of Okla. Pr. (Norman), 1986. 206 pp., illus., map, bibliog. \$25. RR, mining, and oil towns among 300 towns described. Rev.: *Western Hist. Quarterly*, Jan. 1988, pp. 91-92.

Judit Brody, **"The Széchenyi Chain Bridge at Budapest."** In *Technology and Culture*, Vol. 29, Jan. 1988, pp. 104-117. Suspension bridge (666-ft. central span and 5,000+ chain links) and its role in hastening social reforms in Hungary; promoted from 1832 by Count Szechenyi, and constructed 1839-49, by English engineers William Tierney Clark, designer and contractor, and William Clark, resident engineer. The retreating German Army blew up the bridge in 1945, but it was reconstructed for its centenary in 1949 and remains a Budapest landmark.

F. Piola Caselli, **Un Cantiere Navale del Trecento**. Giuffré (Milan), 1984. 189 pp. A detailed look at galley construction processes in the Narbonne shipyard, 1318. Rev.: *J. of European Economic Hist.*, Vol. 15, Spring 1986.

Sandra Dallas, **Colorado Homes**. Univ. of Oklahoma Pr. (Norman, OK), 1986. 271 pp., illus., bibliog., index. \$43. "Where's the best old house in town?" style of research, from cliff dwellings to mining ghost towns and recent mansions. Rev.: *Western Hist. Quarterly*, Jan. 1988, pp. 90-91.

Karl Guroke, **Bricks and Brickmaking: A Handbook for Historical Archaeology**. Univ. of ID Pr. (Moscow 83843), 1987. 326 pp., illus. Good account of the importation of British firebrick to the northwestern U.S.; the various methods of making and firing brick; and an extensive list of brick "brands" and the firms they represent. Very useful. *R.M.V.*

Steve Hall, **Fort Snelling: Colossus of the Wilderness**. Minn. Hist. Soc. Pr. (St. Paul), 1987. 44 pp., illus., maps, bibliog. \$6 pap. 1820s stone fort, Minneapolis / St. Paul; incl. reconstruction, 1960s-1980s.

National Register of Historic Places. Chadwyck-Healey, Inc. (1021 Prince St., Alexandria, Va. 22314), 1984. 6497 microfiches. \$9500. Incl. 150,000 photos and 130,000 pages of text describing 27,000 properties listed through 1982 in the U.S. and its territories. Internal finding aid only (no paper index). Selected parts avail. by state (varying from \$160 for Nevada to \$1565 for Ohio). Rev.: *Microform Rev.*, Vol. 16, Fall 1987, pp. 354-356.

Simon Pepper and Nicolas Adams, **Firearms and Fortifications: Military Architecture and Siege Warfare in 16th-C Siena**. Univ. of Chicago Pr. (Chicago, Ill.), 1986. 269 pp., illus., notes, bibliog., index. \$25. Central Italy. Rev., *Technology and Culture*, Vol. 29, Jan. 1988, pp. 138-139, notes that there is "too much on bricks and mortar."

[Shelburne Museum, Shelburne, Vt.] A series of illus. articles in *The Magazine Antiques*, Vol. CXXXIII, Feb. 1988, pp. 429-493. The museum, two miles inland from Lake Champlain, preserves a number of structures moved from other locations, including a 1901 round barn, 1890 Robert H. Robertson RR station, 1845 covered bridge, and 1871 Colchester Lighthouse, as well as the 220-ft.-long *Ticonderoga* paddlewheel steamboat built in 1906.

William F. Willingham, **Water Power in the "Wilderness": the History of Bonneville Lock and Dam**. U.S. Army Corps of Engineers, Portland District (Ore.), 1988? 73 pp., illus. The first "New Deal" dam on the Columbia River (1938), incl. construction technology.

MISC. INDUSTRIES

Harriet E. Amos, **Cotton City: Urban Development in Antebellum Mobile**. Univ. of Alabama Pr. (University, Ala.), 1985. 311 pp. \$30. Rev.: *J. of Social History*, Vol. 21, Winter 1987, pp. 354-357.

Gavin Bridson and Geoffrey Wakeman, **Printmaking & Picture Printing: A Bibliographical Guide to Artistic & Industrial Techniques in Britain 1750-1900**. The Bookpress Ltd. (Williamsburg, Va.) and The Plough Press (Oxford, England), 1984. 250 pp., index of processes, patent names, equipment and materials. \$55. "A thoroughly useful and necessary work." Rev.: *The Papers of the Bibliographical Soc. of Amer.*, Vol. 81, Sept. 1987, pp. 381.

Bob Carlson, **"A Short History of the Long Battle for Sewalls Falls."** In *Forest Notes* 169, Summer 1987, pp. 5-9. Merrimack River, N.H.; industrial use vs. fish runs, 1860s-1984.

Patricia A. Cooper, **Once a Cigar Maker: Men, Women and Work Culture in American Cigar Factories, 1900-1919**. Univ. of Ill. Pr. (Urbana), 1987. 366 pp. \$30. E. and Midwest U.S., esp. Detroit and S.E. Pa.; transition to mechanized work; Cigar Makers' Intl. Union hostility to women in the union. Rev.: *J. of Social Hist.*, Vol. 22, Spring 1988, pp. 604-606.

Judith Cressy, **"Elements of the Carolinas."** *Art & Antiques*, Feb. 1988, pp. 74-76. Illus. Charleston (S.C.) silver and Salem (N.C.) pottery, incl. description of mfg. process for Moravian redware pottery.

P. Kriedte, **"Demographic and Economic Rhythms: the Rise of the Silk Industry in Krefeld in the XVIIIth Century."** In *J. of European Economic Hist.*, Vol. 15, Fall 1986, pp. 259-289. German city, dominated economically by Mennonites: transition from linen to silk mfr.

A Fuller Life; the Story of the H. B. Fuller Co., 1887-1987. H. B. Fuller Co. (St. Paul, Minn.), c1986. 199 pp., illus., chronology, index. Harvey Fuller's firm from kitchen mfr. of wallpaper paste and cleaner to international producer of industrial adhesives.

Sheldon Hochheiser, **Rohm and Haas: History of a Chemical Company**. Univ. of Pa. Pr. (Philadelphia), 1986. 246 pp., illus., notes, appendixes, bibliog., index. \$20. Philadelphia-based company with mfg. throughout U.S., Europe, and South America, c1910-85. Incl. leather tanning, acrylic polymers, Plexiglas, agricultural chemicals, synthetic fibers. Much more than the usual company-sponsored history. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 156-157.

John Andrew Kutzman, **"Death of a Small Business: the Missoula Brewing Co."** In *Montana: the Magazine of Western History*, Vol. 38, Winter 1988, pp. 54-61. Mfr. of "Highlander" beer, 1933-1964.

David E. Lundstrom, **A Few Good Men from Univac**. MIT Press (Cambridge, Mass., and London, England), 1987. A "personal reminiscence" and inside look at computer design and mfr. at Sperry Rand and Control Data Corp. in St. Paul/Minneapolis, 1955-1985.

Gerald Lynch, **Roughnecks, Drillers, and Tool Pushers: Thirty-three Years in the Oil Fields**. Univ. of Texas Pr. (Austin), 1987? \$17.

Christine MacLeod, **"Accident or Design? George Ravenscroft's Patent and the Invention of Lead-Crystal Glass."** In *Technology and Culture*, Vol. 28, Oct. 1987, pp. 776-803. 17th-C English patent system and glassmaking technology; R as patentee and merchant-financier, not "inventor."

Gail Fowler Mohanty, **"The Sewing Machine—The Queen of Inventions, an Exhibition at Slater Mill Historic Site, Pawtucket, R.I."** Exhibit rev. in *Technology and Culture*, Vol. 28, Oct. 1987, pp. 839-41. Sewing machines in U.S. homes and factories, 1850-1920.

Gail Fowler Mohanty, **"Experimentation in Textile Technology, 1788-1790, and Its Impact on Handloom Weaving and Weavers in Rhode Island."** In *Technology and Culture*, Vol. 29, Jan. 1988, pp. 1-31. Craft resistance to changes in work, esp. at firm of Brown and Almy, Providence, R.I.

Andrea I. Paul, **"The Sheldon Mfg. Co. of Newhawa."** In *Nebraska Hist.*, Vol. 68 (Fall 1987), pp. 104-111. Mfr., mostly c1913-23, of the Newhawa Batch Concrete Mixer, a small gas-engine powered machine for farmers. Incl. illus. of machines, factory, adv. materials.

Charles H. Savage, Jr., and George F. F. Lombard, **Sons of the Machine: Case Studies of Social Change in the Workplace**. MIT Pr. (Cambridge, Mass.), 1986. 329 pp., illus., tables, notes, glossary, appendixes, bibliog., index. \$25. Workplace relationships, Colombia, early 1960s: pottery works at Santuario and La Blanca, and a tailoring factory in Medellin. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 177-178.

Harley Shaiken, **"High Tech Goes Third World."** In *Technology Review*, Vol. 91 (Jan. 1988), pp. 38-47. Automated auto engine mfg. process at a "Universal Motors" plant in "Verde," N. Mexico (real names changed to protect the guilty). Transfer-line technology; "U.S. managers, European technology, Japanese mfg. systems, Mexican workers;" \$250 million plant capable of producing 400,000 engines/year with 1100 workers; management flexibility gained at expense of high training costs for inexperienced workers.

Gerald M. Sider, **Culture and Class in Anthropology and History: a Newfoundland Illustration**. Cambridge Studies in Social Anthropology, 60. Edition des Sciences de l'Homme (Paris) and Cambridge Univ. Pr. (Cambridge), 1986. 216 pp. \$37.50. Illus. Fisheries. Rev.: *J. of Social Hist.*, Vol. 21, Winter 1987, pp. 349-350.

MATERIALS

Stanley Dempsey and James E. Fell, Jr., **Mining the Summit: Colorado's Ten Mile District, 1860-1960**. Univ. of Oklahoma Pr. (Norman, Okla.), 1986. 320 pp., illus., maps, notes, bibliog., index. \$20. Gold / silver / molybdenum mining. Rev.: *Western Hist. Quarterly*, Jan. 1988, pp. 71.

Eugenia W. Herbert, **Red Gold of Africa: Copper in Precolonial History and Culture**. Univ. of WI Pr. (Madison), 1984. 436 pp., illus., maps, tables, notes, bibliog., index. \$35. Rev.: *Technology and Culture*, Vol. 29, Jan. 1988, pp. 130-33.

S.H.F. Hickey, **Workers in Imperial Germany: The Miners of the Ruhr**. Oxford Univ. Pr. (N.Y.), 1985. 344 pp. \$40. Coal mining; religious, ethnic, social and political barriers to labor solidarity. Rev.: *J. of Social History*, Vol. 21, Winter 1987, pp. 379-380.

William D. Walters, Jr., **"The American Shale Paver: its Origin, Evolution and Role in Landscape Preservation."** In *P.A.S.T.* (Pioneer America Society Transactions), Vol. 10, 1987, pp. 59-65. Vitrified paving bricks mfd. from crushed shale, c1885-1920s.

Norman M. Wickstrand, **"Notes and Sketches of Conn. Blast Furnaces."** In *Conn. Hist. Soc. Bull.*, Vol. 51, Summer 1986, pp. c132-191+. Conn. iron making.



Readers are urged to send all notices of pertinent publications to John M. Wickre, Minnesota Historical Society, 1500 Mississippi St., St. Paul MN 55101 (612-296-6980).

Ralston Crawford's 'Steel Foundry, Coatesville, Pa.'

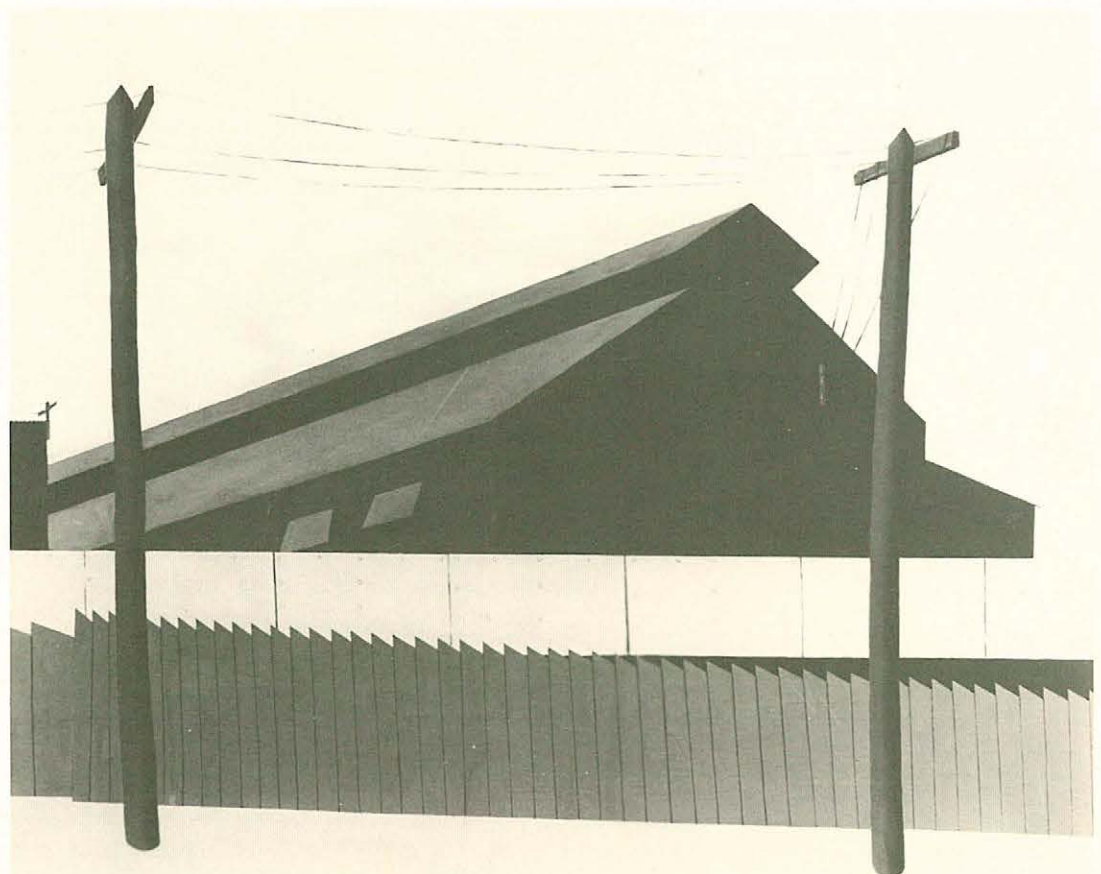
The American artist Ralston Crawford (1906-78) seems to have been peculiarly destined in his choice of a particular subject matter. The son of a ship captain who grew up in several towns on the Great Lakes and in Buffalo, his youthful memories of the structures related to maritime industries—shipyards, cargo vessels, drydocks, and grain elevators—strongly affected his later choice of theme and even style.

Crawford's desire for art training brought him to Phila., where he studied during the late 1920s, a period in which Pa. themes first appear in his work. He moved to N.Y.C. in 1931, but returned to Pa. in 1935, settling in Exton, where he spent the next four years. It was a productive time for him during which he achieved his mature style.

During his Exton sojourn, Crawford painted *Steel Foundry, Coatesville, Pa.* (1936-37), one of two works inspired by the Lukens Steel Co. buildings in Coatesville, not far from Exton. There had been a mill on the site as early as 1810 and Lukens was one of the oldest in the state. Earlier, the mill structures had been the subject of Lancaster artist Charles Demuth in his *End of the Parade* (1920, now at Regis Corp., Minneapolis) and *Incense of a New Church* (1921, Columbus Museum of Art).

In Crawford's painting, the pale blue sky sprinkled with white fluffy clouds provides a striking contrast to the starkly simple green and black shapes of one of the complex's buildings. The structure looms over two fences, one of smooth grey metal and the other of jagged brown wood. In front of these, two telephone poles have been placed on a beige ground. The shapes are at once lively and ominous, and the scene exhibits the combination of realism and abstraction characteristic of the Precisionist style, first manifested in the 1920s work of Pennsylvanians Charles Sheeler, Charles Demuth, and others.

While some artists were inspired by industrial structures because of



Steel Foundry, Coatesville, Pa., painted 1936-37 by Ralston Crawford. Oil, 32" x 40". Collection of Whitney Museum of American Art, New York.

their plain, aesthetically anonymous qualities, Crawford responded more emotionally. To him, they represented optimistic exemplars of modern progress, impressing him as stirring visual symbols of contemporary achievement and aspiration as magnificent as the great Gothic cathedrals of the Middle Ages. However, despite his strong visual response to these structures, his views, like those of the other Precisionists, remained cool and scientific. Populated by no workers, they suggest a fascination with formal concerns over human values. Throughout his career, Crawford was fascinated with a wide range of industrial subjects, including grain and coal elevators, gas and water tanks, electric wires, bridges, and breweries. In 1938 he began to take photographs and explore industrial themes in this medium as well. B.F.

Fairmount Waterworks technology featured in Philadelphia Museum of Art exhibit

"The Fairmount Waterworks, 1812-1911" is an exhibit opening at the Philadelphia Museum of Art on July 24 and continuing through Sept. 25. Technology is emphasized in both the exhibit text and the catalog, which were written by Jane Mork Gibson, current president of the Oliver Evans Chapter SIA, who was a historian with the 1978 HAER Summer Recording Project at the waterworks. Gibson will deliver the opening day lecture at 2:30 p.m.

The exhibit includes over 160 items ranging from large paintings and small stereopticon photographs to artifacts such as wood sculptures by William Rush and 19th-C ornamental china with views of the site. Featured are the drawings of Frederick Graff, who was superintendent of the waterworks from 1812 until his death in 1847, when his son, Frederick, Jr., became superintendent.

Fairmount Waterworks was designated a National Historic Civil Engineering Landmark in 1975, a National Historic Landmark in 1976, and a National Historic Civil Engineering Landmark in 1977. The structures date from 1812 to 1872, and employed steam power 1814-22, breast water wheels 1822-c70, and hydraulic turbines 1851-1911. Fairmount Dam was built for the 1822 conversion to water power.

River water pollution and the need for filtration beds caused abandonment of the waterworks as a pump station in 1911. The buildings then housed the Phila. Aquarium, while the hilltop reservoirs became the site of the Museum of Art, where the exhibit is being held.

Structural stabilization, restoration, and reuse are being done by the Junior League of Phila., the City Water Dept., and the Fairmount Park Commissioners. J.M.G.

RAILROAD STRUCTURES IN THE NEWS

NP's Livingston, Mont., shops are back after two-year lapse



Former Northern Pacific Railway (later Burlington Northern) shops at Livingston, Mont., now owned and operated by Montana Rail Link. Dale Martin photo 1985.

Locomotive repair at the former Northern Pacific Rwy. shops at Livingston, Mont., resumed on Mar. 1, just over two years after they were shut down by Burlington Northern. Montana Rail Link is the new owner-operator, having acquired them from BN last Nov. as part of its purchase of the former NP main line and branches between Sandpoint, Ida., and Huntley, Mont. MRL plans to do major overhauls through a subsidiary, Livingston Rebuild Center.

The NP established the town of Livingston in 1882 as they constructed their transcontinental line. Situated near the mid-point of the St. Paul-Seattle route, Livingston was an important division point and site of the RR's largest rolling-stock repair facilities between Brainerd, Minn., and South Tacoma, Wash. The shops were economically significant for the town through the 1970 BN merger, employing some 1,500 workers in the late 70s. BN began reducing the work force in 1971, however, and closed the shops in Feb. 1986, consolidating all heavy repair work at West Burlington, Ia.

The shop complex is on the north side of the yards. The largest buildings are on both sides of the transfer-table pit. On the east is a long, brick machine shop, whose tall gable roof is prominent in the shop's

skyline. It was built c1900, and decades later its south end was removed to build a metal-sided diesel maintenance building for running repairs. This replaced the 44-stall, steam-era roundhouse, the remnants of which survived into the late 1960s. At the north end of the machine shop is the flat-roofed diesel overhaul shop. On the west side of the transfer pit are smaller car and locomotive repair buildings, several dating to the 1880s-90s. A 176-ft. smokestack built in the 1920s dominates the complex as well as Livingston's Yellowstone River valley.

Another major RR structure in town is the 86-year-old former passenger depot, which was the NP's main-line terminal for tourists bound for Yellowstone Natl. Park. Vacant for a time, it now houses a branch of the Buffalo Bill Historical Center of Cody, Wyo.

Livingston is a feisty RR town. It had a strong employee group that opposed the 1970 BN merger, and 17 years later fought the MRL's purchase of the former NP lines by taking the matter to court. Now known to the outside world as the setting for Jimmy Buffett's "Livingston Saturday Night" and as the nearest city to the new home of the cultish Church Universal and Triumphant, Livingston may see revival of its near-vanished RR life. D.M.

Rail wrap-up: West Toronto, Wash. D.C., Omaha, Martinsburg

Landmark B&O twin roundhouses closed, future in doubt

On Nov. 25, 1982, Canadian Pacific Rail demolished its turn-of-the-century **West Toronto Station** without federal gov't approval. Between 1983 and 1985, C.P. Rail had been successfully prosecuted by the Federal Court of Canada in this matter. On Nov. 18, 1987, five years after demolition almost to the day, the Quebec Provincial Court in Montreal handed down a verdict of "guilty" on a criminal charge of failure to obtain the permission of the Canadian Transport Commission. The court also gave the Attorney General permission to proceed with a criminal charge against C.P. Rail for contempt. In Feb. the court imposed a \$1,000 fine; the railroad said it will appeal.

Heritage Canada Foundation Newsletter

A grand reopening celebration will dedicate **Washington, D.C.'s historic Union Station** [HAER] in September, commemorating the successful \$150 million restoration of architect Daniel Burnham's 1907 Beaux Arts complex. While it remains a train station, it also will be one

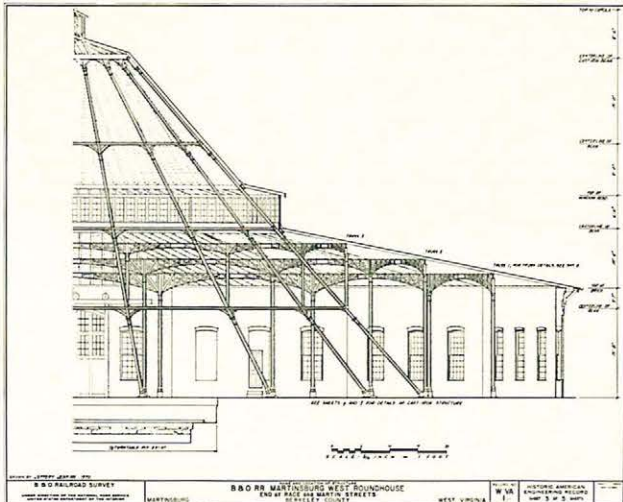
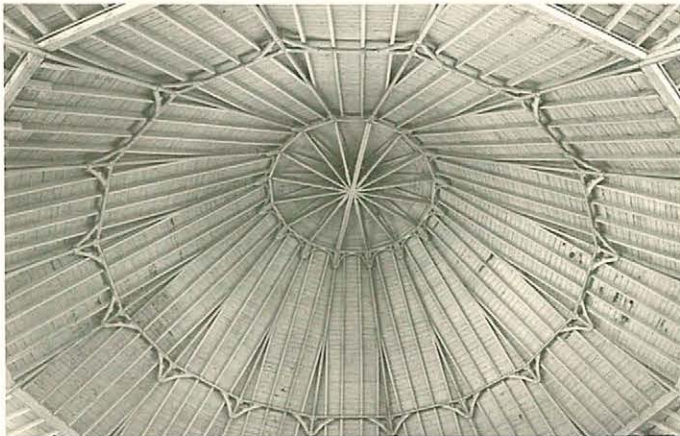
of the city's largest shopping malls, with 100 stores, five major restaurants, and a nine-theater cinema complex. The new Amtrak passenger facilities with adjacent public space will occupy 200,000 sq. ft.

Built as a union depot in 1890 and converted into a freight house ten years later, the **Omaha, Neb., Union Pacific Freight House** will undergo restoration on one end, while the other end will be rehabilitated to harmonize with a ConAgra office-campus development. The Union Pacific will build a computer dispatching center along one side. Vacant since 1977, the building was the site of the historic 1897 sale in which the Union Pacific was auctioned to Edward H. Harriman for \$58 million, then the largest amount ever to change hands at an auction. Harriman went on to rebuild the UP, which had gone into receivership and was in poor physical condition.

The famed, nationally significant conical-roofed **Baltimore & Ohio Martinsburg (W.Va.) West Roundhouse** [HAER; 1866] was idled in



B&O ROUNDHOUSES, MARTINSBURG, W.VA. Above: 1970 view of complex. Below: The conical roof structure of the 1866 West Roundhouse, in photograph and drawing. Wm. E. Barrett photos & Jeffrey Jenkins drawing, for HAER.



March by the owner, CSX Transportation. Used recently as a bridge repair shop, the shutdown comes as CSX consolidates bridge repair operations at Barboursville, W.Va. It is the last survivor of a type built by the B&O in several places. The central bell-shaped roof was designed to trap locomotive smoke, which was then removed by a large ventilating cupola that originally crowned the top. The roof is supported by inclined prefabricated cast-iron columns and horizontal trussed struts. It is a twin to the nearby 1870-72 East Roundhouse [HAER], whose identical, cast-iron roof structure was replaced by heavy timber in 1927.

The two roundhouses replaced original 1849 structures destroyed by the Confederate Army during the Civil War. In 1877 they were the first site of a series of nationwide rail workers' strikes, which ended with the intervention of federal troops. Two years ago, there was talk of converting the rail landmarks into museum/art/cultural centers, but none of that is being discussed by CSX now. The roundhouses are part of a complex including a machine shop and a frog and switch shop.

SITES & STRUCTURES

OLDEST US AUTO PLANT CLOSES. In February Chrysler Corp. announced plans to cease automobile production at their Kenosha, Wis., plant, where cars have been manufactured since 1902. Originally the home of Thomas B. Jeffrey & Co., their original Rambler automobiles became the foundation that saw the company prosper through the death of its founder in 1910 and its subsequent sale to Charles B. Nash in 1916. Nash Motors continued until 1936 when it merged with George Mason's Kelvinator Corp. and became Nash-Kelvinator. Shortly before Mason's death in 1954, Nash-Kelvinator joined fellow independent Hudson to form American Motors Corp. (AMC). Chrysler acquired the complex when it bought AMC last August. The plant will continue to produce engines for Jeeps and the new Eagle Premier until it closes at the end of the year.

Old Cars Weekly

BRIDGES AVAILABLE. Two National Register eligible bridges in Harford County, Md., slated for demolition following construction of replacements, are available to anyone assuming ownership and undertaking relocation. \$20,000 in relocation funding is available for each bridge.

—Carrs Mill Rd. over Winters Run (Brg. 64), 51-ft. Pratt pony truss, built c1880-90.

—Cherry Hill Rd. over Deer Creek (Brg. 94), 117-ft. unident. through-truss, built c1880-90.

Contact John M. Conwell, Jr., Harford County Dept. of Public Works, 220 S. Main St., Bel Air MD 21014 (301-879-2000 x259).

OMAHA "JOBBER'S CANYON" THREATENED. The six-block Jobbers' Canyon Historic District [NR] on the eastern edge of downtown Omaha, historically and architecturally significant as the state's predominant wholesale trade center, may be lost because of an expanded city riverfront development. The district's 22 buildings, including multi-story warehouses, were placed on the National Register in Dec. 1986 at the urging of developers and city planners seeking federal tax credits. This resulted in tax certification for the \$1.1 million rehabilitation of the former New Idea farm machinery warehouse, and a \$12 million renovation of the 1907 McKesson-Robbins building.

So what's the problem? Lying between the district's eastern edge and the Missouri River is an even larger parcel of land eyed by Omaha-based ConAgra corporation for development of a \$50 million plant. Already cleared, this neighboring site—with ConAgra's project—could achieve the city's decade-old dream of a Central Park East riverfront renaissance. To fully implement its plans, however, ConAgra also needs substantial parts of the historic district, and the city is considering using condemnation powers to obtain the district land for ConAgra. These plans have stymied district renovation projects because of warnings that the demolition of even one Canyon block may jeopardize tax certification for the entire historic district. Preservationists, including Pres. J. Jackson Walter of the Nat. Trust for Hist. Pres., have urged blending new construction with the rehab of old warehouses.

Cornerstone (Neb. SHPO newsletter)

SIA AFFAIRS

ROYALTY GIFT RECEIVED. The Society is pleased to announce receipt of the tenth royalty check (\$36.01) from sales of *Historical Archaeology: A Guide to Substantive & Theoretical Contributions*, ed Robert L. Schuyler, 1978 (\$19.50 ppd., Baywood Publishing Co., Inc., Amityville, NY 11735).

THE CONSULTANTS & SERVICES DIRECTORY, issued as SIA Data Sheet No. 4 (Dec. 1987), is available as a service to members and others. Issued periodically, the directory is intended to make known firms and consultants capable of providing expertise and services useful in industrial archeological work. Categories include General Preservation Consultants, Architects, Civil Engineers, Millwrights, and Photographers. Free to SIA members. Write SIA, Rm. 5020 NMAH, Smithsonian, Wash. DC 20560.

NEWS OF MEMBERS

SIA stole the show at the 3rd Annual Mass. Preservation Conf., May 13, in New Bedford, when the Mass. Historical Commission presented its 25th Anniversary Preservation Awards. Fully one-fifth of the recipients are members of the Society. Honored were **George Notter** (former SIA president), **Richard Candee** (former SIA president), **Patricia Fitzmaurice**, **Paul McGinley**, and **Charles Sullivan**. All were chosen because their "leadership and commitment exemplifies why historic preservation has worked in Massachusetts."

Gersil N. Kay is in the midst of a 1988 lecture tour that would be the envy of any academic celebrity. As chair of Preservation Techniques, Inc., she brings the message of historic preservation in the trades & crafts to, among others, English Heritage, London (Mar. 19); School of Architecture, Edinburgh, Scotland (Mar. 21); Grad. School of Fine Arts, U. of Penn. (April 11); Yale School of Architecture (April 18); and Assn. for Pres. Tech., Boston (Oct. 5). For more on current projects of PTI, see "Notes" section in this issue. Info.: Gersil N. Kay, PTI, 1924 Arch St., Phila. PA 19103 (215-567-0547).

Incoming SIA President **Emory L. Kemp** was honored with the West Virginia Professor of the Year Award by the Faculty Merit Foundation of W.Va. Kemp is director of the History of Science & Technology Program at W.Va. Univ., Morgantown, and coordinator of this year's annual conf.

LOCAL CHAPTERS

KLEPETKO (Montana). Southwestern Mont. is the focus of the chapter's spring tour, which includes Coolidge, an early 20th-C gold-mining town near Elkhorn Hot Springs; the Hecla mining area near Glendale, where several charcoal kilns survive; a working ranch in the Big Hole Valley; and the Big Hole Pumping Station, built in 1900 to pump water 30 miles from the Big Hole River over the Continental Divide to Butte.

A major preoccupation of the chapter is planning the **1989 SIA Fall Tour** in Butte and Anaconda, which will be hosted by the chapter. Sites under consideration include an open-pit copper and molybdenum mining and concentrating operation, and the Rarus Rwy., featuring the roundhouse and engine shops of the historic Butte, Anaconda & Pacific Rwy. A followup to the SIA Fall tour will be a national conference, "Industrialization of the American West," scheduled for Butte in Spring 1990.

The Mar. 1988 chapter newsletter has articles on "Railway Section Crews & the Buildings They Used," "Big Blackfoot Mine near Lincoln," and a review of Noel Holley's *The Milwaukee Electrics*.

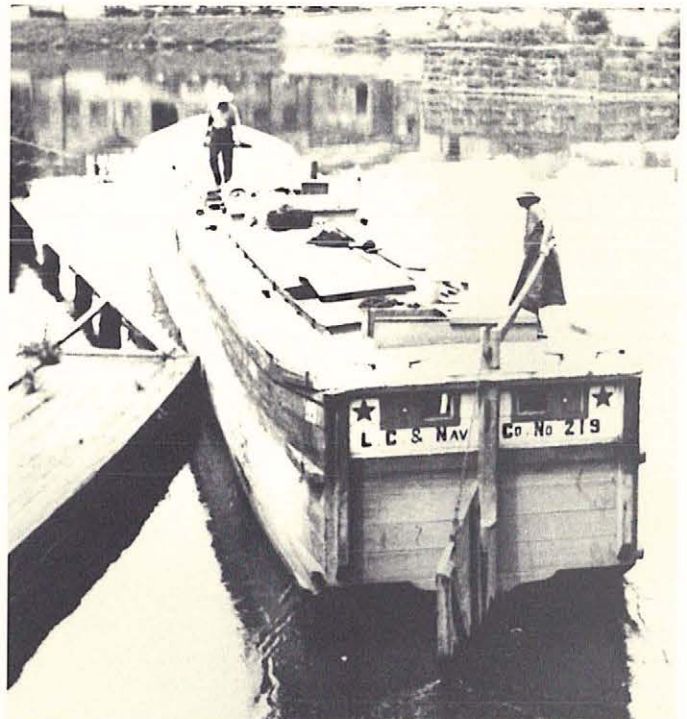
ROEBLING (Greater N.Y.C. area). In March the chapter toured Kirby's gristmill and mill district, active from 1773 through 1969, when

it reportedly was the last operating commercial gristmill in N.J. The chapter is supporting the Medford Hist. Soc. in its request for an IA survey of the mill district before a proposed road and bridge expansion project, which may encroach on the site, gets under way. In April the chapter met in Ringwood, N.J., with the North Jersey Highlands Hist. Soc. to discuss the SIA/HAER iron & steel site survey, followed by tours of three local forge sites.

The chapter has purchased an answering machine to provide round-the-clock message service, particularly for changed or cancelled tour plans. New officers for 1988 are Ed Rutsch, president; Gerry Weinstein, VP; Aron Eisenpress, secretary; and Robert Holton, treasurer.

NEW ENGLAND CHAPTERS. The recent (vol. 7, no. 2) newsletter of the New England Chapters includes notes or articles on the following sites and projects: Russell Cutlery, Turners Falls, Montague, Mass.; John Hinds Pottery Kiln, Holland, Mass.; research & interpretation of Moore State Park, Paxton, Mass.; Sullivan Machine Co. wall removal in Claremont, N.H.; IA sites added to the Vt. inventory; and the Green Mountain RR Corp., between Bellows Falls & Rutland, Vt.

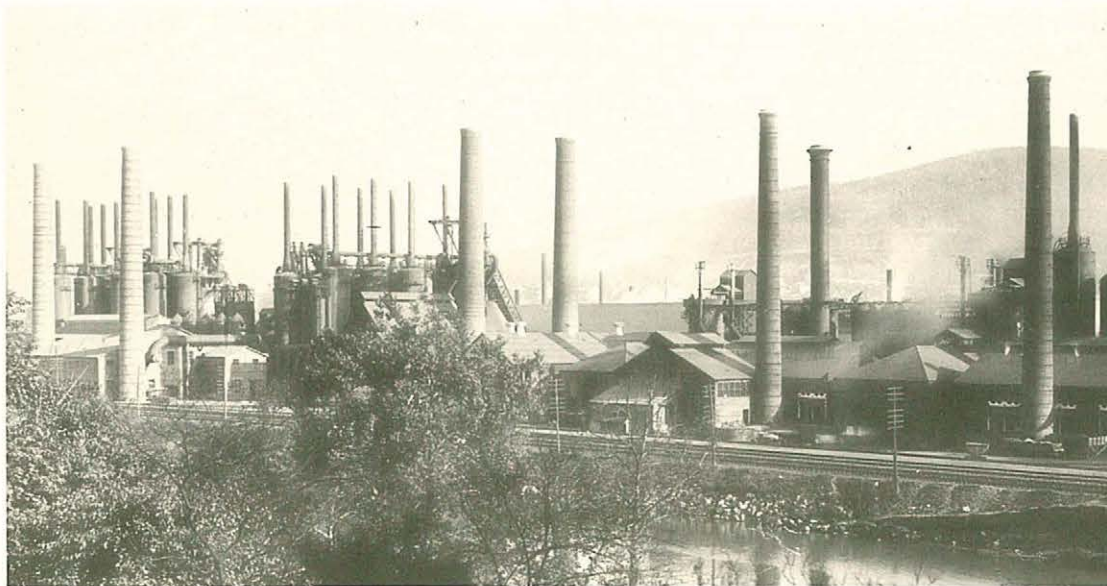
OLIVER EVANS CHAPTER (Phila. area). The Spring Tour in March took chapter members to the Phila. Gear works in King of Prussia, Pa. The chapter annual meeting was May 10 at the Atwater Kent Museum, Phila., where Carmen Weber of the Phila. Historical Commission lectured on recent waterfront excavations at the "Hertz Site" on the Delaware River. This is the first archeological site in the city to be designated by the PHC, and Weber has included an article on site excavation work in the Winter/Spring 1988 chapter newsletter. At the chapter's 4th annual dinner in Jan., John L. Cotter, curator emeritus of American historical archeology at the Univ. of Penn., spoke on the loss of Phila.'s heritage. One of Cotter's primary interests is the creation of an elemental base map of historical sites in Phila., so that potential disturbance may be anticipated and, when possible, archeological notes undertaken, if not actual excavation. As a model, Cotter points to the work of Martin Biddle, et al., in *The Future of London's Past*, which records the "estimated disturbance depth" for the entire city of London.



FALL TOUR FEATURES CANAL HISTORY. A Lehigh Canal & Navigation Co. section boat on Section 8 of the Lehigh Canal, about 1925, directly in front of the present Canal Museum in Easton, Pa. Photo courtesy Hugh Moore Historical Park & Museums, Inc.

SIA Fall Tour, Sept. 15-18, Lehigh Valley, Pa.

You'll never see the Bethlehem Steel works this complete again



BETHLEHEM STEEL PLANT,
BETHLEHEM, PA.

Left: General view of the complex taken in 1897 by famed photographer William Rau.

Below: No. 3 High House, about 1920. Put into operation by 1888, this building still houses equipment designed to lift armor and armor plates (note pile of armor plate) and lower them into an above-grade tempering tank. Armaments for the "Great White Fleet" were processed here. This is a tour site.

Bottom: No. 2 Machine Shop, about 1920. It was and remains the largest machine shop in the Bethlehem plant and was a finishing shop for armor and armaments, as the cannon in the corner illustrates. It may be a tour site. *Photos courtesy Hugh Moore Historical Park & Museums, Inc.*

The SIA will visit Pennsylvania's Lehigh Valley for the annual Fall Tour, Sept. 15-18. The tour will be coordinated by the newly formed Josiah White & Erskine Hazard Chapter SIA and the Hugh Moore Historical Park & Museums, Inc. HQ will be the Historic Hotel Easton, built in 1921 and completely refurbished last year.

Events will begin Thurs., Sept. 15, with an early bird visit to James Lee's excavated and interpreted Morris Canal Plane No. 9 West, at near-by Phillipsburg, N.J. In the evening Lance Metz, historian for the Canal Museum & Hugh Moore Park, and Craig Bartholomew [both SIA], will present a slide lecture on the Lehigh Valley as a "Birthplace of the American Industrial Revolution."

Fri., Sept. 16, we will visit the Bethlehem plant of the Bethlehem Steel Corp. This historic plant was the birthplace of heavy forging technology in the U.S. and produced the guns, armor, and propulsion machinery parts for almost all of America's steel warships. It is also one of the last remaining super heavy forging shops in the western world. We will go into the spectacular Fritz Engineering Lab at Lehigh Univ., which possesses the world's second largest structural testing machine. The Packard Engineering Lab also will be visited. It houses the first Packard automobile (1896), which will be viewed and possibly operated.

A bus tour to the historic industrialists' mansions of South Bethlehem will follow, including the homes of Charles Schwab, Robert Sayre, and E.P. Wilbur. There will be a visit to Bethlehem's restored colonial water works and a drive to Allentown for dinner and a reception at the newly opened Raymond E. Holland Museum of Automotive Art.

On Sat., Sept. 17, we will focus on Easton, beginning with a visit to the Penn Pump Div. of Cooper Industries, which manufactures compressors. Then it is on to Bushkill Park, with its superb 1880 merry-go-round, possibly the best in the U.S. The high point will be the Hugh Moore Park complex, including a ride on the mule-drawn, passenger-carrying canal boat *Josiah White*, and a special program at the Canal Museum, where there are exhibits on all of the nation's towpath canals. The day will conclude with a picnic in Hugh Moore Park and a showing of the recently restored 1927 film of the Delaware Canal in full operation. This is the most extensive surviving film of towpath operations.

Sun., Sept. 18, has an optional visit to sites around Allentown, including the Mack Truck Museum, the restored Haines Roller Mill, the Cement Museum at Coplay, and the Lock Ridge Iron Furnace.

In the tour packet will be a guide by Bartholomew and Metz to the iron and steel furnaces of the Lehigh Valley and of Warren County, N.J. Info.: Lance Metz, Canal Museum, POB 877, Easton PA 18044-0877 (215-250-6700).



CALENDAR

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

June 10-11: Annual conf., Society for the Preservation of Old Mills, Pawtucket, R.I. Includes mill tours & address by Pat Malone [SIA]. Info.: SPOOM Conf., c/o Hildegard T. Eastman, 108 Hope St., Sekonk MA 02771.

Aug. 19-20 (new date): Annual meeting, Lexington Group in Transportation History, San Diego, Calif. Info.: Don L. Hoffsommer, Augustana Coll., Sioux Falls SD 59297.

Sept. 15-18: SIA FALL TOUR, LEHIGH VALLEY, PA. Info.: Lance E. Metz [SIA], Canal Museum, POB 877, Easton PA 18044-0877 (215-250-6700)*

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).

Sept. 23-28: 28th Annual Convention, Assn. of Railway Museums, Galveston, Tex. Info.: Timothy M. Kingsbury, Center for Trans. & Commerce, 123 Rosenberg, Galveston Island TX 77550 (409-765-5700).

Oct. 5-8: Annual conf., Assn. for Preservation Technology, Boston. There are pre- and post-conf. tours and courses, Oct. 2-9. Info.: APT

1988, c/o Historic Massachusetts, 80 Boylston St., Suite 330, Boston MA 02116 (617-350-7032). For info. on student & apprentice conf. travel scholarships, contact Tom Taylor, Chair, APT Scholarship Committee, c/o Colonial Williamsburg, POB 148, Williamsburg VA 23187 (application deadline is July 1).

Oct. 20-23: Annual conf., Soc. for the History of Technology, Hagley Museum, Wilmington, Del.

Oct. 29: 1988 Michigan Railroad History Conf., sponsored by the Bluewater Mich. Chap., Natl. Rwy. Hist. Soc., Durand Union Station. Theme is railroad preservation. Info.: Gregory J. Degowski, Conf. Chair, Bluewater Chap. NRHS, POB 296, Royal Oak MI 48068-0296.

NOV. 5: ANNUAL FALL MEETING, SOUTHERN NEW ENGLAND CHAPTER SIA.

Nov. 10-13: Annual conf., Pioneer America Society, Mobile, Ala. Deadline for paper proposals is July 1. Info.: Philippe Oszusick, PAS Program Director, Art Dept., Univ. of South Alabama, Mobile AL 36688.

Dec. 7-9: The Interiors Conf. for Historic Buildings, Wash., D.C. 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.*



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