

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

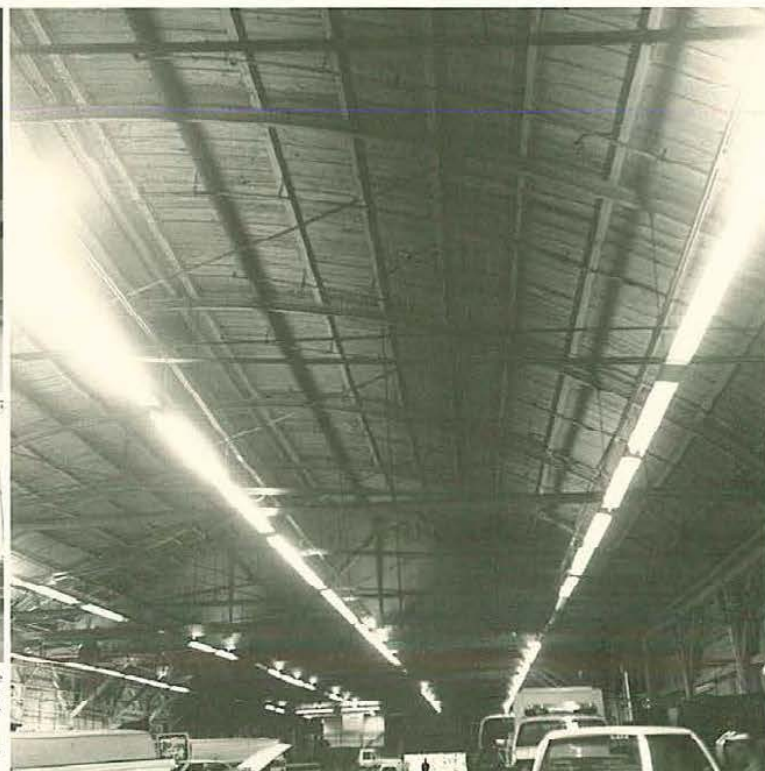
NEWSLETTER

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Oldest U.S. carbarn, rare 1861 roof trusses, set for demo



Above (top) & right: Interior of the 1861 Canal St. carbarn. Visible are the iron roof "principles" (trusses) and the building's heavy timber frame. Each truss slides into a cast-iron shoe above a post.

Above (bottom): Modern exterior of Canal St. buildings: 1887 barn (L) and 1861 barn (R). E.D. Weber photos.

The 1861 Canal Street carbarn in New Orleans, reportedly the oldest streetcar barn in the U.S., is threatened with demolition for a \$30-million project of the Regional Transit Authority. The Canal barn is more significant than the one at Carrollton serving the city's 1835 St. Charles line [NR, ASME], the oldest surviving streetcar line in the world. While the line is ancient, nothing from 1835 survives and its barn dates only to 1893, when the line was electrified.

New Orleans was the second U.S. city, after New York in 1832, to have street railway service. Then known as the New Orleans & Carrollton RR, the St. Charles line and its few short branches served only part of the city, in addition to what was then the separate municipality of Carrollton. The first true citywide system was that built by the New Orleans City RR just before the Civil War. Constructed in 1860-61, its six lines formed a carefully planned network that penetrated all the built-up areas of the city, including that served by the NO&C.

Each of its five main lines had its own "depot"—carbarn complex—with car house, stable, and shops. The carhouses had similar, massive, timber-frame construction. The specifi-

cations were virtually identical for the roofs, referring to "wrought iron principles [sic: trusses], with the cast iron shoes, for the support of the roof," in addition to the "corrugated iron roof covering." The Canal St. "depot" contractor was John Page, an Englishman. The architect is unknown, but probably was S.L. James, chief engineer and superintendent, who was credited with most of the detailed work on the system. The Canal St. contract was signed Mar. 2, 1861.

All the Canal St. buildings survived the Civil War, but an 1887 fire destroyed several, including the stable and the enginehouse for steam dummies. The carbarn, perhaps protected by its metal roof, survived, together with that part of the "station" attached to its front. A noted local architect, Thomas Sully, was commissioned to design two replacement carsheds, one forming a long addition behind the 1861 building, and a second—even longer—next to the original. The 1887 structures had large wood trusses with metal roofs.

These buildings survived an 1893 fire and a disastrous 1915 hurricane, which leveled the streetcar buildings in the next block. During the 1890s the carbarns were adapted for electric cars. The early "station" section vanished after 1898,

and at some point a gable-end facade was added to the 1861 car barn. All the buildings served the Canal St. line until it was discontinued in the 1960s.

In 1960, despite opposition from preservationists, New Orleans Public Service Inc. replaced the century-old Canal line with buses. "NOPSI," however, retained the old car barns, converting them to bus maintenance.

Now, the RTA wants to take the car barns down for a two-block-long, five story "bus maintenance facility." While the ground floor will be for bus maintenance, the next two will be automobile parking areas, and the top two will house RTA offices. The State Historic Preservation Officer, Leslie Tassin, approved the demolition request, based on photographs. In 1988 Tassin had approved RTA's plans to replace the 1923 Perley Thomas streetcars on St. Charles and replace them with replicas, a plan later quashed locally. Later, during an on-site visit, the SHPO reiterated his conclusion that, on balance, not enough of the antebellum structure survived to warrant preservation, even though the 1861 wrought-iron roof trusses and cast-iron shoes remained in place. The matter is a National Register issue because 75% of the work will be federally funded.

The RTA declares that it is not against historic preservation because it supported the renovation of the 1893 Carrollton car barn. Local preservationists argue that the new building is uneconomical and unnecessary. Furthermore, they say, there are plans to bring back the Canal St. line in the near future and it would make little sense to destroy that line's only original structure, only to construct a replica soon thereafter. For further information, contact Edwin D. Weber, Jr., 5026 Press Dr., New Orleans LA 70126 (504-282-5329).



Interior of the 1887 Canal St. car barn in New Orleans. E. D. Weber photo.

NOTES

"PARKING LOTS & TELEPHONE POLES" is an exhibit on view Sept. 7 through Nov. 27 at the Chemung County Hist. Soc., 415 E. Water St., Elmira NY 14901 (607-734-4167). The free exhibit focuses on the impact of the gasoline engine and the telephone on the landscapes of Central New York since the turn of the century.

WEST INDIAN HISTORY QUERY. "In the past several years, I have done extensive research on the plantation ruins of St. Croix in the Virgin Islands. This has produced several papers with a major study to be published next year. It would be helpful to be in touch with other individuals with similar interests in West Indian plantation history." William E. Cleveland, POB 9957, Durham NC 27706.

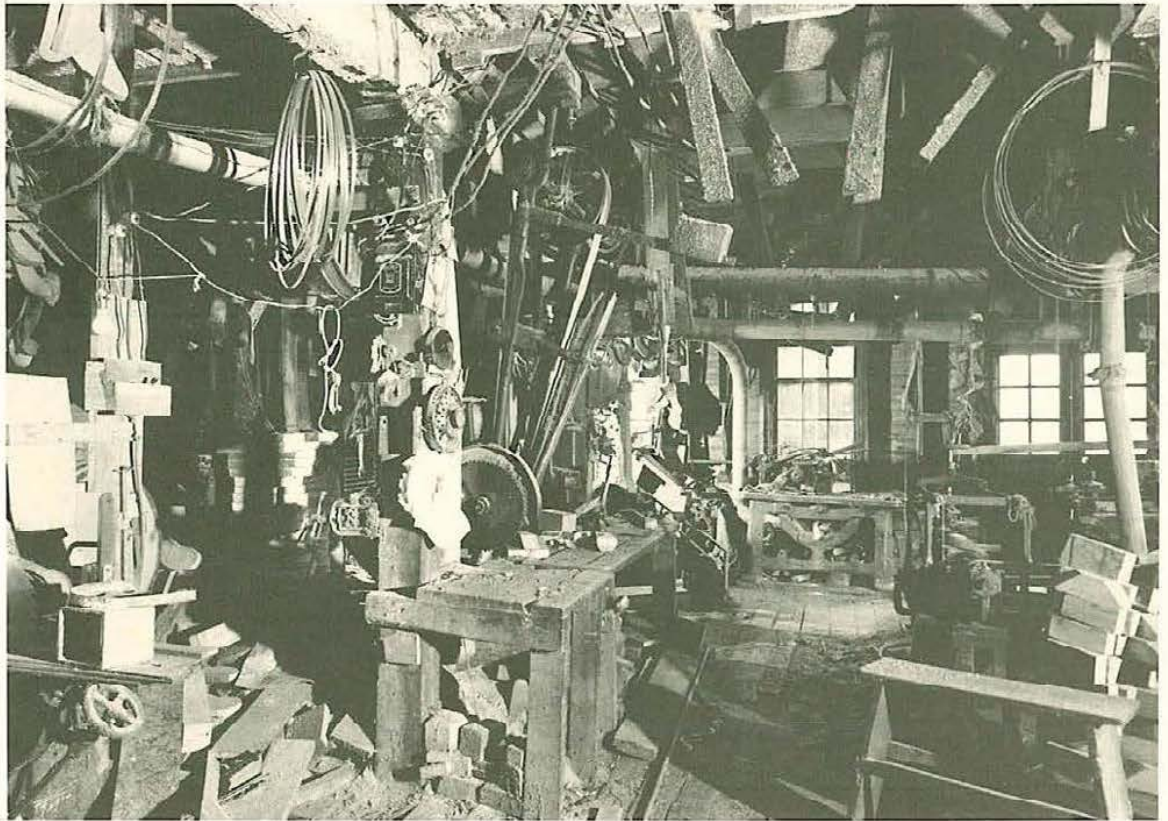
IEEE FELLOWSHIP. The Inst. of Electrical & Electronics Engineers (IEEE) invites applications for its 1992-93 Fellowship in Electrical History. The fellowship supports either one year of full-time graduate work in the history of electrical engineering and technology at a college or university of recognized standing or up to one full year of post-doctoral work in the same field for a recent graduate. The stipend is \$14,000. The fellowship is made possible by a grant from the IEEE Life Member Fund and is administered by the IEEE History Committee. Submission deadline is Feb. 1, 1992. Info.: Director, Center for the History of Electrical Engineering, Rutgers Univ., 39 Union St., POB 5602, New Brunswick NJ 08903-5062.

FRITCHLE PAPERS OPENED IN DENVER. The Colorado Historical Society has cataloged the papers of Oliver Parker Fritchle, known for his electric automobile, manufactured in Denver between 1904 and 1917, as well as his work with electric batteries and windmills. His experiments with batteries to power autos also produced electric generators for the "Fritchle Wind-Electric Plants," marketed by the Woodmanse Mfg. Co. from 1917 to 1923. Using the ordinary "Woodmanse" windmill, the tower-top generator sent power to storage batteries, from which it was drawn for lights, radios, or other equipment. The inventory (CHS Collection No. 1292) is available from Stan Oliner, Curator of Books & Mss., CHS Library, 1300 Broadway, Denver CO 80203-2137. CHS is actively searching for one of the large glass Fritchle wet-cell batteries.

Windmillers' Gazette, Autumn 1991

HIDDEN HISTORY REVEALED. For too long the fruits of research by historians, archeologists, preservationists, and others outside the university have been buried in reports that disappear into governmental bureaucracies. Now *The Public Historian*, quarterly journal of the Natl. Council on Public History, is soliciting such reports and related publications for possible review. The *PH* editor is especially interested in cultural resources management, historic preservation, Indian affairs, archives, and environmental studies, but will consider reviewing any reports of publicly sponsored research in which historians may have participated. Send to Review Editor, *PH*, Univ. of Calif.—Santa Barbara, Dept. of Hist., Santa Barbara CA 93106.

Schroeder saddle tree documentation project opens in Madison, Ind.



Interior of the woodworking area at the Ben Schroeder Saddle Tree Co. works in Madison, Ind. At center is the swing cutoff saw and at the rear is a surface planer. Note the stovepipe dust-collection system. Jack E. Boucher photo (1974) for HAER.

The Schroeder Saddle Tree Project at Historic Madison [Indiana], Inc., is starting up with the appointment of a director/curator, John M. Staicer. The project goal is to document the history and manufacturing processes of the Ben Schroeder Saddle Tree Co. [HAER]. Saddle trees are the wooden frames around which saddles are formed.

When it closed in 1972, following the death of Joseph Schroeder, the Schroeder company was the last operating saddle tree manufacturer in Madison. The factory complex is a completely intact 19th C family operated business, with sales worldwide. In the late 19th C, Madison was one of the three centers of saddle-tree manufacturing in the U.S. In 1870, the city had 12 different works, employing over 120 men and women. All the owners and most of the employees were of German descent.

Founded in 1850, and operating at its present location since 1878, the Schroeders made "trees"—and later, clothespins, stirrups, and hames. A 1933 catalog listed 33 different saddle trees and packs and four types of stirrups. The Schroeder trees were marketed by Montgomery Ward as well as being shipped to Central and South America. Trees were sold to Cuba during World War I and pack saddles went to the Ethiopian government in the 1930s. Catalogs were printed in English, Spanish, and Portuguese.

The original equipment and power systems survive, including a sawmill, planer, jointer, bandsaws, Blanchard-type copy lathes, a clothespin lathe and splitting saw, and a forge and blacksmith shop with punches, presses, and metal cutting shears. The factory originally was powered by a steam engine supplied by a coal/wood-fired boiler. During the 1930s or '40s it was updated to motor drive, the electricity generated by a Primm Oil Engine. This survives, *in situ*, as it was when last operated.

The small factory buildings, now deteriorated, also are

filled with saddle-tree parts in various stages of production, thousands of clothspin blanks, patterns, and kegs of nails. Original calendars remain on the walls and workers' jackets and aprons still hang on nails.

Following the advice of consultants Robert M. Vogel and James Massey [both SIA], HMI will develop a museum of industrial heritage, beginning with the Schroeder artifact collection, now being inventoried. This is a move away from the community's focus on house museums and will recognize the city's diverse industrial heritage. Info.: HMI, 500 West St., Madison IN 47250 (812-265-2967).

Right: An original Schroeder saddle tree next to a stack of fork blanks, with a homemade shaper at left rear.

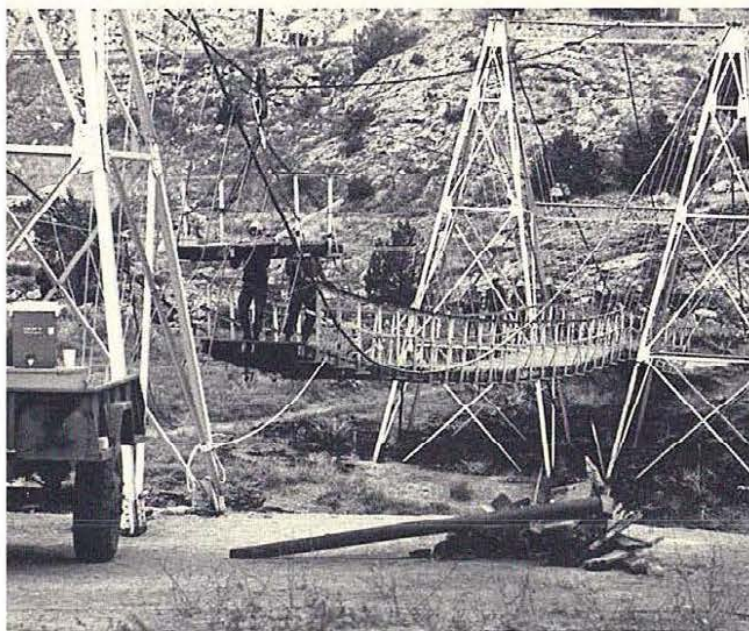


Below: The two main Schroeder factory buildings. To the rear is the brick Schroeder residence.

Jack E. Boucher photos (1974) for HAER.



A SPECIAL BRIDGE IN THERMOPOLIS



Deck and railing sections are removed by National Guardsmen as they dismantle the 1916 suspension bridge near Thermopolis, Wyo. Removed parts are up for auction to raise funds. The two towers will be reused in the new bridge. *John Rankine photo.*

Love for historic bridges often knows no bounds, in geography, energy, or creativity. In Wyoming, the beloved structure is a pedestrian suspension bridge erected in 1916 over the Big Horn River in Hot Springs State Park, near Thermopolis. Known locally as the "Swinging Bridge," it was engineered by W.B. Garrett and spans 185 ft. between towers, 50 ft. above the river. It employs a 1 7/8-in., 7-strand cable, with 5/8-in. rod used for hangers.

Maintenance was deferred and in the early 1980s the bridge was closed. Last year the Hot Springs County Historical Society and the local Pioneer Assn. failed in their five-year attempt to get the state to restore the bridge, despite raising some money. The state insisted the structure was too deteriorated to repair. Support for the Swinging Bridge never flagged, and the state Parks & Recreation Dept. finally agreed to replace the bridge with a restoration/replica, reusing the two towers (with new foundations) and as many additional parts as possible.

The estimated replacement cost was high, so state Rep. John Rankine, a historic bridge stalwart, proposed that the labor be supplied by the Wyoming National Guard, since the bridge is in Hot Springs State Park. The Guard liked the idea but, having little bridge-building experience, contacted the North Dakota National Guard, who did. The N.D. Guard pronounced the job "do-able," and the Wyoming Guard agreed to consider future projects for their neighbor state.

Use of the guard drastically reduced the costs. But late this summer, two weeks before they were about to begin dismantling the bridge, Burlington Northern RR officials announced they would need \$40,000 to cover temporary crossing and flagging costs for their tracks across the bridge access road. Since the news came at the last minute, these costs hadn't been figured into existing estimates. The money would have to come from either the state or local sources. While the dismantling went ahead, it was decided to raise the money rather than confront the legislature again.

Since 1986, Swinging Bridge advocates had tried: a pie sale (earning \$1,394!), a book sale, a pinochle & bridge tour-

namment, door prizes, art sale, and private gifts. A donation box placed at the end of the bridge. What else could they do? They decided upon an auction of bridge parts and members. On Dec. 7, salvaged pieces that will not be reused will be sold to the highest bidders. Included are: 2 large tumbuckles; 18 deck sections, each 10-16 ft., with railings; 256 ft. of 1 7/8-in. galvanized suspension cable, in 8-10-ft. lengths; assorted steel sections; and locally donated antiques. For additional information on the auction and any remaining artifacts, contact Dorothy Milek, POB 1311, Thermopolis WY 82443 (307-864-3890).

Early wooden canal lock unearthed in Indiana

Canal buffs were surprised in June with the discovery of an intact wooden lock during highway construction near New Haven, Ind., just east of Fort Wayne. Constructed c1839-40 of red-oak timber, it was known as the "Gronauer," or Lock No. 2, and was one of fourteen such structures on the Wabash & Erie Canal system, which connected Toledo on Lake Erie with Evansville, Ind., on the Ohio River. Long thought to have been destroyed when present-day U.S. 24 was widened in 1926, it was found buried in a roadside drainage ditch during early summer backhoe excavations for a Fort Wayne bypass project.

Wooden canal locks were used in northwestern Ohio and Indiana during the 1830s and '40s because of a shortage of good dimension stone and skilled masons. Measuring 100 ft. long by 15 ft. wide, the walls of the Gronauer Lock were of cribbed construction, filled with rough river stone and faced with 2x15-ft. planks. The upper 3 ft. of the lock was removed during the earlier road construction and a large portion of the facing of one sidewall fell victim to recent backhoe work, but enthusiasts feel enough significant elements of the structure remain to merit additional excavations.

Considerable public support has been expressed for the preservation of what is believed to be a rare survivor of the state's 19th-C canal era. At a meeting with representatives of the state historic preservation office and other interested parties, engineers from the Ind. Dept. of Transportation agreed to halt further construction activities for 12 to 14 months to examine several options. While refusing to consider realignment of the proposed bypass, they did offer to fund archaeological excavations of the lock so that detailed drawings can be prepared as well as excavations of the cistern and 18 square meters of the kitchen from the buried ruins of lockmaster Joseph Gronauer's house located across U.S. 24 from the lock. An effort is being made to identify organizations willing and able to relocate all or portions of the actual structure, for which IDOT agreed to pay up to \$100,000. Work must be completed by Aug. 31, 1992, if only a portion is removed, but another two months was allowed for removal of the entire remains, at which time construction will resume.

Proposals are due to IDOT at 5333 Hatfield Rd., Fort Wayne IN 46808, by next April 15. Canal Society of Indiana officials have written to the Advisory Council on Historic Preservation to protest the IDOT proposal, recommending that a plan be developed that preserves the structure intact. In the meantime, students from Ball State Univ. have begun excavations at the locktender's house site.

D.S.



SNOQUALMIE VALLEY BRIDGES

In spring 1989, as part of his undergraduate work at The Evergreen State College in Washington, David Poultridge [SIA] surveyed the bridges along the Snoqualmie River. Travelling east from Seattle and Puget Sound, one reaches the Snoqualmie valley after 25 miles, and there's not a lower piece of land again until you get to Peoria, Ill. Originally a timbered area, the valley was logged out by the 1920s and cleared for agriculture. Roads and bridges were constructed to get farm produce to market. Between World War I and 1930, and earlier for RRs, many steel and combination steel-and-wood truss bridges were erected. Today, Seattle's bur-

Left: Norman Bridge, a c1929 Howe truss over the N. Fork, Snoqualmie River, King County, Wash.

Right: A Milwaukee Road riveted Pratt truss (1910) over the N. Fork, Snoqualmie River. David M. Poultridge photos.

geoning population is pushing eastward to its geographical boundaries, the Snoqualmie valley and the western foothills of the Cascade range. This expanding suburban sprawl now is forcing the replacement of the valley's historic bridges. The Northern Pacific Ry. line has been abandoned since 1970, leaving the oldest (1891) bridge in the valley an orphan; the Milwaukee Road also has been abandoned; and U.S. Hwy. 10 has been expanded into the massive I-90. The accompanying photographs are among the fruits of David Poultridge's survey and research work. Info.: D. M. Poultridge, 2138 Milroy N.W., Olympia, WA 98502 (206-352-8769).

ASCE CALENDAR FEATURES LOWE, McCULLOUGH. *Bridges 1992*, the new calendar of the American Society of Civil Engineers, highlights the striking bridge photography done for the Historic American Engineering Record by Jet Lowe [SIA]. Gray Fitzsimons [SIA], HAER historian, researched and edited the text. Included in the collection are outstanding examples of the bridge engineering of Conde B. McCullough, noted for his work during 27 years with the Oregon State Hwy. Dept. McCullough had degrees in both engineering and law. In 1931, he introduced the reinforced-concrete tied arch in the U.S. with the construction of the Wilson River Bridge in Tillamook County. He also was the first to use the Freyssinet method of arch precompression with the Rogue River Bridge at Gold Beach (1931). The high point of his career came in 1936 with the completion of five major arch bridges on the Oregon Coast Highway.

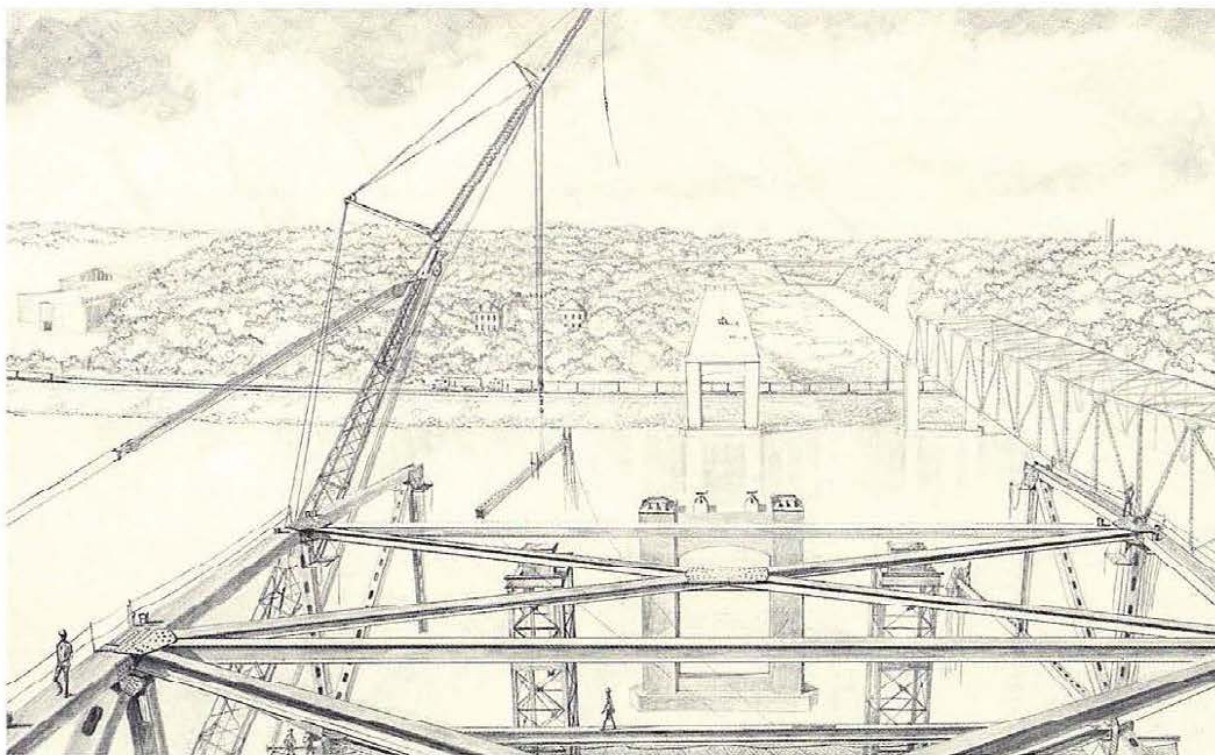
Full-color photographs of the following bridges are included: Fifficktown Bridge (1910), South Fork, Pa.; Crooked River Bridge (1926), Jefferson County, Ore.; High Bridge (1911), Wilmore, Ky.; Ft. Benton Bridge (1888, 1925), Ft. Benton, Mont.; Linden St. Bridge (1894), Waltham, Mass.; Rogue River Bridge (1931), Wedderburn-Gold Beach, Ore.; Kinzie St. Bridge (1909), Chicago; Pulga & Feather River bridges (1932 & 1908), near Pulga, Calif.; Coos Bay Bridge (1936), North Bend, Ore.; Rapids Footbridge (1934), Wash., D.C.; Birmingham Bridge (1898), near Tyrone, Pa.;

and Geo. Washington Bridge (1931), N.Y.C.

Bridges 1992 is avail. for \$8 ppd. from ASCE Sales & Marketing (SW-16), 345 E. 47th St., NY NY 10017-2398 (212-705-7276).

Two bridges featured in the ASCE's 1992 calendar: Birmingham Bridge (1898), near Tyrone, Pa. (right); and Rogue River Bridge (1931), Wedderburn-Gold Beach, Ore. Jet Lowe photos for HAER.





Stage 3 construction (on Aug. 31, 1990) of the south span of the Missouri River bridge at Jefferson City, Mo. Pencil drawing by L. Edward Fisher for Stupp Bros. Bridge & Iron Co., courtesy Stupp Bros.

STUPP BROS. BRIDGE & IRON COMPANY

ST. LOUIS

Stupp Bros. Bridge & Iron Co. of St. Louis, proud of its 135-year-old heritage as reportedly the oldest steel construction firm in the U.S., commissioned artist L. Edward Fisher to prepare pencil drawings of the 1990 construction of the south span of the Missouri River bridge at Jefferson City, Mo. (Stupp had built the north span in the 1950s). Stupp Bros. has reproduced a very limited number of portfolios of six sketches. Fisher's detailed drawings depict the steel cantilever-arch bridge in several stages of erection, from May through October. Where appropriate, the piers and riveted connections are numbered for reference to the bridge plans. In the corner of each drawing is a small sketch, depicting the construction context of the primary image. Artist Fisher, born in Chicago and now living in St. Louis, specializes in carefully researched historical scenes, painted in oil. He is particularly interested in maritime art and recently completed a series of Midwestern steamboat prints. Info.: Stupp Bros. B&I, POB 6600, St. Louis MO 63125-1199; L.E. Fisher, 736 W. Oak, St. Louis MO 63122 (314-821-3274).

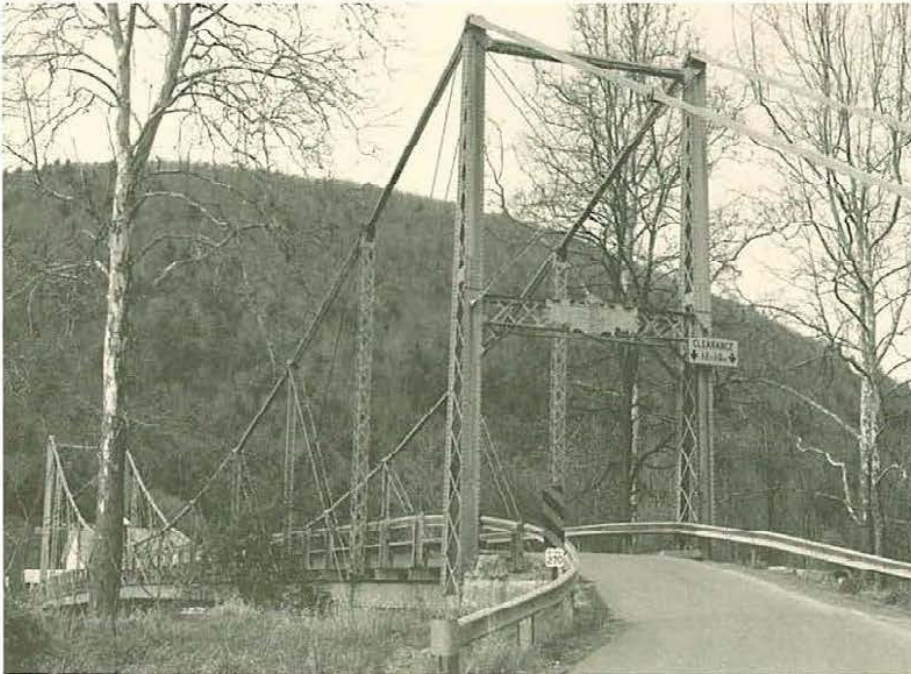
A CENTURY OF AMERICAN R.W. BRIDGES & BUILDINGS is the catalog published by the St. Louis Mercantile Library for its recent exhibit of books, manuscripts, prints, and photos, honoring the centennial of the American Rwy. Bridge & Building Assn. The 18-page, 8 1/2 x 11-in., illustrated catalog includes detailed annotations for over 120 items, collected in two main sections: American rwy. bridges and tunnels, and American rwy. buildings and related structures. The exhibit was funded by a grant from Stupp Bros. Bridge & Iron Co. Foundation in St. Louis, and is supported by the Mercantile's transportation special collections, the John W. Barriger III National Railroad Library and the Herman T. Pott National Inland Waterways Library. Both collections are worthy of consideration by anyone doing research on RRs and bridge building. The Barriger library has 10,000 items, including 4,000 titles; its manuscript collection includes the Eads Bridge Financial Papers Collection;

and there are some 50,000 photos, c1913-70s. The Inland Waterways Library also has books, archives, and some 8,000 photos. Also in the Mercantile is the Henry S. Jacoby Bridge Photograph Collection. The catalog is \$3.75 ppd. from Mark J. Cedek [curator and author], Barriger RR Library, St. Louis Mercantile Library Assn., 510 Locust St., 6th Floor, St. Louis MO 63101 (314-621-0670, fax-621-1782).

EAIA 1992 GRANTS-IN-AID PROGRAM. The directors of the Early American Industries Assn. have announced annual grants to provide up to \$1,000 to individuals or institutions engaged in research for publication projects relating to the study and better understanding of early American industries in homes, shops, farms, or on the sea. The application deadline is Mar. 15, 1992. Info.: until Dec. 17, Charles F. Hummel, c/o Winterthur Museum, Winterthur DE 19734; after Dec. 17, EAIA, c/o Ms. Justine Mataleno, 1324 Shallcross Ave., Wilmington DE 19806 (302-652-2249).

1992-93 ROVENSKY FELLOWSHIPS. Applicants are sought for up to two \$4,500 fellowships for doctoral-thesis research in American business or economic history. These fellowships are available largely through the generosity of the late John E. Rovensky, a N.Y.C. banker who later served as board chairman of American Car & Foundry Co. Applicants must be citizens of the U.S. or Canada, who are working toward a Ph.D. degree with American economic or business history as the major field of interest. Fellowship recipients must be enrolled in a doctoral program at an accredited college or university in the U.S. Preference will be given to applicants who are preparing for a career in teaching or research and who will have completed all graduate course work prior to Fall 1992. Application deadline is Feb. 7, 1992. For additional info. on criteria and for applications, contact Jeremy Attack, Dept. of Economics, 328F DKH, Univ. of Ill., 1407 W. Gregory Dr., Urbana IL 61801.

Rare eyebar suspension bridge in Pa. celebrates centenary



Above: Rare (1891) eyebar-chain suspension bridge at English Center, Pa.
Right: Details of pin connection (above) and anchorage (below). The pin diam. is $2\frac{3}{8}$ in.
J.D. Inners photos.

This year marks the 100th anniversary of the erection of the small, steel, eyebar-chain suspension bridge across the Little Pine Creek at English Center in the rugged Allegheny Mountains of Lycoming County, Pa., near Williamsport [1990 SIA Fall Tour]. Built in 1891 by the N.Y. contracting firm of Dean & Westbrook, the English Center Bridge [NR] is among the oldest extant examples of this type of construction.

In reality, this is a truss-suspension "hybrid." A chain of pin-connected eyebars substitutes for the conventional suspension cable. The bridge deck is not suspended by wire rope, as in a traditional suspension bridge, but by rigid vertical members made of angle sections with lacing bars. Extending diagonally across the panels between the verticals are forged tension members, just as in a standard truss bridge. This configuration is unique among suspension bridges in the state.

The bridge spans 300 feet between simple fabricated steel towers that rest on sandstone piers. The eyebar chains are anchored in partially buried concrete blocks.

The original bridge on the site was destroyed by a June 1, 1889 flood, which was spawned by the same heavy rainstorms that destroyed the South Fork Dam, resulting in the infamous Johnstown Flood.

Bridges of similar eyebar construction, particularly larger examples, fell into disfavor among engineers following the 1967 collapse of the 1,750-ft., eyebar-cantilever Silver Bridge (1929) over the Ohio River between Gallipolis, Ohio, and Point Pleasant, W.Va. That failure cost 46 lives. The Silver Bridge eyebars were 12 ins. wide, 2 ins. thick, and arranged in pairs of varying lengths, most over 50 ft. By comparison, the English Center Bridge eyebars are 4 ins. wide, $7/8$ in. thick, each about 25 ft. long, and arranged alternately in sets of three or four, beginning with four at each anchor.

J.D.J.

CALL FOR PAPERS. The Center for Great Plains Studies at the Univ. of Nebraska, Lincoln, solicits paper proposals for the 17th Annual Interdisciplinary Symposium, "Architecture & the Great Plains: The Built Environment, Past & Present," April 22-24, 1993. The Center welcomes proposals on the widest variety of topics, from earthen homes to grain elevators, and from contributors representing a broad spectrum of disciplines, including civil and agricultural engineering, landscape and vernacular architecture, historic preservation, and material culture studies. Interested contributors should submit proposals of 150-200 words and a brief resume by July 1, 1992. Final papers are due by Feb. 1, 1993. The *Great Plains Qlty.* and *Great Plains Research* will have rights of first refusal on all papers presented. The Center will seek funding to support travel and/or lodging expenses for participants, provided individuals cannot secure funds from their own institutions. Info.: H. Keith Sawyers, CGPS, 1213 Oldfather Hall, U. of N., Lincoln NE 68588-0314 (402-472-3082, fax 472-1123).

"DISASTER PREVENTION, RESPONSE, & RECOVERY: Principles & Procedures for Protecting & Preserving Historic/Cultural Properties & Collections" is a seminar scheduled for Oct. 24-25, 1992, at the Mass. Inst. of Tech., Cambridge, Mass. It will emphasize both the fundamentals of protection and the practical scientific/engineering techniques, design methods, and management approaches to minimizing damage to the architectural heritage from floods, earthquakes, and other natural and human-induced emergencies and hazards. It is sponsored by *Technology & Conservation* magazine and The MIT Museum. Registration is \$250 and includes seminar materials, two luncheons, and a reception (an optional Oct. 24 dinner and talk is \$45 additional). Info.: Susan E. Schur, T&C, One Emerson Place, Boston MA 02114 (617-227-8581), or Robert Hauser, New Bedford Whaling Museum, 18 Johnny Cake Rd., New Bedford MA 02740 (508-997-0046).

NOTES

HISTORY, TECHNOLOGY SYMPOSIUM IN EASTON.

The Hugh Moore Historical Park & Museums, Inc., and Lafayette College will co-sponsor the 11th Annual Canal History & Technology Symposium at the William Simon Center on the Lafayette campus in Easton, Pa., on Mar. 14, 1992. The following seven scheduled papers will be published in full, with illustrations and maps, in the symposium *Proceedings*, which will be available at the meeting as part of the registration package:

- "The Bethlehem Steel Co. & the Development of the Modern American Defense Industry," by Lance Metz.
- "The Homestead Plant of the U.S. Steel Corp. & the Development of American Steel Technology," by Mark Brown.
- "The Early History of Midvale Steel & the Work of Frederick W. Taylor, 1865-90," by Charles D. Wrege & R.G. Greenwood.
- "The Delaware Div. Canal Co., 1858-1940," by Albright Zimmerman.
- "The Delaware & Hudson Canal Co. vs. the Pa. Canal Co." Insights into Canal & RR Life & Management During the 1850s," by Spiro Patton.
- "Mauch Chunk, Pa., as an Anthracite Coal Mining Town," by Vincent Hydro.
- "The Huber Breaker: A Study in 20th-C Anthracite Coal Technology," by Robert Janosov.

The \$35 registration includes admission to the symposium, one copy of the *Proceedings*, and a reception at the Canal Museum. Info.: HMHP&M, Canal Museum, POB 877, Easton PA 18044-0877 (215-250-6700).

EXHIBITIONIST is the 36-page newsletter published by the Natl. Assn. for Museum Exhibition (NAME), the Standing Professional Committee on Museum Exhibition of the American Assn. of Museums (AAM). NAME, which has some 1,600 members, is intended to be a source of broad dissemination of information on the conception, planning, design, conservation, fabrication, installation, and maintenance of museum exhibitions. The group also publishes *Exhibit Builder* magazine and sponsors exhibit-related workshops and seminars. Membership is \$15 (\$20 international, \$10 student/retired); AAM membership is not required. Apply to NAME, c/o Louise L. DeMars, POB 876, Bristol CT 06011-0876. Additional info.: Whitney Watson, c/o Putnam Museum, 1717 W. 12th St., Davenport IA 52803 (319-324-1933).

US/ICOMOS 1992 INTERNSHIP. US/ICOMOS (the U.S. Committee, Intl. Council on Monuments & Sites) is seeking U.S.-citizen graduate students or young professionals for paid internships in Gt. Britain, the USSR, Lithuania, Poland, France, Israel, and other countries in summer 1992. Participants work for public and private nonprofit historic preservation organizations and state agencies, under the direction of professionals, for three months. Past internships have required training in architecture, architectural history, landscape architecture, conservation, history, planning, archeology, or museum studies. Applications due by Mar. 16, 1992. For further information on qualifications, age restrictions, and stipends, and to receive application forms, contact Ellen Delage, Program Officer, US/ICOMOS, 1600 H St. NW, Wash. DC 20006 (202-842-1862, fax 842-1861).

IA FELLOWSHIP. The SIA and the Historic American Engineering Record, Natl. Park Service, announce a fellowship for those preparing a monograph or book on American industrial or engineering history using material culture (structures, machines, or other artifacts) as a basis for the study. Stipend is \$18,000 for 12 mos. Deadline for submittals is Feb. 28, 1992. Guidelines & info.: David L. Salay [SIA], Dept. of History, Montana State Univ., Bozeman MT 59717.

WHATEVER HAPPENED TO THE STATIONARY ENGINE SOCIETY? Last Jan., Roger L. Robertson [SIA], founder, secretary, editor, and all around SES stalwart, had announced in the SES newsletter that his longstanding appeal for writing and editing help had gone unanswered long enough and the society would cease virtually all activities and dues would be refunded. Now, months later, the organization has been resuscitated. In March, SES representatives met with officers of their British counterpart, the Stationary Engine Research Group, and finalized plans to merge both groups into the International Stationary Steam Engine Society.

The new ISSSES expands the geographical scope worldwide, while focusing on stationary *steam* engines, the sole interest of the original British SERG and the primary interest of the SES. The general goals of both remain: to support interest in, and appreciation of the history, documentation, and preservation of stationary steam engines throughout the world. A quarterly *Bulletin* will be published, and contributions are solicited. ISSSES officers include Conrad Milster [SIA], secy. & treas.; Robertson, editor for the U.S.; and George King III, program development. Membership is \$20, including the *Bulletin*; for \$30 a member also receives the annual *Journal*, a 100-page scholarly and technical publication. Send membership applications, and checks payable, to: Conrad Milster, 178 Emerson Place, Brooklyn NY 11205 (718-857-9524). *Bulletin* contributions to Robertson, 3706 Emily St., Kensington MD 20895 (301-942-3507).

CARIBBEAN ISLANDS IA TOUR. A three-island, combined IA tour and vacation is being offered by The Nevis Academy, an island-based tour operator. This eight-day, seven-night tour is available at any time between early Feb. and June, 1992. The tour features the islands of Nevis, St. Kitts, and Antigua, with overnight accommodations on Nevis and Antigua. Featured sites include: the remains of animal-, wind-, water-, and steam-powered cane mills and factories; a working sugar-cane processing factory and its cane-harvesting operation; a rum distillery; and operating narrow-gauge cane RR. Other IA sites to be visited include lime kilns, an abandoned cotton gin with steam and i.c. engine power, Brimstone Hill Fortress, remains of a large sugar factory on Antigua, and the restored naval dockyard at English Harbour, Antigua. The tour includes one free day for optional activities, and additional destinations can be arranged. Costs, including all accommodation and inter-island travel, are estimated at US\$1,200 per person, double occupancy. For a copy of the tour itinerary and complete costs, contact David Rollinson [SIA], The Nevis Academy, POB 493, Nevis, West Indies (809-469-2091, fax 469-2113).

SIA Policy: The sponsor of the tour described above has asked that it be listed in SIAN. By listing the tour, the SIA neither endorses nor makes any representations or warranties concerning the tour or its sponsors.



SOCIETY FOR INDUSTRIAL ARCHEOLOGY NEWSLETTER

PUBLICATIONS OF INTEREST

A SUPPLEMENT TO VOL. 20, NO. 3

FALL 1991

Compiled by

John M. Wickre

61 Clapboard Ridge Road, Danbury, Connecticut 06811 (203-730-9532)

GENERAL SUBJECTS

Arnold R. Alanen, "Early Labor Strife on Minnesota's Mining Frontier, 1888-1900." In *Minnesota History* 58, Fall 1991, p840-63. Mesabi iron range, incl. ore-carrying RRs.

Biographical Dictionary of American Civil Engineers. Vol. II. Francis E. Griggs (ed.). Amer. Soc. Civ. Eng. (NY), 1991. 141p, illus., index. \$7. Rev. in *The Flying Buttress* (newsletter of the SHOT Building Technology and Civil Engineering Interest Group) No. 7, July 1991.

Lizbeth Cohen, **Making a New Deal: Industrial Workers in Chicago, 1919-1939.** Cambridge Univ. Pr. (Cambridge), 1990. xviii, 580p. \$28. Social history of mass-production workers. Rev.: *JAH* 78, Sept. 1991, p712-13.

François M. Crouzet (ed.), **Le Négoce International XIIIe-XXe Siècle.** Economica (Paris), 1989. 249p. 200F. 17 papers on French international trade, 13th to 20th C., incl. trade routes, Lyon silk industry, shipping in West Coast ports, cognac trade. Rev.: *BHR* 64, Autumn 1990, p574-6.

R. P. T. Davenport-Hines (ed.), [collected articles from *Business History*], 2 vol., pub. by Frank Cass (London), 1990, \$27 ea.:
— **Capital, Entrepreneurs and Profits.** 361p. Articles from 1958 to 1982, incl. footwear, London Mining Exchange, commercial letterpress printing, railways, Joseph Whitworth, machine tool industry.
— **Business in the Age of Depression and War.** 326p. Articles after 1982, incl. large employers and mfrs., concrete, shipyards, aircraft, North British Locomotive.
Rev. in *BHR* 64, Autumn 1990, p573-4, includes complete list of articles.

Daniel Defoe, **A Tour Through the Whole Island of Great Britain.** Ed. by P. N. Furbank et al. Yale U. Pr. (New Haven CT), 1991? An abridged version of the orig. 3 vols. of 1724-26, but with added contemp. illus. Much on trade & business: wool, spinning, mining, ag., fishing, building. Rev.: *Smithsonian* 22, Oct. 1991, p168-171.

James P. Delgado, "Historical Archaeology and the Recovery of the Past." Review essay. In *Public Historian* 13, Spring 1991, p85-100.

Arthur Channing Downs, **Downing and the American House.** Downing & Vaux Society (Newtown Square PA), 1988. 52pp. \$5 ppd., from Downing & Vaux Society, 125 Ridgefield Road, Newtown Square, PA, 19073.

Ian M. Drummond & Norman Hillmer, **Negotiating Freer Trade: The United Kingdom, the U.S., Canada, and the Trade Agreements of 1938.** Wilfrid Laurier Univ. Pr. (Waterloo, Ont.), 1989. 107p, illus., bibliog., index. \$35. Primarily political. Rev. in *BHR* 64, Autumn 1990, p552-3, notes item by item discussion of "products important and insignificant" (autos and grain, tinned loganberries and lace trimmings) — indicating that the primary treaty documents might have more data of IA interest.

Ervan G. Garrison, **A History of Engineering and Technology: Artful Methods.** CRC Pr. (2000 Corporate Blvd. NW, Boca Raton FL 33431), 1991. pp?, illus. \$40. World wide, from earliest times.

Historical Hazardous Substance Data Base. Ill. State Museum (Geog. Program, 1920 S. 10-1/2 St., Springfield IL, 62703), 1991?. 3.5-in. or 5.25-in. disk (MS-DOS) and manual. \$50 commercial use / \$40 not-for-profit. Information gleaned from a variety of historical documents, most notably the occupational health literature. It allows users to match former industrial activities with commonly used hazardous substances contemporary with the period under investigation. Includes SIC [Standard Industrial Code], RCRA and CAS Identification Codes, range of years substances used. A **must-have** item for IAers evaluating industrial sites — which is itself an area of **opportunity** for IA historians.

Thomas P. Hughes, **American Genesis: A Century of Invention and Technological Enthusiasm, 1870-1970.** Viking (NY), 1989. 530p, illus, notes, index. Industrial laboratories; system (Fordism & Taylorism, incl. USSR & Germany; Insull & electrical utilities); IA in art; TVA & Manhattan project.

William D. Jenkins, **Steel Valley Klan: The Ku Klux Klan in Ohio's Mahoning Valley.** Kent State Univ. Pr. (Kent), 1990. 222p. \$28. Rev.: *JAH* 78, Sept. 1991, p715-16. KKK as a conventional civic action group usually keeping its prejudices in check, esp. 1933-1935, after which it declined.

Dale W. Jorgenson, Frank M. Gollop, & Barbara M. Fraumeni, **Productivity and U.S. Economic Growth.** Harvard Univ. Pr. (Cambridge), 1988. 567p, illus., references, index. \$32. Incl. data on individual industries, 1948-1979. Rev.: *BHR* 64, Autumn 1990, p549-10.

Carol A. Lee, **Wired Help for the Farm: Individual Electric Generating Sets for Farms, 1880-1930.** Diss., Pa. St. Univ. (Harrisburg PA), 1989.

Kenneth Lipartito, "What Have Lawyers Done for American Business? The Case of Baker & Botts of Houston." In *BHR* 64, Autumn 1990, p489-526. Decentralized U.S. legal system and problems with new forms of organization, financing, and business practices requiring national firms to have local and regional representation; state vs. federal laws; politics; regulatory battles; incl. mfg. firms, RRs.

Michael O'Malley, **Keeping Watch: A History of American Time.** Viking (NY), 1990. xvi + 384p. \$20. Change from natural to standard time. Rev.: *JAH* 78, Sept. 1991, p656-56.

Gerald Pocius (eds.), **Living in a Material World: Canadian and American Approaches to Material Culture.** Iser Books (Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 6B7, 709 737 8166), 1991. 314p, illus. \$30 pap. Role of the artifact in the study of history, economics, art, and ethnography; general statements and case studies.

Harold Seymour, **Baseball: The People's Game.** Oxford U. Pr. (NY), 1990. 639p. \$25. Incl. industrial, prison, semipro, & town teams; pre-WWII. Rev.: *JAH* 78, June 1991, p370-71.

Merritt Roe Smith, "Technology, Industrialization & the Idea of Progress in America." In *Timeline* 8, Feb.-Mar. 1991, p3 17 & Apr.

May 1991, p30-43. A fine essay, well-illus., incl. photos, diagrs., paintings, some color.

Raymond Vernon (ed.), **The Promise of Privatization: A Challenge for U.S. Policy.** Council on Foreign Relations (NY), 1988. \$95p, charts, tables, app., notes, index. \$23/13 pap. Venezuela, Brazil, Philippines, Turkey, Africa, U.K., 1980s. Rev.: *BHR* 64, Autumn 1990, p555-6.

Langdon Winner, "A Postmodern World's Fair." In *Technology Rev.* 94, Feb.-Mar. 1991, p74. Suggests debunking myths of technological progress with exhibits such as "Palace to the Ironies of Progress" and "Theater of Futures Foreclosed."

MISCELLANEOUS INDUSTRIES

Swannee Bennett & William B. Worthen, **Arkansas Made: A Survey of the Decorative, Mechanical, & Fine Arts Produced in Arkansas, 1819-1970. Vol. I: Furniture, Quilts, Silver, Pottery, Firearms.** U. of Ark. Pr. (Fayetteville), 1990. 226p, "heavily" illus. \$45.

Brewery History. Quarterly pub. of the Brewery History Society (founded 1972; Manor Side East, Mill Lane, Byfleet, Weybridge, Surrey KT14 7HS England). Articles about brewers and breweries from as early a date as possible, to contemporary mergers, small breweries, etc. Subscription, £6.

Alfred D. Chandler, Jr., **Scale and Scope: The Dynamics of Industrial Capitalism.** Harvard U. Pr. (Cambridge), 1990. xx, 860p. \$35. U.S., GB, and Germany, c1880-1940, incl. petroleum, chemicals, metals, machinery mfg., and food processing. Rev.: *JAH*, Sept. 1991, p691-2.

Isaac Cohen, **American Management and British Labor: A Comparative Study of the Cotton Spinning Industry.** Greenwood (NY), 1990. 250p. \$45. Esp. mule spinning, 19th C. Rev.: *AHR* 96, Oct. 1991, p1165-66.

Carel de Beer (ed.), **The Art of Gunfounding: The Casting of Bronze Cannon in the Late 18th Century.** Jean Boudriot Publications (Ashley Lodge, Rotherfield, E. Sussex, TN0 3QX, England), 1991. 240p, 800 illus. (52 col.). \$50 / \$85 De Luxe ed. Combines 50 watercolor paintings of the founding and machining process with two hitherto unpublished mss. on gunfounding, with additional illus. The paintings (here reproduced in col.) are by Jan & Pieter Verbruggen, gunfounders from the Hague, who rebuilt the Woolwich Brass Foundry for the British Board of Ordnance, 1770-1774 (and apparently continued to work there for some years after). The mss., orig. in French, are contemporary with the paintings. Their translation here "constitutes the first complete and contemporary description of the technology of bronze gunfounding in this period ever published in the English language!" The first is by David Emmanuel Musly, c.1760s (with 26 plates), and the other by Isaac Landmann, Professor of Artillery & Fortification at the Royal Military Academy at Woolwich, written 1790s (with a set of Landmann's sketches). A further 60 or so contemporary engravings & modern sketches & diagrs. also are included.

René De La Pedraja, **Energy Politics in Colombia.** Westview Pr. (Boulder CO), 1989. xi + 244p, maps, notes, index. \$28. Petroleum, natural gas, hydroelectric; 1930s-present. Rev.: *BHR* 64, Autumn 1990, p558-9.

André Gaucheron, **Buckwheat Handmills in Brittany.** Intl. Molinological Soc. (2 Eldon Road, Reading RG1 4DH England), 1990.

John Gruber (SIA), "Iron Paint." In *Mid Continent Railway Gazette* 24, Sept. 1991, p6-10. [Avail: MC Rwy. Historical Soc., P.O. Box 55, North Freedom WI, 53951] Iron mined in N. Freedom area, used for red paint mfr. both locally and by others, after 1885. The C&NW RR made paint from this ore in its Chicago shops from 1892 and used it on both structures and cars.

David Hounshell, "Interpreting the History of Industrial Research & Development: The Case of E.I. Du Pont de Nemours & Co." In *Proceedings of the Amer. Philosophical Soc.* 134 (Dec. 1990), p387-407.

International Stationary Steam Engine Society will publish both a *Bulletin* [60p quarterly, rec'd with \$20 membership] and *Journal* [100p annual, rec'd with \$30 membership]. ISSES, a merger of the former Stationary Engine Society [U.S., Roger Robertson, SIA] and Stationary Engine Research Group [Gt. Britain], is dedicated to locating, recording and preserving reciprocating steam engines world-wide. Contact: George King III, 859 Route 32, North Franklin CT 06254 (203-642-7103); secy.-treas., Conrad Milster [SIA], 178 Emerson Place, Brooklyn NY 11205 (718-857-9524).

Richard B. Kiebowicz, "Postal Subsidies for the Press and the Business of Mass Culture, 1880-1920." In *BHR* 64, Autumn 1990, p451-88. Communication: advertising: from Postal Classification Act of 1879 to 1917 reform act, a time during which publications conducted as an

auxiliary to business (farm implement mfrs. periodicals, for example) paid third class rates, eight times as much as the cent-a-pound rate for second-class magazines and newspapers.

Tom Lewis, **Empire of the Air: the Men Who Made Radio.** HarperCollins (NY), 1991. 421p, illus., bibliog., index. \$25. De Forest & Armstrong; Sarnoff & RCA; patents & interminable litigation; 1890s-1960s.

Edward T. Morman (ed.), **Efficiency, Scientific Management, and Hospital Standardization: An Anthology of Sources.** Garland (NY), 1989. xxx + 274p, maps, illus., bibliog. \$45. Rise of hospital as central site [and structure??] for medical care; often "explicitly compared to ... factories and assembly lines ... [emulating factories] "in their management of people, raw material, and money." Rev.: *BHR* 64, Autumn 1990, p538-9.

Peter J. Poletti, Jr., **An Inter-Disciplinary Study of the Missouri Grape and Wine Industry, 1650 to 1989.** Diss., St. Louis Univ. (St. Louis, MO), 1989.

James S. Pula & Eugene E. Dziedzic, **United We Stand: The Role of Polish Workers in the New York Mills Strikes, 1912 and 1916.** East European Monographs (Boulder CO), 1990. 296p. \$35. NY company town; textiles. Rev.: *JAH* 78, Sept. 1991, p712.

David A. Simmons, "True Grit: Ohio's Industrial Grindstones." In *Timeline* 8, Feb.-Mar. 1991, p40-45. Ohio grindstone industry, esp. 1880s-1920s; sandstone grindstones to 7 ft. dia., 14-in. thick, 3 tons in weight, for grinding steel; Michael O'Connor's 'ditcher' for cutting circular grindstones; grinders' hazards of bursting stones, silicosis from dust.

James G. Wheeler & Ronald L. Mitchelson, "The Information Empire." In *American Demographics* 13, Mar. 1991, p40-42. Information flow of overnight packages controlled by 10 cities who export more information than they import.

Wilkinson Studies. Vol. I, 1991. 60p, illus. Can be ordered "without commitment (except to return it if disappointed)"; if satisfied send \$3.95 to Merton Priory Pr. (POB 363, London SW19 3JN). A new series of studies to appear annually. Based on the life and times of noted iron master John Wilkinson (1728-1808), involved in improved iron production, precision boring techniques, the first iron canal boat, improvements in steam engines & management techniques, etc., etc.

MATERIALS

Leo R. Barker & Ann E. Huston (eds.), **Death Valley to Cripple Creek.** Proceedings of the Historic Mining Conference, Death Valley Natl. Monument, Jan. 23-27, 1989. pp? Avail.: gratis, while they last, from Div. of Natl. Register Programs, National Park Service, Western Region, 600 Harrison St., Suite 600, San Francisco CA 94107.

Thomas Bass, "Land of Bronze." In *Discover*, Dec. 1991, p63-66. Tin mines of Turkey, 4500 yrs. old, incl. mining community; small crucibles used in charcoal-fired smelting process: artifacts contradicting Assyrian claims that Anatolia had no tin [which, combined with copper, produced bronze].

Martin Kenney & Richard Florida, "How Japanese Industry is Rebuilding the Rust Belt." In *Technology Rev.* 94, Feb.-Mar. 1991., p24-33. Incl. steel industry.

Ruth B. Moynihan, et al (eds.), **So Much to Be Done: Women Settlers on the Mining and Ranching Frontier.** U. of Neb. Pr. (Lincoln), 1990. xxii + 325p. \$33/13 pap. Rev.: *JAH* 78, Sept. 1991, p667-8.

Clark C. Spence, **The Conrey Placer Mining Co.: A Pioneer Gold-Dredging Enterprise in Montana, 1897-1922.** Mont. Hist. Soc., Helena, 1989. 161p. \$20. Placer mining as a large-scale venture, Virginia City, MT. Rev.: *JAH* 78, Sept. 1991, p697-8.

STRUCTURE

1491: America Before Columbus is focus of *National Geographic* 180, Oct. 1991. It includes misc. structures, transport, etc.:

— Maria Parker Pascua, "A Makah Village in 1491: Ozette," p38-53. Incl. paintings of a village, whaling with canoes, splitting cedar planks from living trees.

— George E. Stuart, "A Southeast Village in 1491," p54-67. Appalachia (GA), large town, platform mounds, rock wiers.

— Joseph Brushac, "A Mohawk Village in 1491: Otstungo," p68-83. NY; Mohawk longhouses.

Oliver E. Allen, "Williamsburg on the Subway." In *Amer. Heritage* 42, May-June 1991, p94-107. Six historic sites (mansions to farmhouses) in NYC area reachable by public transportation.

Michael J. Auer, **The Preservation of Historic Barns**. U.S. Department of the Interior, National Park Service, Preservation Assistance Division. Preservation Briefs, 20. Government Printing Office (Wash. DC), 1989.

Barn Again! A Guide to Rehabilitation of Older Farm Buildings. National Trust for Historic Preservation (511 16th St., Suite 700, Denver, CO 80202), 1991? 18p, four color. \$5/copy incl. p&h; bulk orders (10+ copies), \$2.50/copy with \$3 p&h. Publ. in conjunction with *Successful Farming* magazine; designed as an aid to farmers and others who are interested in converting their historic farm buildings to contemporary farming uses. Incl. 9 "barn again" barns; barn rehabilitation checklist; tips about repairing foundations, roofs, and siding; info on NR nominations and rehabilitation tax credits.

Charles N. Barnard, "On Santa Catalina Island, the Kings of Swing Held Sway." In *Smithsonian* 22, Oct. 1991, p153-167. Incl. Casino Ballroom (with 1250-seat theater below), built by gum magnate Wm. Wrigley, Jr., 1928-9.

John Bold, "The Recording of Standing Buildings." In *Vernacular Architecture* 31, 1000, p16-17.

William D. Brookover & Robert A. Ryan III, "Photogrammetric Recording of Independence Hall." In *CRM* 14, No. 3, 1991, p5-7.

John A. Burns, "HABS/HAER Measured Drawings and CAD-Photogrammetry." In *CRM* 14, No. 3, 1991, p4-5.

Mary Donohue & David A. Poirier, **Historic Preservation: A User's Guide to the Connecticut Historic Preservation Collection**. Conn. State Historical Commn. (59 S. Prospect St., Hartford CT 06106), 1991. ?p. \$10. Archival survey; info on over 70,000 buildings & archeological sites. Descr. of collections; list by town or city name. The orig. archival survey materials are in the Homer Babbidge Library, U. of Conn. (Storrs, CT).

Wayne Franklin, **A Rural Carpenter's World**. U. of Iowa Pr. (Iowa City), 1990. 302p. \$33. Diary of James Calvin Holmes, S. central NY, 1889, carpenter, cabinetmaker, farmer; transcription, discussion of Otswego County built environment. Rev.: *JAH* 78, Sept. 1991, p682-3.

Augustine J. Fredrich (ed.), "Sons of Martha: Civil Engineering Readings in Modern Literature." Amer. Soc. of Civil Engineers (NY), 1989. 610p. \$35 pap. Sections on history & heritage, civil engineers, projects (bridges, dams, highways, buildings), moral & intellectual dilemmas.

Arthur A. Hart, "Sheet Iron Elegance: Mail Order Architecture in Montana." In *Montana* 40 (Autumn 1990), p26-31.

Gerd Kittel, **Diners: People and Places**. Thames & Hudson (NY), 1990.

Mills Lane, **Architecture of the Old South: Mississippi & Alabama**. Abbeville Press (NY), 1989.

Gabrielle Milan Lanier, **Samuel Wilson's Working World: Builders and Building in Chester County, Pennsylvania, 1780-1827**. Thesis, Univ. of Dela., 1989.

Stanley Meisler, "After the Wall, a National Treasure is Rediscovered." In *Smithsonian* 22, Oct. 1991, p76-90. Pergamon Museum, East Berlin, incl. altar of Pergamon, Hellenic colony in western Turkey; 462 cases of treasure transported to Germany, late 19thC (incl. overland 18 mi. to the sea), and partly reassembled in Berlin. The Pergamon Museum opened in 1930, "the only museum in the world with such large-scale reconstructions of ancient architecture."

Ross Miller, **American Apocalypse: The Great Fire & the Myth of Chicago**. U. of Chicago Pr. (Chicago), 1990. 287p. \$25. From literary and architectural materials, 1871-1890s. Incl. U. of Chi. campus, 1893 World's Fair. Rev.: *JAH* 78, Sept. 1991, p684-5.

...Off the Beaten Path: A Guide to Unique Places [series of books]. Globe Pequot Pr. (138 W. Main St., Chester CT 06412). ca.140-160p? \$9 ea. State guides, arranged by region within each state, and by county within each region, with an index. Incl. museums, breweries, and the odd mine, bridge, mill, etc.; Art Smart's Dart Mart & Juggling Emporium (Milwaukee), National Watermelon Seed Spitting Contest (Pardeeville, WI), Museum of Hammers (Norborne MO, open when Glen isn't out in the north forty). Wisconsin vol. (1989) lists editions for CO, FL, GA, IL, IN, MI, MN, NJ, NY, CA (N. & S.). Vol. for MO (1990) also out. Perhaps SIAers can work with guidebook publishers to include more IA.

"Preserving Historic Scientific and Technological Facilities." In *CRM* 14, No. 2, 1991, p17-18.

Kurt C. Russ, **The Fincastle Pottery (44BO304): Salvage Excavations at a 19th-C Earthenware Kiln Located in Botetourt County, Virginia**. Technical Report Series No. 3. Virginia Dept. of Historic Resources

(Richmond, VA), 1990. 54p. \$5 + \$2 p&h from VDHR, 221 Governor St., Richmond, VA, 23219.

David Quick, "Early 20th-C. Concrete Bridge Engineering and Aesthetics in the U.S. and the Y-Bridge at Galena, Mo." In *Material Culture* 22, Summer 1990, p27-35. Open spandrel fixed arch bridge with a "Y" connection between two state highways; historical context, both local & international.

Glenn N. Sandvik, "Land Office Buchanan: Emporium of the North Shore." In *Minnesota History* 52, Fall 1991, p279-88. The village of Buchanan, Lake Superior north shore (n.c. of Duluth), with hotel, docks, saloons, U.S. land office; est. 1856, abandoned after 1859 removal of land office.

Mary Towley Swanson, "Dewey Albinson: the Artist as Chronicler." In *Minnesota History* 52, Fall 1991, p264-78. Minn. artist, active 1920s-1960s. Lake Superior north shore fishing villages (some color), Minneapolis - St. immigrant communities, other structures.

Paul Baker Touart, **Somerset: An Architectural History**. Maryland Historical and Cultural Publications (Central Cashier, P.O. Box 500, Crownsville MD 21032-0500, 301-974-5585), 1991?. 424p, illus. (517 b&w photos, 59 maps/drawings). \$25 pap. Documents 18th & 19th C buildings in Somerset County, MD (Chesapeake and Eastern Shore); a collaborative effort of the Maryland Historical Trust and the Somerset County Historical Trust.

Vernacular Architecture Newsletter, No. 49, Fall 1991 (Vernacular Architecture Forum, c/o Michael Ann Williams, Programs in Folk Studies, Western Kentucky Univ., Bowling Green KY 42101), includes comments on 1991 VAF conference, p12-20; bibliog., p27-37.

Ingolf Vogeler, "The Character of Place: Building Materials and Architectural Characteristics in Eau Claire, Wis." In *Material Culture* 22, Spring 1990, p1-21.

Priscilla Wegars, "Who's Been Workin' on the Railroad?: An Examination of the Construction, Distribution, and Ethnic Origins of Domed Rock Ovens on Railroad-Related Sites." In *Historical Archaeology* 23, No. 1, 1991, p37-55.

Henry Wiecek (text), and Steve Gross & Susan Daley (photogs.), **Old Houses**. Stewart, Tabori & Chang (publ.), 1991. 256p, illus. (250 color photos). \$50. "Painterly photographs & family histories reveal the mystery & elegance of American Houses the have weathered time" (says blurb). Avail: National Trust for Historic Preservation, 1600H St. NW, Wash. DC 20006 (1-800-274-3694 to order; 202-673-4200).

Michael W. Williams, "Czar of Kossuth: J. D. Moskowitz." In *Timeline*, p20-31. Kossuth Colony (Dayton, Ohio), a labor colony for workers of the Barney & Smith Car Co., c1905-21; and Moskowitz (1867-1946), immigrant labor contractor, supplier of Eastern European (often Hungarian) labor for Dayton Malleable Iron Works and other firms from 1898, and builder/czar of the colony. Surrounded by a 12-ft.-high stockade, with a guard at its one gate, and lacking trees, grass, and pavement, the colony was the center of a newspaper controversy in 1906.

J. Mark Wittkofski, **Theses and Dissertations Relevant to Virginia Archaeology, Architecture, and Material Culture**. Bibliography Series No. 3 (Revised). Virginia Dept. of Historic Resources (Richmond VA), 1991. 224pp. \$10 + \$2 p&h from VDHR, 221 Governor Street, Richmond VA 23219.

William S. Worley, **J. C. Nichols and the Shaping of Kansas City: Innovation in Planned Residential Communities**. U. of Mo. Pr. (Columbia), 1990. xxviii, 324p. \$30. Nichols (1880-1950) and high-income, restricted covenant developments (Country Club District) on K.C. outskirts, housing for 50,000 by 1950; first planned shopping center. Rev: *JAH* 78, Sept. 1991, p710-11.

TRANSPORT

Linda J. Barth, "A More Pressing Errand." In *Locomotive & Railway Preservation*, No. 32, May-June 1991, p2-3. Guest editorial in answer to Crapo's editorial, noted below. Believes "the pursuit of historic accuracy and 'Disney' philosophy will not mix."

Kurt R. Bell, "The First State is Steaming!" In *Locomotive & Railway Preservation*, No. 26, May-June 1990, p14-31, 52-54. Wilmington & Western RR Co. / B&O Landenberg Br., 10.2 mi. in DE-PA, 1869-1982, now a tourist RR run by Historic Red Clay Valley, Inc.; description of rolling stock (incl. roster); management (incl. marketing); maintenance (bridges, crossings).

Ted Benson, "Niles Tower in the Twilight Hour: Intangibles Too Precious to Ignore." In *Locomotive & Railway Preservation*, No. 32, May-June 1991, p12-27. Interlocking plant at jct. of SP & WP, c.1909-1986; incl. surviving tower record book, 1955-1982.

Sharon A. Brown, "Protecting a National Treasure: The East Broad Top Railroad." In *CRM* 14, No. 3, 1991, p9-10.

David G. Casdorph & E. A. Neubauer, "Maryland & Pennsylvania Freight Car Roster." In *Freight Cars Journal*, No. 39, p11-16.

Michael Cassity, "Derending a Way of Life: An American Community in the 19th Century." Sedalia, Mo.; extended denunciation of market system, but incl. RR workers, strikes. Rev.: *BHR* 64, Autumn 1990, p531-2.

Ray Crapo, "The Next 25 Years of Railway Preservation." In *Locomotive & Railway Preservation*, No. 26, May-June 1990, p2-6. Guest editorial, speculative look at rwy. museums in the year 2015, esp. combination of entertainment and learning.

David J. Daisy & Tom Grant, "Illinois Central Rail Freight Car Pictorial." In *Freight Cars Journal*, No. 36, Dec. 15, 1990, p3-48.

"Doing Away With Danger: La Crosse Alliance to Preserve Grand Crossing Tower." In *Mid-Continent Railway Gazette* (POB 55, North Freedom WI 53951) 24, June 1991, p6-7 (related info on p8). RR interlocking, La Crosse, WI, in operation 1007-1991, the last continuously operated manual interlocking in the state; to be moved to local park ("Save the Tower" buttons are \$2 from Preservation Alliance of La Crosse, La Crosse WI 54602-1422).

Alton F. Dody & Ron Bingaman, *Reinventing the Wheels: Ford's Spectacular Comeback*. HarperCollins (NY), 1990. xv + 136p. \$9 pap. 1970s-1980s. Rev.: *BHR* 64, Autumn 1990, p545-6.

H. Roger Grant, "Railroaders & Reformers: The Chicago & North Western Encounters Grangers & Progressives." In *Annals of Iowa* 50, winter 1991, p772-86.

Kirby J. Harrison, "They Were the First: The Real Story of the First Transatlantic Flight." In *Timeline* 8, June-July 1991, p2-15. U.S. Navy NC-4, Newfoundland - Azores - Lisbon, 1919. NC-class (Navy Curtiss) flying boat, with hull made by a Rhode Island boat-building firm. Illus., map.

Gary A. Hunter, "Steam Under Ice." In *Locomotive & Railway Preservation*, No. 32, May-June 1991, p28-51, 77-78. Argentina: narrow-gauge (2-ft., 5.5-in.) Esquel Branch, built c.1922-1945 with steep grades into Andes, 250 miles; strange story of 75-cm. line with a surplus of locomotives (Baldwin & Henschel 2-8-2s, some stored 1922, in mint condition when finally used).

Jan Jennings (ed.) *Roadside America: The Automobile in Design and Culture*. Iowa St. Univ. Pr. (Ames, IA) for the Society for Commercial Archeology, 1990. Incl.:

— Carol Ahlgren & Frank Edgerton Martin, "A Story of Prefabrication: How the Trachte Company Grew Up with the Roadside," p107-14.

— Mary Anne Beecher, "The Motel in Builder's Literature and Architectural Publications: An Analysis of Design," p115-24.

— Robert M. Craig, "Transportation Imagery and Streamlined Moderne Architecture: A Case for a Design Typology," p15-28.

— Folke T. Kihlstedt, "The Automobile: A Bridge Between Engineering and Architecture," p3-14.

— Keith A. Sculle, "Frank Bedford's Wigwam Village Chain: A Link in the Modernization of the American Roadside," p125-35.

— E. L. Widmer, "Crossroads: The Automobile, Rock and Roll, and Democracy," p82-91.

Mark Kindrachuck, "CP Rail Freight Car Pictorial." In *Freight Cars Journal*, No. 37, Feb. 1991, p3-32.

Peter Kuckuk and Hartmut Rader (eds.), *Von der Dampfbarkasse zum Containerschiff: Werften und Schiffbau und der Unterweserregion*. Steintor (Bremen), 1988. 323p, maps, charts, illus., bibliog., index. Price not listed. Germany: Bremen and Bremerhaven shipyards, ships, workers. 16 essays. Rev.: *BHR* 64, Autumn 1990, p576-7.

Stuart Leslie, "The Bug: 'Boss' Kettering's Cruise Missile." In *Timeline* 8, Aug.-Sept. 1991, p42-51. The self-guided flying bomb: Kettering, Orville Wright, Elmer Sperry, Hap Arnold, and the Dayton Wright Airplane Co., 1917-1919, and Kettering, Arnold, and General Motors, 1939-1943; all semi-unsuccessful.

Steven Lubar, "West Old Baltimore Road." In *Landscape* 31, (1991), p18-26.

Mainline Modeler has usual fine articles, illus. with photos & dwgs.: — Vol. 12, July 1991, includes Fruit Growers Express, mechanical refrigerated motortruck trailer, p21-25; B-&O watch box (6'x6' crossing watchman's structure?), p20 and 10'x18' milk platform, p40; wheel cars (converted flat cars carrying car wheels, considered m-of-w equipment), p33-35; Wabash arside covered nopper, p39-41; DL&W streamlined Pacific steam locomotives, p42-47; Maine Central

roundhouse, p56-57; C&NW interlocking, p60-63; PS-2 (Pullman-Standard) covered hoppers for transporting bulk commodities, p68-73; plate girder bridges, p74-78.

Carl L. Nelson, "Ocean-Going Gone: New York Loses Pier 54." In *Historic Preservation News* 31, Nov. 1991, p12. NYC; pier 54 and the headhouses of piers 53 and 54 (designed by Grand Central archts. Warren & Wetmore; 1907), severing "the last link with the glory days of transoceanic ship travel."

David Plowden, "The Last of the Old 'Lakers' are Steaming Off Into History." In *Smithsonian* 22, Oct. 1991, p34-47. Great Lakes steamboats, incl. trip on the S. T. Crapo (blt. 1927), one of the last coal-fired boats, with usual wonderful Plowden b&w photos, incl. engines, crew. Based on forthcoming book to be publ. 1992 by W. W. Norton.

Carl Posey, "The Bittersweet Memory That was the Canal Zone." In *Smithsonian* 22, Nov. 1991, p156-179. Panama Canal: history & reminiscence of life & work, from c1900 to a sad present, by a former resident; incl. color paintings.

"Roger & Me." Video, produced, directed and written by Michael Moore. Warner Bros., 1989. 91 min., b&w and color. Flint, Mich., in decline from General Motors plant closings, mid-1970s to 1988; and Roger Smith, GM chairman. Rev.: *AHR* 96, Oct. 1991, p145-6.

James M. Skinner, *France & Panama: The Unknown Years, 1894-1908*. Peter Lang (NY), 1989. 310p, illus., app., bibliog. \$41. New Panama Canal Co., incl. demise of old de Lesseps firm, sale of new company to U.S.; new material on business side of operation. Rev.: *BHR* 64, Autumn 1990, p557-8.

SS Central America and the **SS Central America Project**: sidewheel ocean steamer sunk Sept. 1857 with 3 tons of gold; discovered in 8,000 feet of water, 1988; underwater archeology, 1989-1991.

— [Book]: Judy Conrad (project historian), *Story of an American Tragedy: Survivors Accounts of the Sinking of the Steamship Central America*. 1988.

— Articles in *American History* Illus. 26, Mar.-Apr. 1991:

— Judy Conrad, "Final Voyage," p60-65, 72. Incl. color illus. of ship.

— Charles E. Herdendorf, "Discovery in an Alien Environment," p66-71. [Herdendorf is science coordinator of the project.]

Thomas W. Sweeney, "A Rare & Successful Alliance." In *Historic Preservation News* 31, Nov. 1991, p14. Greyhound bus terminal. Wash. DC (1940-1987); Moderne style, Wm. S. Arrasmith, archt.; now an office bldg.

Bertha Thompson, *Doxcar Bertha: An Autobiography*. As told to Dr. Ben L. Reitman. Amok Pr. (NY), 1988. 314p. Reprint; orig. pub. in 1937 as *Sister of the Road*, a much better title reflecting Thompson's concern for the c.100,000 women on the road, c.1920s-30s, via rail, flivver, motorcycle, and on foot — wanderers, transients, radicals, hoboes, vagrants, and what we would now call "homeless." some of whom were panhandlers, drug addicts, criminals, and prostitutes. Thompson lived as a hobo (an "unattached man or woman looking for work"), combining an intellectual interest and historian's information-gathering with a feminist, free-love spirit and a concern for service, working with transients' bureaus, relief stations, a social research bureau, and a hobo college. Includes a 35-p. appendix of sociological data, factors that make women take to the road, etc.

Andrew D. Young, "Canadian Trolley Museums." In *Locomotive & Railway Preservation*, No. 26, May-June 1990, p37-44.

Abbreviations used in this PofI:

AHR	American Historical Review.
BHR	Business History Review.
CRM	[Cultural Resources Management], NPS, POB 57 187, Wash. DC 20013-7127.
JAH	Journal of American History.

Readers are urged to send all notices of pertinent publications to John M. Wickre, Compiler, *Publications of Interest*, SIA Newsletter, P.O. Box 65158, St. Paul MN 55165-0158 or 61 Clapboard Ridge Road, Danbury, Connecticut 06811.

SITES

BRITANNIA MINES FOLLOW-UP. The Britannia Mines ore-concentrating complex at Britannia, British Columbia, was designated an official B.C. Historic Landmark under the provincial Heritage Trust at this year's Discovery Day celebrations. It had been declared a Canadian National Historic Site in 1988, a first for a Canadian mining site [see *SIA* Summer 88:1]. The B.C. designation is accompanied by an award of up to \$235,000 over the next five years for enhanced preservation and interpretation. Funding will be provided by the B.C. Heritage Trust, a crown corporation and the primary agency through which the government supports community-based heritage initiatives. This funding also will tie in with "Britannia Opportunity," a five-year development plan that aims to restore the Britannia Beach mining town to its original appearance. Britannia Mines includes the last remaining gravity-fed concentrator in North America accessible to the general public (Mill No. 3, 1922-23). It is located 52 kilometers from Vancouver, on the well-traveled "Sea to Sky" tourist route.

IMPACT, Canadian Heritage Network (Sept. 1991)

CONCRETE PAVEMENT CENTENNIAL. Bellefontaine, Ohio, celebrated the 100th anniversary of concrete paving on Oct. 12. The original pavement of the city's Court Street, laid in 1891 by George Bartholomew, is listed in the National Register as the oldest concrete street in the U.S. and is still in use. Bartholomew had persuaded the city that his "artificial rock"—portland cement—was suitable for paving the courthouse square. After posting a \$5,000 bond to guarantee a five-year service for his new pavement, Bartholomew paved an eight-ft. wide section of Main St. next to the hitching rail of the Logan county courthouse. The experiment was so successful that within three years all four streets around the courthouse were completely paved in concrete.

APWA Reporter, Oct. 1991

FORD PLANT NOW LAW OFFICES. The 1914 Ford Motor Co. plant in London, Ont., was reopened this spring as the new home of Siskind, Cromarty, Ivey & Dowler, a law firm. The four-story, red-brick and green-tiled factory at 680 Waterloo St. was designed by architect John Graham. Originally used as a small assembly plant, it became obsolete with the development of new assembly lines. From 1924 to 1945 it was rented to the army and used primarily for tent storage. In 1945, Ford sold the building to Pumps & Softeners Ltd., a manufacturing company. The law firm bought the structure in 1989 and began a major renovation by Tillmann Ruth Architects that resulted in a new facade that retains the original Ford plant design elements. Info.: SCI&D, 680 Waterloo St., London, Ont. N6A 3V8 (519-672-2121). S.T.

TORONTO "RED ROCKET" STREETCARS THREATENED. The Toronto Metro Council in Sept. supported a plan to end a program that has been rebuilding the city's vintage streetcars since 1986. The city owns 52 cars, 23 having been rebuilt for \$6 million, and the remaining 29 now possibly to be scrapped since they reportedly are too deteriorated to be sold. The fleet includes PCC-type cars built in 1938. The rebuilt cars are expected to last another decade, but they still can't comply with a new effort to make all cars accessible to

the disabled by having low floors. Not everyone agrees with the decision to terminate the Red Rockets, so the end of this story may not have been written yet. S.T.

SAWMILL SITE IS OSV FIELD-SCHOOL PROJECT.

Recently Old Sturbridge Village archeologists discovered an impressive sawmill site with storage pond, dams, and mill foundations, perched between rocky ledges on museum property in Sturbridge, Mass. This site, occupied 1820-57 by local sawmill owner James Johnson, along with nearby remains of a dwelling, will be the focus of the 1992 OSV Field School in Historical Archaeology. The school runs from June 22 to Aug. 7 and is directed by John Worrell, Director of Research, and Martha Lance, Research Fellow in Historical Archaeology. Excavation will enrich research already under way on rural sawmilling and the timber trade as part of a study partially funded by Natl. Endowment for the Humanities, "Tradition & Transformation: Rural Economic Life in Central New England, 1790-1850." Curriculum in 1992 will emphasize rural industrialization.

Field-school participants are involved in excavation, survey, measured drawings, conservation, computer, and other field, lab, and recording activities. Lectures and workshops by OSV staff and trips to historic sites and museums



Johnson sawmill site at Old Sturbridge Village. M.B. Lance photo for OSV.

complement field and lab work. Academic credit is available equalling a two-semester course. No previous archeological experience is required, although students should have completed at least one year of college. Info.: Martha Lance, Archaeology Field School, OSV, 1 Old Sturbridge Village Rd., Sturbridge MA 01566 (508-347-3362).

IA SITES MARKED IN VA. Among the 24 new historical highway markers added to the Virginia state marker system are two IA sites: gold mining in Stafford County, and the Low Moor Iron Coke Ovens in Alleghany County.

ICE HOUSE QUERY. Leonard S. Duff is seeking information on non-commercial ice-storage buildings from the 18th C through the early 20th C. He is particularly interested in the ways in which they were insulated. Contact L.S. Duff, 703 W. Hill, Oklahoma City OK 73118.

"THE ICEMAN COMETH" is an exhibit running through Dec. 28 at the Rock County [Wis.] Historical Society Museum (POB 8096, Janesville WI 53547-8096, 608-756-4509) that examines the harvesting, storing, and distribution of natural ice. *History News Dispatch*

Joel Shprentz heads home to VA, sees more IA along the way

In the last SIAN, Joel Shprentz described his drive to the Annual Conf. in Chicago and his many IA stops along the way. In this issue, Joel takes us on his journey home to Virginia.

My first stop on the trip back from Chicago was the **Studebaker National Museum** in South Bend, Ind. The entrance facade is completely covered in metal siding, so I walked around to the back to see the original 1919 front facade of the Freeman-Spicer Studebaker dealership ("South Bend's lowest Studebaker prices"), in which the museum is housed. Little of the original interior remains, but there are plenty of Studebakers, ranging from the first carriages built by the brothers in the 1850s to the Raymond Loewy designs of a century later. Although this collection isn't as complete as the Auburn-Cord-Duesenberg collection (see first article), it has a few gems—like the 1937 Studebaker "Dictator," a fine looking car whose ill-timed name proved terminal as Hitler rose to power. The old Studebaker factories across the RR tracks



Above: Studebaker plant & Studebaker Natl. Museum (525 S. Main St., South Bend IN 46601). At right is Union Station.

Left: Loading the clay extruder at Art Chemical Products (1019 Salamonie Ave., Huntington IN 46750). Out come 3/4-in. sticks in a square, nine-stick block.

J. Shprentz photos.

from the museum are slowly being demolished.

Clay mixing was finished for the day when I arrived at **Art Chemical Products** in Huntington, Ind., but they mixed up an extra 100 pound batch of the non-hardening, non toxic modeling stuff (aka "plasticine"/"plastilene") so I could see how it was done. Using a process virtually unchanged in 50 years, motorized augers mix five ingredients in 400-pound batches: clay, gypsum, castor oil, hot petrolatum, and dye. An extruder forces the fresh clay through a die, laying nine continuous 3/4-inch-square sticks on 3-ft. storage boards. After cooling and hardening overnight, the sticks are cut to packaging length with a machine like a cheese cutter. Most of the clay is hand-packed; workers gather four different-colored sticks, wrap them in plastic, and stuff the bundle into a retail box.

Right: The 10-ton Bessemer converter at Station Square (W. Carson St. at Smithfield St. bridge, Pittsburgh, Pa.).

Below: Duquesne Incline (1877), Pittsburgh area.

J. Shprentz photos.



I drove through to Pittsburgh before stopping again at an IA site: **Bessemer Court in Station Square**, the former Pittsburgh & Lake Erie RR station grounds. Among the massive industrial artifacts displayed outdoors along the Monongahela River are a 10-ton Bessemer converter, a 25-ton ingot mold, the sternwheel of the 1940 steam towboat *Jason*, and a 48-ft.-high blowing engine [see *SIAN* Summer 91:11]. Sadly, some of the artifacts are unidentified, and beyond the Smithfield Street Bridge are piles of equipment yet to be mounted. I also visited the one-room transportation museum in the station's boiler house.

The **Monongahela Incline** directly across West Carson St. was closed for cable replacement. After watching that for a while, I went a mile west to ride the **Duquesne Incline**. These are the last of 17 inclines that once carried passengers and freight to the residential areas atop Mt. Washington. Monongahela (1879) is publicly owned and operated; Duquesne (1877) is owned by the non-profit Society for the Preservation of the Duquesne Incline. Observation platforms at the top of the 400 ft. climb offer panoramic views of the city.

SIA members Joel Sabadasz, Mark Brown, and Christopher Marston seemed surprised when I visited their HABS/IAER office in Pittsburgh's Homestead District. Working on a shoestring budget, they and their summer interns are doing a fantastic job recording nearby steel mills and support facilities. They showed me how they combine site surveys, historic maps, photos, oral histories, and background research to produce their intricately detailed and carefully annotated site-plan packages.

As I left Pittsburgh, I stopped at the **Tour-Ed Mine** in

nearby Tarentum, Pa. This inactive coal mine was not listed in my guidebooks, but was known in the area (they hold flea markets on weekends). Unfortunately, I arrived five hours too early for a tour and may never know if it is worth a return visit.

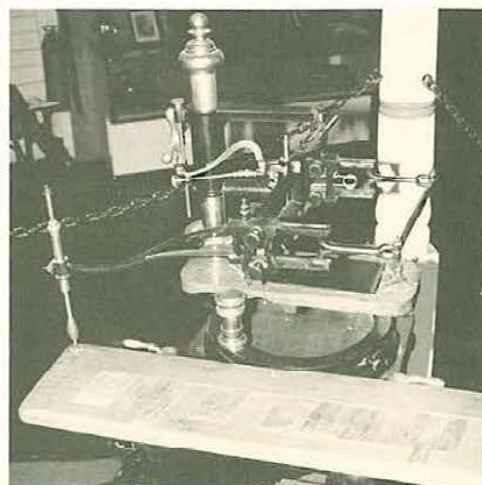
The second glass factory I visited, **Smith Art Glass** in Mt. Pleasant, Pa., allowed me to compare their mass production techniques with Steuben's hand craftsmanship (in last article). The tour through this 1920s-era plant led me right onto the factory floor where I watched several molding stations. Teams of workers pressed molten glass into molds to produce everything from dishes to glass blocks. Finished work was passed through annealing ovens to quality control.

My journey ended, appropriately, at **Enders Mortuary Museum** in Berryville, Va. This small museum holds 99 years worth of funerary artifacts from the adjacent Enders Funeral Home. One of the morticians escorted me through the museum and answered my questions. Styles and rituals have changed, but the underlying technology has not. Last century's brass sarcophagus, with its window for viewing the deceased's face, looks quaint but sealed tight. Early dissection instruments are similar to modern ones—the new stainless-steel versions simply don't rust. An old casket-nameplate scribe, a small printing press for programs, and an elegant horse-drawn hearse demonstrate that the solemn dignity of the trade has not changed. Among the most interesting artifacts is the first elevator installed in Berryville: a wooden floor lift made by the New Elevator & Machine Co. around the turn of the century. It remains in use, but not for live passengers.

Right: Mechanical scribe for brass casket-nameplates. Enders Mortuary Museum (101 E. Main St., Berryville, Va.).

Below: Office and factory of L. E. Smith Art Glass Co. (Liberty at Factory sts., Mt. Pleasant, Pa.).

J. Shprentz photos.



NOTES & QUERIES

CRM TRAINING DIRECTORY AVAIL. A special Oct. issue of the Natl. Park Service periodical *CRM* includes the 2nd annual "Directory of Training Opportunities in Cultural Resources Management," identifying workshops, courses, seminars, and other short classes sponsored in the U.S. from Oct. 1991 through Dec. 1992. Included in the 56-page issue are 81 courses offered by federal agencies, 20 state courses, 26 univ. and college courses, and 51 by other organizations. The courses are indexed by topic, state, date, and title. Each entry includes date, location, cost, audience/participants, topics covered, a brief description, and a contact. The directory was compiled by Amy Federman [SIA] and Emogene Bevitt, who also seeks info. for the 1992-93 edition. Info.: E. Bevitt, NPS (424/413), POB 37127, Wash. DC 20013-7127 (202-343-9561).

CRM PROGRAM AT UN/RENO. A program of continuing education short courses in cultural resources management is offered by the U. of Nevada, Reno, in cooperation with the Advisory Council, the Bureau of Land Management, and the Natl. Park Service. The courses are designed for historic preservation and CRM professionals in govt. agencies, museums, and the private sector, and those in related fields, such as land management and environmental assessment. Each session carries optional graduate-level university credit (ANTH 699) at \$66/credit, not included in the workshop fee. In addition to the Reno facilities, some courses are located in other cities and a few have multiple dates and sites. Courses of potential interest to SIA members include: "Preparing Documents Under Sec. 106 of the Natl. Hist. Pres. Act: Nuts & Bolts" and "A View to the Past: How to Photodocument Historic Places." Info.: CRM, Div. of Continuing Ed/048, UN-Reno, Reno NV 89557-0024 (fax 702-784-4801).

"INTRO. TO FEDERAL PROJECTS & HISTORIC PRESERVATION LAW," a three-day "Working with Section 106" course, will be offered in 1992 by the Advisory Council and the GSA Interagency Training Center. The course is for federal, state, tribal, and local officials; employees of private firms, organizations and historic preservation contractors, and others whose work involves Sec. 106; and members of community groups concerned with historic preservation.

The 1992 schedule is: Jan. 14-16, Wash. DC; Jan. 28-30, Tucson; Feb. 11-13, Charleston; Feb. 25-27, Sacramento; Mar. 10-12, St. Louis; Mar. 24-26, San Antonio; Apr. 7-9, Cleveland; Apr. 21-23, Honolulu; May 5-7, Boston; May 12-21, Denver; June 9-11, Chattanooga; June 23-25, San Diego; July 14-16, Wash. DC; Aug. 4-6, Portland.

Cost is \$225. Info.: GSA Interagency Training Center, POB 15608, Arlington VA 22215-0608 (703-557-0986).

1992 PRESERVATION COURSES AT CAMPBELL CENTER. The Campbell Center for Historic Preservation Studies at Mt. Carroll, Ill., has announced its 1992 course offering. Courses are grouped under architectural preservation (8), care of collections (16), and conservation (4). They will be offered June through Sept., 4-5 days each (with the notable exception of the 4-week "Core Curriculum"). All courses end on Saturday, giving participants the chance to take advantage of reduced air fares with a Saturday overnight. Costs average \$500-600, which includes housing and two meals daily. Some financial aid is available. Detailed info. avail. from Campbell Center, 203 E. Seminary, POB 66, Mt. Carroll IL 61053 (815-244-1173).

IA in...Beverly Hills?!

The California movie industry can still work magic, and in the case of the Beverly Hills Waterworks, some very real IA magic.

When one thinks of the 1920s and industry in Southern California, orange production and the young motion picture industry spring to mind. The key to the growth of these industries, and the population settlements that supported them, was the growing availability of water. In 1928, the City of Beverly Hills constructed the La Cienega Water Treatment Plant, commonly known as the Beverly Hills Waterworks, to provide water for its citizens. This 60,000-sq.-ft. reinforced-concrete building was Beverly Hills' ticket to independence from the region's convoluted politics of water.

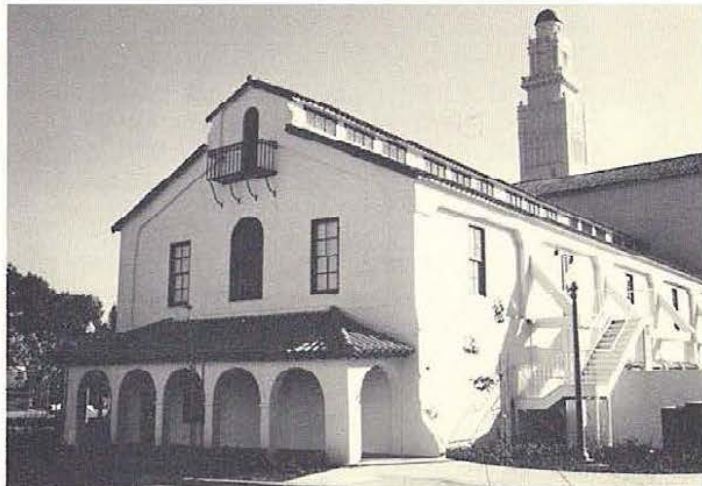
The Beverly Hills plant was designed to give the city clear, potable water, free from any objectionable odors. Water for the city contained high levels of sulfur and bacteria, which produced abundant growths of algae and an unpleasant smell. The plant was highly significant because it used an experimental water-filtration process, an innovative technology in its first West Coast application. It also included a process for softening water, a very desirable addition.

The building was designed as an architectural landmark in the City Beautiful tradition by Arthur Taylor, who incorporated traditional Mexican hacienda features, including the house, tower, and chapel, in his design. The building was highly functional, however. For example, the tower, designed after the Giralda Tower in Seville, provided a tall exhaust for the hydrogen-sulphide fumes as water was aerated. The concrete roof structure of the filter house was carried to flying buttresses outside the main walls so that there would be no roof distortion if the building settled. These buttresses, along with the red-tiled roofs and large-scale windows, became part of the hallmark stylistic Spanish mission design elements.

The complex served the city until 1976, when the city began purchasing water from the Metropolitan Water District of Southern California. In 1987 the city council approved demolition, but a strong public opposition led to court action and a reuse study. Given the building's specialized design and engineering features, as with many industrial structures, traditional rehabilitation for uses such as housing or commercial development seemed unlikely.

How appropriate, then, to have the plant's savior be the Academy of Motion Picture Arts and Sciences, better known as the organization behind the Academy Awards. In 1987, the Academy was searching for an appropriate new home for its archives and library, which had outgrown the space at headquarters. The Beverly Hills Waterworks evolved into the perfect choice. With a \$5-million rehab, this seemingly unusable building has become the Academy's new Center for Motion Picture Study, housing research collections for scholars, fans, and the entertainment industry.

Rather than being liabilities, the waterworks' unusual design features became significant for its new archival use. The thick, windowless walls provided the ideal conditions for storing the vast Margaret Herrick Library Collection's 5 million photographs, 12,000 films, 82,000 film production files, and several special collections. Among the Academy's treasures are a rare complete set of lobby cards used to promote the film *Casablanca*; photo collections from MGM, Paramount, and RKO; costume sketches by Edith Head; and script collections of such film luminaries as George Cukor,



BEVERLY HILLS WATERWORKS.
Above: Exterior of the original 1928 building.
Below: The interior, rehabbed as a library.
A.S. Federman photos.



John Huston, and Alfred Hitchcock. Four large, stone water storage tanks were converted into vaults to store the film collection. The tower now houses a dumbwaiter to move materials to different levels. A new office wing has been added, continuing the historic design with red tile roof and other Spanish Revival motifs.

The Academy raised funds for rehab and ongoing maintenance to supplement its overall operating budget, which comes primarily from revenues generated by the annual Academy Awards program. The successful transformation of the waterworks into an archival repository was celebrated with a grand opening last January.

A.S.F.



CONTRIBUTORS TO THIS ISSUE

T. Lindsay Baker, *Windmillers' Gazette*; Amy Schlager Federman, Silver Spring, Md.; Ned Heite, Camden, Del.; Jon D. Inners, Camp Hill, Pa.; Martha Lance, Old Sturbridge Village; Tom Leary, Buffalo, N.Y.; Larry S. McNally, Natl. Archives of Canada, Ottawa; Lance Metz, Canal Museum, Easton, Pa.; Dorothy Milek, Thermopolis, Wyo.; David M. Poultridge, Olympia, Wash.; Libby Sholes, Buffalo, N.Y.; Joel Shprentz, Reston, Va.; David Simmons, *Timeline*, Ohio Hist. Soc.; John M. Staicer, Historic Madison, Ind.; Robert P. Stupp, Stupp Bros. Bridge & Iron Co., St. Louis; Stewart Thompson, Toronto, Ont.; Robert M. Vogel, Wash., D.C.; Edwin D. Weber Jr., New Orleans, La.; and Gerry Weinstein, New York City.
With Thanks.

SIA AFFAIRS

NEWS OF MEMBERS

Margot Gayle, founder of the Friends of Cast Iron Architecture and forever known to the SIA faithful as "Mrs. Cast Iron," received one of the first annual Lucy G. Moses Preservation Awards from the N.Y. Landmarks Conservancy in Oct. The award was presented by NYLC chairman emeritus Brendan Gill, who noted Margot's history of preservation leadership since 1959.

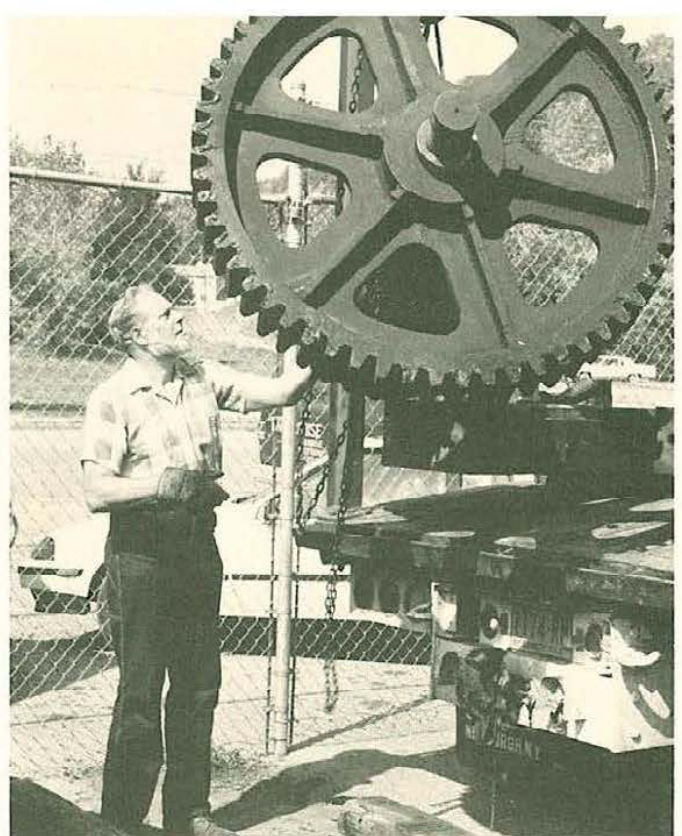
SIA past president and civil engineer **Emory Kemp** has received one of the 1991 National Preservation Honor Awards of the National Trust for Historic Preservation. Emory is cited for his unique contribution to the preservation of America's industrial heritage. In particular, the National Trust noted his work in the restoration of the 1861 Philippi Covered Bridge [*SIA* Spring 89:1] and the great Wheeling Suspension Bridge [viewed during the 1988 Annual Conf.], and his efforts establishing the Inst. for the History of Technology and IA at the Univ. of W.Va, where he teaches.

Richard Francaviglia is leaving the Local History Office of the Ohio Historical Society to be director of the newly created Center for Southwestern Studies & the History of Cartography at the Univ. of Texas at Arlington.

Determined to be known beyond the quiet world of IA, **David Shayt** recently served as the historical authority in a *National Enquirer* story: "Hot new yuppie exerciser was used to punish criminals 100 yrs ago!" The short yet breathless piece referred to Shayt's research into the history of the "stair-climber" exerciser, pointing out that a similar device was used to occupy 19th C prisoners in the U.S. and England, before the machines were outlawed around 1900. The power generated was used to grind grain, pump water, pound rocks, drive looms, and saw wood, producing salable items to keep prisons self-sufficient. "Treadmills could literally drive prisoners insane," David told the paper, adding: "If someone had said to the prisoners that someday people would pay money to do this, they would have thought that the people had gone out of their minds!" Having successfully cracked the *NE*, David reportedly is now aiming for tabloid TV.

TOM RICK, 1928 - 1991

With very real sadness we report the death in August of Tom Rick, one of the Society's first members, and who, while not amongst its most active, had been a loyal follower ever since. Tom was one of the select few who actually practiced his abiding interest in the history of technology and industry by forming some 20 years ago the Manitou Machine Works, while living in the Hudson Valley hamlet of that name north of Peekskill. Manitou, which was manned pretty much by Tom himself with pickup mechanics as needed, specialized in what might be called the general line of mechanical work with emphasis on hydraulic machinery and further emphasis on antiquarian undertakings. The principal asset of the firm was, of course, Tom's own extraordinary skill in all things constructional and mechanical. Were this a century or a century and a half earlier, he would have fallen naturally into the position of millwright for a large and important textile mill or machine works, and would have been referred to as a natural-born mechanic with a God-given sense of the way things worked and the ways in which they should be arranged,



Tom Rick rigging a DeLavernge steam engine and hoist at Kingston, N.Y., in 1984. *Gerry Weinstein photo.*

managed, assembled, operated, and in general dealt with.

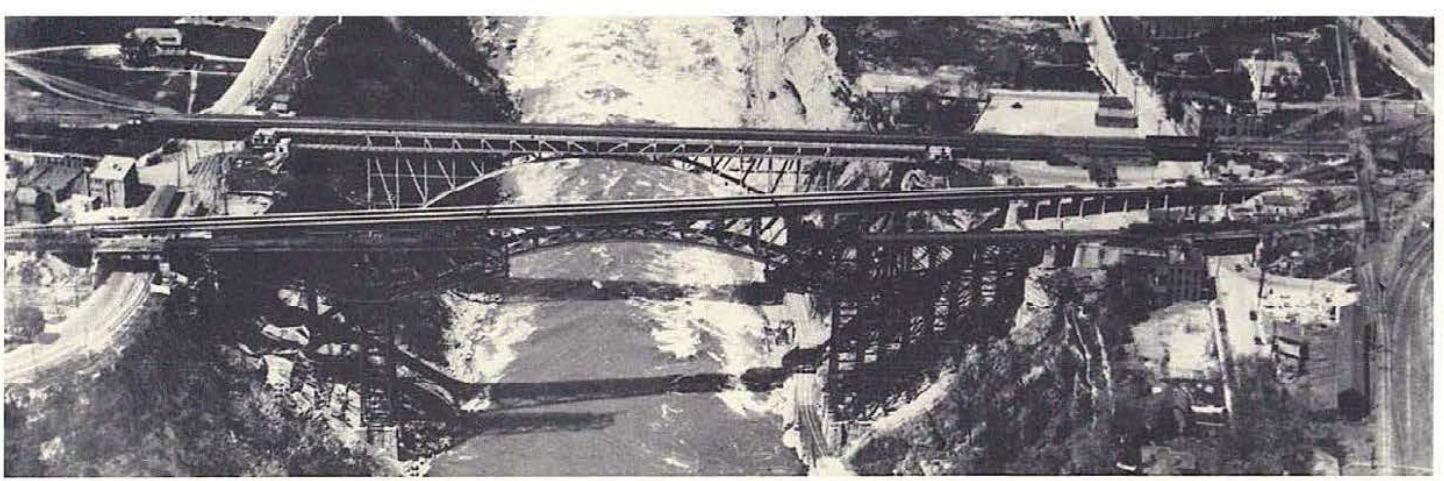
Surely it was a genetic thing, for his father, son of German immigrants, had been of the same sort, working for a number of machine works in Philadelphia, most notably the late lamented Balwin Locomotive. Despite his own leanings and the influence of his father, Tom took his degree in agronomy (Rutgers), probably the result of having grown up on a small farm near Peekskill where he raised goats and bees, among other small livestock.

This formal training notwithstanding, Tom's early professional career was spent in the employ of several large engineering and contracting firms, supervising and surveying on large construction projects. The transition from that to the formation of Manitou was a logical and relatively easy one, particularly as he came to realize that museums, restoration projects, and even individual enthusiasts had almost nowhere to turn when in need of designing, constructing, rigging, moving, dismantling, or restoring early machinery and structures.

Manitou fitted into this niche quite perfectly, almost always being full of work as the word of Tom's particular capabilities spread. [Two recent jobs reported in *SIA* were overseeing the dismantling of the 48-inch mill at the Homestead Works in Pittsburgh (19:4, Winter, 90), and the restoration of Waterloo Village on the Morris Canal in New Jersey, (17:4, Winter, 88).] In between the antiquarian work Manitou installed and repaired water turbines, principally in New England and NY State, some of them of fair size. The presence of several small turbines, entirely beyond any hope of recall, lying about in the yard beside the Manitou HQ building in Cold Spring-on-Hudson—apparently brought back by Tom out of some sense of pity—attracted steady attention to the place, as perhaps did the small sign in a front window advising that licensed welders always were wanted but that smokers need not apply.

Tom leaves two sons and a great host of friends, all of whom will always feel the loss of this wonderful, remarkable, man.

R.M.V.

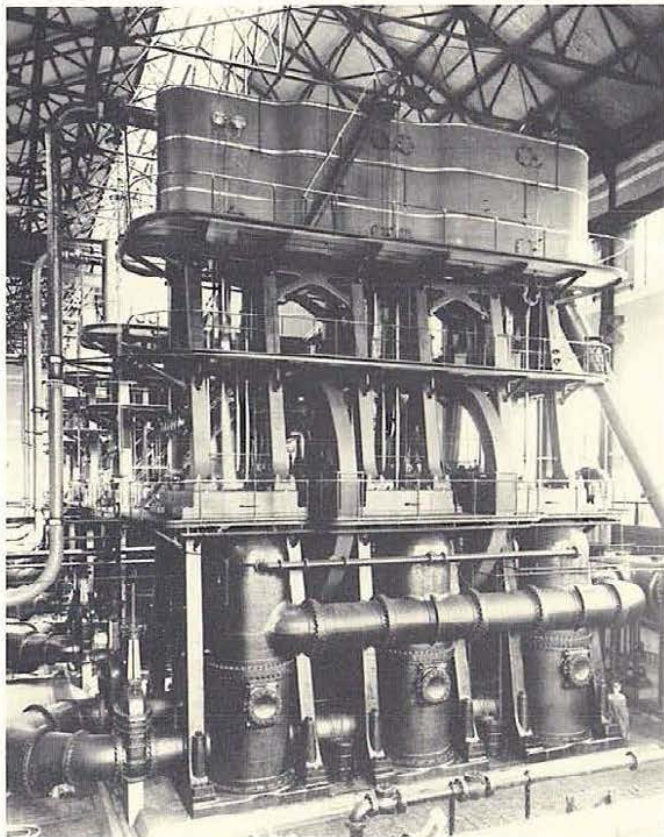


Thinking about Buffalo in '92

Plans are moving ahead for the SIA's 21st Annual Conference next spring in Buffalo, N.Y., June 4-8. Tours will take registrants through industrial Buffalo and into the Niagara Frontier, including an international venture across the Niagara River into Canada. Conf. co-sponsors include the Buffalo & Erie County Hist. Soc., the Graduate Group on Industrial Heritage Policy at SUNY-Buffalo, and the N.Y. State Museum.

The industrial topography of Buffalo and the Niagara Frontier has been built up and eroded through several major economic cycles and cataclysms. After completion of the Erie Canal in 1825, Buffalo served as a major freight and commodity crossroads: gateway to the Midwest, back door to the Atlantic. The city's once-strategic location remains symbolized by the twin reproductions of the Statue of Liberty that face east and west atop a downtown bank. The waterfront eventually accumulated an extensive architecture of transshipment, dominated visually and commercially by facilities for handling and storing eastbound grain, iron ore and lumber as well as westbound anthracite coal. This inventory included

Friday tours include the massive, 1200-HP, triple-expansion pumping engines at Col. Francis G. Ward Pumping Station in Buffalo. Now inactive, each of the five units could deliver 30 mgd. *Courtesy Buffalo & Erie County Historical Society (Bob Hauser Collection).*



A 1926 view of Niagara Gorge bridges: the Grand Trunk RR bridge (top) and the recently completed Michigan Central RR bridge (lower), both steel arches. Dark and barely visible adjacent to the MCRR span is an 1883 cantilever, partially dismantled. *Courtesy Buffalo & Erie County Historical Society (Agway Collection).*

the prototype transfer and storage elevator erected by 1842-43 Joseph Dart and Robert Dunbar, which survived only until 1862-63.

Within walking distance of the conference HQ, the new Hilton, are numerous buildings of architectural interest, including Adler & Sullivan's landmark Guaranty Building [1895-96]. The opening reception on Thurs. evening, June 4, will be held at the Buffalo & Erie County Historical Society, whose museum and library occupy the only building remaining from the 1901 Pan-American Exposition [NHL]. President McKinley had his rendezvous with destiny only three blocks away.

Friday process tours on June 5th will explore the industrial diversity that continues to characterize the area even after three decades of plant shutdowns. Included are buildings and plants from primary metals industries. Although each bus will follow a separate itinerary, certain sites may be willing to accommodate more than one group during the day. The traditional paper sessions and business meeting will be held on Saturday.

Tours on Sunday, June 7, will involve two options: a half-day boat trip around Buffalo harbor, or an all-day bus excursion to Niagara Falls, U.S.A., and Lockport. The bus tour will involve many bridge and canal-related sites. For those who missed the 1984 joint SIA/Ontario-SIA Fall Tour of the Niagara Peninsula [see *SIA* Fall/Winter 84:4-6], there will be a one-bus-only, condensed, post-conf. version on Monday, June 8. Sites will include hydroelectric plants on the Canadian side that are significantly older than U.S. plants.

For additional info., contact Tom Leary & Libby Sholes [both SIA], 816 Ashland Ave., Buffalo NY 14222-1102 (716-884-9131).

SIA CALL FOR PAPERS. The program committee of the 21st Annual Conf. in Buffalo is now soliciting proposals for the paper sessions to be held on Saturday, June 6. Proposals will be accepted for a 25-min. paper, a 15-min. work-in-progress report, or a panel of speakers. Topics involving any aspect of IA are welcome. The committee particularly encourages proposals dealing with work process documentation and industrial heritage preservation in the region stretching from western Pa., around the eastern rim of Lake Erie, into southern Ontario. Please submit a 150-word abstract by **Jan. 31, 1992** to Stephen Keller, Graduate Group on Industrial Heritage Policy, 565 Park Hall, SUNY Buffalo, Buffalo NY 14260 (716 636 3435). Those whose proposals are accepted will be asked to prepare a 500-word abstract by Mar. 15 for inclusion in the conference packet.

Unique Iceland IA tour gets official SIA nod



ICELAND HYDRO SITES.

Left & right. Exterior and interior of the Burtell hydroelectric plant.

Below: The 1913 Seydisfjörður municipal hydroelectric plant, first in Iceland.

Ned Heite photos.



The SIA Board of Directors has endorsed a proposal to sponsor a week-long process tour of Iceland during the last week of August, 1992. Among the sites to be visited are Iceland's unique geothermal and hydroelectric plants, active volcanoes, a reconstructed medieval farmstead, maritime museums, and working shipyards. The Icelandic hosts are a loosely organized group of industrial-history enthusiasts, who are interested in making contact with others having similar interests. There will be opportunities for lectures, slide presentations, and other interactions for both the visitors and the Icelanders.

Tour highlights include:

—The geothermal plant at Nesjavellir, near the ancient parliament plain of Thingvellir, which also will be visited. Hot water from this plant is piped 27.2 kilometers to Reykjavík. All the city's heating and hot water is geothermal. Nearby is the great "Geysir," which gave its name to the phenomenon that also is found in the U.S.

—The 210-mW Búrfell hydroelectric plant and the adjacent reconstructed medieval farmhouse. This reconstruction is based upon the excavated farmstead at Stöng, buried in the 1104 eruption of Hekla, the volcano once thought to be the entrance to Hell. Búrfell has an effective head of 119 meters. Iceland's power potential is estimated at 50 billion megawatts, of which only 7% is harnessed. A lot of free waterfalls will be seen along the route.

—A perfectly preserved 1913 municipal hydroelectric plant at Seydisfjörður, first and oldest in Iceland, which still operates



the original equipment, supplemented by a "new" 1948 turbine and generator.

—A working 1907 machine shop that originally built marine engines from castings produced in the foundry still extant on the site. In the same shipyard is an operating wooden-boat facility, where ships were being built from half-models as recently as 1970. Among the other attractions in the yard are the hydraulic turbine that originally drove the marine railway and the hydroelectric plant that originally powered the machine shop.

—Maritime museums, outdoor folk museums, volcanoes, waterfalls, and glaciers too numerous to mention, including a flyover of Surtsey, formed in 1963 and the newest part of Iceland, and the island village of Heimaey, the only place where humans have turned back a lava flow, during the 1974 eruption.

Lodging, travel, and breakfasts inside Iceland are estimated at \$500 to \$700, depending on group size. International travel and dinners are additional, but a group fare from BWI to Keflavik may be available. Accommodations will be provided in youth hostels and guesthouses. A minimum of ten guaranteed participants is necessary to schedule the tour, but a larger group will reduce costs considerably. If interested, contact ASAP Ned Heite [SIA], POB 53, Camden DE 19934 (302 697 1789; fax 697 7758).



Typical fishing boat laid up in Reykjavík's downtown area. Ned Heite photo.

Canadian Society for Industrial Heritage/Société canadienne de l'héritage industriel

The Canadian Society for Industrial Heritage was founded in 1988 as a forum for the exchange of historical and technical information. Its mandate is to encourage the study, protection, and interpretation of pre-industrial and industrial vestiges and promoting related educational activities.

The society has some 60 members in all provinces. They include researchers, educators, museologists, architects, engineers, and those affiliated with scientific and heritage groups as well as unions and private enterprise. A semi-annual newsletter, *Machines*, disseminates information related to all projects in the IA field across Canada, preservation of sites, collecting of artifacts and archival material, and reviews of books, conferences, and seminars.

The society concentrates on organizing membership, publications, and fundraising. Also planned is a 1994 international conference on the industrial heritage, to be held in Montreal, Ottawa, and southern Ontario. In addition, CSIH is involved in projects related to training seminars in IA in cooperation with universities, museums, and related organizations. The society is working on the definition of criteria for designating five sites that are representative of Canada's industrial heritage for nomination as UNESCO world heritage sites.

For information about CSIH, please contact Louise Trotter, Chairperson, CSIH, Natl. Museum of Science & Technology, POB 9724, Ottawa Terminal, Ottawa, Ont. K1G 5A3 (613-991-6705, fax 613-990-3636).
L.S.McN.

CALENDAR

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

1992

Feb. 1: 5th Annual Conf. on New England IA, Plymouth St. Coll., Plymouth, N.H. Sponsored by New England Chaps. SIA. Info.: Dennis E. Howe, 22 Union St., Concord NH 03301.

Apr. 25-29: 87th Annual Meeting, American Assn. of Museums, Baltimore. Info.: AAM, POB 40, Wash. DC 20042-0040 (202-289-9113).

May 13-16: Annual Meeting, Vernacular Architecture Forum, Portsmouth, N.H. Paper proposals due Oct. 15. Info.: Richard Candee [SIA], 6 Scituate Rd., York ME 03909 (207-363-6635).

JUNE 4-7: SIA 21st ANNUAL CONF., BUFFALO, N.Y. Info.: Tom Leary, 816 Ashland Ave., Buffalo NY 14222 (716-884-9131).*

Aug. (last week): "Fisheries & Powerplants: Process Tour of IA in Iceland." Sponsored by SIA. Info.: Ned Heite [SIA], POB 53, Camden DE 19934 (302-697-1789).*

Aug. 27-29: 4th Intl. Historic Bridges Conf., Columbus, Ohio. Info.: David Simmons [SIA], Ohio Hist. Soc., 1982 Velma Ave., Columbus OH 43211-2497 (614-297-2360).

Sept. 16-19: "Mission, Money, & Moxie: Survival of the Fittest," Annual Meeting, American Assoc. for State & Local History, Miami, Fla. Info.: Phillip C. Kwiatkowski, Western Heritage Museum, 801 S. 10th St., Omaha NE 68108-3299.

Oct. 15-17: Annual Meeting, Pioneer America Society, Warren, Ohio. Info.: David Stephens, Geography Dept., Univ. of Akron, Akron OH 44325-5005 (216-747-3317).

**Find details on this event elsewhere in this issue.*

The *SIA Newsletter* is published quarterly by the Society for Industrial Archeology. It is sent to SIA members, who also receive the Society's journal, *IA*, published annually. SIA promotes the identification, interpretation, preservation, and re-use of historic industrial and engineering sites, structures, and equipment. Annual membership: individual \$25; couple, \$30; institutions, \$30; contributing, \$50; sustaining, \$100; corporate, \$250; student, \$20. Send check payable to SIA to Treasurer, Room 5020, National Museum of American History, Smithsonian Institution, Washington, D.C. 20560; all business correspondence should be sent to that office.

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