

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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Landmark Washburn A Mill gutted in Minneapolis fire



The east half of the Washburn A Mill (1879) in Minneapolis is a gutted stone shell, following the tragic fire in Feb. (see photo below right). The two-story stone addition was C.C. Washburn's mill office (1880). To the left of the mill stand the two concrete elevators: the 1928 feed elevator (taller bins) and 1908 Elevator No. 1 (shorter bins). The tall structure to the right of the mill is the Utility Building (1914). The entire complex is a National Historic Landmark. Photos by Robert Roscoe (top) and Thomas Peterson (bottom).

February 27th was Martha Frey's fifth day as the new Preservation Planner for the City of Minneapolis. Entering the office, the first word she heard was "fire!"—not the most comforting word to a preservationist—followed by "mill!" She quickly learned that the Washburn A Mill, heart of the National Historic Landmark Washburn Crosby Milling Complex [HABS] was burning.

The mill and complex are part of the St. Anthony Falls Historic District [NR]. The mill building was constructed in 1879-80 on the site of the first Washburn A Mill (1874), which was obliterated in the infamous 1878 Minneapolis mill explosion. The new seven-story (plus monitor and cupola) limestone mill had a heavy post-and-beam structural system. Like its predecessor, it was the largest flour mill built in the world to that date. The "monster mill," as it was called in the contemporary press, was designed by William De la Barre. It was owned and operated by the 1879 partnership of Cadwalader C. Washburn, John Crosby, and William Hood Dunwoody, forming Washburn, Crosby & Co. In 1928, about the time that Washburn Crosby became part of the new General Mills, the mill was gutted by fire and the west end was rebuilt in brick with daylight factory windows. The river end of the



building retained its original facade, and was viewed during the 1983 SIA Annual Conf.

The Washburn Crosby milling complex is situated in Minneapolis' West Side Milling District, whose mills were powered by water from the St. Anthony Falls canal system along the Mississippi River. This area had been the center of a technological revolution, which produced the middlings purifier in

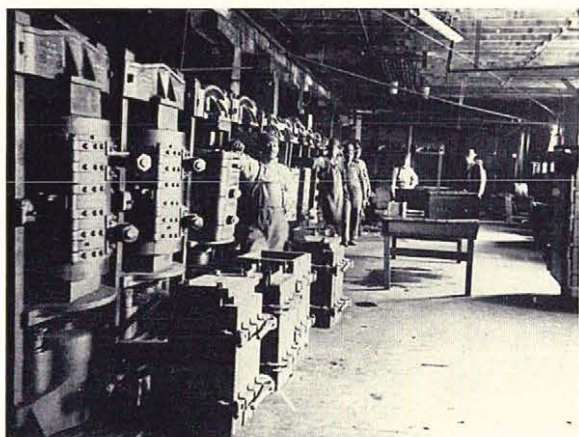
1871, followed a decade later by the introduction of the modern roller mill, and, soon after, the automatic, all roller, gradual-reduction milling system. These machines and systems were introduced and developed either in the A Mill itself or in nearby buildings.

The origin of the fire is unknown, but transients often had broken into the city-owned building over the last year, vandalizing the interior and setting small fires. The February blaze caused severe damage, leaving the A Mill a partial shell, with portions of the exterior walls and an interior fire wall standing. The original stone memorial plaque, dedicated to the millers killed in the 1878 explosion and mounted above the river-end doorway, was undamaged. Tragically, several floors of museum-quality equipment, dating to the 1928 rebuilding and earlier, were totally lost. The machines had been inventoried, but not photographed or otherwise documented. Included were W.D. Gray roll stands made by the Edward P. Allis Co., Milwaukee, and teak sifting equipment manufactured by the Great Western Manufacturing Co., Leavenworth, Kans.

The entire complex has National Landmark designation, and the other significant buildings were unharmed, including: the Humboldt Mill, a separate flour mill (1873); Mill Office (1880); Wheat House, an adjacent early elevator (1881); West Engine House (1885); No. 1 Elevator, concrete (1908); Wheel House (1911); Utility Building (1914); and Feed Elevator (1928).

The mill tragedy has shocked the city, as well as industrial archeologists everywhere. The local preservation community consensus is that some buildings in the complex should be adaptively reused, while the Washburn ruins should be stabilized and preserved as is, for interpretive purposes. The City Council recently allocated funds to stabilize wall sections until a reuse can be found or complete stabilization can be financed. Several city, county, and state projects to interpret the entire St. Anthony Falls Historic District [NR], which also includes the Pillsbury A Mill [NHL] and the James J. Hill Stone Arch Bridge [ASCE], will continue. Info.: Martha Frey [SIA], HPC, 210 City Hall, 350 S. 5th St., Minneapolis MN 55415 (612-673-2422).

NOTES & QUERIES



Historic photos from "Working People of Richmond."

Left: Plug tobacco press room, c1911.

Right: Labeling & packing cigarettes, Allen & Ginter factory, c1900.

Valentine Museum photos.



"WORKING PEOPLE OF RICHMOND: Life & Labor in an Industrial City, 1865-1920," is a major Valentine Museum exhibition continuing through Dec. 9. Housed in the historic Philip Morris building, a c1900 cigar factory (operated by P. Lorillard & Co. until 1955) at Richmond, Va.'s Tobacco Row, the multi-media production is based on Richmond's history as an urban industrial complex. Featured are dozens of vintage tools and machines, including a 19th-C tobacco-cutting machine, late 19th-C tobacco presses, and a c1920 packaging machine for "Bull Durham" smoking tobacco. In addition, there are videos of operating early equipment. An audio presentation includes selected readings from the "Boy Log Book," the diary of Harry Calligan, a 15-year-old iron worker. For info. on the exhibit and catalog, contact Michael McGrann, The Valentine, 1015 E. Clay St., Richmond VA 23219.

1991 ARM CONV. FEATURES RR TOURS. The Assn. of Rwy. Museums will hold its annual convention Sept. 27-29 at the Rockhill Trolley Museum, near Huntingdon, Pa. Railways to Yesterday, Inc., operator of the museum, has run trolleys adjacent to the East Broad Top RR since 1963. The museum's collection of 24 cars (12 operating) focuses on streetcars and interurbans designed, built, or operated in Pa. Conv. tours will include the Conrail Juniata shops in Altoona, the Allegheny Portage RR, Johnstown Inclined Plane (NHL),

and the currently closed section of the East Broad Top, including the Rockhill complex and c1900 shops. Info.: 1991 ARM Conv., RTM, POB 203, Rockhill Furnace PA 17249.

IRON & STEEL PRESERVATION INFO. NETWORK.

Under the direction of Lloyd N. Chapman and Martha L. Raymond, the Cultural Resources Planning Branch of the Middle Atlantic Region, Natl. Park Service, has compiled and issued basic information on 23 historic iron & steel research projects now under way in the U.S. These range from the research focus of individual scholars to Historic American Engineering Record (HAER) recording projects and the preservation efforts at historic iron & steel sites. The NPS will send copies of the first issue of *Information Network on Iron & Steel Preservation* containing project descriptions, along with a questionnaire to solicit additional entries and update present projects. Each entry includes the project name, description, "products" (e.g., inventory, report, book, thesis), current status, and contact name. The SIA Iron Masters mailing list, compiled several years ago, has been supplied to the NPS I&S Network, but anyone with an I&S-related project is urged to contact the network compiler and editor, Phyllis Ellin, Cultural Resource Planning Branch, 2nd & Chestnut sts., Rm. 251, Phila. PA 19106 (215-597-0651). Ask for a free copy of the network's publication.

E.S.R.

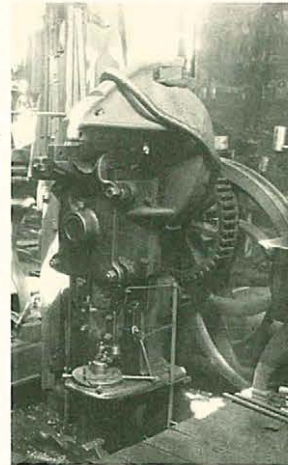
Last intact windmill factory in U.S. faces uncertain future



Left: Historic view of the Kregel truck in front of the c1911 factory, which survives virtually unaltered today.

Right: Among the machines remaining in the plant are a cutting shear (L) and a multiple-head drill press (R).

Photos courtesy Mark D. Kregel.



Not many decades ago the U.S. had hundreds of small factories turning out countless windmills—mainly for water pumping, but for a variety of other power applications as well. Today all have disappeared or have been modernized but one. According to windmill historian T. Lindsay Baker, the Kregel Windmill Company works in Nebraska City, Neb., is the only intact small-scale windmill factory in the nation. Arthur Kregel, the founder's son and last operator of the works who is now in failing health, has had to put the plant up for sale. Its future is in grave doubt, according to relatives who would like to see it preserved.

George Frederick Kregel began making a windmill christened the "Eli" as early as 1891 in Nebraska City. He operated the business under his own name until c1911, when he moved to its present site, 1416 Central Ave., as the Kregel Windmill Factory. The plant retains virtually all of its early manufacturing tools and equipment. The punches, cutters, and other machines are belt-driven from shafts running the width of the one-story wooden building. Castings for the "Eli" were provided by foundries in both Omaha and Nebraska City, and were machined and finished in the Kregel works. As recently as the mid-1980s, the equipment remained in remarkably good condition and was run occasionally. Even the jigs for punching tower legs remained on the shelves, for Kregel also made its own line of galvanized angle-section steel towers.

Throughout its history as a windmill manufacturer, Kregel sold only to individuals. Often family members contracted to erect the mills sold. The firm never employed agents or salesmen. Consequently, today one rarely sees an "Eli" more than 60 miles from Nebraska City. Arthur Kregel estimates the factory manufactured about 2,000 units before it ceased windmill making in the 1940s.

All windmill enthusiasts who have been fortunate enough to see "Eli" windmills agree that they possess a number of unusual features. Every "Eli" is a direct-stroke machine—that is, one revolution of the wind wheel produces one stroke of the pump. There are no gears.

Why was the mill named the "Eli"? Simply because George F. Kregel felt that "ELI," as it appeared in caps, seemed easy to read painted on the vane of a mill seen from a distance.

If you have a serious interest in the factory, please contact Nebraska Natl. Trust advisor Nancy Hoch, 806 1st Ave., Nebraska City NE 68401 (O 402-873-4293, H 402-873-5530).

For general Kregel info., contact Mary Jane (Kregel) Newton, 11 NW Kansas Ave., Bend OR 97701 (503-382-3287). To explore windmill history, subscribe to *Windmillers' Gazette*, T. Lindsay Baker, ed., POB 507, Rio Vista TX 76093



Above: George Frederick Kregel driving his company truck, loaded with an Eli, in a Nebraska City parade. Sitting on the tailgate are two "Hummer" beehives, also made by GFK.

Below: Historic views of Eli windmills *in situ*.
Photos courtesy Mark D. Kregel.



Controversial city decision dooms landmark Astoria cannery



A significant West Coast industrial landmark soon will disappear from the Astoria, Ore. waterfront. On March 4, the Astoria City Council granted permission to raze the Samuel Elmore Cannery, portions of which date to 1898. John Supple, cannery owner, cited the advanced deterioration of the wooden-pile-supported complex in his demolition request. The building's newest section, built in 1939, recently fell into the Columbia River. Documentation of the site is limited to HAER photos by Jet Lowe [SIA] taken last summer and documents in regional museums and historical societies. No detailed drawings exist for the cannery.

Designated a National Historic Landmark (NHL) in 1980, the Elmore complex is one of Astoria's two remaining canneries. Historically, the city's waterfront canneries, together with other fisheries-related buildings such as warehouses and boat stations, probably represent the West Coast's largest concentration of late-19th- and early-20th-C salmon fishing and canning structures. No complete inventory exists, however, of historic canning and fishery structures in Oregon and Washington.

Occupying four acres, the Elmore Cannery building was the largest of the Columbia River canneries and, in 1980, was the last to cease operations. A century ago, Astoria had 24 of the Columbia's 39 canneries. Canned salmon from the Elmore and other canneries was shipped around the world. Cannery employment was an Astoria mainstay and a significance influence on the Pacific Northwest economy. The can-

The Elmore Cannery complex in the 1930s. *Courtesy Columbia River Maritime Museum, Astoria.*



Astoria, Ore., this spring. The Elmore Cannery is the large complex at center, built on pilings in the Columbia River. Located to the right is the former Tallat-Grant cannery. *Bruce Weilepp photo.*

neries also brought considerable cultural and ethnic diversity to Astoria. Most fishermen were Scandinavians from Norway, Sweden, and Finland. The ethnic background and gender of the cannery workers changed from Chinese males in the early years to white women at the end.

The Elmore Cannery represents a significant period in the development of cannery technology. West Coast salmon canning began on a small scale in the 1860s on the Fraser River in British Columbia and Sacramento River in Calif. Pioneer canneryman Robert Hume soon moved his Sacramento River operation to the Columbia, touching off a period of rapid growth and industrialization. Many technological advances in the fish-canning industry from 1870 to 1900 occurred in the Astoria area.

The salmon canning industry spread rapidly up the West Coast, reaching as far as Alaska by the 1890s. Before the introduction of the "Iron Chink" [see *SIA* Winter 90:14], a unique device that automated the fish-cleaning operation, much of the machinery and supplies for these canneries came from Astoria manufacturers and suppliers. Following its introduction, most West Coast canneries ceased using large crews of Chinese laborers for the cleaning operation. In Astoria, however, the "Iron Chink" was rarely used. Columbia river salmon runs include a wide variety of fish species and sizes, and the machine could not handle the variations. Hand butchering continued on the Columbia long after it had ceased elsewhere on the Coast. Although the Elmore was stripped of most of its machinery after 1980, it still contains considerable material evidence of the butchering and processing activities.

Astoria's demolition approval ended a lengthy permit process that began with the City Landmarks Commission (CLC) last summer, when commissioners noted that the cannery was designated a NHL before Supple bought it. Although one commissioner encouraged adaptive reuse, no serious buyers emerged. Rehab cost estimates ran as high as \$10 million.

As discussions continued, however, the main issue between the Commission and the owner became the level of documentation prior to demolition. Last Nov., the CLC decided to require seven measured drawings to HABS/HAER standards. Interestingly, Supple argued that, since the cannery's significance was primarily social and without architectural value, drawings were not necessary. Citing cost estimates upwards of \$50,000, he appealed successfully to the city council for removal of the drawing requirement, while agreeing to photograph the structure during demolition, collect historical materials, and produce a written history of the site. City staffers even offered to help the owner apply for grants to cover costs for the drawings, but he demurred.

Throughout the city hearings, both Supple and council members quoted Natl. Park Service Western Region staff in San Francisco that measured drawings were a very low priority, since the cannery's landmark significance was not architectural but social and technological. Since the NPS recommended documentary photography and the compilation of historical documents, council members exempted the owner from preparation of drawings. Absent from the discussion was mention of any relationship between the structure and the technological activities it contained.

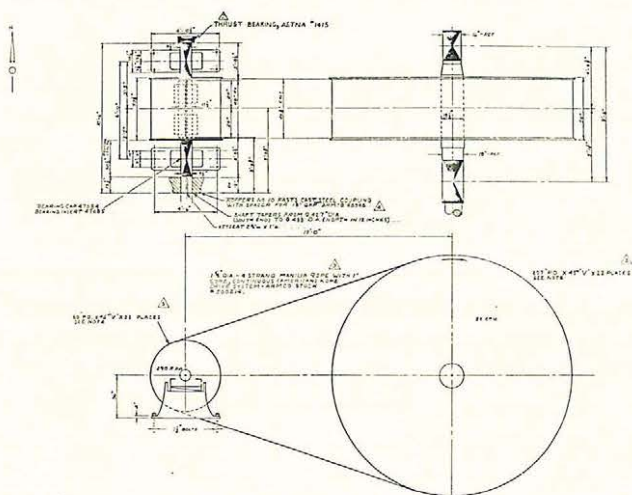
Visiting last Jan., representatives of the Natl. Trust, Oregon State Hist. Pres. Office, and the Hist. Pres. League of Oregon toured the site. While the Natl. Trust urged the city to apply for a rehabilitation planning grant, the state officials were dubious about preservation and more interested in documentation.

Demolition of the Elmore Cannery, its significance, and the documentation it will receive, all raise important issues for historic preservation and IA in particular. In reviewing the demolition permit process there was a serious lack of independent authoritative knowledge. The cannery's owner, with a vested interest in demolition, was the only cannery expert present. Little has been published on the technology and architecture of salmon canneries, a matter noted by Dianne Newell [SIA] in her 1987 *IA* article, "Surveying Historic Industrial Tidewater Sites: The Case of the B.C. Canning Industry."

Waterfront industries played a vital role in West Coast history, yet their IA remnants are fast disappearing from Oregon, Washington, and Alaska. Perhaps the loss of the landmark Elmore Cannery will inspire new investigations and better documentation of this resource.

B.W.

EQUIPMENT, STRUCTURES AVAILABLE



ROPE-DRIVE SYSTEM AVAIL. Armco Steel Corp. in Kansas City, Mo., will donate the historic rope-drive system from its 10-in. mill to anyone interested in preserving it. It was designed c1920 by Dodge Mfg. Co., Mishawaka, Ind., as a 650-hp "English system" (multiple) rope drive for the Kansas City Bolt & Nut Co., and later acquired by Armco., who converted it to the "American system." Above is the 1920 Dodge drawing with Armco revisions. Driver sheave is 60" on 11.5" shaft; driven sheave is 207" on 18.5" shaft; each 54" wide with 22 V-grooves. Contact ASAP Jack H. Figg, Armco, 7000 Roberts Rd., Kansas City MO 64125-1492 (816-242-5659, fax 242-5662).

MONSTER STEAM ENGINE AVAIL. "Big Alice," a 1913 steam pumping engine at Phillipsburg, N.J., named for its manufacturer, Allis Chalmers, soon will be scrapped if no one takes it, according to its owner, Consumers Water Co. of Portland, Me. Consumers owns and operates water utilities in six states, including Phillipsburg, and reports that while the engine remains in good condition, its building is deteriorated and must be razed. Over the years, the owners have appreciated the IA significance of their engine. Now, John van C.

Parker, president of Consumers, would like to find a good home for Big Alice, which was run from 1913 to 1969, when it was placed on standby and run periodically until 1983. The Sept. 1979 issue of *Live Steam* published an extensively illustrated article by Conrad Milster [SIA] on the vertical triple-expansion engine. He described it as a "stock" pumping engine," no. 1065, with cylinders 21 in., 38 in., and 56 in., with a 36-in. stroke, running at 36 rpm. The engine pit was built to take a second engine that never was installed, thus allowing an unobstructed view of the entire Big Alice, complete from bedplate to cylinder heads. If interested, contact Parker at Consumers Water Co., 3 Canal Plaza, Portland ME 04112 (207-773-6438).

SAVE THE ORISKANY DEPOT. Built c1874, the one-story, 28' x 100', brick freight station at Oriskany, Oneida County, N.Y., is available for purchase or rent from the N.Y. Dept. of Transportation in cooperation with the state Office of Parks, Recreation & Historic Preservation. NYSDOT purchased the National Register-eligible building in 1989 and since then it has been vacant and vandalized. It is considered



architecturally significant and historic preservation tax credits may be available. The line through Oriskany was built in 1838 by the Syracuse & Utica RR, and purchased in 1853 by the N.Y. Central System. The depot is believed to be the last of several structures built there by the NYC. If interested, contact David Layne, Regional Real Estate Officer, NYSDOT, 207 Genesee St., Utica NY 13501 (315-793-2412).

NOTES

CAST-IRON RESTORATION WORKSHOP. A national workshop for architects, contractors, craftsmen, consultants, and property owners on methods and materials for maintenance, repair, and replacement of architectural cast iron, with an emphasis on facades, is scheduled for Sept. 14-15 in N.Y.C. One day of presentations and panel discussions by leading experts and practitioners will be followed by a half-day of field visits to recent and current restoration projects in and around the SoHo Cast Iron Historic District. Sessions will focus on inspection and documentation of conditions; repairs on site and in the shop; replacement in kind and with substitute materials; paint removal and coating systems; and preventive maintenance. Registration is \$75: 8:30-5:30 Sat. and 9-noon Sun. in the Puck Building, 295 Lafayette St., N.Y.C. Info.: Kim Lovejoy, N.Y. Landmarks Conservancy, 141 Fifth Ave., New York NY 10010 (212-995-5260, fax 212-995-5268).

ADVISORY COUNCIL REPORT AVAIL. Copies of *Report to the President & Congress 1990* are available free from the Council. It summarizes Council activities, including casework, Section 106-related litigation, and preservation legislation. Among the case studies discussed are: Bluebird Dam, Rocky Mountain National Park, Colorado, a concrete-arch dam completed in the early 1920s; 65-mile Milton Ditch (1872) in Granite Chief Wilderness Area, Tahoe National Forest, Calif., built to convey water from high in the Sierra Nevadas to hydraulic mines on the San Juan Ridge; Crawford Ditch Improvement Project in El Dorado County, Calif., built in 1851 and 1853 to aid mining projects in the state's Mother Lode region, and still in use; and Butte (Mont.) National Historic Landmark, the spectacular mining city visited during the 1989 SIA Fall Tour. For free single copies write Office of Communications & Pubs., 1100 Pennsylvania Ave. NW, Suite 809, Wash. DC 20004.

CALL FOR ARTICLES. *The Western Railroader: For the Historian*, a new quarterly publication of the Pacific Coast Chap., Rwy. & Locomotive Hist. Soc., seeks RR history articles focusing on the West. Info.: Editor, WR, 115 "I" St., Sacramento CA 95814-2204.

The *Journal of Urban Technology*, debuting in Sept., is committed to reviewing and analyzing the development and effect of urban technology for a non-technical audience. Articles are invited for either the "Developments" section (4,000 words) that detail innovations in urban technology, or the "Opinions" section (2,500 words) that comment on the politics, economics, ethics, and aesthetics of urban technology. Info.: Richard Hanley, N.Y. Technical College, 300 Jay St., Brooklyn NY 11201.

"PAINTING PROGRESS: American Art & the Idea of Technology, 1800-1917," an exhibit running Oct. 11 through Dec. 31 at the Allentown [Pa.] Art Museum, explores the impact of industrialization on society. A symposium on Oct. 19 includes presentations on John Ferguson Weir & the West Point Foundry by Betsy Fahlman [SIA], on RRs in American art, and others. Info.: AAM, 5th & Court, POB 388, Allentown PA 18105 (215-432-4333).

FOUR NEW AIHP PUBS., FREE. Four new publications are available that address the architectural, cultural, and industrial history of several towns and counties within the scope of America's Industrial Heritage Project (encompassing Bedford, Blair, Cambria, Fayette, Fultin, Huntingdon, Indiana, Somerset, and Westmoreland counties in Pa.). Produced by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), Natl. Park Service, the texts contain essays and reports on historic buildings and industrial sites, b/w recent & historic photos, maps, architectural plans, and comprehensive bibliographies.

Blair County & Cambria County, Pa.: An Inventory of Historic Engineering & Industrial Sites (355 pp.), Gray Fitzsimons ed., looks at industrial sites, including extractive, thermal, early iron, bulk & transportation industries, and features separate chapters on the Cambria Iron Works and the PRR's Altoona Works.

The Company Towns of the Rockhill Iron & Coal Co.: Robersdale & Woodvale, Pa. (98 pp.), by Lola Bennett, is a study of two East Broad Top Coal Co. towns that uses numerous photos, maps and floor plans to trace the development, growth, and alteration of the company-built housing.

Fayette County, Pa.: An Inventory of Historic Engineering & Industrial Sites (260 pp.), Sarah Heald ed., includes structures from transportation, primary metals, and brewing & distilling industries; a large portion of the volume is devoted to coal & coke sites as the county includes the southern portion of the Connellsville coke region.

Railroad City: Four Historic Neighborhoods in Altoona, Pa. (502 pp.), Kim Wallace ed., looks at working and middle-class housing in both in-town and suburban neighborhoods in a city founded for the PRR's shops.

The books are free. Contact Judy Torres, Allegheny-Highlands Heritage Center, 319 Washington St., Suite 370, Johnstown PA 14901, ATTN: HABS/HAER (or call 814-539-2016).

IBERIAN MINING STUDY TOURS. Two study tours of mining in southern Iberia are planned for 1992 by Atalaya Tours Ltd, Aberystwyth, Wales, who have been offering similar tours since 1988. One tour will include the Rio Tinto mining field and the Iberian pyrite belt, where there are extensive remains from Roman mining as well as from the mining revival in the 19th C and early 20th. This eight-day tour is tentatively scheduled for May 1992, and includes visits to IA mine sites, mining museums, and operating mines. The second tour, 10 to 12 days, will cross southern Spain, from Almeria in the east to Rio Tinto in the west, and will include: lead/zinc & iron mines in Almeria; lead & zinc mines near Cartagena; mines around El Centenillo, a major Roman mining area; the famous mercury mines at Almaden (Ciudad Real); gold, silver & copper mines in the Sierra Morena; and the copper mines of the Rio Tinto. Dates are not set. Prices are estimated at \$1,050 for the first tour and \$1,250 for the second, based on flights from the U.K. Arrangements can be made for U.S. flights. All details are preliminary and those interested should contact James Thorburn, Atalaya Tours Ltd., Ceinionfa, Penglais Terrace, Aberystwyth, Wales, SY23 2ET, U.K. (phone 0970-625077).

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. 1

SPRING 1991

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[Yes, your venerable compiler has moved East and is at the above address. Mail can reach me there, or through the regular SIAN address, P.O. Box 65158, St. Paul MN 55165-0158. I'm looking forward to meeting old SIA friends, and making new ones.]

GENERAL SUBJECTS

Michael Adas, **Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance.** Cornell Univ. Pr. (Ithaca, NY), 1989. 430p, illus., bibliog. \$30. Examination of the writings of Englishmen & Frenchmen about Africa, India, & China. Rev.: *T&C* 31, Oct. 1990, p862-3.

Martha S. Bradley, "Protect the Children: Child Labor in Utah, 1880-1920." In *Utah Historical Quarterly* 59, Winter 1991, p52-71. Incl. mining, food processing, box factories.

Evan Burr Bukey, **Hitler's Hometown: Linz, Austria, 1908-1945.** Indiana Univ. Pr. (Bloomington), 1986. 289p. \$28. Incl. rapid industrialization after 1938. Rev.: *AHR* 96, June 1991, p911.

Rondo Cameron, **A Concise Economic History of the World: From Paleolithic Times to the Present.** Oxford Univ. Pr. (NY), 1989. 437p, illus., maps, bibliog. \$40. Rev.: *T&C* 31, Oct. 1990, p864-5.

Chicago: **An Industrial Guide.** Public Works Historical Society, (1313 E. 60th St., Chicago IL 60637), 1991. 52p, illus. \$5 ppd. The guidebook for the 1991 SIA conference.

Ute Daniel, **Arbeiterfrauen in der Kriegsgesellschaft: Beruf, Familie und Politik im Ersten Weltkrieg.** Vandenhoeck und Ruprecht (Göttingen), 1989. 397p. DM 78. Women workers in Germany during World War I, incl. war industries. Rev.: *AHR* 96, June 1991, p901.

Doris Groshen Daniels, **Always a Sister: The Feminism of Lillian D. Wald.** Feminist Pr. (NY), 1989. 207p. \$25. Incl. child labor & minimum wage legislation, trade unionism, & "investigation of the brutal poverty that accompanied American industrialization." Rev.: *AHR* 96, June 1991, p981.

The Economic History of Eastern Europe, 1919-1975. M. C. Kaser E. A. Radice (eds.). Clarendon Pr. of Oxford Univ. Pr. (NY), 1985. Vols. 1-3 rev. in *AHR* 96, June 1991, p912-14; pp. given as 616, price \$67. Actually east-central and southeast Europe; incl. Czechoslovakia, the most industrialized country in the region in the interwar period (the Skoda works, for example, employing 32,000 workers in 1937).

— Vol. 1. **Economic Structure & Performance Between the Two Wars.**

— Vol. 2. **Interwar Policy, the War, and Reconstruction.**

— Vol. 3. **Institutional Change within a Planned Economy.**

Kees Gispens, **New Profession, Old Order: Engineers & German Society, 1815-1914.** Cambridge Univ. Pr. (NY), 1989. 357p. \$45. Rev.: *AHR* 96, June 1991, p897-8.

Donald R. Hoke, **Ingenious Yankees: The Rise of the American System of Manufactures in the Private Sector.** Columbia Univ. Pr. (NY),

1990. 345p. \$40. Argues that the American system of interchangeable parts [etc.] originated not in the public armories (as argued by Hounshell) but in the private sector. Uses four case studies: wooden movement clock making, axe mfg., typewriter & watch mfg. Rev.: *JAH* 78, June 1991, p312-13; *AHR* 96, June 1991, p942.

Pat Hudson (ed.), **Regions and Industries: A Perspective on the Industrial Revolution in Britain.** Cambridge Univ. Pr. (NY), 1989. 277p. \$50. Incl. woolen textile industry. Essays listed in *AHR* 96, June 1991, p1010.

Louis C. Hunter & Lynwood Bryant, **A History of Industrial Power in the U.S., 1780-1930. Vol. 3: The Transmission of Power.** MIT Pr. (Cambridge MA), 1991. 506p p., illus. \$? The long-awaited final vol. of this important trilogy; Hunter mss. extensively reworked and rationalized by Bryant (earlier vols: Vol. 1, *Water-Power in the Century of the Steam Engine*; Vol. 2, *Steam Power*). Treats Muscle power; Prime movers for small industries; Pre-electric power transmission; Electrical transmission; Power in mining; Petroleum 'mining.' A pioneer approach to these areas; wonderfully detailed and thorough. — R. M. Vogel

John Komlos, **Nutrition and Economic Development in the 18th-C. Habsburg Monarchy: An Anthropometric History.** Princeton Univ. Pr. (Princeton), 1989. 325p. \$45. Austria during time of industrial modernization. Uses statistics on height (mostly of military recruits), leading to the conclusion that "the well-being of people in Europe in general deteriorated from the 1750s to the 1780s and remained at the low level of the 1780s for several decades thereafter" (apparently contradicting evidence about wages, prices, and death rates that suggest the this was a period of improved well-being). Rev.: *AHR* 96, June 1991, p909-11.

David Macaulay, **The Way Things Work: From Levers to Lasers, Cars to Computers — A Visual Guide to the World of Machines.** Houghton Mifflin (Boston), 1988. 384p, color illus. \$30. Hundreds of machines explained, with usual excellent Macaulay illus. Rev.: *T&C* 31, Oct. 1990, p911-12.

Alan I. Marcus & Howard P. Segal, **Technology in America: A Brief History.** Harcourt Brace Jovanovich (NY), 1989. 380p. \$10 pap. Rev.: *JAH* 78, June 1991, p282.

Andre Millard, **Edison and the Business of Innovation.** Johns Hopkins Univ. Pr. (Baltimore), 1990. 387p. \$39. Edison's West Orange, NJ, laboratory (now a museum), built late 1880s; from shop culture beginnings (valuing independence, flexibility, versatility) through "product specific" production engineering and time clocks by 1914. *AHR* 96, June 1991, p972-3; *JAH* 78, June 1991, p354.

Stephen Nicholas (ed.), **Convict Workers: Reinterpreting Australia's Past.** Cambridge U. Pr. (NY), 1989. 246p. \$45. Essays listed in *AHR* 96, June 1991, p1015.

Robert L. O'Connell, **Of Arms and Men: A History of War, Weapons, and Aggression.** Oxford Univ. Pr., 1989. 367p, illus., bibliog., index. \$25. Rev.: *T&C* 31, Oct. 1990, p900-901.

Randall M. Packard, **White Plague, Black Labor: Tuberculosis and**

the Political Economy of Health and Disease in South Africa. Univ. of Cal. Pr. (Berkeley), 1989. 389p. \$40/16.

Jacques Rancière, **The Nights of Labor: The Worker's Dream in 19th-C. France.** Translated by John Drury. Temple Univ. Pr. (Philadelphia), 1989. 442p. \$35. Rev.: *AHR* 96, June 1991, p886-7.

Billy G. Smith, **The 'Lower Sort': Philadelphia's Laboring People, 1750-1800.** Cornell Univ. Pr. (Ithaca NY), 1990. 249p. \$35. Incl. merchant seamen, shoemakers, tailors. Rev.: *AHR* 96, June 1991, p948-9; *JAH* 78, June 1991, p301-2.

Richard B. Stott, **Workers in the Metropolis: Class, Ethnicity, and Youth in Antebellum New York City.** Cornell Univ. Pr. (Ithaca NY), 1990. 300p. \$35. Rev.: *AHR* 96, June 1991, p960-61.

Susan Strasser, **Satisfaction Guaranteed: The Making of the American Mass Market.** Pantheon (NY), 1989. 339p. \$25. Mfrs. and national markets. Rev.: *JAH* 78, June 1991, p365.

Mira Wilkins, **The History of Foreign Investment in the United States to 1914.** Harvard Univ. Pr. (Cambridge), 1989. 1055p. \$65. Incl. railroads; precious metals; coal, iron, and steel; copper, oil, and other minerals, textiles; chemicals. *AHR* 96, June 1991, p943-4.

JoAnne Yates, **Control Through Communication: The Rise of System in American Management.** Johns Hopkins U. Pr. (Baltimore), 1989. 339p. \$30. Telegraph and misc. office technology; Illinois Central RR, Scovill Mfg. Co., DuPont Co. Rev.: *JAH* 78, June 1991, p355.

MATERIALS

Richard H. Engeman, **Primary Sources Data Sheet [Day Mines. Records, 1889-1984. c.600 cu. ft.].** In *Pacific Northwest Quarterly* 81, Apr. 1990, p78. Brief description of the records of Day Mines, its predecessor and associated firms, and personal papers of the Day family, Wallace, ID. Harry Day developed silver and other mines in the Coeur d'Alene region and the family eventually controlled more than 90 mining, milling and smelting firms in ID, WA, CO, UT, and elsewhere. Photos selected as example for the *Quarterly* are from smoke research reports, 1917-18, and show tree loss near Northport (WA) Smelting & Refining Co. copper smelter, between 1897 and c.1900. Collection avail.: Special Collections and Archives, Univ. of ID Library, Moscow ID 83843-4198.

John Higginson, **A Working-Class in the Making: Belgian Colonial Labor Policy, Private Enterprise, and the African Mineworker, 1907-1951.** Univ. of Wis. Pr. (Madison), 1989. 307p. \$40/19 pap. Incl. copper industry. Rev.: *AHR* 96, June 1991, pp928-9.

Grace Palladino, **Another Civil War: Labor, Capital, and the State in the Anthracite Region of Pennsylvania, 1840-68.** Univ. of Ill. Pr. (Urbana), 1990. 195p. \$27. Rev.: *AHR* 96, June 1991, p962; *JAH* 78, June 1991, p323-4.

J. Sedgwick, **"Strong but Sensitive."** In *The Atlantic* 267, Apr. 1991, p70-74+. Problems of concrete as a structural material; related letters in Aug. issue.

Brian Shovers, Mark Fiege, Dale Martin, & Fred Quivik, **Butte and Anaconda Revisited: An Overview of Early-day Mining and Smelting in Montana.** Mont. College of Mineral Science & Technology (Butte), Special Publication 99, 1991. 65p, illus., maps, bibliogs. \$5. A revised and upgraded version of the guide for the 1989 SIA Fall Tour. (Avail.: MT Bureau of Mines and Geology, Butte MT 59701.)

MISCELLANEOUS INDUSTRIES

Richard D. Brown, **Knowledge is Power: The Diffusion of Information in Early America, 1700-1865.** Oxford U. Pr. (NY), 1989. 372p. \$40. Rev.: *JAH* 78, June 1991, p296-7.

Ronald D. Cohen, **Children of the Mill: Schooling and Society in Gary, Indiana, 1906-1960.** Indiana Univ. Pr. (Bloomington), 1990. 280p. \$35. *AHR* 96, June 1991, p980-81.

Daniel B. Cornfield, **Becoming a Mighty Voice: Conflict and Change in the United Furniture Workers of America.** Sage (NY), 1989. 292p. \$35. Rev.: *JAH* 78, June 1991, p373-4.

Mary A. DeCredico, **Patriotism for Profit: Georgia's Urban Entrepreneurs and the Confederate War Effort.** Univ. of N.C. Pr. (Chapel Hill), 1990. 211p. \$30. Focuses on Savannah, Augusta, Atlanta, and Columbus; incl. RR, textiles, iron? Rev.: *AHR* 96, June 1991, p965-6.

Detailed Reports on the Salzburger Emigrants Who Settled in America ... [Vols. 11-15, 1747-1752]. U. of Ga. Pr. (Athens), 1989-

1990. \$35/40 ea. German Lutheran settlement at Ebenezer, Ga.; incl. sawmill, lumbering, silkworm industry, slavery. Rev.: *JAH* 78, June 1991, p298-301.

B. W. De Vries, **From Pedlars to Textile Barons: The Economic Development of a Jewish Minority Group in the Netherlands.** Koninklijke Nederlandse Akademie van Wetenschappen (NY), 1989. 341p. F95. Ashkenazi Jewish entrepreneurs in the inland textile districts of the Netherlands. Rev.: *AHR* 96, June 1991, p894.

John Gruber, **"Grain Elevators: On Green Bay Skyline Since the Civil War."** In *Voyageur* (Brown County Historical Society, POB 8085, Green Bay WI 54308) 8, Summer/Fall 1991, p44-8. Incl. C&NW RR, Green Bay & Western RR, Cargill grain operations; 1860s-present. One grain elevator remains, a 161-ft. concrete structure built by GB&W in 1917 for Cargill, enlarged in 1924, and operated by Thomas A. Strid, 1935-present.

Dieter Kuhn, **Science and Civilisation in China, Vol. 5: Chemistry and Chemical Technology. Part 9: Textile Technology: Spinning & Reeling.** Cambridge Univ. Pr. (NY), 1988. 520p, illus., tables, notes, glossary, bibliog., index. \$110. Rev.: *T&C* 31, Oct. 1990, p865-7.

Ruth Manary, **"Reminiscence: Ruth Manary on Life at a Lincoln County Logging Camp in the 1920s."** In *Oregon Historical Quarterly* 92, Spring 1991, p76-92. Manary Logging Co., OR; illus.

Peter J. T. Morris, **The American Synthetic Rubber Research Program.** U. of Penn. Pr. (Philadelphia), 1989. 191p. \$35. Technical; 1942-56 time period. Rev.: *AHR* 96, June 1991, p994.

Arlene Palmer, **The Wistars and Their Glass, 1739-1777.** Wheaton Historical Association (c/o Wheaton Village, Millville NJ 08332), 1989. 22p, color illus., notes. \$10 pap. Well-researched history of one of the most important glassworks in colonial America.

Gerald E. Poyo, **"With All, and for the Good of All": The Emergence of Popular Nationalism in the Cuban Communities of the United States, 1848-1898.** Duke Univ. Pr. (Durham NC), 1989. 182p. \$29. Incl. cigar mfg., Tampa and Key West, FL. *AHR* 96, June 1991, p963-4.

Denis Fred Simon & Detlef Rehn, **Technological Innovation in China: The Case of the Shanghai Semiconductor Industry.** Ballinger Pub. Co. (Cambridge MA), 1988. 206p, illus., bibliog., index. \$30. Rev.: *T&C* 31, Oct. 1990, p905-7.

Guy P. C. Thomson, **Puebla de Los Angeles: Industry and Society in a Mexican City, 1700-1850.** Westview (Boulder CO), 1989. 396p. \$43. Woolen mfg. in Puebla; relationship with silver mining. Rev.: *AHR* 96, June 1991, p1003.

Joseph Frazier Wall, **Alfred I. Du Pont: The Man and His Family.** Oxford Univ. Pr. (NY), 1990. 685p. \$28. The other Du Pont; interested mostly in black powder operations, a declining part of company's revenues, he left the firm in 1916. Rev.: *AHR* 96, June 1991, p973-4; *JAH* 78, June 1991, p364.

Chris Ward, **Russia's Cotton Workers and the New Economic Policy: Shop-Floor Culture and State Policy, 1921-1929.** Cambridge Univ. Pr. (NY), 1990. 304p. \$45. Rev.: *AHR* 96, June 1991, p920-21.

Michael R. Williams, **A History of Computing Technology.** Prentice-Hall (Englewood Cliffs NJ), 1985. 433p, bibliogs., index. \$35. Incl. calculating-machines and mathematical instruments. Rev.: *T&C* 31, Oct. 1990, p907-911.

Otto W. Witzell & J.K. Lee Smith (eds.), **Closing the Gap: Computer Development in the People's Republic of China.** Westview Press (Boulder CO), 1989. 153p, illus. \$16. Rev.: *T&C* 31, Oct. 1990, p905-7.

James Harvey Young, **Pure Food: Securing the Federal Food and Drug Acts of 1906.** Princeton Univ. Pr. (Princeton NJ), 1989. 312p. \$30. Had effect on vegetable oil industry (oleomargarine) and food processing industry generally. Rev.: *AHR* 96, June 1991, p971-2.

STRUCTURE

Catherine W. Bishir, et al, **Architects and Builders in North Carolina: A History of the Practice of Building.** U. of N.C. Pr. (Chapel Hill), 1990. 540p. \$38. Rev.: *JAH* 78, June 1991, p294-5.

Love Dean, **The Lighthouses of Hawai'i.** Univ. of Hawaii Pr. (Honolulu), 1997. 224p, illus., maps, glossary, bibliog., index. \$20. Incl. 43p of lists of keepers, a chapter on lighthouse tenders (ships), and data on other aids to navigation. Rev.: *The Keeper's Log* (U.S. Lighthouse Society, 244 Kearny St. - 5th Floor, San Francisco CA 94108), Vol. 7, No. 3, 1991, p42.

Bernard A. Drew, **Spanning Berkshire Waterways; A Personal Excur-**

sion into the History of Metal Truss Highway Bridge Construction in Western New England, 1865-1905. Attic Revivals Pr. (24 Gilmore Ave., Great Barrington MA 01230), 1990. 32p, illus. \$5. Photos, diags., facsimiles of letterheads; bridges from wood (kingpost and covered) and stone to iron trusses, incl. Ball pipe trusses, pumpkin-seed, Whipple bowstring, and what must be one of Geo. S. Morison's smallest commissions, a Borneman "bedstead" truss, the oldest surviving metal truss in the Berkshires, built in Stockbridge, MA, in 1886.

Thomas Finnegan, **Saving Union Station.** Washington Park Pr. Ltd. (7 Englewood Place, Albany NY 12203), 1988. 107p, illus. \$20 pap. New York Central RR's Albany, station, closed 1968, extensively renovated by Norstar Bancorp. for corporate offices, c1984, an adaptive reuse that pushed "the very limits of the permissible." Rev.: *RRH* 162, Spring 1990, p137-8.

The Flying Buttress. Newsletter of the Building Technology and Civil Engineering Interest Group of the Society for the History of Technology (SHOT). Avail. with membership, \$15. Address: Adam L. Gruen, Temporal Perspectives Co., 131 N. Cleveland, Arlington VA 22201 (703-528-4813).

A. Freeman, "The Nation's Largest Single Act of Rehabilitation." In *Architecture* 78, Apr. 1989, p82-87. Wash., DC, Union Station.

Alice Rubenstein Gochman, "Grand Central Terminal." In *Gourmet* 59, Nov. 1989, p106-111.

Nigel Hawkes, **Structures: the Way Things Are Built.** Macmillan (NY), 1990. 240p, illus. (most color), bibliog., index. \$40. Architecture, civil engineering, underground construction; world-wide, all-time, eclectic.

Terry G. Jordan & Matti Kaups, **The American Backwoods Frontier: An Ethnic and Ecological Interpretation.** Johns Hopkins Univ. Pr. (Baltimore), 1989. 340 p., illus., maps, bibliog. \$36. Finnish influence spreading from Delaware River region of NY/DE/NJ; incl. log architecture. Rev.: *T&C* 31, Oct. 1990, p873-5.

The Keeper's Log (quarterly journal of the United States Lighthouse Society, 244 Kearny St. - 5th Floor, San Francisco CA 94108). Avail. with membership: Keeper, \$25 basic, \$35 family; District Inspector (with "surprises during the year"), \$60; on up to Patron of Pharos, \$1000. The USLHS has 6,000 members, "strong" chapters in MA, VA, and NJ, and related items for sale (jewelry, T-shirts, reproduction keeper's hat, etc.). Vol. 7, No. 3, 1991, includes: — Robert Hefner, "Montauk Point," p2-10. Long Island, NY, incl. Reed Trench Terracing method of stopping cliff erosion which "has worked where massive stone revetment projects by the Corps of Engineers have failed." — "Cape Florida," p11. Color lithograph, \$125, from USLHS; proceeds to restoration project. — Admont G. Clark, "Monomoy Point Lighthouse," p12-15. Nantucket Sound, MA. — Lenore Johnson, "Lighthouse Memories," p16-19. Growing up in CA lighthouses, 1924-1943, esp. Piedras Blancas, near Hearst Castle. — Wayne C. Wheeler (USLHS pres.), "The Lighthouses of Puerto Rico, Part 1," p20-27. — "Pages from the Past: Calumet Harbor Entrance Lighthouse, Lake Michigan," p28-29. Quotes from lighthouse keepers, 1873-1882. — "Lighthouse Service Bulletin," p30-31. A variety of quotes from the *Bulletin*, which was published 1912-1939. — **Notice to Keepers** section, p32-41, includes news of lighthouses open to the public and of restoration projects. Item on Thatchers Island, Rockport, MA, mentions Keepers in Training program (non-paying, volunteer). Info from Thatcher Island Keeper Search Committee, c/o Mary Bennett, chairman, 136 Main St., Rockport MA 01966. — **Letters to the Keep'** section includes one from the Canadian Coast Guard, noting lighthouse automation, remote monitoring, destaffing, and preservation projects (the latter through Parks Canada), p45.

Roger G. Kennedy, **Orders from France: the Americans and the French in a revolutionary world, 1780-1820.** Knopf (NY), 1989. 527p, illus., bibliog. \$40. French influence on Amer. architecture. Rev.: *T&C* 31, Oct. 1990, p872-3.

Jeff Karl Kowalski, "The House of the Governor." **A Maya Palace at Uxmal, Yucatan, Mexico.** U. of Okla. Pr. (Norman), 1987. 298p. \$50. Rev.: *AHR* 96, June 1991, p1000-1001.

Leslie Maitland, **The Queen Anne Revival Style in Canadian Architecture.** Environment Canada, Parks Service (Canadian Govt. Publishing Centre, Supply & Services Canada, Ottawa K1A 0S9), 1990? 303p, illus. \$C24.

Terry McDougall, "How We Won the Battle of the Railway Stations: A Blow-by-Blow Account of the Passage of Bill C-205." In *Canadian Heritage* 14, No. 4, 1988-89, p36-42.

Donald L. Miller, **Lewis Mumford, a Life.** Weidenfeld & Nicolson

(NY), 1989. 628p, 16 p. of plates, illus., bibliog. Biog. of M (1895-); architecture, city planning, social reform.

The New Yorker, Sept. 18, 1989, p34-35, profiles the **Osborn Engineering Co.**, Cleveland, OH, designers of baseball stadiums from the Polo Grounds, 1911, to Three Rivers Stadium, Pittsburgh, 1970. Believing that "the key to a good stadium is to get the most people as close as possible to the playing field," it has declined to follow the current "fictitious Nirvana of columnless viewing." Page 35, coincidentally, begins an intriguing piece on the adaptive reuse of the **Brooklyn Bridge anchorage** building (Brooklyn side), cunningly named The Anchorage, as used by "The Resonators" to perform music that is an "an oddly lyrical collage of sound from air-raid sirens, foghorns, fire-alarm bells, oil drums gonged with rubber mallets ... [etc.]." Your editor has not seen page 36.

Antoine Picon, **Architectes et Ingénieurs au Siècle des Lumières.** éditions Prentièhes (Marseille), 1988. 317p, illus., notes, index. F320 pap. Architects & engineers; 18th-C. France. Rev.: *T&C* 31, Oct. 1990, p870-71.

Harold L. Platt, **The Electric City: Energy & Growth of the Chicago Area, 1880-1930.** U. of Chicago Pr. (Chicago), 1990?. 432p, illus., maps. \$35.

Richard Plunz, **A History of Housing in New York City: Dwelling Type and Social Change in the American Metropolis.** Columbia Univ. Pr. (NY), 1990. 422p, bibliog. \$45p. Rev.: *AHR* 96, June 1991, p959-60.

Albert J. Schmidt, **The Architecture & Planning of Classical Moscow: A Cultural History.** Amer. Philosophical Soc. (Philadelphia), 1989. 218p. #38. Rev.: *AHR* 96, June 1991, p914.

Hildegard Hoyt Swift & Lynd Ward, **The Little Red Lighthouse and the Great Grey Bridge.** Harcourt, Brace Jovanovich (NY), 1942. 53p, color illus. \$16. Jeffrey's Hook lighthouse, Manhattan Island, NYC, beneath the George Washington Bridge. Review in *The Keeper's Log* (U.S. Lighthouse Society, 244 Kearny St. - 5th Floor, San Francisco CA 94108), Vol. 7, No. 3, 1991, p42, notes that this children's book is still in print and summarizes preservation from 1951 proposed sale of lighthouse to present restoration under the NY Parks & Rec. Dept. (incl. brief bibliog. references).

TRANSPORT

James R. Alexander, **Jaybird: A. J. Moxham and the Manufacture of the Johnson Rail.** Johnstown Area Heritage Assn. (319 Washington St., Johnstown PA 15901), 1991. 83p?, illus., index. \$12.95 + 4.00 handling. The Jaybird rail was a rolled steel girder rail "with peculiar offset flanges" used by most street railways in the U.S., 1885-1894. The Johnson Co., Johnstown, PA, became a leading producer off specialty railway track work, with links to Louisville, KY (predecessor company); Birmingham, AL (ore fields), and to the DuPont company (through Moxham's role in its development).

James T. Bradley, **North American Locomotive Production, 1968-89.** Bradley Enterprises (Box 894, Irving TX), 1989. 191p. \$28 pap. A "compilation of roster material from mostly secondary sources." Rev.: *RRH* 163, Autumn 1990, p131-2.

Stephen R. Braund, **The Skin Boats of Saint Lawrence Island, Alaska.** Univ. of Washington Pr. (Seattle), c1988. 141p, illus., maps, bibliog. \$20. Yuit Eskimos, incl. boats. Rev.: *T&C* 31, Oct. 1990, p877-8.

Peter W. Brooks, **Cierva Autogiros: The Development of Rotary-wing Flight.** Smithsonian Institution Pr. (Wash. DC), 1988. 384p, illus., bibliog., index. \$35. Juan de la Cierva (1895-1936). Rev.: *T&C* 31, Oct. 1990, p893-4.

Bruce Butler, "The Northern Pacific's GP7 Road-Switchers." In *The Mainstreeter* 8, Spring 1989, p5-19. GM EMD production, 1949-1953; diagrams, photos, dwgs., assignment of power, disposition. (Avail.: NP Rwy. Historical Assn., 11232 Washington St. NE, Blaine MN 55434)

Agnes Calliste, "Blacks on Canadian Railways." In *Journal of Ethnic Studies* 20, No. 2, 1988, p36-52.

Don Carlson, "Jay Cooke, Duluth, and the Northern Pacific Railway." *The Mainstreeter* 8, Spring 1989, p20-27. Duluth, MN, 1865-1873. (Avail.: NP Rwy. Historical Assn., 11232 Washington St. NE, Blaine MN 55434)

William B. Catton, "Growing Up With the Pennsy." In *Gettysburg Review* 2, Summer 1989, p375-92. Pennsylvania RR.

Rufus Cone & Matthew Herson, "Acquisition and Use of Covered Hopper Cars by the Northern Pacific Railway: A Case History in

Industrial Evolution Seen Through the Eyes of NP Presidents. In *The Mainstreeter* 8 (Fall 1989), p5-13.

Harold E. Cox, **Wyoming Valley Trolleys: Street Railways of Wilkes-Barre, Nanticoke and Pittston, Pennsylvania.** Pub. by the author (80 Virginia Terrace, Forty Fort PA 18704), 1988. 100p, illus. \$12 pap. Rev.: *RRH* 163, Autumn 1990, p123.

Thomas Curtis Clarke, et al, **The American Railway: Its Construction, Development, Management, and Appliances.** Scribner's (NY), 1889. Reprint by Castle (Secaucus, NJ), 1988. 1 vol. \$25. Orig. a collection of essays from *Scribner's Magazine*, 1888, appearing as a single vol. in 1889, with later editions in 1892, 1893 and 1897. Development of information, business, accounting, logistical, and managerial systems, as well as construction and equipment. Rev.: *RRH* 163, Autumn 1990, p110-12.

Edwin Course, **London's Railways Then and Now.** David & Charles (N. Pomfret VT), 1989. 119p, illus. \$25. Comparison photos of 48 sites in various years. Rev.: *RRH* 162, Spring 1990, p141-2.

Bob Cunningham, **"Knights of the Grip: On the Road in the Old West."** In *Journal of the West* 29, July 1990, p69-74. Traveling salesmen.

Kenneth S. Davis, **"Harry Truman's Attempts to Halt the Ruination of America's Railroads."** In *Gettysburg Review* 2, Summer 1989, p457-75.

Rodney O. Davis, **"Earnest Elmo Calkins and Phoebe Snow."** In *RRH* 163, Autumn 1990, p88-92. Lackawanna logo; promotion of clean-burning anthracite coal.

James P. Delgado, **To California by Sea: A Maritime History of the California Gold Rush.** U. of S.C. Pr. (Columbia), 1990. 237p. \$25. Travel to Calif. by ship (nearly half of the immigrants between 1849 and 1851 came by sea); San Francisco as a "Venice built of pine" due to number of buildings on pilings; ships used as warehouses, stores, and rooming houses. Rev.: *JAH* 78, June 1991, p329-30.

William Francis Deverell, **Building an Octopus: Railroads and Society in the Late 19th-C. Far West.** Ph.D. thesis, Princeton Univ., 1989.

Thomas W. Dixon, **Chessie: The Railroad Kitten.** TLC Publishing Co. (303 Aaron Court, Sterling VA 22170), 1988. 64p, illus. \$11 pap. The evolution of Chessie, the C&O logo ("Sleep Like a Kitten"), her kittens and her "husband," Peake; 1933-present. Rev.: *RRH* 163, Autumn 1990, p126-7.

Stephen E. Donaldson & William A. Myers, **Rails Through the Orange Groves. Vol 1: A Centennial Look at the Railroads of Orange County, California.** Interurban Press (Glendale CA), 1989. 144p, illus. \$32. Incl. horse cars, motor cars, interurbans and main lines; SP, AT&SF, Santa Ana & Newport Rwy., Pacific Electric. Rev.: *RRH* 163, Autumn 1990, p121-22.

Peter Dyer & Peter Hodge, **Cane Trains.** New Zealand Rwy. & Locomotive Soc. (Box 5134, Wellington), 1988. 178p, illus. NZ\$50. Sugar cane RRs of Fiji, 1880s?-present; 2-ft. gauge. Rev.: *RRH* 162, Spring 1990, p143-4.

John Everitt, et al, **"Controlled Aggression: James J. Hill and the Brandon, Saskatchewan & Hudson's Bay Rwy."** In *North Dakota History* 56, Spring 1989, p3-19. S.W. Manitoba, 1903-1936; GN-related line running south from Brandon to Boissevain, Man., and southeasterly to St. John, ND.

J. A. Faber (ed.), **Het Spoor: 150 Jaar Spoorwegen in Nederland.** Meulenhoff Nederland BV (Box 100, 1000 AC Amsterdam), 1989. 384p. Dfl 59.50. Official 150-year history of a system that continues to derive most of its revenue from passenger service (90% in 1988), sponsored by Netherlands Railways (NV Nederlandse Spoorwegen); mostly 1938 to present, but with overview of earlier period. Rev.: *RRH* 163, Autumn 1990, p115-16.

Fairbanks, Morse & Co. Locomotive Coaling Stations, Yard Storage Systems, Cinder Conveyors, Sand Plants. Bulletin 73001 [c1930s]. Reprint by TLC Publishing Co. (303 Aaron Court, Sterling VA 22170), 199?. Rev.: *RRH* 163, Autumn 1990, p130-31.

Rowe Findley, **"The Life and Times of William Henry Jackson."** In *National Geographic* 175, Feb. 1989, p216-51. Western RR photographer.

K. N. Finne, **Igor Sikorsky, the Russian Years** [English trans. of *Russkie vozdukhnye bogatyri*]; Carl J. Bobrow and Von Hardesty, editors; translated and adapted by Von Hardesty. Smithsonian Institution Press (Wash. DC), 1987. 223p, illus., bibliog., index. \$23. Biog. of early career of S (b.1889, d.1972); incl. Tsarist military aviation, Russian long-range bombers. Rev.: *T&C* 31, Oct. 1990, p892-3.

Frederick C. Gamst, **"Franz Anton Ritter von Gerstner, Student of America's Pioneering Railroads."** In *RRH* 163, Autumn 1990, p13-28. Biog. and background data, 1830s; see Gerstner entry for text of reports.

Evan Garrett, **"My Milwaukee."** In *The Palimpsest* 70, Fall 1989, p156-60. Milwaukee Road?? RR, Iowa?

Francis Anthony Chevalier de Gerstner, **"Letters from the United States of North America on Internal Improvements, Steam Navigation, Banking, &c."** Edited by Frederick C. Gamst. In *RRH* 163, Autumn 1990, p28-73. 1830s. See related Gamst article for biographical and background data.

C. Grandy, **"Can Government be Trusted to Keep Its Part of a Social Contract? New Jersey and the Railroads, 1825-1888."** In *Journal of Law, Economics and Organization* 5, No. 2, 1989, p249-69.

Louis V. Grogan, **The Coming of the New York & Harlem Railroad.** Publ. by the author (31 Sans Souci Drive, Pawling NY 12564), 1989. 366p, illus. \$44 pap. Line north from NYC to Chatham, NY, via White Plains and Brewster; orig. NY&H, later Harlem Div. of the New York Central, with part of line still in existence. Rev.: *RRH* 162, Spring 1990, p136-7.

Scott Hartley, **Guilford: Five Years of Change.** Railpace Co. (Box 927, Piscataway NJ 08855), 1989. 112p, illus. \$30 pap. Guilford Transportation Industries, purchaser of the Maine Central (1981), the Boston & Maine (1983), and the Delaware & Hudson (1984); esp. operations, trains, and equipment. Rev.: *RRH* 163, Autumn 1990, p125-6.

Nancy A. Hedberg, **"This Trail's Right on Track."** In *The Iowan* 38, Fall 1989. Rails to trails project??; Waterloo, Cedar Falls & Northern RR line.

A History of Wisconsin Highway Development. 2 vols.: appear to be a set, with the 1947 vol. reprinted at the time the 1989 vol. was issued.

- [Vol. 1:] **1835-1945.** A Joint Project of the State Highway Commission of Wisconsin and the Public Roads Administration, Federal Works Agency (Madison WI), 1947. 272p, illus., maps, tables, index. \$?. Incl. territorial roads, plank roads, bridges, some statistics of street, interurban and steam railroads.
- [Vol. 2:] **1945-1985.** By George Bechtel. Wisconsin Dept. of Transportation (Madison WI), 1989. 227p, illus., appendixes, index. \$?

Don L. Hofsommer, **"To an Oasis Among the Cornfields."** In *RRH* 163, Autumn 1990, p74-87. Resorts in Dickinson County, Iowa.

John Hope, **"Railroad and Railroad-Related Attractions in Pennsylvania."** In *Pennsylvania Magazine* 11, June 1990, p18-23.

George A. Horton, **"Britt's First Convention."** In *The Palimpsest* 70, Summer 1989, p87-92. Hobo convention, Iowa.

Derek Howse, **Nevil Maskelyne: The Seaman's Astronomer.** Cambridge Univ. Pr. (NY), 1989. 280p, illus., bibliog. \$55. Biog. of M (1732-1811), British astronomer. Rev.: *T&C* 31, Oct. 1990, p869-70.

Paul Andrew Hutton, **"Fort Desolation: The Military Establishment, the Railroad, and Settlement on the Northern Plains."** In *North Dakota History* 56, Spring 1989, p20-30. Fort Buford, Dakota Terr., and the Northern Pacific RR, incl. military protection of NP surveyors; fort commander Wm. Hazen's "barren lands" assessment of the climate vs. the military promotion of railroads and of the mild climate and garden-like qualities of western lands as an aid to a "final solution" to the Indian problem; Gen. Philip H. Sheridan vs. Hazen and George A. Custer.

Abbreviations used in this PoFI:

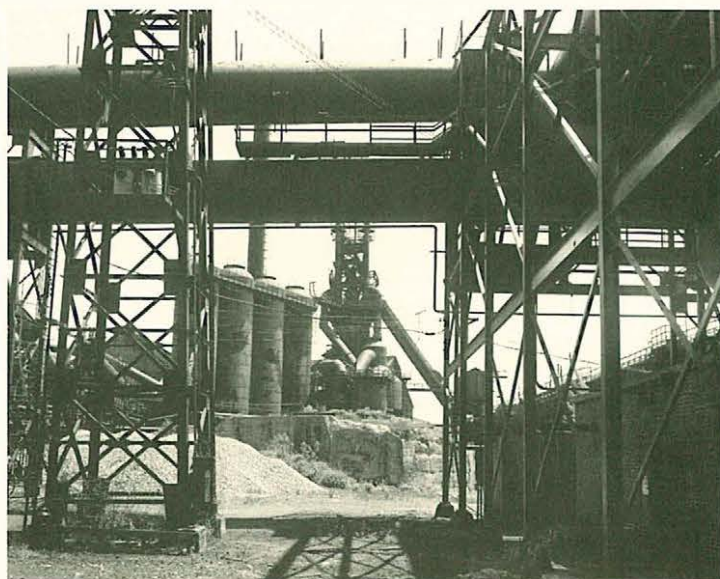
AHR American Historical Review
JAH Journal of American History
RRH Railroad History

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

IA in [steel town] Art: Roth's *Talbot Ave.* & Evans' *Buddha*



Left: Suzanne Roth, *Talbot Avenue, Braddock, Pa.*, 1988, watercolor/paper, 15 x 22 ins. Richard Hackel photo.



Right: Margaret Evans, *Lackawanna Buddha*, 1984, b/w photograph, 16 x 20 ins.

The abandoned mills of America's decaying steel industry are a distinctive element of the contemporary industrial landscape. These once-formidable symbols of our nation's economic power embodied a technological expansion that transformed American life, and it is not surprising that artists have been inspired by such Rust Belt scenes.

First featured together in the exhibition "The Post-Industrial Steel Town Series," photographer Margaret Evans and painter Suzanne Roth have collaborated to produce a fascinating visual record of some of the striking artifacts of our industrial archeological heritage.

Recording the sad ruins of a formerly thriving industry, their work graphically conveys the loss of an enterprise which nonetheless still maintains a potent physical presence. Once the noisy and vital center of the communities that surrounded them, the structures they have pictured are now empty and decaying, and their images reveal difficult economic transitions. While the human presence is absent from their images, the human cost is everywhere evident, and implicit are unavoidable social, political, and economic considerations that endow their work with a forceful, moral dimension.

The photographs and paintings of Evans and Roth do not celebrate the perceived wonders of past industries, nor are the artists seduced by idealized conceptions of powerful machines. They reveal not the wonders of work, but a scarred, unsettled landscape.

Margaret Evans chronicles the decay of monumental structures and abandoned sites, the evidence of decline of once rugged industries, and the devastating effect this process has had on the communities they once sustained. She has a sharp eye for contrast and irony, and her *Lackawanna Buddha*, part of a series recording the Bethlehem Steel works near Buffalo, suggests the detritus of a defunct industrial religion.

Suzanne Roth paints large-scale, meticulously executed watercolors that capture the magnitude of her subject. The delicacy of her technique contrasts with the stark grimness of her themes, while her dusky colors convey a rusty, gritty quality.

Her *Talbot Avenue, Braddock, Pa.*, is a highly personal painting, for she grew up in several towns along the Monongahela. During her early elementary school years, her family occupied the second house down from the mill, on the right

side of the street. It was even then a poor neighborhood, whose air was polluted and housing sub-standard. In Braddock, the cheapest worker housing was clustered near the Edgar Thomson works, the first to be operated by Andrew Carnegie. The mill's presence irreversibly dominated the community and its looming scale still overwhelms the surrounding dilapidated structures.

Braddock achieved literary fame as the setting for *Out of This Furnace* (1941), an autobiographical novel by former resident Thomas Bell (1903-61). Written in a social realist style, it graphically depicts the lives of immigrant Slovak workers at the turn of the century, as in the following passage, suggestive of Roth's image:

"Which way is the mill?" Kracha asked. She gestured down the street. There was little to see. At the far end of the street were a few purplish arc lights, a dim bulk, and above and beyond it a flickering glow that made lazily moving shadows of smoke and steam. He could hear intermittent whistles and the distance-muffled clash of metal on metal. "What is that light?" *The Bessemer.*

Although Roth's work is site specific, it evokes a whole corridor of similar towns, including Clairton, Duquesne, and McKeesport. Homestead, across the river from Braddock, was the site of the infamous 1892 strike.

The work of Evans and Roth serves as a vivid reminder that we can take no part of our historical environment for granted. The visual fabric even of monumental structures is surprisingly fragile, and their photographs and watercolors have a timely echo in the recent recommendations of America's Industrial Heritage Project (AIHP). As historians struggle to explicate these sites, the work of Evans and Roth makes clear that both historical and contemporary evidence is necessary for a full understanding of their problematic lessons.

The isolation and ugliness evident in Roth's images make a compelling contrast to Evans' more formalist studies. The structures they record evoke a resonant blend of greatness and obsolescence. The effect these towns have had on both former residents and contemporary observers provides a vital linkage of the past to a complex present. Such artistic documents can serve as significant interpretive sources for those who would preserve the evidence of the industrial landscape that transformed our history.

B.F.

BRIDGE NEWS



MECHANICAL INFO. WANTED. The Minn. Dept. of Natural Resources needs design and operation information for the interpretation of an 1871 swing bridge (*above*), abandoned in the 1970s and now on a bicycle trail. It was built by Boomer & Co., Chicago, for the Hastings & Dakota RR (later Milwaukee Road) crossing of the Minnesota River between Shakopee and Chaska, southwest of Minneapolis. The DNR needs details and drawings of the manually operated, rim-bearing mechanism, for this or any similar Boomer design. Is this a patent design? Are others extant? Contact Judy Thomson, Parks & Rec., Mn/DNR, 1200 Warner Rd., St. Paul MN 55106 (612-772-7996).

"TO BUILD A BRIDGE" is an exhibit that runs through 1993 at the National Building Museum (F St., bet. 4th & 5th NW, Wash. D.C.) and includes seven large-scale models, artifacts, photographs, and computer programs, all documenting the construction of a landmark suspension bridge.

TRUSSES WANTED. It doesn't happen often, but here's a state agency that wants to *acquire* truss bridges. The Rhode Island Dept. of Trans, in cooperation with the R.I. Dept. of Environmental Mgt., is working on a 19-mile bikeway through the Blackstone River Valley National Heritage Corridor, a historic industrial landscape. Seven bridges will need to be constructed, and several of the ten extant bridges (all of which require evaluations) may not be suitable for reuse and would be replaced. To provide compatibility with the historic nature of the corridor, RIDOT is looking for older, historic, wrought-iron or steel bridges from 30 to 180 ft., rather than construct new concrete-and-steel structures. The agency is searching for any available appropriate bridges in southern New England, and would like to receive documentation (dimensions, photos, inspection reports) from any agencies that will be replacing historic metal trusses in the near future. Contact Michael A. Hebert, Principal Hist. Pres. Specialist, RIDOT Planning Div., State Office Building, Providence RI 02903 (401-277-2694).

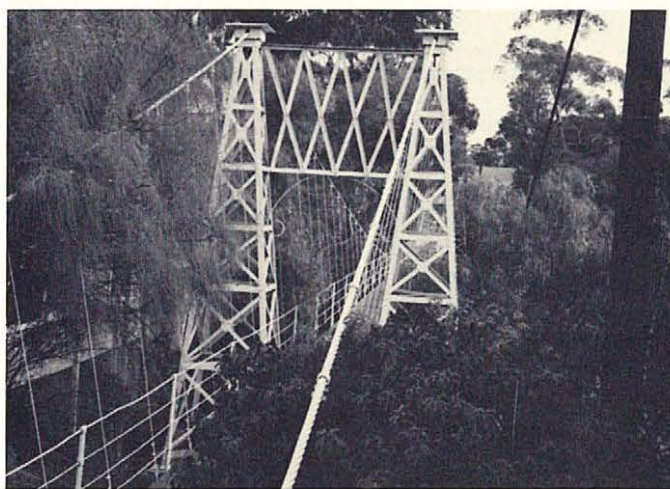
W.S.

THE ROANN BRIDGE in Wabash County, Ind., a two-span, covered Howe truss built in 1877, and one of two covered bridges remaining in the county, was seriously damaged in an arson fire last Sept. Although the county immediately initiated a demolition process, a third of Roann's 500 residents signed a petition supporting preservation and restoration. With aid from the Historic Landmarks Foundation of Ind., they formed the Roann Covered Bridge Assn., got the county to undertake a feasibility study, and have raised over \$100,000 toward restoration. Info.: Beckie Elliott, Sec'y RCBA, c/o HLFofI, 340 W. Michigan St., Indianapolis IN 46202.

"WIRE BRIDGE" IN NEW PORTLAND, MAINE, has been dedicated a Historic Civil Engineering Landmark by the Maine Section of the ASCE, whose president, Charles Nickerson, said that the 200-ft. Carrabasset River bridge is the oldest wire-cable suspension bridge still in service in the Northeast. Relevant town records were lost in a fire, but according to local lore, the bridge's design and construction were overseen by Col. F.B. Morse in 1841-42, using cables from Sheffield, England. However, bridge historians Donald C. Jackson and Robert M. Vogel [both SIA] have written that the 198-ft. span was built 1866-68, and New Portland resident and former MDOT bridge engineer Charles Whitten has inspected the cables and states that they were spun in place and not prefabricated in England. The bridge was maintained by the town from the 1860s to 1959, when it was rehabilitated and maintenance permanently turned over to the state.

SPRUCE STREET BRIDGE. The casual visitor to San Diego, Calif., might note only two bridges: the beautiful Cabrillo bridge, built to provide easy access to Balboa Park, site of the 1915 Panama-Calif. Exposition, and the San Diego-Coronado bridge, utilitarian but uninspired. Most visitors never see the city's only suspension bridge, located in the Hillcrest residential area.

The 375-ft.-long, 4 1/2-ft.-wide suspension footbridge, 70 ft. above heavily wooded Palm Canyon, was built in 1912 to promote development on the canyon's west side by providing ready access to the streetcar line on the opposite side. The streetcars are gone, but Spruce Street Bridge (San Diego Historic Site No. 116) is often visited by families with small children who enjoy the slight movement as they cross it.



It was designed by city engineer Edwin M. Capps, who, three years after the construction, was elected mayor and promoted numerous other public works. The design load for this pedestrian structure is reported to be a surprising 164 tons (2,186 people @ 150 lbs.), which equals 5.83 people per linear foot of walkway or 111 sq. in. per person (10 1/2 in. x 10 1/2 in.)—a tight fit! Nevertheless, better overbuilt than collapsed.

The tapered steel support towers for the two suspension cables are of strictly functional, lattice construction; the cables are anchored in large concrete blocks. The two cables are farther apart than the narrow deck is wide, causing the suspenders to be out of plumb and inclined in toward the floor beams, thus adding lateral stability to the deck. The bridge has needed no major repairs and appears to be in good condition for an extended life with normal maintenance.

W.J.E.

1909 PARKER TRUSS AVAIL. Stevens County, Wash., is proposing to replace the historic Orient bridge [NR] in 1992 and is accepting proposals from any responsible party willing to enter into an agreement to maintain the bridge, preserve historically significant features, and assume all future legal and financial responsibility. The Parker through-truss, designed by W.M. Manning and built in 1909, is one of five of its type in the state. It has a 180-ft. main span with two approach spans, and is 15.7-ft. wide, curb to curb. If interested, contact Stevens County, Dept. of Public Works, POB 109, Colville WA (509-684-4548) by Sept. 15.

UPDATE ON THE ACCIDENTALLY BLOWN-UP BRIDGE in Fundy Natl. Park, New Brunswick [SIAN Winter 90:8]: Donations poured in from across Canada for reconstruction of the 1909 Point Wolfe covered bridge. Because Canadian Parks Service Cultural Resource Management Policy discourages exact replicas as "cheapening the real "

and giving the observer a false sense of history, a new wooden covered bridge will simply draw on the context of the old, according to a report in Heritage Canada's *Impact* (Mar. 1991). The Albert County Heritage Truss will use the collected funds to erect an interpretive exhibit on the old bridge.

AN 1885 LENTICULAR PONY-TRUSS in Lee, Mass., reportedly the oldest of its type in the state, may be moved elsewhere in the city to avoid demolition. The Golden Hill Road Bridge is one of 30 bridges being documented to HAER standards by the Mass. Historic Bridge Recording Project, which was begun in spring 1990. Led by Daniel Schodek of Harvard Univ., the nine-member field team completed its survey work last fall. The project includes a variety of bridge types built between 1841 and 1931. Co-sponsors of the project are the Mass. Dept. of Public Works and the Mass. Hist. Commn.

NOTES & QUERIES

TILE HISTORY: THE KRIER COLLECTION & MORE.

Henry Krier (1886-1967), a German immigrant who studied engineering and masonry in Saarbrücken, arrived in the Los Angeles area about 1909 and eventually established the Krier tile works in nearby Monrovia. He became noted for his residential installations in the San Gabriel Valley and for significant work on the new Azusa (Calif.) Theatre (1927). His sons Henry Jr. and Willie later joined the business. After Henry Sr. died in 1967, his business records and tile inventory were left untouched. Portions of that lode have been donated to the Tile Heritage Foundation, a nonprofit corporation dedicated to the research and preservation of ceramic surfaces. The Krier collection now includes 29 different pre-Depression-era tile catalogs, photos, and 100 large watercolor renderings of tile installations, ledgers and other records, and several boxes of Krier's tiles.

The Krier Collection is now part of the Foundation's Tile Heritage Library, a resource for scholars, architects, tile makers, and others doing research on the tile industry. Included are alphabetical files on tile manufacturers, with a large representation of Calif. firms, and a slide and tile catalog collection. The Library is located in Healdsburg, about two hours north of San Francisco, and is open by appointment. THF publishes *Flash Point*, a quarterly bulletin on tile industry history (see July-Sept. 1989 for articles on Krier and the Azusa Theatre). Contact Joseph A. Taylor, Pres., THF, POB 1850, Healdsburg CA 95448 (707-431-TILE [8453]).

A related organization, with a newsletter entitled *Glazed Expressions*, is the Tiles & Architectural Ceramics Society, 2 South Hill Mansions, 68-70 South Hill Park, London, NW3 2SL, England. Also of interest is The Italian Tile Center, 499 Park Ave., NY NY 10165 (where you can find Susan Tunick's *Ceramic Ornament in the N.Y. Subway System*, 1989).

PROJECT GRANTS FOR HERITAGE PRESERVATION, from \$5,000 to \$25,000, are available from the National Endowment for the Arts for fiscal year 1992. They are intended to support preservation planning and methodology, archival conservation, and a variety of design history and doc-

umentation projects, including adaptive reuse. Upcoming deadlines are Sept. 13 for individuals and Dec. 13 for organizations. Info.: NEA Design Arts Program, Rm. 625, Nancy Hanks Center, 1100 Pennsylvania Ave. NW, Wash. DC 20506 (202-682-5437).

E.A.I.A GRANT RECIPIENTS. The Early American Industries Assn. has announced its 1991 Grants-in-Aid recipients. Each will receive \$1,000.

Merri Ferrell, Stony Brook, N.Y., will identify specific training, tools, and devices and instructive sources used for the painting and decoration of horse-drawn vehicles, identifying, when possible, specific painters and their careers as examples of the trade.

Oliver J. Ogden, Farmingdale, N.Y., will identify, classify, photograph, and catalogue hatters' tools and their uses, resulting in a publication on the 19th-C American hatting industry.

James E. Price, Naylor, Mo., will identify, analyze, describe, and classify tools employed in bitstocks-tools affixed in some manner to double-cranked bitstocks for employment in continuous rotary motion in craft tasks, resulting in a publication about drill-bit patents and manufacturers.

John H. White, Marshall, Va., will research Thatcher Perkins, a practical mechanic who worked with metal and wood-working tools before becoming a locomotive designer and chief mechanical officer of the B&O RR.

For info. on the E.A.I.A. annual grants program, contact Charles F. Hummel, Winterthur Museum, Winterthur DE 19735. For info. on the E.A.I.A., contact John S. Watson, POB 2128, Empire State Plaza Station, Albany NY 12220.

ANACONDA VIDEO. The Anaconda-Deer Lodge Historical Society is offering a video tape titled "Legendary Mountain: Anaconda Co. Operations in Butte, Anaconda, & Great Falls, Mont., 1974." The video also covers smelting operations, 1959-60. \$22 ppd. from A-DLHS, City Hall Center, 401 E. Commercial, Anaconda MT 59711.

SIA AFFAIRS

MISSED THE BUTTE TOUR IN '89? Dispel your IA funk by sending \$5 for a postpaid copy of *Butte & Anaconda Revisited 1991*, a hot-off-the-press, 64-page update of the 1989 SIA Fall Tour guidebook with more photos, better maps, and snowflakes (?) on the cover—brought to you by the original Klepetko Chapter team of Brian Shovers, Mark Fiege, Dale Martin, and Fred Quivik [all SIA, of course]. Mail to: Mont. Bureau of Mines & Geology, Montana Tech, Butte MT 59701.

F.Q.

NEWS OF MEMBERS

We are saddened to report the recent death of **F.P. Elwert**, Rutland, Vt., who had been active in the Southern & Northern New England chapters since their beginnings. We will miss receiving Fred's carefully prepared catalogs of books on architecture, technology, and general IA—miss making our choices quickly, dialing him up right away to get the books we wanted, and hearing the familiar voice answer: "Elwert."

John M. Wickre, compiler of the *SIAN* Publications of Interest Supplement, has relocated to 61 Clapboard Ridge Rd., Danbury CT 06811 (203-730-9532), where he will continue his RR-history consulting business. P of I contributions may be sent either to his new address or to *SIAN*, POB 65158, St. Paul MN 55165-0158.

RANDALL G. LAWRENCE

Randall G. Lawrence, 36, founding director of Sloss Furnaces National Historic Landmark, died recently after a long struggle with cancer. Originally from West Virginia, Lawrence came to Birmingham, Ala., in 1982 to initiate and develop an interpretive program for the city's new industrial museum. The preservation of a modern, 20th-C industrial works of such massive scale had never been attempted. Lawrence secured crucial support from the Dept. of the Interior and the Smithsonian Institution, and through hard work and dedication brought Sloss international recognition as a pioneer in the rapidly expanding field of industrial preservation. Sloss Furnaces, and Randall Lawrence, hosted the SIA 1985 Fall Tour in Birmingham.

Like many historic sites, Sloss had a long history prior to its transformation into a museum—in this case, nearly a century of producing iron pig. After the twin blast furnaces closed in 1970, the Sloss property was donated to the City of Birmingham and now is used to interpret the technology of ironmaking and the development of the iron and steel industry in Birmingham. A familiar feature of the skyline, this unique collection of modern industrial structures is a visible symbol of the city's industrial heritage.

Lawrence's leadership at Sloss in the field of IA will be sorely missed. But the success of his efforts in Birmingham promise a hopeful future for others contemplating preservation projects on the scale of Sloss. A memorial fund has been established in the name of Randall G. Lawrence by the Board of Directors of Sloss Furnaces National Historic Landmark. Contact the Board, SFNHL, POB 11781, Birmingham AL 35202.

Gold mines, Mt. Rushmore on South Dakota Fall Tour

The 1991 SIA Fall Tour will be in the scenic northern Black Hills of South Dakota, Oct. 9-12, hosted by the S.D. Historical Preservation Center. The tour will cover four western industries: logging, gold mining, recreation, and farming and ranching. Highlights include the historic Homestake Gold Mine, largest gold mine in N. America; Pope & Talbot's computerized sawmill; Wharf Gold Mine's modern heap leach operation; and, of course, Mount Rushmore, now celebrating its 50th anniversary. For those wishing to stay until Sun., an optional Sat. afternoon tour will include the southern Black Hills, with arrangements for Sat. night.

Our home base, Deadwood, is a National Historic Landmark. One of the earliest mining communities to evolve during the Black Hills Gold rush, Deadwood quickly became characterized as the wildest and nastiest of all the frontier mining towns. Deadwood's infamous Main Street, once home to Wild Bill Hickok and Calamity Jane, is being revitalized, thanks to legalized gambling and the subsequent restoration of gambling houses and saloons. Registrants will have their choice of historic hotels, the Bullock or the Franklin, both refurbished.

Festivities open Weds. evening, Oct. 9, with a reception at the historic Adams House, Deadwood's most architecturally significant residence, where Pres. William Taft once was hosted.

Thurs. Oct. 10 will begin with a study of the technological aspects of western farming and ranching at the Frawley Ranch, a National Historic Landmark. It was one of the largest and most successful cattle ranches in western S.D. during the late 19th C., and its double courtyard barns are architecturally unique.

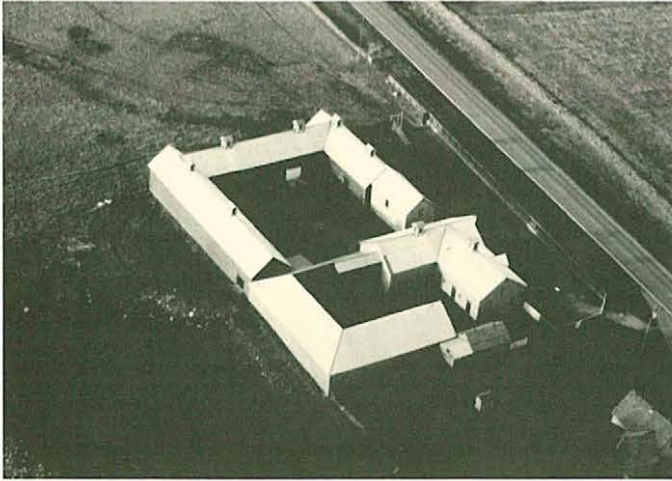
Next on the itinerary will be the Orman Dam and the Belle Fourche irrigation project, a National Civil Engineering Landmark. Orman was considered the world's largest earthfill dam when built in 1902-05. With two major canals and adjoining laterals, it was designed for conservation and irrigation.

In the afternoon, we will tour the Pope & Talbot computerized sawmill in Spearfish. Lasers are used to measure each log and a computer then determines the log's optimum utilization. With state-of-the-art mechanization, the mill is the fastest of the Black Hills operations.

The industrial aspect of recreation is exemplified by the D.C. Booth Fish Hatchery [NR]. Established in 1898, it supplied trout for the entire Rocky Mountain region, including Yellowstone National Park. It now is an interpretative site devoted to the history of fish culture management.

The tour will continue through scenic Spearfish Canyon to the hydroelectric plant built c1902 for the Homestake Mining Co. We will tour this operating facility with a Homestake engineer.

The day's touring will conclude with a timely visit to the Spearfish Canyon interpretative center, since early Oct. is fall color season there. There will be a memorable dinner in the southern Black Hills, with a 50th anniversary special evening at Mount Rushmore.



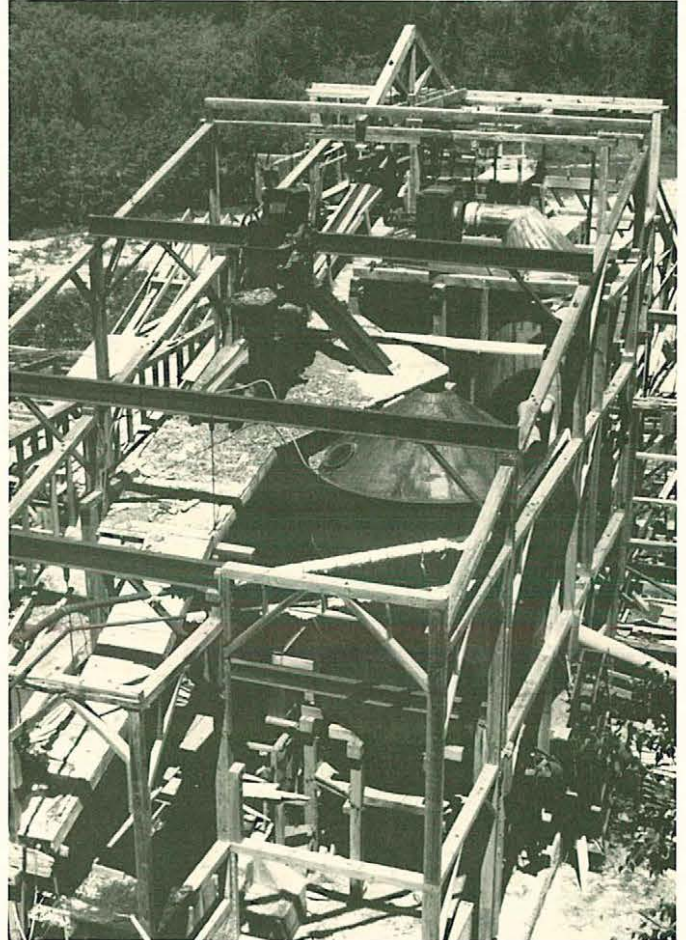
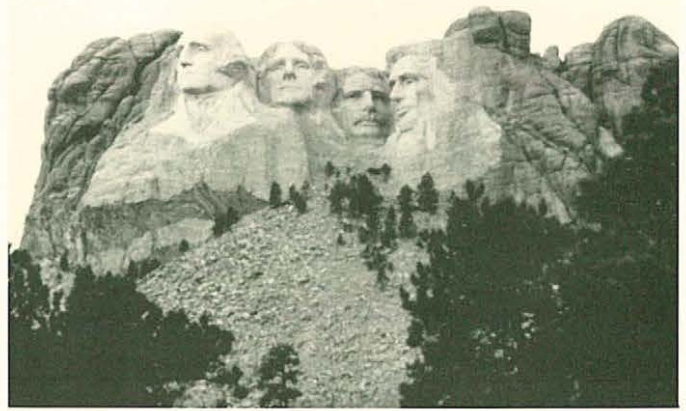
SOUTH DAKOTA TOUR SITES

Above: Landmark Frawley Ranch barns.

Right above: Mount Rushmore.

Right below: Bald Mountain mill.

Photos courtesy Allyson Brooks.



Friday will be devoted to Black Hills mining, beginning with an extensive tour of Homestake Mining Co.'s above-ground operations, and the open cut in Lead. The original Homestake claim was purchased for \$70,000 by George Hearst, who incorporated the company in 1877. A year later ore-crushing began, using an eighty stamp mill. Today it produces over 350,000 ounces of gold annually. The operation is noted for its incorporation of mining and milling into a single system, including everything from electrical generating to its own logging.

The famous Homestake open cut, once a solid mountain, produced 40 million tons of gold ore between 1876 and 1945. Abandoned for a time, it was reopened in the mid-1980s, and eventually will be extended across the town of Lead.

To further explore the region's mining past, we will visit the Black Hills Mining Museum, with its exhibits and full-scale models, and recreated underground level of the Homestake Mine.

In the afternoon we will tour the Wharf Gold Mine and its heap leach operation, and the Bald Mountain Mill ruins, considered the Black Hills' best remaining example of a historic mill.

Friday will conclude with a reception, dinner, and guest speaker in Deadwood.

Saturday will begin with two optional walking tours of historic Deadwood: one features historic architecture, guided by the city's historic preservation specialist; the other is an examination of Deadwood archeology, guided by the city archeologist.

Although the Fall Tour officially ends at noon on Saturday, for those staying over there will be an optional afternoon visit to the Crazy Horse monument and the southern Black Hills. An evening reception and overnight accommodations will be in Rapid City at the historic Alex Johnson hotel.

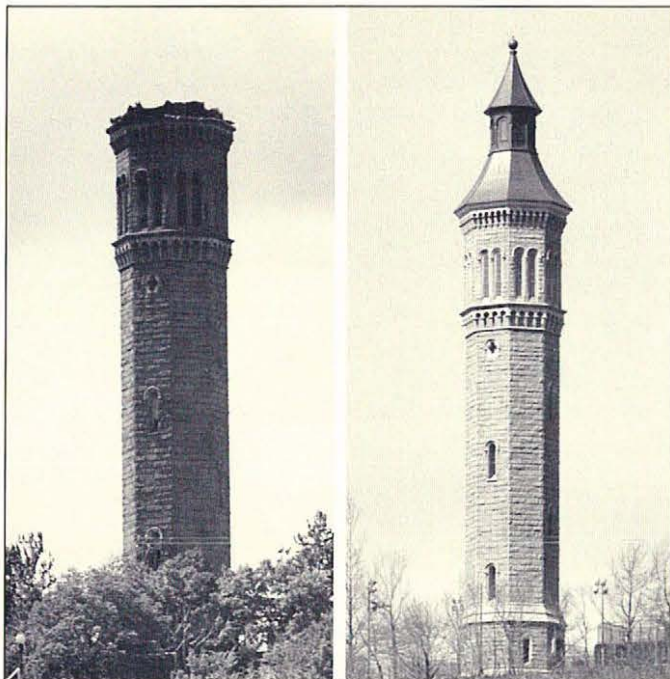
For additional info., contact Allyson Brooks [SIA] or Jim Wilson, S.D. Historical Preservation Center, 3 E. Main St., POB 417, Vermillion SD 57069 (605-677-5314). The official travel agency is Meridian Travel (800-952-0053), which is coordinating discount air fares with the designated airline, Northwest.

A.B.



CONTRIBUTORS TO THIS ISSUE

T. Lindsay Baker, Baylor Univ.; Allyson Brooks, S.D. Hist. Pres. Cntr., Vermillion; William J. Ellenberger, Escondido, Calif.; Betsy Fahlman, Arizona State Univ.; Martha Frey, Minneapolis, Minn.; Sarah Heald, HAER, Wash., D.C.; Mark D. Kregel, Aberdeen, Md.; Mary Jane Newton, Bend, Ore.; Fred Quivik, Univ. of Pennsylvania; Edward S. Rutsch, Newton, N.J.; William Smith, Mass. Hist. Commn.; Joseph A. Taylor, Tile Heritage Foundation; Bruce Weilepp, Astoria, Ore.; and Gerry Weinstein, Photo Recording Associates, N.Y.C. **With thanks.**



FIRE-DAMAGED WATER TOWER RESTORED

The saga of the SIA's favorite water tower is over. New York City's High Bridge Water Tower, built in 1872 for the Croton Aqueduct, has long been featured on the cover of the SIA membership brochure. In 1984, an unidentified arsonist torched the city-landmark tower (*above left*) before leaping to his death [*SIAN* Summer 84:16]. After standing several years in an embarrassing state of disrepair, the tower has been carefully restored (*above right*). The brochure image is accurate once again. *Gerry Weinstein photos.*

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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TO CONTACT THE EDITOR: Robert M. Frame III, Editor, *SIA Newsletter*, P.O. Box 65158, St. Paul, MN 55165-0158. (W 612-227-9531; H 612-291-7882).

USE FAX! Transmit to Bob Frame at TeleFax phone 612-222-4139.

Room 5020 National Museum of American History
Smithsonian Institution Washington, DC 20560
**SOCIETY FOR
INDUSTRIAL
ARCHEOLOGY**

CALENDAR

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

Sept. 22-28: Annual Conf., Assn. for Preservation Technology, New Orleans, La. Info.: Wm. Langkopp, AIA New Orleans Chap., 330 Exchange Alley, New Orleans LA 70130 (504-525-8320; fax 504-525-9327).

Sept. 26-28: Annual Meeting, The Lexington Group in Transportation History, Detroit; hosted by Grand Trunk Corp. Info.: Don L. Hofsommer, Dept. of Hist., St. Cloud State Univ., St. Cloud MN 56301.

Sept. 27-29: Annual Convention, Assn. of Rwy. Museums, Inc., Rockhill Trolley Museum, Rockhill Furnace (near Huntingdon), Pa. Info.: 1991 ARM Conv., RTM, POB 203, Rockhill Furnace PA 17249.

OCT. 9-12: SIA FALL TOUR, DEADWOOD & NORTHERN BLACK HILLS, S.D. Info.: Allyson Brooks or Jim Wilson, S.D. Hist. Pres. Center, POB 417, Vermillion SD (605-677-5314)*

Oct. 16-20: 45th Natl. Preservation Conf. & Trade Show, Natl. Trust for Hist. Pres., San Francisco. The SIA is a co-sponsor; David McCullough [SIA] is a keynote speaker. Info.: Pres. Confs., NTHP, 1785 Massachusetts Ave. N.W., Wash. DC 20036 (800-YES-NTHP).

Oct. 23: 6th Annual British Connection Conf.: A Transatlantic Exchange of Ideas on Building Conservation, N.Y.C. Co-sponsored by N.Y. Univ. & Real Estate Inst. Case study of Carnegie Hall structural engineering project & others. Info.: Real Estate Inst., 11 W. 42nd St., NY NY 10036 (212-790-1338).

Oct. 31-Nov. 3: Annual Conf., Society for the History of Technology, Univ. of Wis., Madison. Info.: Bruce Seely [SIA], SHOT Newsletter, Dept. of Social Sciences, Michigan Tech. Univ., Houghton MI 49931.

Nov. 2: 11th Annual Drew Symposium on IA in the N.Y.-N.J. Region, sponsored by Roebling Chap. SIA. Info.: Tom Flagg, Symposium Coordinator, SUNY College of Optometry, 100 E. 24th St., NY NY 10010 (O: 212-420-5155; H: 212-666-5744).

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