Montana IA: Awesome!

On Thursday, Oct. 12, we arrived at the “Richest Hill On Earth.” Admittedly, some of us were a bit disoriented at the Capri Motel, our Fall Tour HQ and first introduction to historic uptown Butte. There, surrounded by a horizon of mine headframes, was a Montana motel with a (very cold) palm tree in the parking lot. It was an novel sight, to say the least. As the tour ended on Sunday, and we were winging out over fantastic western mountain terrain, the palm tree remained a mystery. But we knew a great deal more about the headframes and Butte copper mining.

Our hosts, the Frank Klepetko Chapter of SIA, provided a first-class introduction to the Butte area and the early 20th-C industrial empire built by the Anaconda Copper Mining Co. (ACM). This region was the world’s greatest producer of copper, zinc, and manganese. The industrial archeological remnants of that mining empire in the cities of Butte and Anaconda were the study area of the Fall Tour. In particular, Friday was devoted to process tours of operating plants, while Saturday involved abandoned sites and structures. In 1962, Butte—the entire city—was designated a National Historic Landmark, and since 1985 efforts have been under way to develop a Butte/Anaconda Historical Park System.

On Friday morning, we followed the Butte mining chronology backwards by first visiting the Continental [open] Pit mine and the
BUTTE VIEWS.

Top left: One of the giant, 150-ton-cap., “Lectra Hauls” at the Continental Pit.
Below: Rod mills & ball mills in the Weed Concentrator.
Left: Copper and “moly” are separated from ore during “flotation,” an aerated water process in the Weed Concentrator. R. Frame photos.

Weed Concentrator of Montana Resources, Inc. (MRI). The current operations began in 1986, when MRI purchased the Butte operations of the Anaconda Minerals Co. from the Atlantic Richfield Co. (Arco), which had acquired ACM in 1976.

Opened in 1979, the Continental Pit contains distinct zones of copper oxide and of sulfide with molybdenum (more easily called “moly”) and traces of precious metals. It is the primary mining operation left in Butte. Socially, its non-union work force is light years away from Butte’s tumultuous and sometimes violent labor past. The MRI operation is very profitable, with the average non-management employee (average age 49) making $40,000 a year with MRI profit-sharing.

Some 50,000 tons of ore are mined daily by giant electric shovels. Huge 150-ton-cap., diesel-electric trucks haul out the ore plus 30,000 tons of overburden. The ore goes to the nearby Weed Concentrator, built in 1962-64 by the ACM to treat the low-grade copper sulphide ore mined at the great Berkeley Pit. The five-step process produces a concentrate containing 26% to 32% copper from a crushed ore of less than 1% copper. The central step is “flotation,” where the copper and moly are separated from the crushed and milled ore in an aerated water process. The resulting copper slurry concentrate is bulk-shipped by rail to Vancouver, where it is stored for Asian smelters. The molybdenum is bagged or drummed and shipped to Europe.

Following the current MRI operations, we viewed the remnants of its origins, the great Berkeley Pit, opened in 1955, which quickly became the nation’s largest truck-operated pit mine. Although

Left: Odd couple — Butte’s Capri Motel (with frozen palm) and headframe-studded horizon. “Richest Hill on Earth” montage, removed from her Capri room, is exhibited by IA art guru, Betsy Fahlman. R. Frame photo.

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production reached 50,000 tons daily, it was not enough to overcome shrinking world markets and foreign competition from rich ore reserves and labor at one-tenth the U.S. cost. Owner ACM closed the pit in 1982 and turned off the mine pumps, creating today's ever-deepening pit-lake, now at 800 ft.

Following a traditional Butte “porkchop” sandwich (with onion and mustard) lunch at the Butte, Anaconda & Pacific’s yard at Rocker, we toured two important IA operations in Anaconda that supported and complemented the mines: the Rarus Railway shops and roundhouse, and AFFCO Foundry.

What is today known as AFFCO Foundry was begun in 1889 as a machinery and parts fabricator for the ACM’s mines and works in Butte and Anaconda. Until 1980, when it became AFFCO, it was known as “The Foundry Dept. of the ACM Co.” It is the only operating iron and steel foundry in the state and includes a remarkable collection of late-19C structures and equipment, along with more recent additions. Particularly noteworthy are the timber-trussed and framed blacksmith shop and the stone boiler shop.

Today’s Rarus Rwy. began life in the 1890s as the Butte, Anaconda & Pacific, built to carry ore from the Butte mines west to Anaconda for smelting and refining. It was a common carrier that also hauled mine supply, such as coal, as well as timber, merchandise, freight, and passengers. It pioneered high voltage direct-current electrification, and in 1911-13 installed the first high-voltage (2,400 V) DC system in the U.S., allowing it to operate longer trains with greater speed than with steam. The B&P electric system influenced the Milwaukee Road’s decision to electrify two western sections of its Chicago-Tacoma main line in 1915-20. The demise of Butte mining in the 1970s and early 80s brought the end of the B&P and its reorganization in 1985 as the Rarus Rwy., named for an early Butte mine.

We toured the West Anaconda shops complex, an excellent example of a late-19th-C locomotive terminal, one of only two intact survivals in the West. Of special interest was the 1894 ten-stall brick roundhouse, with its ten-stall 1907 addition, the 1897 brick machine shop, 1896 brick blacksmith boiler shop, and 1900 wood-frame storehouse, with its full complement of parts for the current diesel operation. The Butte part of the B&P trackage was “toured” the next day as we took rides on the renovated B&P M-10, a gasoline-engine powered maintenance car with a hydraulic-lift roof platform for overhead catenary line repair. The car was built in the Anaconda shops in the mid-1920s and now is operated as a tourist train.

Friday’s last tour was a novel one, the Sheep Shearers’ Merchandise & Commission Co., reflecting Montana’s agricultural heritage. Owned by the Sheep Shearers’ Union of North America No. 1, it is a machine-shop operation in Butte fabricating sheep shearing machines for union members. It is the only surviving manufacturer of sheep shears left in the U.S. The union was formed in 1903 and organized the commission company in 1910. A company officer, Edwin S. Bartlett, designed the sheep-shearing machine still made here. Unlike the more familiar barber
shear with its self-contained motor, a sheep-shearing machine is powered by a remote motor via a flexible shaft. Many of us bought the special star-shaped, three-blade shear-adjusting screwdrivers, which are made and sold only in the Butte shop.

Friday concluded with a special reception at the "OXO Foundation," actually the private residence of imaginative Butte architect Bob Corbett Jr. (who enjoys the term OXO because it reads the same in any direction). Corbett is in the process of creating a living space within the massive concrete ore-bin structure (not unlike a rectangular grain elevator) of the former Timber Butte Zinc Mill. Erected in 1913-14 and acquired by Corbett about 1972, the ore bins occupy a spectacular hillside site overlooking Butte.

On Saturday morning we visited several of the historic mine yards marked by the black steel headframes that we observed arrayed across Butte hill above our motel.

The Anselmo Mine, a 20th-C zinc mine, is the best-preserved mine yard in Butte. The 152-ft. headframe was moved here in 1936. Nearby is the 1936 main hoist house with its Nordberg DC electrical double-drum hoist capable of lifting ten-ton skips.

The Steward Mine was one of Butte's deepest and most productive copper-silver mines from the late 1890s until it was closed in 1973. The turn-of-the-century brick hoist-house, one of three surviving in Butte, has a steam hoisting engine converted to compressed air, a common early practice in area mine yards.

One of the more recent underground mines is the Kelley Mine, whose shaft was sunk in 1947, with production beginning in 1952. In the hoist house, mining engineer Bob Corbett Sr. explained block-caving mining,
which was introduced in Butte at the Kelley Mine. Effectively employed in low-grade-ore districts in Arizona, block-caving was proposed for the increasingly lower-grade ores being encountered in Butte. The technique involves dividing the ore body into massive blocks, 120 by 120 ft., which then are undercut, causing underground collapse of the block. The broken rock is funneled by gravity down shafts, where it is loaded and hauled to the main shaft for hoisting.

Saturday lunch was a traditional miner’s “pasty,” a healthy lot of meat and potatoes baked in a half-moon of pastry. We were served at the Club Moderne in Anaconda, a marvelous Art Deco survivor.

In the afternoon we walked through the vast ruins of the Anaconda Old Works, both Upper and Lower works, a collection of early smelters and refinery built by ACM in the 1880s. The Old Works was demolished shortly after the turn of the century, and now is an area proposed for an interpretive center, if environmental problems can be solved. Across the valley from the Old Works was the Washoe Reduction Works, opened in 1902 to replace the Old Works. Washoe was demolished between 1982 and 1986, leaving only the 585-ft. Anaconda stack, the world’s tallest masonry structure. To the dismay of all, an overzealous (and thus universally despised) security guard thwarted the planned bus visit to the base of the monster stack, leaving us to admire the behemoth from afar. A handful of IAers were not to be stopped, and they scrambled and clambered to the hilltop site, snapping a few quick photos before being retrieved by an “authorized” van from the Environmental Protection Agency.

Before leaving Anaconda, we viewed vintage mining films in the 1931 Washoe Theatre [NR], a wonderfully ornate vaudeville house whose interior drawings have been exhibited in the Cooper-Hewitt Museum. There was a run on theater postcards when it was discovered they were made from Jet Lowe [SIA] photographs.

The city of Anaconda has a remarkably intact 1917 street-lighting system, whose light standards were cast in the AFFCO Foundry (we spotted the patterns during our visit there). Community Development Agent Barbara Andreozzi requested SIA support for preservation of the light system, and the Fall Tourers assembled in the theater voted to request SIA Board consideration of this worthy preservation effort. Letters of support should be sent either to Andreozzi at the Courthouse, or to the local paper, the Anaconda Leader, either addressed simply Anaconda MT 59711.

The day—and the Fall Tour—concluded back in Butte, with a hearty banquet and (very) live entertainment provided by Montana satirical song-writer and singer Greg Keeler.

For those who stayed an extra day or two, there were visits to the World Museum of Mining, the geology exhibit at the Montana College of Mineral Science & Technology, and the mansion of “copper king” entrepreneur William A. Clark.

We all appreciated the first-class efforts—tours, meals, and a thoroughly researched and written site guide—of the sponsors: the Klepetko Chapter SIA, Butte Historical Society, and the Montana College of Mineral Science & Technology. Butte, Montana, now enters the annals of Great SIA Fall Tours, following in a tradition of mining-tour excellence established by Pennsylvania (anthracite, 1979), Michigan (copper, 1981), and Colorado (minerals, 1983).

R.M.F.
NOTES & QUERIES

RR COVERED-BRIDGE QUERY. Information is wanted on covered railroad bridges anywhere in the U.S. and Canada. Research includes wooden bridges covered with roof and siding, roof only, or no roof but with the trusses sheathed on both sides. Contact Frank Tobie, 3106 E. 15th Ave., Spokane WA 99223.

TECHNICAL PRESERVATION PUBLICATION AVAIL. Since 1973, the Technical Preservation Services Branch, Preservation Assistance Div., of the Natl. Park Service (P.O. Box 37127, Wash. DC 20013-7127) has produced 70 publications in several series of great usefulness for preservation projects. Preservation Briefs are short illustrated bulletins on issues such as sandblasting, use of substitute materials, and building additions, while Preservation Tech Notes are short essays on solutions to specific problems. Technical Reports are longer essays on experimental or methodological questions, such as stain removal from masonry. Preservation Case Studies focus on one building or block. Two recent conferences ("Windows" in 1986 and "Interiors" in 1988) have spawned Training Handbooks & Workbooks. A Catalogue of Historic Preservation Publications, avail. from Kari Koepter, CRM Bulletin (address above), lists all publications and tells whether they are free or for sale by the GPO. In addition, if you have an idea for a future publication or want to help develop one, contact the Preservation Assistance Div. at the address above.

H.E.W.

EAIA GRANTS AVAILABLE. The Early American Industries Assn. awards annual grants of 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 deadline for 1990 awards in Mar. 15. Info.: John S. Watson [SIA], POB 2128, Empire State Plaza Station, Albany NY 12220.


UPDATED "SEC. 110" GUIDELINES. The Advisory Council on Hist. Pres. and the Natl. Park Service have jointly sponsored the publication of an updated edition of "The Section 110 Guidelines." These guidelines articulate federal agency responsibilities under Sec. 110 of the Natl. Hist. Pres. Act. This new version includes annotations to facilitate reference, along with information about pertinent guidance documents issued since the guidelines were first published in the Federal Register, Feb. 1988. For copies, contact the Advisory Council at 202-786-0503 or the Interagency Resources Div. of the NPS at 202-343-9559.

US/ICOMOS INTL. HIST. PRES. INTERNSHIPS. The U.S. Committee of the Intl. Council on Monuments & Sites is seeking U.S. citizen graduate students or young professionals for internships in Great Britain, the USSR, Eastern Europe (German Dem. Rep., Hungary, & Poland), and the Fed. Rep. of Germany during the summer of 1990. Participants will work for public and private nonprofit historic preservation organizations, under the direction of professionals, for three months at sites in those countries. This is an opportunity for applicants with training in architecture, architectural history, landscape architecture, archaeology, museum studies, history, planning, historic preservation, and related fields to learn about preservation techniques abroad and to develop working relationships with counterparts across the Atlantic. Costs, stipends, age restrictions, and language desirability vary with the area selected. Application deadline is Mar. 15, 1990. Info.: Ellen Delage, Program Officer, US/ICOMOS, 1600 H St., NW, Wash. DC 20006 (202-842-1866 or 1862; FAX 202-842-1861).

OHIO BRIDGE EXPERT HONORED. One of eight recipients of the Ohio Historical Society's Public Education & Awareness Award in Sept. was Miriam Wood of Columbus, who has been photographing and gathering data on covered bridges in Ohio since 1953, in an ongoing effort to encourage their preservation. In the 1970s, she was instrumental in listing more than 50 Ohio covered bridges on the National Register. She edits Bridges & Byways, a publication of the Southern Ohio Covered Bridge Assn., is writing a book on her decades of Ohio bridge research, and has worked with the Ohio Dept. of Trans. to update their Historic Bridge Inventory.

SOS FOR HISTORIC VESSELS. Under the Congressionally mandated "National Maritime Initiative," the Natl. Park Service (NPS), the Natl. Trust for Hist. Pres., and the maritime community have decided to revive a documentary project for historic vessels begun in the 1930s. HABS/HAER's Richard K. Anderson Jr. [SIA] has worked closely with several maritime museums, directing teams to document the historic ships Wawona, Louise Travers, Ticonderoga, Alabama, and Balclutha. The success of these efforts, executed 1985-88, and HABS/HAER's long experience in documentation, has led the NPS to issue a new publication designed to assist maritime preservationists, historians, naval architects, archeologists, and agencies engaged in studying, documenting, and restoring historic ships. Guidelines for Recording Historic Ships is available free from HABS/HAER, NPS, POB 37127, Wash. DC 20013-7127. Lavishly illustrated, with examples of completed work, it discusses the preparation of historical reports and context studies as well as documentation with large-format photography and measured drawings.

H.E.W.

HABS/HAER SUMMER JOBS. Summer 1990 employment is available on recording projects with the Historic American Buildings Survey/Historic American Engineer Record, of the Natl. Park Service. Located at various sites throughout the U.S. from May through August, the work involves ink-on-Mylar measured drawings, interpretive and process drawings, large-format photographs, and written data to document structures of historic, architectural, engineering and industrial significance. Applicants are sought in the following areas: architects & landscape architects to produce drawings; historians and engineers to conduct research and produce inventories and reports; illustrators to produce drawings; and photographers to produce large-format photographs. Applicants must submit a Personal Qualifications Statement (Standard Form 171), a letter of recommendation, and additional materials depending on the position. Application deadline is March 12, 1990. Info. & materials: Summer Program Administrator, HABS/HAER Div., NPS, POB 37127, Wash. DC 20013-7127 (202-343-9625).

HAER Chief Eric N. DeLony [SIA] has released the following list of 1990 HAER project prospects. It is anticipated that not all projects will be funded.

AN IA DARK NOTE. In the story of the critically acclaimed but controversial Canadian Museum of Civilization was reported in a July 10 Time article on architect Douglas Cardinal, designer of the complex. According to Time, "A stone factory tower on the museum site apparently raised Cardinal's ire since it didn't fit his design. 'I don't want it there,' he reportedly declared, 'I wanna blow it away.' " Time reporters could hardly be expected to comprehend the subtleties of IA, but the stone factory tower is the 1892 sulphite digester tower of the E.B. Eddy Co., one of Canada's most significant industrial artifacts and believed to be the only one of its type in existence. IA veterans will recall a 1973 visit to the structure during the infamous wet Rideau Canal Fall Tour. They will be relieved to know that Douglas the Destroyer will not be getting his way, at least not for now. The National Capital Commission, presently responsible for the tower, is to spend $250,000 over the next year stabilizing the building, after which it will be handed over to the CMC for interpretation. In Feb. 1989 the School of Architecture at Carleton Univ. submitted proposals for future use as part of an advanced design course. One of these was quite imaginative and, while not officially solicited, may be adopted once funds become available.

R.J.C.
MISC. INDUSTRIES


Staughton Lynd, “Resisting Plant Shutdowns.” In Labor Hist. 30, Spring 1989, p294-300. Review essay discussing Bensman & Lynch, Busted Dreams; Mann, Taking on General Motors; and Woolson & Foster, Truck Record (all listed separately in this section).


Robert Neushel, “Seaweed for War: California’s World War I Kelp Industry.” In JS7C 30, July 1989, p561-563. Potash for munitions, and 50+ other products; though ignoring alginites, the basis for a later kelp industry.


[Textile industry] SHOT’s Leonardo Da Vinci Medal for 1988 was presented to Sidney M. Edelstein for his work in building the Dexter Chemical Corp. into an innovative leader in chemical dyeing processes; his translations of 16th-C works on dyeing; his 1972 Historical Notes on the Wet-Processing Industry; the Sidney M. Edelstein Collection in the History of Chemistry and Chemical Technology at Hebrew University, Jerusalem; etc. For the award text and Edelstein’s very interesting remarks on his own life and his work with mercerization and other textile processes, see JS7C 30, July 1989, p312-40.


MATERIALS


David Houston, "When Will We Ever Learn: the Lesson of Steel." In Pittsburgh History 72, Winter 1989, p46-59.


Jack B. Ridley, "Mining & Mfg. in a Frontier Environment: The Iron Industry in S. Central Missouri in the 19th C." In Locus 1, Spring 1989, p31-45.


TRANSPORT


Freight Cars Journal 6, No. 32, Oct. 1989, includes illus. articles on 2' Cotton Belt covered hoppers, Kansas City Southern heavy capacity flat cars, 2-bay covered hoppers from the 1843-50s. Avail.: Society of Freight Car Historians (c/o David G. Gasdorff, POB 2460, Monrovia CA 91017). Also announcing two new pubs, both $10/2 issues, from SFCH, same address: 


Richard Palmer, "Commercial Sailing on the Finger Lakes." In Inland Seas 44, Fall 1988, p76-78.


Ship preservation is the focus of CRM Bulletin 12, No. 4, 1989 (U.S. National Park Service, Cultural Resources Management, POB 37127, Wash. DC 20033-7127), incl. overview and historical background of maritime preservation; articles on shipwreck research, archival sources, and nondestructive documentation of shipwrecks; a note on the Bicentennial Lighthouse Fund; and case studies of the Mississippi River steamboat Delta Queen as an operating historic vessel, the 1884 Maine coast tugboat Seguin as a ship ultimately not restorable, and the Calif. steamship Wapama as an example of remedial treatment of dry rot in a large wooden structure, through sodium borate soaking.


John Hoyt Williams, A Great and Shining Road: The Epic Story of the Transcontinental Railroad. Times Books (NY), 1988. 341p, maps, illus., notes, bibliog., index. $35. Union Pacific / Central Pac. RRs, 1866-1866.


James A. Young & Jerry Sudy, Endless Tracks in the Woods. Crestline Publishing (Sarasota FL), 1989. 305p, illus., appendix, index. $79 Logging transport technology from animal-power & flames to present, incl. pre-train methods, steam tractors and log haulers, tracklayers, big wheels, motor trucks, tracked loaders, Best, Holt, & misc. mfrs.
STRUCTURE


The Bridge Works: A History of the Chicago Bridge & Iron Co. Mouton Fr. (Chicago), 1867. 625 p. Illus. $7? Centennial history; rich with primary info on their pioneering water tanks and towers; "a story of what men and women did to iron and what iron and steel did to them." - D.S.


John Pitchen, Building Construction Before Mechanization. MIT Pr. (Cambridge, MA), 1966. 526 p. Illus. $25 now avail. in pap. $12. (Fmr. noted in PofI 16-1 Spring 1987.) All structures, all times, all planes, incl. dikes, dams, bridges, earthen fortifications.


HABS/HAER drawings of Thurmond and Hinton, W.Va. 11 2 x 3 drawings (showing every structure — both RR & commercial — in Thurmond; 5 of Hinton; with plat maps of both). Avail. for $35.00 rolled in tube from Chesapeake & Ohio Historical Society, 303 Aaron Ct., Sterling VA 22170.


Technology & Conservation 10, Spring 1989, includes a reprint of 1870 patent specifications for a sand-blasting device (p14-26) and an article by Nicolas F. Velos & W. Thomas Chase, "Abrasive Cleaning of Statuary & Other Structures: A Century of Technical Examination of Blasting Procedures" (p18-27), as well as notes on borescope assessment of historic works (p5-8) and restoration of the 1877 iron bank Elisea, now berthed at Galveston, Tex. (p10).


Abbreviations used in this PofI:

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

Readers are urged to send all notices of pertinent publications to John M. Wickrem, Compiler, Publications of Interest, SIA Newsletter, PO Box 65158, St. Paul MN 55166-0168 (612-222-6628 or 524-0088).
LANDMARK “A” MILL DRAWINGS TAKE PETERSON HONORABLE. Students at the Univ. of Minnesota’s School of Architecture and Landscape Architecture who prepared Historic American Buildings Survey (HABS) drawings of the Washburn “A” Mill (NHL) at St. Anthony Falls in Minneapolis received one of four Honorable Mentions in the 1989 Charles E. Peterson Prize competition. Announced at the Fall meeting of the American Inst. of Architects’ Committee on Historic Resources in Chicago, the Peterson Prize is an annual award for the best sets of architectural measured drawings of a historic building produced by students and given to HABS. The Prize honors Charles E. Peterson [SIA], founder of the HABS program. The famed flour mill, built in 1879 for the Washburn Crosby Co., later General Mills, Inc., was viewed during the 1983 SIA Annual Conf. in the Twin Cities. It is the only industrial or engineering structure among the seven 1989 Peterson winners. The Washburn “A” Mill drawings were produced through a cooperative program between the U. of M. and the State Historic Preservation Office of the Minnesota Historical Society using Historic Preservation funds. For additional info. about this and the 1990 competition, contact John A. Burns, Principal Architect HABS/HAER, NPS, POB 37127, Wash. DC 20013-7127 (202-343-9602).

T.C.G.

INDIANA COTTON MILL NEEDS DEVELOPER. Historic Cannelson, Inc., owner of the Indiana Cotton Mill (NR, HAER), seeking the assistance of SIA members in stimulating development work for the mill, which was built 1849-51 on the Ohio River in Cannelson. The massive, five-story limestone mill reportedly was part of the largest industrial complex west of the Alleghenies when it opened. It, and the town, were modeled on Lowell, Mass., with which they were to compete. The mill operated until 1954. The handsome building is available for $25,000. Info.: Mary Lou Froehle, HCI Board, Foxtail Ridge, RR3 Box 198, Petersburg IN 47567 (812-354-6511).

POMPONTO IRONWORKS QUERY. Sheffield Archeological Consultants seeks information for their intensive historical and archeological investigation of the Pomponto Ironworks and village site on the Ramapo River in the borough of Pompton Lakes, Passaic County, NJ. As the location of extensive ironworking activity from c1726 to c1908, Pomponto once boasted a bloomery, blast furnace, steelworks, workers’ housing, school, store, office, church, and access to the Morris Canal. The work, supported by the Pompton Lakes Historical Commission Preservation Project, may result in state and National Register nominations and a documentary publication. If you have photos, records, or personal reminiscences of Pomponto, contact Edward J. Lenik [SIA], SAC, POB 437, 24 High St., Butler NJ 07405-0437 (201-492-8525).

SNNYDER GETS NHL STATUS. The Ohio Historical Society’s sternwheel river towboat, the W.P. Snyder, Jr., America’s last remaining steam-powered towboat of its kind, has been designated a National Historic Landmark. The 175’ Snyder was built in 1918 as the W.H. Clingerman for the Carnegie Steel Corp. In 1945, the Crucible Steel Co. of America bought it and rechristened it after Crucible’s president. It was donated to OHS in 1955 and last year underwent a $335,000 renovation. The W.P. Snyder, Jr., is open to the public. Info.: Maggie Sanese or Mariann Bayus, OHS, 1982 Velma Ave., Columbus OH 43211 (614-373-3717).

J.J. CASE IN AG HALL OF FAME. J.J. Case, famed 19th-C manufacturer of agricultural machinery, was inducted into the National Agricultural Hall of Fame at Bonner Springs (nearly Kansas City), Kan., in Oct., joining Cyrus McCormick and John Deere. Jerome Increase Case (1819-91) is noted for inventing the modern threshing machine and developing the first agricultural steam engine, as well as other agricultural machines. In 1842, he founded the J.J. Case Co. in Racine, Wis., which continues today, under the parentage of Tenneco Corp. Appearing at the event was the 1870 Case Portable Steam Traction Engine No. 25, owned by Sauder Farm & Craft Village, Archbold, Ohio, believed to be the oldest extant Case engine after Engine No. 1 at the Natl. Museum of American History, Smithsonian Inst. Built in 1869, the 8-HP No. 1 was found on a Minn. farm in 1925, returned to J.J. Case, and donated to the brand-new Museum of History & Technology (now the Natl. Museum of American History) in 1963, where it has been on exhibit ever since in the Hall of Agriculture. The 150th anniversary of Case’s Racine works will be celebrated at the Labor Day, 1992, show of the Western Minnesota Threshers in Rollag, Minn., where planners anticipate the largest collection of mammoth 110-hp. Case steam-traction engines ever seen outside the Racine yards. Info.: J.J. Case Heritage Foundation, 204 E. Melbourne Ave., Silver Spring MD 20901 (301-587-5552 or -7014).

Federal IA dollars top SHPO total

IA is coming into its own at the Federal level through a long list of Congressional actions that is pumping, literally, millions into industrial archeological work. It might come as an exciting surprise to discover the size and range of IA-related programs and projects funded in the Dept. of the Interior appropriations act signed by President Bush in Oct. In fact, the IA total of almost $29 million tops the $27 million from the Historic Preservation Fund which pays for all the State Historic Preservation Offices. IA items are as follows:

- Bicentennial Lighthouse Fund $1,000,000
- Ill. & Mich. Canal Natl. Heritage Corridor Comm. 250,000
- Johnstown [Pa.] Flood Museum 500,000
- Blackstone River Corridor Comm. 325,000
- Del. & Lehigh Navigation Canal project 350,000
- America’s Industrial Heritage Project (AIHP) 8,322,000
- for Nat. Reg. nominations associated with AIHP 150,000
- for HABS/HAER work associated with AIHP 345,000
- Institute for Hist. of Technology & IA 600,000
- Steel Industry Heritage Task Force 100,000
- HAER office in Allegheny County, Pa. 135,000
- Recon Survey of western Pa. counties 75,000
- Carrie Furnaces/Homestake Works planning 25,000
- Salem, Mass., project 300,000
- Salem Maritime, historic wharves 2,630,000
- Steamtown 12,000,000
- Altoona Rail Memorial Museum (AIHP planning) 150,000
- Aluminum Heritage Research (AIHP planning) 350,000
- Bedford Transportation Museum (AIHP planning) 75,000
- Brownsville Recon Survey (AIHP planning) 110,000
- Saltsburg Canal (AIHP planning) 75,000
- St. Michael Historic District (AIHP planning) 50,000
- Somerset Center (AIHP planning) 220,000
- Allegheny Highlands Rails to Trails project (AIHP) 185,000
- Oral histories (AIHP planning) 185,000
- Mt. Etna Iron Furnace Complex (AIHP planning) 100,000
- Windber/Scrap Level Coal Heritage (AIHP planning) 100,000
- Scranton Heritage Park 150,000
- Coal Heritage Study, southern WVa. 100,000
- Stoss Furnaces, Birmingham, Ala. 250,000

Total $28,917,000

These appropriations are over and above ongoing HAER program funding. At first glance much of the Congressional activity might be seen as pork barrel legislation, using historic preservation to pull federal dollars into depressed districts. But that view ultimately is too cynical, according to HABS/HAER Chief Robert Kapsch [SIA], who sees a widespread, less-than-conscious, national struggle with the end of a way of life, the decline of heavy industry in America. Little wonder that so many projects spring from Pennsylvania’s iron-coal-railroad nexus. Lowell National Historical Park has been a model for subsequent programs coming up from the Congressional grassroots, given the historic preservation leadership vacuum in the administrations of the 1980s.

Ed.
Cesare Stea’s fieldwork lent IA documentary rigor to his sculpture

Cesare Stea (1893-1960), a sculptor active in the New York area in the first half of the 20th C, executed work in the styles popular throughout the 1930s. Influenced by Cubism and Italian Futurism, his sculptures were highly geometrical and almost roboticized in his treatment of human forms. Stea’s work is of particular interest to industrial archeologists because of the care he took to insure the accuracy of his artistic renditions of industrial subjects. Whenever working on an industrial sculpture, rather than simply giving an impression of an activity, the artist made careful on-site observations and either took photographs himself or had them taken by associates. Consequently, his industrial works, although clearly “artistic” in nature, have a strong documentary sense.

One reviewer characterized Cesare Stea as having been especially interested in sculpting images of “mechanized man,” but his total body of work was not limited to industrial subjects. Born in Bari in southern Italy, he emigrated to New York City as a youth. He resisted his father’s desire that the boy follow in his footsteps as a flutist and began a serious art study with private lessons at age 14. After two years at the Beaux Arts Institute of Design and three at the Cooper Union Art School, he worked as an assistant with Victor D. Salvatore and Herman Atkins MacNeil, the latter of whom specialized in sculptures of American Indians. One of Stea’s first major commissions came to him in 1914, a bas relief called Education for the Educational Building at the Pan American Exposition in San Francisco. After receiving the Helen Foster Barnett Prize for Sculpture from the National Academy of Design in 1926, he spent the next year in Paris at the Ecole de la Grande Chaumière studying under Antoine Bourdelle. While his sculpture won numerous awards and he exhibited in one man shows at institutions as prestigious as the Metropolitan and the Whitney museums, he frequently found it necessary to supplement his income through teaching at several art schools in N.Y. and N.J.

Much of his industrially oriented artwork was done in the late 1930s, while involved in federal work-relief art programs. One of his most important commissions was for a group of terra cotta panels intended for the facade of the Bowery Bay Sewage Treatment Works, constructed in Queens on Long Island in the 1940s. Four 6½’-high panels measuring a total of 55’ in length represented the construction of the plant itself, and was appropriately titled Steel Construction Workers. The panels illustrate the excavation of the foundation, assembly of the steelwork, pneumatic riveters, and pipe fitters. In this case Stea had a photographer working on N.Y.C’s federal art programs produce images of the special plumbing characteristic of a sewage disposal plant to
insure the accuracy of his composition. Since the building was under construction as he prepared the artwork, the artist undoubtedly also spent time observing the workmen at the site.

Stea's most modernist and therefore least stylistically realistic industrial sculpture was one of two 9'-tall figures prepared to flank a small stage in the Federal Building at the N.Y. World's Fair in 1940. One, titled Industry, showed a man with a jackhammer, while the other, a woman holding a sheaf of grain, was called Agriculture.

Stea won the competitions for two post office murals and both were bas reliefs incorporating industrial imagery. The mural at Wyomissing, Pa., was entitled simply Industry, and portrayed the picking of cotton, sheep farmers, and a weaver in a textile mill.

The Newcomerstown, Ohio, post office mural was the artist's other major federal commission and industrial artwork. It was prepared following a visit there to the Hellar Bros. Co., manufacturers of files and tools. Stea was obviously especially impressed by the drop hammer and made it the central feature of the composition. One workman operates a grinding wheel in the foreground, while another runs a cutting machine at the right. A fourth workman adjusts a pulley at the rear of the mural. The representation of the cutting machine operation virtually duplicates a photograph that was retained by Stea and that still exists among his papers in the Archives of American Art in the Smithsonian Inst.

In an interview given when the Newcomerstown mural was dedicated, Stea revealed some of his philosophy of public art. While experienced with abstract forms, he recognized that "modern art is not accepted by people other than artists." He strove to express "a feeling" in his art rather than simply reproducing beauty, and he felt the Newcomerstown bas relief combined both modern and "old fashioned" elements in a way "that is acceptable to the majority of people." His views were shared by many of his contemporaries. Renewed interest in Depression-era art will refocus attention on this neglected sculptor, his work, and other artists who recorded industrial scenes.

D.A.S.

Robert Gordon [SIA] of Yale Univ., titled The Texture of Industry: An Archeological View of the Industrialization of North America. Pat now resides at 53 Riverside Dr., Barrington N.1 02806, where he claims to be able to kayak into Narragansett Bay from his back door.

L.G.

Sally Kress Tompkins

Sally Kress Tompkins, deputy chief, Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Div., National Park Service, died Nov. 27, following a long battle with cancer. Sally joined the HABS staff in 1978 as an architectural historian, specializing in the survey and documentation of federal installations, particularly military posts. Later, she led many HABS/HAER initiatives, such as the maritime initiative to develop measured drawings for historic ships. A graduate of Skidmore College, with an MA in historic preservation from George Washington Univ., she was active in the Society of Architectural Historians.

R.K.

CHAPTER NEWS

ROEBLING (greater N.Y.C. area). The chapter's 9th Annual Drew Symposium, Nov. 11 at Drew Univ., Madison, N.J., attracted some 140 registrants. It was co-sponsored by the Drew Univ. Dept. of Anthropology and the N.J. SHPO, and coordinated by Tom Flagg. Attendees who had just returned from the SIA Fall Tour in Butte, Mont., were happy to find a Butte connection in the first paper: "The Non-Ferrous Metals Industry in Middlesex County, N.J." Jim Musser discussed the Raritan Copper Works, which became an Anaconda Co. subsidiary in 1914. Other presentations included: "Milk on the Rails: RRs & the Dairy Industry in the Northeast" (Robert E. Mohowski); "Rehab of an 1896 Deck Truss Bridge over the Rockaway River in Boonton, N.J." (Abba Lichtenstein & Joe Pullaro); "Submarine Escape Training Tank, Naval Submarine Base, Groton, Conn.: Documentation for HAER" (John R. Bower); "It Could Happen Here: A Wartime Film from Bethlehem Steel on What to Do if Your Steel Plant Is Bombed" (Lance Metz); "The Clock Stops: Colgate's Jersey Plant" (Gerry Weinstein); "Bloomery Iron & Crucible Steel: The N.Y.-N.J. Connection" (Robert B. Gordon); "Bull's Head Market: Evolution of a Live Animal Market in Manhattan" (Edward Rutsch & Pat Condell). Abstracts and presenters' addresses are available through Gerry Weinstein, RCSIA, 40 West 77th St., #17B, NY NY 10024 (phone: 212-769-9082).

ONTARIO SOCIETY FOR A. Distributed with the current OS/A Bulletin is the prototype "OSIA Recording Sheet," designed to help carry out the recording and documentation part of the organization's mandate. The provincial government is developing a recording format that can be used by anyone in either electronic or paper form, but until that system is completed the OSIA will use its own sheet. Some guidelines have been borrowed from the Assn. for IA in England. Info.: David Rollinson, OSIA Bulletin Editor, 73 Grove St., Guelph, Ontario N1E 2W6, Canada.

CONTRIBUTORS TO THIS ISSUE


With thanks.
**LETTERS TO EDITOR**

**Ironbridge postal celebration**

We were very interested to see the coverage in the Summer SIA Newsletter about the issue of Industrial Archaeology stamps in Britain.

The Ironbridge Gorge Museum, of which naturally enough the Iron Bridge forms the centrepiece, this year did its own First Day Covers, as well as featuring one of the national launches of the issue actually on the Iron Bridge itself. We had a huge inflatable champagne bottle, out of which issued hundreds of specially printed balloons bearing tags entitling the finder to free admission to the museum. The covers were specially printed in silk by Benham and some of them were signed on the day by the designed of the stamps themselves, Mr. Ronald Maddox, as well as by the director of the museum.

In addition, the museum has now commissioned its own cachet, so that visitors to the museum who post their mail on the Iron Bridge itself in the mail box, will receive at no charge a special hand cachet, which states “Posted on the World’s First Cast Iron Bridge.”

**Katie Foster**  
*Head of Public Relations*  
*The Ironbridge Gorge Museum*  
*Ironbridge, Telford, Shropshire England TF8 7AW*

**Reports of Stott retirement exaggerated**

I was very honored by the story in the last SIAN, as I was overwhelmed by the attention that all my friends in the SIA have shown. However, I must correct an error which the article perpetuates. I am not bound for the State Dept. in the immediate future. Nonetheless, it is true that I hope to cast my net a bit wider than I have in the last few years. For the moment, I am completing a twelve-month inventory of IA in Columbia County, N.Y., with a grant from the J.M. Kaplan Fund of N.Y. to the Columbia County Historical Society. What happens at the end of that time is as yet undetermined!

**Peter H. Stott**  
*Craryville, N.Y.*

**Remembering the Leominster machine shop**

Issue Vol. 18, No. 1, brought back many memories with the article on the 1872 Leominster machine shop. In the spring of 1954, with an interest in steam engines just starting to grow, my parents sent me by bus from East Hampton, N.Y., to Leominster to spend spring vacation with my paternal great uncle who I was named after. He had a farm outside of town and also saved wood.

One day while sawing, a connecting rod on the big gas engine powering the mill burned out. We removed the rod and took it into the Leominster machine shop where it was rebabbitted and machined. While this operation was going on, I made good use of the opportunity to tour the old building with so many goodies.

From a memory now 35 years old, I believe that I was told that the steam engine was built in the shop. I recall that it had a unique valve setup. Upstairs, there was a steam car engine and I believe a small vertical along with many, many other industrial artifacts.

I went through Leominster once more in 1968 on my honeymoon trip but the shop was closed and at that time, I was interested in other things than old iron!

**Francis A. Orr**  
*Fidalgo Enterprises,*  
“In support of recreational engineering.”  
*Anacortes, Wash.*

**Valentine correction**

In the Summer SIAN, the news note announcing The Valentine Museum’s search for industrial artifacts had an incorrect phone number. The correct number is 804-649-0711.

**Greg Galer**  
*Coordinator of Industrial History*  
*The Valentine*  
*1015 E. Clay St., Richmond VA 23219*
CALENDAR

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

1990


May 31-JUNE 4: SIA 19TH ANNUAL CONF., PHILA., PA. Info.: Jane Mork Gibson, Oliver Evans Chap. SIA, 32 Rex Ave., Phila. PA 19118 (215-242-4971).*


Oct. 18-20: 12th Annual N. American Labor History Conf., Wayne State Univ., Detroit. Paper proposals due May 1 to Stanley D. Solvick, Program Chair, Dept. of Hist., WSU, Detroit MI 48202 (313-577-6145 or ca-2525).

Oct. 18-21: Annual Meeting, Society for the History of Technology, Cleveland, Ohio. Proposals due April 1 to Lindy Biggs, Dept. of Hist., Auburn Univ., Auburn AL 36849 (205-844-6645 or Bitnet electronic mail HIST@AUDUCAX).

*Find details on this event elsewhere in this issue.

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

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TO CONTACT THE EDITOR—WRITE: Robert M. Frame III, Editor, SIA Newsletter, PO. Box 65158, St. Paul, MN 55164-0158.

USE ELECTRONIC MAIL! If you are a computer user and subscribe to MCI Mail, you can send messages directly to the SIAN Editor. Address your MCI Mail to Robert M. Frame III, MCI ID 256-5345.

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