

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

Volume 8 No. 4

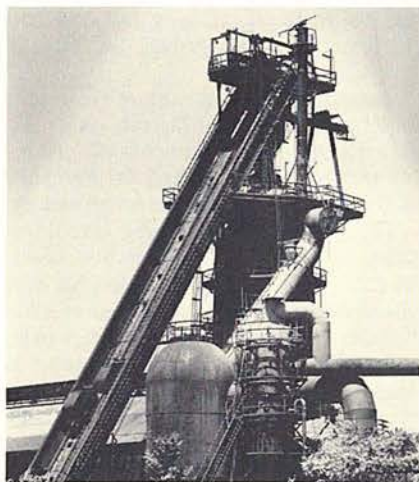
July 1979

RETHINKING SLOSS FURNACE SITE

Birmingham, Alabama Mayor David Vann has revealed plans to transform the city's Sloss Furnace into an \$18-million museum for industrial and cultural history *cum* amusement park destined to rival "Fantasy Island." All this at the risk of jeopardizing earlier plans to develop one of the U.S.'s few surviving, fully-intact, early-20thC blast furnaces.

According to the *Birmingham News* David McMullin, a controversial, unorthodox, businessman and former film maker who recently was hired by the city, submitted a plan to Vann and the City Council outlining a scheme to transform Sloss into a major entertainment and cultural center. He expresses his belief that he can develop a unique industry attraction in the S.E. U.S. quite unlike other "theme parks." The plan calls for a German cafe, theaters, music and dance, bands, sound and light shows, fire eaters, jugglers, and a host of other attractions designed to instruct and entertain visitors. The museums of science, industry, and culture would be somewhat akin to Paris' Pompidou Center.

Birmingham voters, encouraged by Vann and the Council, in May 1977 approved a \$3-million bond sale to rehabilitate the furnace [SIAN Mar. 78]. McMullin believes the project can be accomplished in several phases with funding from government and private sources. To share the center's projected high cost, he



SLOSS FURNACE, skip hoists for charging in foreground. *Historic American Engineering Record photograph.*

proposes to invite corporations and foreign governments to exhibit there. The complex was donated to the city by the Jim Walker Corp. whose U.S. Pipe & Foundry Divn. was the furnace's last operator.

McMullin's approach is certain to raise some questions by the Birmingham Citizen's Planning Bd., appointed by the Mayor and Council, as well as by the Sloss Furnace Assn.* SFA has determined which elements of the Sloss complex should be preserved, and its suggestions appear to conflict with this latest scheme.

Development of the Sloss site could be a vital force in transforming the S.E. into a major cultural and historical center, but if the project is to pivot on the amusement-park aspect of the McMullin proposal, the question should be asked: "Is this the best that can be done for so historically important a site." *W.P.*

**The SFA, which is deeply concerned with the dignified exploitation of the furnace site, is anxious to broaden its constituency. A descriptive flyer is available: 13 N. 21st St., Birmingham, AL 35203.*

BLUFF FURNACE UPDATE

Not all the iron-smelting news from Dixie is bad, however. The Bluff Furnace in Chattanooga, Tenn. not only appears to have been saved from the Walnut St. Bridge replacement project (another continuing sad saga [SIAN July 77:6]), but it appears likely that this site of the first Southern coke-fired blast furnace will be developed as a historical park. A master plan has been prepared, funded by the Chattanooga Chapter of the Assn. for the Preservation of Tennessee Antiquities. Funds are being raised and negotiations for ultimate ownership are well underway.

In addition, archeological excavations just completed by the Inst. of Archaeology at the Univ. of Tenn. at Chattanooga have shown that the furnace base and large pieces of structural cast iron survived destruction by occupying Union troops in the mid-1860s. *J.L.B.*

MARINE NEWS Canal Boat Reappearances

In June 1978, David E. Carr, Site Supt., Ill. & Mich. Canal State Trail, discovered the lower sections of five sunken c1918-33 canal boats. The discovery was made on the I&M between Aux Sable and Morris, Ill. A storm apparently had caused the canal bank to break and the reach between the two cities had temporarily de-watered. Carr sighted the hulks while repairing the bank.

Aerial photographs reveal that the top halves of the boats are missing, the result of inclement weather, years of water damage, and, probably, vandalism.

According to Mary M. Yeater, Canal Interpreter, the Ill. Dept. of Conservation, the IDC has tentatively decided against raising

the remaining hulks. Instead the Division of Land & Historic Sites, IDC, has planned to have archeologists measure, photograph and document the vessels. It is hoped that the next time the paper factory (which leases water rights in the area) is closed for repairs or retooling, the canal can be de-watered, and basic archeological and preservation procedures can be started.

In order to become more familiar with the problems of water-damaged vessels, Yeater has been studying the *Vasa*, a 16thC Swedish warship raised from Stockholm Harbor in 1960-61 and now exhibited in a special museum there. Yeater believes the *Vasa* will be instructive in setting up a successful preservation program.

Further up the I&M, between Dresden and Channahon, Carr has identified the remains of perhaps another canal boat. An investigation is underway to determine whether the submerged

hulk is actually a canal boat, or merely an overturned dock. It is located in an area that was developed by the Civilian Conservation Corps during the Depression. It is possible that the CCC used such a dock and Yeater is now waiting for further information from Natl. Archives, *W.P.*



D. Carr photograph.

The Niantic—Salvage under Pressure

In early May, 1978 the bones of the sailing ship *Niantic* were unearthed during excavation for a new building at the N.W. corner of Sansome & Clay sts. in San Francisco. The *Niantic* brought part of the great influx of hopefuls to California during the great Gold Rush. She arrived in San Francisco in July 1849 and after her crew deserted for the gold fields she became a warehouse and was slowly engulfed by the advancing shoreline. A fire in 1851 destroyed everything above the water (or mud) line and her remains rested under what became the city's business district until her recent exhumation.

The developer stopped excavation for about 10 days while workers and volunteers from the San Francisco Marine Museum dug on the site. The photograph shows the situation on 7 May, with the digging nearly finished. The ribs and keelson can be seen, her stern facing the viewer. The forward third of the vessel still lies under a small park next to the Pyramid Bldg.

Recovered were many bottles and bottle fragments, books, guns, bolts of cloth, the ship's windlass, and a small rotary hand pump of French manufacture. Lack of time and money prevented saving more than an 8-foot-long cross section of the ship. This was removed and then, on 11 May, a bulldozer moved in and smashed up the rest of the ancient hull. *W.D.S.*



Niantic, unearthed and under examination before reburial, May 1978. William D. Sawyer photograph.



The Lansdowne on her knees—may she rise again. At right the wrecked engine. Seen is the piston, not the cylinder head which has left the scene. National Museum of Science & Technology photographs.

"Sink me the ship Master Gunner . . ."

Marine-oriented types will recall occasional references here to the former Windsor-Detroit steam railcar paddle ferry *Lansdowne*, operated until fairly recently by Canadian National Rlws. (CN) [SIAN Sept/Nov. 76:6]. To re-cap., she was built in 1884 with machinery of 1872 vintage by the long-defunct firm of E.C. Gilbert in Montreal. The engines were of 4-ft, bore x 9-ft. stroke deriving steam from 4 Scotch boilers at 60 psi. and reputedly comprised the oldest reciprocating marine plant in N. America (refutations rapturously received).

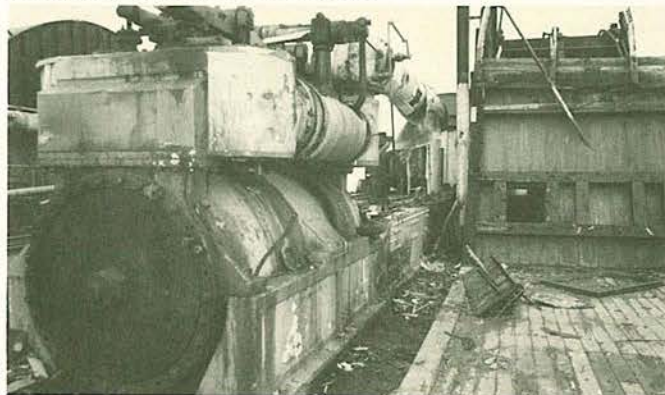
Ottawa's Natl. Museum of Science & Technology (NMST) has long taken a paternal interest in the vessel's fate, especially since 1970 when a paddle shaft broke under load causing a spectacular wreck and irreparable damage to the port engine. SEE PHOTO OF CYLINDER (MINUS HEAD!). From then on *Lansdowne* was ignominiously pushed by a tug and eventually sold (1974) to a Detroit barge operator. In 1975 NMST pondered a rescue attempt on the remaining engine but had to abandon the idea due to astronomic costs, despite an offer by CN to pick up the transportation tab.

Lansdowne has once more changed hands, however, and now belongs to the City of Detroit which is sponsoring her conversion to a floating restaurant-cum-disco on a concession basis at an alleged cost of some \$1 million. Plans are for a permanent mooring at the Renaissance Centre commencing in July.

The concessionaire kindly offered an engine to NMST as a freebie, so a Museum representative was forthwith dispatched to Motor City. A grisly sight met his eyes. *Lansdowne*, moored at Waterworks Park, was stripped of all upperworks except for the paddles and their boxes which were to be retained. Two "Skyview" observation cars reposed at one end.* Below decks a gang armed with cutting torches was cheerily chopping out deck beams &c, presumably according to plan but without apparent regard for structural integrity. Fearing imminent calamity, our roving mariner hastily returned to the main deck where it was discovered that the engine offered was the one wrecked in 1970. The other—believe-it-or-not—is to be retained, supposedly as the backdrop to the bar in lieu of the usual mirrors and rows of bottles. A novel form of adaptive use to be sure, but hardly likely to endear itself to the purist. Since the condition of both engines was such as to cause strong men to blanch, NMST decided regretfully that salvage and/or restoration was out of the question.

NMST now awaits the inevitable point of fingers and heaping of scorn and abuse. May we therefore respectfully suggest that vitriolic scribes stay their pens/typewriters until 1980 when presumably the SIA will get a change to see the final result? Even today a million bucks goes a long way and although the immediate reaction is that death by torpedo would have been a better fate, we could all be pleasantly surprised. At least *Lansdowne* has so far escaped the Viking funerals usually accorded the objects of our veneration. *R.J.C.*

*The cars, built by Pullman in 1949 for the Milwaukee Road, were *Arrow Creek* and *Gold Creek*—two of five sold to CN in 1964, where they were assigned nos. 1901 (*Malpeque*) and 1903 (*Trinity*). Of the remainder, one was wrecked; another has been sold to a customer in Kansas; and if there are any takers for the last it's at CN's Transcona Yard in Winnipeg. \$8500 US and you too can go into the restaurant business!



LOCO EX FLUMINE



The Suwannee Plunger, restoration well along. James Lancaster collection.

An eight-wheel locomotive, like Lazarus and nearly as ancient, has risen from the dead. The engine was recovered in January by James Lancaster from the Suwannee River near Luraville in N.W. Florida. It once operated on the Suwannee River RR, a modest line that was more of a logging road than a common carrier, abandoned c1906. The engine and several log cars reportedly rolled off a barge shortly thereafter. Presumably they were not considered valuable enough to salvage at the time. Old residents kept alive the legend of the lost locomotive, a story confirmed by scuba divers in 1968. The bell and whistle were removed by the divers.

The engine has many characteristics that firmly date from the 1850-55 period, such as a supplementary outside frame, inclined cylinders, short-wheel-base truck, round main rods, and a very high wagon-top boiler. Regrettably, the very artifacts that would permit a precise identification are missing: the builder's and name or number plates, the dome covers, the cab, and the bell stand. In addition, the engine most likely was 2nd-, or even 3rd-hand because it predates the railroad's incorporation by many years, and may have been rebuilt—further obstacles to tracing the original maker and owner. However, the sand box, driving-wheel spokes, and wagon-top boiler suggest that the builder may have been the N.J. Locomotive & Machine Co. of Paterson. Records of this firm are almost non-existent but it was very active in the 1850s and built for many lines in all parts of the U.S. Mr. Lancaster is in the process of restoring the locomotive. Can anyone help to identify this important artifact? J.H.W.

FEDERAL FUNDS PRESERVE ENGINEERING STRUCTURES.

A splendid 8 pp. article of that title by Marilyn Cable and Donna Williams of the Natl. Register has appeared as a Supplement to the HCRS's 11593. (Avail. gratis: HCRS, Dept. of the Interior, Wash. DC 20240). It derives from Ms Cable's talk at the SIA-Engineering Foundation conference on the Preservation of Engineering Structures, held at Rindge, N.H. in June, 1978.

Cable & Williams describe 17 different U.S. government programs that have funded preservation projects for some 20 examples of industrial or engineering structures, as a means of publicizing the availability of this means of support. Some of the programs are generally well known (Historic Preservation 50% matching grants) but some of them are pretty fringy, and there lies the chief value of this assemblage. Many projects in need of financial aid likely will qualify for some of these obscure funds on the basis of their particularized circumstances.

The examples range from railroad stations, to bridges, to the Sloss blast furnaces in Birmingham, Ala., to a St. Louis water tower, to canal structures, to a number of essentially industrial districts. The range is wide and useful. A valuable, practical summary for IA preservation.

TORCHED TWICE,

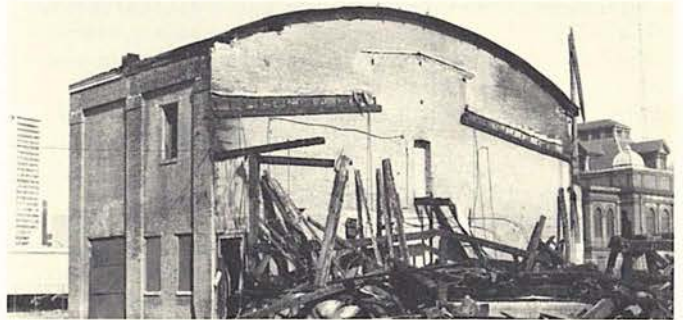
TATTERED TERMINAL TOUGHS 'TOUT

Baltimore's ultra-historic 1850 President St. Station — the oldest surviving American urban RR terminal — recently was hit by Harry the Torch and its future is now even more cloudy. In fact, Harry paid two visits: His first, 27 Feb., apparently wasn't satisfying enough, having totally destroyed only the 1913(?) wood-truss freight shed behind the station building. So on 8 March he got inside the original headhouse and set fires on the first floor and under one end of the historic roof truss [SIAN Jan. 77:1]. Happily (especially considering it was 2 a.m.) the fires were seen and controlled before destroying the building, but serious damage was done. Part of the roof truss is gone, part of the roof is also burned away, and the rear brick walls have been weakened.

Before the fires, the City of Balto. was slated to buy the structure from Conrail, its present owner, for uses yet-undetermined. Currently (April) the city still claims interest but wants to renegotiate the price in view of the damage. In the meantime President St. station — already badly moth-eaten before the fires — sits unrepaired and largely unprotected. H.H.H.



President Street Station, front and rear, following the fire. John Hankey photographs.



THE LONGEST TRIP/ THE SLOWEST TRAIN: The "New" Orient Express

On 27 February, 20 passengers left London for Hong Kong by train, pioneering the *Central Kingdom Express* via Paris, Berlin, Warsaw, Moscow, Irkutsk, Peking, Nanking, Shanghai, and Canton, a 9000-mile route to be covered in 42 days [214.3 mi/day; 8.9 Mi/hr]. The passengers were greeted by Victoria Station Master Ron Neill in full morning suit and top hat, to the skirl of bagpipes and a brass band. The *Express* is expected to become a monthly feature next year; fare: \$3600 [40¢/mi]. F.C.

STEPHEN GREENE 1914-1979

It is with great sadness that we report the death of Stephen Greene, who was well known to industrial archeologists for the wide-ranging library of regional, railroad, and industrial history titles published by the press he founded in Brattleboro, Vt. Steve had been a member of the SIA from its beginning and always a loyal supporter in word, deed, and encouraging spirit. He initially proposed and was publisher of the first American book on IA, Theodore A. Sande's *Industrial Archeology: A New Look at the American Heritage* (1976). He met his death on his way to a book sellers' conference in California, a passenger on the ill-fated DC-10 that crashed in Chicago on 25 May.

THE WORK OF IA

2nd ANNUAL IA INSTITUTE - 1978

How does the Sloss Blast Furnace in Birmingham, Ala. mirror social, economic, and technological changes? How can John Roebling's Delaware River Aqueduct be meaningfully recorded, interpreted, and preserved? How are abandoned mills contributing to the rebirth of threatened communities? These are just a few of the timely questions explored at the 2nd annual IA Institute held last July in Burlington, Vermont.

Eric DeLony [SIA], then HAER's principal architect, directed the 5-day institute sponsored by the Univ. of Vermont's Program in Historic Preservation and the Dept. of Continuing Education. Both the team of 5 instructors and 17 participants, from the U.S. and Canada, represented the many fields from which IA is attracting followers: architecture, economics, engineering, fine arts, history, law, and urban planning.

Dianne Newell [SIA Past Pres.], a historian from Ontario, provided a brief background to the growth of IA in N. America, and compared the efforts by various nations at interpreting the changes brought about by the Industrial Revolution and meeting the challenge of preservation through documentary studies, rehabilitation and reuse, and educational programs in museums, colleges, and universities.

Brenda Barrett [SIA Secy. & Hon. Counsel], preservation legal specialist, interpreted the legislation that today encourages the recognition, recording, interpretation, and rehabilitation of historic properties in the U.S. She explained how the Advisory Council on Historic Preservation, "Executive Order 11593", and the Heritage Conservation & Recreation Service have become valuable sources of funding, technical assistance, and legal support.

The differing methods practiced by historians, archeologists, and architects provided a key to understanding industrial remains. Newell discussed how documentary evidence such as newspapers, chronicles, and fire insurance maps can be used in studying physical remains from the past. Barrett explained how unintentional, physical evidence can indicate social and ethnographic patterns where few or no records exist; and David Schaff [SIA], architect with Skidmore, Owings, & Merrill, demonstrated how the architect's measured drawings can record the present structure and, with other information, can reconstruct its operations, earlier appearances, and changes.

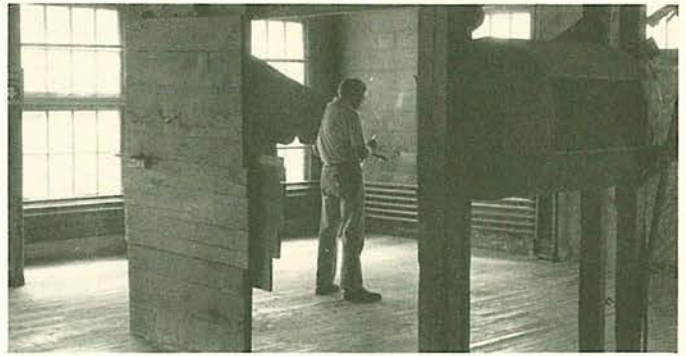
How can IA's current directions transform a decaying community from an "albatross to a bluebird?" Using as an example Paterson, N.J.'s revitalization, Russell Fries [SIA], professor of history, Univ. of Maine, proposed 5 steps for rehabilitating any industrial community. First, the threat of a new highway and storm drain incited opposition, citizens rallied support, and coalitions crystallized. Next, a HAER summer team and salvage archeology team recorded and uncovered the area's cultural resources which included the original 19thC hydraulic raceway.

In the 3rd phase, documentation evoked public awareness, civic pride, and recognition of the Great Falls of the Passaic as a Natl. Historic Landmark—the first American attempt to harness the power of a major river for industrial purposes. During the 4th step, various political interests interacted and developed long-range plans while funded projects, such as the Economic Development Admin's. adaptive reuse of the Roger's Locomotive Erecting Shop (1871) got underway. Finally, in the "take-off," optimism, employment, legislation, and a strong plan for future development promised sustained growth and regeneration.

On a visit to nearby Claremont, N.H., the class witnessed a HAER summer team in action. Architects and planners at the field office discussed how the recording program was being integrated with feasibility studies on energy conservation, historic preservation adaptive reuse, and regional economic planning in the most extensive HAER project to date. A guided tour of the former textile mills along the Sugar River revealed the difficult working conditions and puzzling architectural problems (such as identifying the original course of the power canal) that often beset HAER.

Back in Burlington, the Institute's recording of the abandoned Vermont Spool & Bobbin Factory (1905) got underway. An exploration of physical remains and an interview with Charles D.

Ordway, the firm's last owner, revealed how within the several buildings a series of functions created precise, custom spools and bobbins for U.S. textile mills for over 50 years. Instructed by architects DeLony and Schaff and divided into 4 groups, the class prepared interior and exterior elevations, floor plans, and sections.



The loneliness of the IA recorder. Russell Fey, Fresno, Calif. taking field notes and sketches of the Vermont Spool & Bobbin Co. works, Burlington, Vt. (1905), at the 1978 IA Institute. Victor Rolando photograph.

A final day in the drafting studio transposed sketches and field notes into measured drawings. In the end, the Institute's practical and theoretical lessons climaxed as participants displayed their drawings and watched the Vermont Spool & Bobbin Factory once again take form.

For each participant, a fresh, new vision of our technological heritage and its monuments emerged. For many, the week's intensive experience broadened the scope and may have influenced the future direction of professional concerns. And to advocates of IA the Institute promised new ideas and greater support for the discipline's advancement. L.J.F.

IA IN ART



Courtesy Atlanta Historical Society.

The Atlanta Historical Journal, Spring 1979, contains a note by SIA member Stephen Goldfarb on the "New Deal" art of College Park, Georgia which describes briefly, for those of us who may have forgotten the precise basis for it, the "artists' " project of the U.S. federal government's Works Progress Admin. and Treasury Dept. These programs employed artists to paint, among other things, a great number of murals in federal public buildings. The principal goal was to provide for the subsistence of the artists and to preserve their talent during the vicissitudes of the Great Depression of the 1930s and early 40s. "There was also a conscious effort on the part of the art program administrators to bring the average person into contact with art in his daily life."

Virtually all New Deal murals were executed in a representational style called "social realism." Most depicted scenes of the times with a heavy content of people-at-work. But the occasional scene was historical, usually showing a significant local event of the past. At times the two themes were joined, as in a mural by Jack McMullen painted in 1938 for the College Park post office. Shown is the "Arrival of the Atlanta & West Point Railroad," a scene of the 1850s containing much of the detail that might have been present during such an undertaking.

MISC. NOTES NEWS OF MEMBERS

LOREN DANIEL LILLIS last Sept. was appointed Archeology Lab Director with the Mackinac Island State Park Commn., State of Mich., where he is in charge of all exhumed artifacts from the Commission's various excavations.

THEODORE A. SANDE has been appointed to the three-member Old Georgetown Board of the (D.C.) Commn. of Fine Arts, thereon, we hope, to provide advocacy for Georgetown's few surviving industrial structures.

ROBERT L. SCHUYLER is leaving CCNY-CUNY to become Assoc. Curator for American Historical Archeology at Univ. of Pa's. Univ. Museum, Philadelphia. He also will be Assoc. Prof in the depts. of American Civilization & Anthropology at Penn. He will retain editorship of *N. American Archaeologist*.

ORGANIZATIONS OF INTEREST

WELLAND CANALS PRESERVATION ASSN. Exists to "preserve those canal remnants that still exist, to make people aware of those remains, and to develop the recreational potential of the Old Canals . . ." Information; copy of *The Welland Canals 1829-1979*: St. Catharines Historical Museum, 343 Merritt St., St. Catharines, Ont. L2T 2K7. (416) 227-2962.

COAL MINERS RESEARCH PROJECT CONSORTIUM. A new assn. of oral historians, researchers, archivists, & educators interested in collection & use of oral & paper records documenting the history of American coal miners. One conference has been held. Information: Jas. W. Hammack, Jr., Pres. CMRPC, Pogue Oral History Inst., Murray State Univ., Murray, KY 42071.

HISTORICAL METALLURGY SOC. Concerned with all historical aspects of the refining and working of both ferrous and non-ferrous metals: research; and site discovery, investigation, and preservation. Publishes a semi-annual journal, holds meetings and conferences, conducts field work. Information on membership, goals, and publications: K.C. Barraclough, 19 Park Ave., Chapeltown, Sheffield S30 4WH, England.

HERITAGE CANADA is a natl. charitable organization to promote the conservation of heritage structures & natural landscape. Funds and acts as a catalyst in preservation campaigns, works for enactment of preservation laws, and generally acts on behalf of preservation groups. Also coordinates, facilitates, and encourages research in protection of Canada's architectural and historic heritage. HC publishes an outstanding magazine that will be reviewed next issue. HC, Box 1876, Station B, Ottawa, Ont. K1P 5R4.

EVENTS

IA OF TROY AREA. We have mentioned before the comprehensive series of tours conducted by the Hudson-Mohawk Industrial Gateway covering all aspects of the IA in the IA-rich area centered on Troy, NY. They're worth noting again: bus, walking, and boat tours, of factories, mills, canals, &c. If you're within 75 miles you should write for the schedule: HMIG, 5 First St. 12180.

SOC. FOR COMMERICAL ARCHEOLOGY—3rd ANNUAL CONFERENCE, Natl. Museum of History & Tech., Washington, 17 Nov. Papers, ideas, presentations, all avidly sought after. They speak of Car Washes, Aerodromes, Roller Coasters, Drive-In Burgers, Dime Stores, Eat-Signs-Eat, Kitchenettes (Kitchenettes?), Lubritoria (*Lubritoria*?? What the hell's going on here???) "You know the idea," says Dan Scully, Harrisville, NH 03450, to whom you write if you do know the idea. If you don't, don't write us.

CLINCHFIELD RR. Passenger train outings (apparently *not* steam), 1979 Season. Mostly day trips; some overnight. Tenn., Ky., N.C., S.C. Schedules, information: Clinchfield RR Co., Erwin, Tenn. 37650. (614) 743-9161 ext. 265.

ROCKET ANNIVERSARY MEETING, Newcomen Soc. Newcastle upon Tyne, 8-9 Sept. To mark the 150th Anniversary of the completion of Stephenson's locomotive *Rocket*. Papers, sites visits (incl. inspection of replica in-work of Braithwaite & Ericsson's *Novelty* which competed with *Rocket* at Rainhill Trials,

1827), &c. Flyer from Exec. Secy., The Newcomen Society, Science Museum, London SW7 2DD, England.

ASSN. FOR INDUSTRIAL ARCHAEOLOGY, 1979 CONFERENCE, Ironbridge, 14-16 Sept. HQ at Maw's Tile Works which worked 1883-1969. Papers, field trips, jollity. Conference, membership information: AIA, c/o Ironbridge Gorge Museum, Ironbridge, Telford, Salop TF8 7AW, England.

LOWELL TOURS. From June to 2 Sept. the Natl. Park Service will conduct 3-hour tours of the principal IA sites in Lowell, Mass.: Merrimack Gatehouse; Wannalancit Mill & Lowell Museum; Northern Canal Walkway & Gatehouse; Pawtucket Canal (by boat); and the Francis Gate. Information: Lowell Natl. Historical Park, 171 Merrimack St., Lowell, MA 01851. (617) 459-4136.

SUMMER IA WORKSHOP 18 August, 9 - 5. Van Riper-Hopper Museum, 533 Berdan Ave., Wayne, N.J. Lectures by the Edwards Lenik (director) and Rutsch [both SIA], brickmaking exhibit, field trip. Sounds wonderful. Flyer: Edw. J. Lenik, as above 07470.

BRIDGES OF FREDERICK CO., MD. Field trip. 18 Aug. Meigs & Latrobe chapters, SIA. Information: Donald C. Jackson, HAER, Rm. 327, 440 G St. NW, Wash. DC 20243.

LIGHTHOUSES OF THE NETHERLANDS, Technisch Tentoonstellingscentrum, Delft. An exhibit organized by the Rijksmuseum of original drawings and models, including several models of cast-iron towers built for Indonesia, 1869-79. For the event a book was published: Liesbeth Crommelin & Hans van Suchtelen, *Nederlandse Vuurwapens, Bouwgeschiedenis & Organisatie*, Heuff Nieuwkoop, 1978. ISBN 9061410770.

GRANTS & AWARDS

THE NATL. TRUST continues its highly successful program of making **Consultant Service Grants** to preservation organizations, as a means of initiating worthy projects. Two recent grants: to the City of Springfield, Ore., \$750. for architectural and engineering counsel in the removal to another site and reuse as a cultural center of the local Southern Pacific RR depot of 1891. It is the oldest of four two-story frame depots in the state. And:

To the Neighborhood Development Corp. of Jamaica Plain, Mass., \$1500 to hire an architect to conduct a design feasibility study for restoration of the former Hafenreffer Brewery (1870s) for mixed office and retail use. Information on Trust grants: N.T. for Historic Preservation, 748 Jackson Pl. NW, Washington, DC 20006.

FRIENDS OF CAST IRON ARCHITECTURE last Oct. presented its 3rd **Annual Certificates of Commendation** to a group of nine preservationists, owners, and civic officials who during the previous year made noteworthy contributions to the maintenance, preservation, appreciation, or general welfare, of 19thC cast-iron buildings, fountains, and such other embellishments of our cityscapes as fences and statues. A list of the recipients and their projects is available: 44 W. 9th St., NYC 10011.

USED MACHINERY DEPOT

STEAM ENGINE-GENERATORS. 1) Pair of unknown-maker engines on Crocker-Wheeler type CCD, 300-kW generators; 2) pair of Erie-Ball engines, 33-in. stroke, 150 rpm, 150 psi on unk. generators; 3) Worthington turbo-generator 3629 rpm, 500 kW, 150 psi; 4) Switchboard with misc. Weston meters. Hotel St. George, Clark St., Brooklyn, NY 11201. (212) 624-5000. Robert Gerey, Mgr.

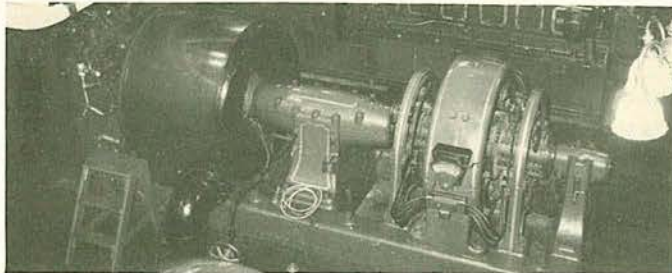
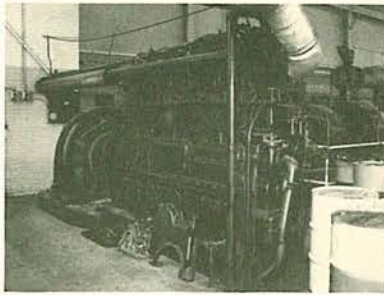
STEAM ENGINE-GENERATOR. American Ball on GE alternator: 240 volts, 216 amps, 72 kW. 8-ft. flywheel. With



Model of Dutch cast-iron lighthouse for Indonesian service, 1869. Courtesy Rijksmuseum.

"converter." Non Fuel Corp., 298 Delancy St., Newark, NJ. (201) 344-3451 ext 43. Mr. Foster.

OIL ENGINE-GENERATOR. Ingersoll-Rand type S. 600 rpm, 350 bhp on GE 275 kW, 250 volt. All 1938. (Engine identical to those installed in locomotives). To legit. museum. Ingersoll-Rand Co., Phillipsburg NJ. C.D. Sutherst, Facilities Mgr.



TURBO-ALTERNATOR. GE, as shown. Characteristics unk. Avail. in about 3 months. Pratt Inst., Brooklyn, NY. (212) 636-3694. Conrad Milster [SIA], Chief Engr. (This unit is to be replaced, interestingly, by a 1933 Ames 3-cylinder vertical uniflow steam engine-generator of 175 kW. Is the pendulum swinging back 75 years later?)

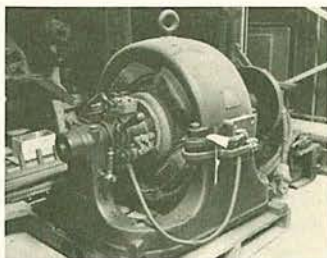
STEAM SHOVEL. Erie (Pa.), c1914. 9'-2" wide over tracks x 18-ft. long less boom (present) x 13 ft. high. C35 tons. Legit. museum. Sessinghaus & Ostergaard Inc., Box 899, Erie, PA 16512. (814) 455-0911. Chr. Ostergaard.



Ex-Panama Canal? Louisville Courier-Journal photograph, © 1979. Reprinted with permission.

STEAM SHOVEL. Mfr. unk., said to be ex-Panama Canal and could be. Availability not absolutely certain but abandoned at quarry near Oolite, Meade Co., Ky. Wheel-type, swinging boom. L.R. Tyson, 401 Highland Ave., Vine Grove, KY 40175.

ELECTRIC MOTOR. Westinghouse, c1900. DC, compound-wound, 8 hp, 110 volts, 70 amps. Full-load speed 225 rpm. 5 ft. x 3½ ft. x 3½ ft. 1½-in. shaft. Legit. museum. Editor.



STEAM PUMP. Blake & Knowles, 1915, Underwriters' type c1500 gpm. 8 ft. x 8 ft. x 6 ft. high. To any worthy home. Norton Co., 1 New Bend St., Worcester, Mass 01606. (617) 853-1000 ext. 2904. Philip L. Platt. (These pumps have considerable historical importance, having been "standardized" by the insurance underwriters in capacities and details, and were widely used in factories and mills. Only one is known to be formally preserved in a museum.)

RESPONSES

Sir: Regarding the article on the Crotch Island granite quarry [SIAN July 78:4], I lived on adjacent Deer Isle for about three years and still have strong ties there. During that period Robert Bornn began to "renew" the operations at the quarry. A large part of this was the systematic scrapping of the island's facilities. Winches, rail lines, compressors, and other equipment left by the last quarrying

tenant, most of which could have been reused, was cut up. Many valuable pieces of machinery, and tools that still were useful, were destroyed, as was an intact site that could have told much about 19thC quarrying methods on these Maine coastal islands. Mr. Bornn in his haste didn't record any of the machines or their purposes. Such is business.

Essentially what Mr. Bornn's "quarrying" amounted to was selling off the great amount of already-cut granite. There has not been any actual quarrying nor, probably, will there be due to the scrapping. It is hard even to move the granite to the dock now that the rails are gone.

I observed the operation for the Rockefeller Center renovation. It consisted of selling rough, already-cut blocks. The team handling the scrapping took a big John Deere skidder onto the island, dragged the blocks down to the wharf, and barged them to Deer Isle where a stone-cutting firm loaded them onto flatbed trailers for hauling to their plant in Providence, R.I. I don't call that quarrying.

It is too bad that such a site was dismantled. Thanks to 'Mr. Bornn, a real quarrying operation would have to buy entirely new equipment, not to mention the information lost. *John Swain Carter, Peabody Museum, Salem, Mass.*

Sir: On the matter of the "weaverette" (so called) [SIAN Nov. 78:3]: please be advised that the gratuitous appendage of a diminutive (and/or) feminine suffix to the term 'weaver' on the part of the Editor was unnecessary and uncalled for.

Chap. & Verse: "The tending of power looms continued to be done almost exclusively by women for a period of nearly 50 years . . . Some of the oldest employees in the New England mills today say they can remember when weaving was so universally considered women's work that a 'man weaver' was held up to ridicule for holding a 'woman's job.' As late as 1860, in discussions of the New England Cotton Mfrs.' Assn., a weaver is uniformly referred to as 'she.'" (Edith Abbott, *Women in Industry* [1915], p. 95)

As the daguerreotype in question is dated c1850, both contemporary usage and modern consciousness indicate that 'weaver' will suffice to identify the operative. I wonder whether you would be good enough to run a correction to this effect, as it is important that the propensity of the Editor toward mcism* be made known. Surely women readers and right-thinking men will be relieved to know that MVTM is not so benighted a place as to ascribe perjorative suffixes to images of the working class. *Helena Wright, Merrimack Valley Textile Museum.*

*We think this doesn't refer to McCarthyism. We'll leave the enlightened reader—who presumably is a member of the ruling class—to figure it out for her/himself, as in our present state of abject shame our hooves—uh, fingers are unable to form the word(s). Ed.

Sir: Responding somewhat belatedly to the interesting article on the Hauser Lake Dam and hydro station [SIAN July 78:2], it failed to mention that the original dam was the third steel-buttress dam in America and that its failure essentially ended the type's development. The problem at Hauser Lake was not inherent in the design. A large portion of the structure was founded not on bedrock but on a bed of water-bearing gravel. The steel sheet-piling placed upstream to prevent "blow-outs" soon proved inadequate and a good deal of the dam washed away. Great pains were taken with the successor concrete dam to ensure foundation on bedrock. A good account of the failure and reconstruction—the latter well illustrated—appears in Wegmann's *The Design & Construction of Dams* (1918 edn.). *Donald C. Jackson, HAER.*

Sir: A further and curious note on Stone Rails [SIAN Nov. 78:7] has just surfaced. In a small lot of material on the early history of the Baltimore & Ohio RR was a brief report from the files of J.S. Murray, Asst. to the B&O president in the early 1920s. It is titled: *Where Old Grade is Uncovered at Union Dam Tunnel*, and describes, by means of the captions to 7 rather indifferent snapshots, the uncovering of a group of early granite rail stringers by the wash of a flood on 30 July 1923. This is, of course, precisely the same group of stringers described by White & Vogel in their *IA* article (vol. 4) as the middle one of three uncovered by the flooding Patapsco River during Tropical Storm Agnes in June, 1972. Small world. W&V observed that these relics of the B&O's first track

structure, probably hadn't seen the light of day for some 130 years, but in view of their hydraulic exhumation 49 years before Agnes, we might speculate that this has, in fact, been a regular event, coincident with the Patapsco's periodic "freshets." *Herbert H. Harwood, Chessie System.*

PUBLICATIONS OF INTEREST

Conducted by Robert M. Frame III and Susan R. Queripel, Minnesota Historical Society.

IRON BRIDGE SPECIALS

Barrie Trinder, **The Iron Bridge: A Short History of the First Iron Bridge in the World.** Museum guide book, the Ironbridge Gorge Museum, Telford, England. The background, design, construction, et al. Very nice. 12 pp., color cover. \$.50. (From SIA, Rm 5020. Stamps acceptable.)

Neil Cossons [SIA] & Barrie Trinder, **The Iron Bridge, Symbol of the Industrial Revolution.** Bradford-on-Avon: Moonraker Press (26 St. Margarets La., B-o-A, Wiltshire, England), 1979. 140 pp., 79 b/w illus + 7 color pls. £8.95. Splendid, authoritative, ultimate word on the world's first (and most engaging) iron bridge, including its eternal fascination for engineers, artists, and historians, on and for its 200th birthday. Good feature is checklist of all known rigid iron bridges in world to 1830 (alas, none in N. America).

Neil Cossons & Harry Sowden, **Ironbridge, Landscape of Industry.** London: Cassel & Collier (35 Redlion Sq. WC1 R4SG), 1977. 160 pp. £15. Prof. illus., nearly 20 color plates. Exquisite.

IA Review, Special Issue: **The Iron Bridge, 200th Anniversary.** Vol. 3(2) 1979. Subs. rates: \$30 (3 issues); single issue \$12. Oxford U. Press, Press Rd., Neasden, London NW 10 ODD. Articles: The 1st Iron Bridges; Coalport China Works; Ironbridge (museum)—the 1st 10 Years; Construction of the Blists Hill Ironworks; Jackfield Decorative Tiles in Use; Underground in the Ironbridge Gorge; Coalport Bridge—a Study in Historic Interpretation. Flyer avail: Rm 5020. Stamped envelope, please.

Kristina Bielenberg [SIA], **Granite: Artists & Their Work.** Barre, Vt.: Barre Ethnic Heritage Studies Project & The 1st Branch Gallery, 1978. 18 pp. \$1.25 Ppd. (FBG, Box 235, Chelsea, VT 05038.) Exquisite catalog of an exhibit of same title. Brief history of the state's granite industry and very human account of the Italian stoneworkers who frequently were artists, working in this hardest of media, to the present. Many fine photos of the men, their statues, monuments, and architectural elements and of the quarries. Striking all round.



Above: Carlo Abate (1860-1941), stone cutter. *Al Comi* photograph. Below: the Boutwell, Milne & Varnum quarry, Barre, c1908. Both photographs courtesy Barre Ethnic Heritage Project.



Susan Bugey, **Halifax Waterfront Buildings: An Historical Report.** (Avail.: Indian & Northern Affairs, Ottawa, Ont. K1A OH4.) Study of two 19thC wharfs with the associated bldgs.

John Bodnar, **Immigration & Industrialization: Ethnicity in an American Mill Town, 1870-1940.** Pittsburgh: U. of Pittsburgh Press, 1977, 213 pp. \$11.95. Rev.: *Business History Rev.*, Spring 1979.

Edward F. Bush, **The Canadian Lighthouse.** In *Occasional Papers in Archaeology & History*, No. 9, 1974. 103 pp., illus. Evolution from Louisbourg (1731) to today.

Frank Clodfelter, (paintings by Howard Fogg), **Fogg and Steam.** Pruett Pub. Co. (3235 Prairie Ave., Boulder, CO 80301), 1978. 172 pp., 120 photos, 28 full-color pls., \$75.

Hugh J. Compton, **The Oxford Canal**, Pomfret Vt.; David & Charles, 1976. 171 pp. \$8.95 Rev.: *Business History Review*, Autumn 1978.

John L. Cotter [SIA], **Archaeology & Material History: A Personal Approach to Discovery of the Past.** In *The Study of American Culture: Contemporary Conflicts*, Luther S. Luedtke, Ed., 1977, pp. 77-98. (avail.: Everett/Edwards Inc., PO Box 1060, DeLand, FL 32720.)

Robert M. Frame III. [SIA] **Mills, Machines, & Millers: Minnesota Sources for Flour-Milling Research.** In *Minnesota History*, Winter 1978, pp. 152-62.

Roger A. Freeman, **Airfields of the 8th U.S. Army Air Force.** Published by *After the Battle Magazine* (3 New Plaistow Rd., London E15 3JA), 1978. illus. Regular edn. \$33.50 Revisits 68 of the most famous of the 8ths WW-II bases in England; 100s of 'then & now' photos.

Katherine A. Harvey, (Ed.), **The Lonaconing Journals: The Founding of a Coal & Iron Community, 1837-40.** Phila.: American Philosophical Soc., 1974. 74 pp. \$7.50.

Herbert H. Harwood, Jr. [SIA], **Mt. Clare Station, America's Oldest—Or is it?** In *Railroad History*, Autumn 1978, pp. 39-53. Major contribution to the history of the RR station, pretty well putting to bed the nearly universal belief that Mt. C. is indeed the oldest standing station in the U.S. Seems it was built in 1851, not 1830, leaving Ellicott City, Md. with the clear title.



Mt. Clare Station. Suddenly it's 1851. *Natl. Museum of History & Tech.*

Donovan L. Hofsommer, (Ed.), **Railroads in Oklahoma.** Oklahoma City: Oklahoma Historical Soc., 1977. 171 pp. \$11/7.50.—collection of articles on 19th-20thC Okla. RRs. Rev.: *Business History Rev.*, Autumn 1978.

Robert A. Howard [SIA], **Water Power, How it Works.** Greenville, DE: Eleutherian Mills-Hagley Foundation., 1979. 27 pp. \$1.50. Illustrated pamphlet, principally for young people. Basic systems, parts named. &c.

Kenneth Hudson [SIA], **World Industrial Archaeology.** London: Cambridge U. Press. 1979. 247 pp., 50 pls., 70 maps & diags. \$37.50/10. Fine survey of the subject on a world basis, providing a most useful comparison of the work in the many nations where IA presently lives. Division, however, by subject: extractive industries; food & drink; construction; metal processing; transport; textiles & clothing; power; and chemicals et al; + good introductory section on present "status" of the field and the techniques.

Donald C. Jackson [SIA], **Bridges—Are They on a Road to Nowhere?** In *Preservation News*, May 1979, p. 6 (Natl. Trust, 740 Jackson Pl. NW, Wash., DC 20006). General survey of problems facing historic bridges and some solutions.

Joseph E. King, **A Mine to Make a Mine: Financing the Colorado Mining Industry, 1859-1902**. College Station: Texas A&M U. Press, 1977. 209 pp. \$13.75. Using eastern capital to underwrite Colo. mining. Rev.: *Business History Rev.*, Aut., 1978.

Benjamin F. G. Kline, Jr., Walter Casler, & Thomas T. Taber III, **The Logging RR Era Of Lumbering in Penna.: A History of the Lumber, Chemical Wood, and Tanning Cos. Which Used RRS in Penna.** The authors: c/o T.T.T., 504 S. Main St., Muncy, PA 17756. In 14 sections, 1453 pp. totally. Ca \$75. A tour de force on one of the three most important lumbering states in the US in the 19thC (with Mich. & N.Y.)

Charles Kluth [SIA], **Surviving From the Turn of the Century: Soo's Shoreham Power Plant**. In *Live Steam Magazine* (Box 581, Traverse City, MI 49684), June 1978, pp. 36-37. —Soo Line RR (Twin Cities, MN) Soo Line's Twin Cities shops still have 1905 Buckeye-Westinghouse cross-compound steam engine-generator sets.

Larry D. Lankton [SIA Bd.], **HAER: To Identify, Document, & Preserve Historic Works of American Engineering & Industry**. In *Public Works Historical Soc. Newsletter*, June 1979, pp. 3 & 8. (1313 E. 60th St., Chicago, IL 60637.)

Philip Marshall, **Slate Roofs: Conserving a New England Resource**. In *Possibilities*, April 1979, pp. 1-2. (Historic Preservation Program, U. of Vt., Burlington 05405.) Good bit on the industry & section on making of roof slates.

Dianne Martin, **Industrial History Projects in Three Mass. Towns**. In *History News*, Oct. 1978, pp. 221-26. The new Natl. Park at Lowell; Machine Shop Village at N. Andover; History Game for Children at Worcester.

Conrad Milster [SIA], **Steam, Steel & Snow are Part of a Winter Weekend on the Narrow Gauge**. In *Live Steam Magazine* (PO Box 581, Traverse City, MI 49684), Dec. 1978. East Broad Top RR.

_____, **Hamilton's Long-Preserved Gartshore Pumping Engines**. In *Live Steam Magazine* (As just above), Aug. 1978, pp. 14-17.

William J. McKelvey, Jr., **Champlain to Chesapeake: A Canal Era Pictorial Cruise**. The author: 98 Waldo Ave., Bloomfield, NJ 07003, 1978. 224 pp., 475 photos; map; chronology; bibl. \$25 PPD. A trip via the Champlain Canal, Hudson River, Delaware & Raritan Canal, Delaware River, Chesapeake & Delaware Canal, Chesapeake Bay, and Dismal Swamp Canal. Remarkable variety of vessel types, freight, and passengers. A bit also on the boat building industry of Phila., Wilmington, and Balto. Little text but fine, well-reproduced photos.

John U. Nef, **An Early Energy Crisis & its Consequences**. In *Scientific American*, Nov. 1977. pp. 140-51. (*Scientific American Offprints No. 391*) Shift from wood to coal burning economy in 16thC Britain.

J. Douglas Porteous, **Canal Ports: The Urban Achievement of the Canal Age**. NY: Neale Watson Academic Press, 1977. 250 pp. \$14.65. Rev.: *Business History Rev.*, Autumn 1978.

SPECIAL PUBLICATIONS

Anderson Notter Finegold, Assoc., **Recycling Historic RR Stations: A Citizen's Manual**. Wash.: US Dept. of Transportation, 1978. 83 pp., illus. \$3. paper. (From Supt. of Docs., GPO, Wash., DC 20402. Stock No. 050-000-00143-1.) Worthwhile practical guide to this frequent problem, based on a number of examples that have worked.

Anne Derry, et al, **Guidelines for Local Surveys: A Basis for Preservation Planning**. Natl. Register of Historic Places, 1977. 83 pp. \$2.50. Everything there is to know about the fine art of surveying: the reasons and the means. Good bit on IA sites. Excellent tool. (Avail.: Supt. of Docs., USGPO, Wash., DC 20402. Stock No. 024-016-00089-7).

Michelle Greenwald, Alan Levitt, & Elaine Peebles, **The Welland Canals: Historical Resource Analysis & Preservation Alternatives**. Toronto: Historical Planning & Research Branch, Ontario Ministry of Culture & Recreation, 1979. 175 pp. \$4. (From Ont. Govt. Bookstore, 880 Bay St. at Grosvenor, Toronto M7A 1N8; checks: Treas. of Ont.) Plan for preservation of the remaining segments of the 4 canals built between 1824 and 1932. Good history; many maps and photos.

Randolph Langenbach [SIA], **A Future from the Past: the Case for Conservation & Reuse of Old Buildings in Industrial Communities**. Joint publ. of U.S. Dept. of Housing & Urban Development and Mass. Dept. of Community Affairs. Single copies gratis from HUD, office of CP&D, Room 7230, Wash., DC 20410.

INVENTORIES, BIBLIOGRAPHIES, ET AL

John R. Crowl & Kathryn A. Young, **Harmony Mills Historic District**, Hudson-Mohawk Industrial Gateway (5 First Street, Troy, N.Y. 12180), 1978. 32 pp., map. \$3. Self-guided tour; brief history of the H.M.H.D. Cohoes, N.Y., a 19thC textile mill complex.

Stephen Goldfarb [SIA], **Industrial Archeology in Georgia**. *Pamphlet Series, No. 1*, Ga. Trust for Historic Preservation. (9 Baltimore Pl. N.W. Atlanta 30308) 1978. 19 pp., illus. \$.75.

Richard S. Hartenberg [SIA], (Ed.), **National Historic Mechanical Engineering Landmarks**. NY: American Soc. of Mechanical Engineers (345 E. 47th St., 10017), 1979. 146 pp., \$15. (\$7.50 to ASME members). Essays on the 28 NHMELs designated 1973-77 + introductory essays on the history of history in the ASME. Absolutely swell.

Charles K. Hyde [SIA], **The Upper Peninsula of Michigan: An Inventory of Historic Engineering & Industrial Sites**. Wash.: Historic American Engineering Record, 1978. 236 pp., illus. \$4.50. (Avail. as below, Stock No. 024-016-00092-7.) A splendid companion to Hyde's splendid inventory of the Lower Peninsula [SIAN May 77:11], describing the astonishing array of IA in an area pretty much passed by. Outstanding are the structures deriving from the area's copper and iron mining, and hydroelectric power.

Gary Kulik & Julia Bonham [both SIA], **Rhode Island—an Inventory of Historic Engineering & Industrial Sites**. Wash.: Historic American Engineering Record, 1978. 296 pp. \$5.75. (From Supt. of Docs., USGPO, Wash., DC 20402. Stock No. 024-016-00097-8.) Surely the most comprehensive of the HAER Inventory reports so far. Arranged by the state's 26 towns & cities, but topical location easy via the index. Long, detailed entries for each site/structure; good general introduction on RI's industrial development. Wish HAER weren't so niggardly with the pix in these, though.

Robert F. Munn, **The Coal Industry in America: a Bibliography & Guide to Studies**. 2nd ed. Morgantown: W. Virginia U. Library, 1977. 351 pp. \$16.00 Rev.: *Business History Rev.*, Aut. 1978.

Duane P. Swenson, & Hugh R. Gibb, **The Historical Records of the Components of Conrail, a Survey & Inventory**. Greenville, DE (19807): Eleutherian Mills Historical Library, 1978. 56 pp. \$1. Valuable account of survey of existing records of the various RRs that combined into Conrail in 1976. Little on engineering records, regrettably.

Richard V. Szary (Comp.), **A Guide to the Manuscript Collections in the Natl. Museum of History & Technology**. Washington: Smithsonian Archives (Rm. 2135 A&I Bldg., Smithsonian Instn., 20560), 1979. 143 pp., paper, Gratis. Notes many collections having IA/history of tech. interest.

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