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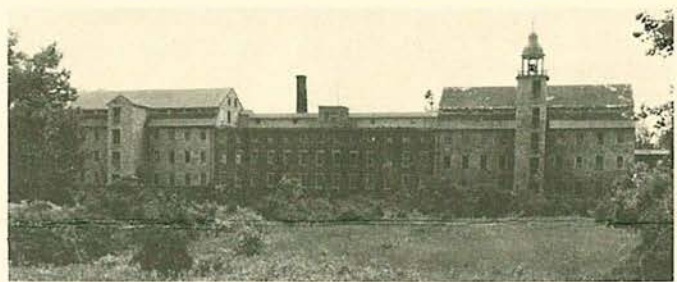
THE SOUTH WILL RISE AGAIN

Tredegar Restoration Begins

One of the great industrial "non-preservation" mysteries of all time has been the gradual near-total collapse of the Tredegar Iron Works buildings in Richmond—despite the fact that from Tredegar came nearly all the heavy ordnance that gave the Confederacy any chance for supremacy in the Civil War; and that Richmond, and Virginia traditionally have shown a deep concern for their history. The Tredegar Rolling Mill was formed 1836, and in the 1840s production of federal armaments began. When the works was confiscated by the South in 1861, it was expanded to become the seat of their heavy arms manufacture. Last used for RR rail specialties and wheel production, the plant was closed in 1957 when purchased by Albemarle Paper Co (now Ethyl Corp) and has since, building by building, slowly become ruinous.

Last June's Agnes floods advanced the deterioration, and the city demanded razing of certain especially hazardous portions. This apparently triggered a benign impulse within the Ethyl heart, with the result that they undertook full restoration of one of the CW period shop buildings (left, above) *despite the fact that no particular use was planned for it*. The work is now in hand, under the sympathetic, able supervision of properties mgr R E Johnson. Another structure of the same period will be retained, plus fragments of several others.

Ethyl, in joining with Reynolds Metals Co, which has restored a section of the James River & Kanawa Canal on its property just downriver from the Tredegar site (SIAN 1:2), is participating in a new era of corporate responsibility that we greet with elation.



SALVATION OF CROWN & EAGLE

Finding sympathetic adaptive uses for New England's hundreds of disused 19thC textile mills and factories has been one of our most challenging and frustrating industrial preservation problems. Many have, indeed, been usefully re-employed as schools, colleges, warehouses, professional offices and factories. In addition, a common proposal has been 'housing': for the rich, the poor, the elderly, the retired, et al, but for one reason or another—mostly financing hurdles—until recently none of these have materialized.

Now, it seems, one may, happily, in the case of the Crown & Eagle Mill, N Uxbridge, MA (visited on the Oct 1972 SIA tour), which since 1967 has been the focus of intense interest by practically every individual and organization having the least concern for the history of the textile mill in the US, being widely regarded as the architecturally finest and historically purest cotton mill in the region. The Crown Mill (with belfry) was built c1825; the Eagle c1829 and the brick connector 1851. Operations ceased in 1924 and the mill has been vacant for most of the time since. In 1967 it was recorded by HABS/Smithsonian, later was entered on the Natl Register, and has been the subject of endless preservation-adaptive use plotting. Recently the Framingham, MA architects and planners, Healy, Healy & Brown, have purchased the mill and under their *Millhaus Program* are subdividing the interior into 30 one bedroom and 22 two bedroom apartments. It is gratifying to note that the exterior and park-like grounds will be left essentially intact. HH&B has completed 2 other Millhaus projects—conversion of factories to apartments at Mansfield and Upton, MA.

Where is the *Belle of Dixie*, Now That We Need Her?

The Kingston, Ontario *Whig-Standard* on 6-7-8 July is sponsoring in Navy Bay what they bill, if we can believe our eyes, as the world's First Great Steamboat Race [their caps] to be administered by the Frontenac Society of Model Engineers (SIA). FSME and Pumphouse Steam Museum (SIAN 1:6 &

1974 ANNUAL CONFERENCE. In the immediate aftermath of the Troy Conference, it is not too soon to start thinking of next year's: **Pittsburgh, PA, Sat & Sun, 27 & 28 April.** Mark the date now. *Other organizations please note to avoid conflict.* Nor is it too soon to begin thinking about papers. A formal call will appear in the July SIAN. A number of interesting and stimulating activities already have been planned.

2:2) prime mover Jack Telgmann anticipates up to 25 entries, in a variety of classes, with handicapping equalization. And to prove that they're not just playing fast & loose with our emotions, the *W-S* is offering a 1st prize of \$500 (\$499.35 US).

IA in GB

At the "Glasgow IA Conference," (SIAN 1:3) held last Sept as a continuation of the series begun in Bath about 7 years ago, 90 attendees, all British, heard papers, toured, and once again, as they did last in 1968, agreed that the experience was sufficiently worthwhile that a national society should be formed, to occur at the 1974 Conference on the Isle of Man. A steering committee was appointed to frame a draft constitution and "deal with ad hoc situations." Details: J K Qualtrough, 28 High View Rd, Douglas, I o M, England. *Industrial Archaeology* Feb 1973.

SITES & STRUCTURES

Slade's Spice Mill, one of the few surviving and best preserved



Slade's Spice Mill and the tub-wheel tub at low tide. *P Meigs, Wayland, MA photos.*

tide mills in New England, has been added to the Natl Register, but with little certainty that its owners will preserve it. The mill, in Revere, MA, 4 miles N of Boston, built 1902, is the 5th successor to the original, of c1734. It operated until c1931. One of the original 4 pairs of stones survives with its gearing from the tub-wheel shaft. More remarkable is the presence of the "tub" itself—possibly unique—although the wheel, a primitive form of reaction turbine, is gone. Efforts are being made to save the structure but the site is in a critical and valuable area. *Peveril Meigs* (SIA).

Early Concrete Bowstring Arch Bridge. The early history of



the concrete bridge is one of conventional arches, both plain, and after 1889, reinforced. Not until well into the 20thC was the material applied to other forms. What must be an extremely early example of a reinforced-concrete bowstring arch, of 70-ft span, has been discovered in Bridgeport, WV by Emory Kemp (SIA), Chairman, School of CE, WV Univ. Built 1912 to connect the factory and warehouse of the Bridgeport Lamp Chimney Co, it was designed for a loading of small push carts. No locally cobbled affair, it was designed and erected by the Concrete Steel Bridge Co of Clarksburg. Kemp's students have drawn and photographed the span (spalling has exposed some of the reinforcing rods—the twisted squares of the time), but haven't yet answered the obvi-

ous question, why so noble (and expensive) a structure there, and for that?

The end of an Era. Although the last el on Manhattan was scrapped in 1955, the Bronx section of the Third Avenue line continued to operate until the end of April, when service was abandoned, ending over 100 years of elevated railway operation in the two boroughs of NY. Demolition will begin this summer. Several miles of el survive in Brooklyn and Queens, and several subway lines do emerge for short stretches in Manhattan and the Bronx. The el appeared in the Bronx in 1887 as the Suburban Rapid Transit Co; was reconstructed later when a third "express" track was added. The Metropolitan Transportation Authority, in the belief that the line had become "a blight on the borough," has continued service with diesel buses, whose fumes, presumably, will be hailed by Bronxians as a welcome improvement in the quality of their life. *Theodore H M Prudon* (SIA), *Columbia Univ.*

Adaptive Use

The National Trust's *Preservation News*' April issue's supplement, "New Life for Old Buildings," notes several industrial buildings—an ex elevator factory, e g—that have been imaginatively adapted to other uses.

And yet more on CUT. The fight for Cincinnati Union Terminal (SIAN 1:6) appears to have been won following a campaign that once seemed hopeless. The non-profit Save the Terminal, Inc (2101 Carew Tower, 45202) has effectively turned the situation around by gaining the support of the city, evolving a practical plan for accommodating the structure to the operational needs of the Southern Ry (not passenger business, to be sure), and acting as a clearing house for a number of re-use proposals by local educational, cultural and commercial groups. Full account in *Preservation News*, March (740 Jackson Pl NW, Wash, DC 20006). Save the Terminal buttons (25c) and posters (\$1.25): Committee to Revive CUT, 320 Resnor, 45220.

SIA AFFAIRS

Jaunts, Tours & Conferences

PATERSON, NJ 7 April last. The joint SIA-Great Falls Development Corp walking tour of Paterson took place in perfect weather and was an unqualified success in all respects. It is fully described and illustrated in the accompanying *Supplement*.

1973 ANNUAL CONFERENCE, TROY, NY 28-29 April last, too, was a worthwhile experience, which will be reported on in a *Conference Supplement*, to be issued with the July *SIAN*.

TOUR OF THE RIDEAU WATERWAY, Canada

September 22-23. The next SIA field activity is unusual in its variety and scope. Plan to join with members of the American Canal Society and take part in the first SIA Canadian tour. Examine the industrial settings and engineering works along the 120-mile canalized Rideau River between Ottawa and Kingston, Ontario. Tour by motorcoach and foot the historic rural milling and foundry town of Merrickville, typical of mid-19thC industrial towns dominated by one family along the commercially and militarily important waterway. Pass through Perth with its fine commercial and municipal stone buildings. Travel by boat a length of the canal from Chaffey Locks, through Davis, to the Jones Falls site, famed for its great masonry arch dam and impressive setting. Rest there overnight at the Hotel Kenney—one of the Rideau's many early 20thC summer hotels (modernized, unfortunately, in the 50s, and all that that implies!) and travel next day to the head of the canal, Kingston. There inspect the Pump House Steam Museum, the dry docks, and the Kingston Brewery (early 19thC granite complex). Bus past several of the city's historic municipal, penal and fortification structures.



Rideau Canal lock and eccentric swing bridge at Jones Falls.

Several publications, of which *The Rideau Waterway* was the first, are being produced for the occasion. The registration fee, carefully kept down to c\$30, will cover all costs—publications, transportation, admissions, meals (3), and overnight accommodation—from Saturday AM to Sunday PM. Registration forms will accompany the July *SIAN*.

Desperate Need: by the editorial office, for an **Addressograph printer**, manual or powered. A gift of one would, of course, be tax deductible. Search your attics and hearts.

MUSEUMS

For the benefit of those who will take the opportunity of the Rideau Tour to further explore in Canada, the following are noted:

NATIONAL MUSEUM OF SCIENCE & TECHNOLOGY, Ottawa (SIA). Fine collections in most areas of S&T, attractively presented and intelligently interpreted. The speciality is the rail transportation collection, featuring a staggering stable of Canadian steam locomotives, under the care of R John Corby, Curator of Technology. (SIA).

MINER'S MUSEUM, Glace Bay, N.S. Deals almost exclusively with NS coal mining. "A social history museum, interpreting the history of a people through description of the technology that shaped and filled their lives."

MINING MUSEUM, Stellarton, N.S. Equipment and documentation of the Foord coal mines and the disaster that occurred there.

LENORE FORGE MUSEUM, Arichat, N.S. A reconstruction of an early 19thC French style forge.

NOTE: Available from the Nova Scotia Museum, Halifax, in their series "A History of Everyday Things in N.S.": J Lynton Martin, *Lumbering*. Life of the lumberman—tools, clothes, life in camp, skills, working conditions, etc. 25c.

THE WORK OF IA

IA in the Far West

A number of archeological excavations of interest have been conducted during the past year in California, an area that we of the E Coast Establishment would find astonishingly rich in industrial remains if we but gave it some thought. (Over 18 industrial sites are on the Natl Register, not counting historic districts that contain some IA.) In one of these having IA interest, members of the Ohlone Archeology Assn have been excavating the site of the former Linda Vista Winery, Fremont, founded 1854, a historic but little known firm whose products consistently took high prizes at the 19thC expositions. The winery has been bulldozed for a college campus. Paul J F Schumacher (SIA).

HAER "Saves" New Bedford Site

Quick work by Paul Tremontozzi, Sr Planner for the city; concerned community groups; the local Rotary Intl; and



HAER, will result in an emergency HAER recording of the Delano Whale Oil Refinery, New Bedford, MA. Once "the largest grease oil refinery in the world," the earliest portions of the plant are pre-1836. One of the last 2 such factories operating in the New Bedford-Fairhaven area, refining and candle-making continued to 1926.

Although still structurally sound, the building will be razed in June to make way for a public school. New Bedford thus becomes the 1st site in a HAER 5-year New England Survey program, and an example of preservation-through-documentation. T Allan Comp (SIA).

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Suggestions for other sites for HAER NE inventory-survey work are sought: T Allan Comp, Historian, HAER New England Studies Office, 226 Bay State Rd, Boston Univ, 02215. (617) 723-6430.

NOTES & ENQUIRIES

Delaware & Raritan Canal. The Canal Society of NJ, attempting to document the D&R as fully as possible, seeks all photographs and other data available. Interesting summary sheet: Wm J McKelvy Jr, 98 Waldo Ave, Bloomfield, NJ 07003.

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The NJ Senate of 15 Feb passed a Concurrent Resolution creating a committee to study and develop means of protecting, preserving and maintaining the D&R, including its feeder canal, and the lands through which it flows. *NJ Historical Commn Newsletter*.

Steam Elevator Machines available, NYC, URGENT. Three: 2 Otis belt-internal-gear drive to the drum; 1 sidewalk with 2 vertical cylinders above the shaft; all c1870. As-is, where-is, free to a responsible museum. Details: Conrad Milster (SIA) (212) 857-9524 evenings. These are becoming scarce, and the few extant all should be preserved.

Girls' Liberation. As part of Preservation Week activities, the Natl Trust has declared Cadette Girl Scout Troop 365 of Hillside, NJ winner of its natl "Give Tomorrow a Yesterday" project for refurbishing the Lehigh Valley RR's Hillside station.

Misconception. We were incorrectly informed that **High Bridge** (SIAN 2:2) is a National Historic Landmark. Although it should indeed be, it is, in fact, only on the Natl Register.

PUBLICATIONS OF INTEREST

Occasional Publications of the SIA. Members of the Society already will be aware that this series has started. No 1, William Naftel's (SIA) *Rideau Waterway*, (prepared for the SIA field trip on the Rideau Canal in Ontario, 22 & 23 Sept next), was distributed with the March *SIAN*; No 2, a reprint of F R I Sweeny's definitive 1915 article: *The Burden Waterwheel* (1851), with an introduction and additional illus, was distributed at the Troy Conference or accompanies this issue (to members).

It should come as no surprise that these monographs will appear: occasionally. Suggestions for others are invited, but suggesters are *further* invited, if possible also to suggest means of financing, as the Society's present budget can, in fact, itself support these only *very* occasionally.

Special Publications Programs

Technology & Society, (Daniel J Boorstin, advisory ed). A series of 53 reprinted works, 1822 to 1962, assembled to demonstrate the enormous variety of technologies that have shaped the American experience. Emphasis on major innovations & revolutions, and biography. The relationship between technology in general and IA falls out clearly from the particular titles selected. A sample: *Ford Methods & the Ford Shops*, 1915 (\$26); the Bathes' monumental biography of *Oliver Evans*, 1935 (\$28); *Skeleton Construction in Buildings*, 1894 (\$12); *The Manufacture of Paper*, 1886 (\$28); *The Evolution of Industry*, 1895 (\$14); Evans' *Young Mill-Wright & Miller's Guide*, 1850 edn (\$21) *Hungerford's Story of the B&O*, 1928 (\$22); *Lowell, As it Was, and As it Is*, 1845 (\$11); etc. etc. The Collection: \$1,054, or available separately. 16 pp illus brochure avail: Arno Press, 330 Madison Ave, NYC 10017.

Cooperstown Graduate Program Theses. A number of unpublished theses of IA interest are filed in the New York State Historical Assn Library (SIA), Cooperstown:

H P Bacot, Jr, *Brass Founding in N Y City, 1786-1840*. 1972. Ruthanne Mills, *19thC Cobblestone Structures in Madison Co, NY*. 1972.

Malcolm A Booth, *The Delaware & Hudson Canal, with Special Emphasis on Deerpark, NY*. 1965.

Russell A Grills, *Cooperstown & Its RR: A History of the Cooperstown RR Co and its Effect on the Community of Cooperstown, 1865-1903*. 1969.

Robert A Howard (SIA), *A Survey of Steam Power in the Town of Otsego*. 1969.

George V Tyrrell, Jr, *The New Ulm Potters & Pottery, 1860-1900*. 1969.

(Assembled by Philip Spiess, NYSHA Bibliographic Project). As even more emphasis is now being placed on IA by the Program's Director, Peter C Welsh, more research in this area is foreseen.

Chas F H Allen, "Railroad Through the Notch," in *New Hampshire Profiles*, Sept 1972, pp 34-41. Good account of the most challenging piece of RR engineering in the East: the Portland & Ogdensburg's line through Crawford Notch, 1874.

Richard S Allen (SIA), "New York's Red Iron Ore," in *NAHO*, spring 1973, pp 6-8. State Education Dept, NY State Museum & Science Svc, Albany 12224. Interesting account of the Clinton ore formation in central NYS and the associated furnaces. Good early photographs.

P W Brock & Basil Greenhill, *Steam & Sail in Britain & North America*. (out in June 1973). Princeton, NJ: Pyne Press. 112 pp, 85 illus. \$10.

Hugo Brunner & J Kenneth Major (SIA), *Water Raising by Animal Power*. Offprint from *IA, the Journal etc*, May 1972. 48 pp; 16 illus. \$1.30 or 52p, pp (please remit by Intl Postal Draft, not \$ check). 100 English examples of water lifts and pumps powered by humans, horses, donkeys or dogs.

Malcolm S Gregory, *History & Development of Engineering*. (In *Engineering Design Series*). Longman, 1971. c\$7.50. An assessment of the engineering designer's present position in terms of the history of the field, particularly the materials, equipment and theory at his disposal, with time. An excellent survey.

J Haymen with C J Tadfield, "Clare College Bridge;" and with B D Threllshall, "Telford's Bridge at Over," in *Proceedings, Instn of Civil Engrs* (Lond), Nov 1972, pt I, p 319 ff. Analysis of the stresses in early masonry arch bridges.

K Hoole, *North Eastern [ry, England] Locomotive Sheds*. David & Charles (N Pomfret, VT 05053). 1972. 263 pp, illus. \$7.95.

George Koether, *The Building of Men, Machines, and a Company*. Ingersoll-Rand Co, Phillipsburg, NJ 08865. Good account of the various rock drill and compressor firms and their products that were combined into I-R. Assembled from the series in *Compressed Air Magazine*. Paper, free.

Otto Mayr, "Von Charles Talbot Porter zu Johann Friedrich Radinger: Die Anfänge der Schnellaufenden Dampfmaschine & der Maschinendynamik." (From Porter to Radinger: the beginnings of the high-speed steam engine in theory & practice) in *Technik Geschichte* Vol 40 No 1 (1973) pp 1-32. (Offprints avail from editor) A superb analysis of P's pioneering development of the high speed engine, and R's subsequent elaboration of P's theoretical work, resulting in successful spread of the concept of high speed in Europe. (CTP — [1826-1909] is one of American engineering's most fascinating figures. His autobiography, *Engineering Reminiscences*, 1908, is highly recommended.) (Mayr contemplates an Engl translation of his article.)

New Life for Old Buildings. [English] Dept of the Environment. Her Majesty's Stationery Office (Atlantic House, Holborn Viaduct Lond EC1) 1971. \$1.50. Good account of adaptive use of a variety of building types, including many industrial. See also *Architectural Review* (Lond) May 1972. Full note in *IA, The Journal etc*. Feb 1973.

Helen Wieland Skillings, *We're Standing on Iron; the Story of the Five Wieland Bros, 1856-83*. Duluth, MN: St Louis County Hist Soc, 1972. 69 pp, illus. \$5.

David C. Smith, *Lumbering in Maine, 1861-1960*. Orono: Univ of Maine Press, 1972. 468 pp, illus. \$9.

A C Todd & Peter Laws, *The IA of Cornwall*. David & Charles (N Pomfret, VT 05053), 1972. 288 pp, illus. \$11.

John G & Diana Waite (SIA) (comps). *IA in Troy, Waterford, Cohoes, Green Island, & Waterliet* [NY]. Hudson-Mohawk Industrial Gateway, Troy. 1973. 58 pp. \$2.

John Winter, *Industrial Architecture: A Survey of Factory Building*. London: Studio Vista, 1970. 128 pp, illus. \$6.00. A history of industrial buildings from early 18thC to now: British to the mid-19thC; plus US and Continental from then on. Much discussion of the relationship of the prime-mover to the structure (Review by Jennifer Tann in *Industrial Archaeology*, Feb 1972).

REPRINTS

The Factory Act of 1833: 8 pamphlets (1833-34) \$14. *The Factory Education Bill of 1843*: 6 pamphlets (1843) \$10. Arno Press, NY (qv *Special Publications Programs*)

E D Kennedy, *The Automobile Industry; the Coming of Age of Capitalism's Favorite Child* (1941). Clifton, NJ: A M Kelly, 1972. 333 pp \$11.50.

Charles E Peterson, (SIA), ed, *The Carpenters' Company 1786 Rule Book*. Princeton, NJ: Pyne Press, 1973. The rules, prices and drawings of carpenters' & builders' work in Philadelphia. 128 pp; 37 plates. \$4.50 paper; \$10 hard. (Pyne's catalog is not without interest—includes the American Historical Catalog Colln (reprints of trade catalogs). 92 Nassau St 08540.

George Ward, *The Early Development of the C&O Canal Project* (1899) (Johns Hopkins Univ studies in historical & political science). NYC: Johnson Reprint Corp, 111 5th Ave, 10003. \$1.50.

Noble E Whitford, *History of the Canal System of the State of NY, Together with Brief Histories of the Canals of the US & Canada* (1906). 2 vols. B Franklin, 235 E 44th NYC 10017. Out by end 1973. Probably most definitive account ever, but: \$85 (sic).

Glenwood Publishers, Box 194, Felton, CA 95018, *Spring-summer catalog* is full of good RR material, incl some interesting reprints: Weissenborn's American Locomotives; 1887 cable ry prospectus, etc.