



# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

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January 1973

### HARRY-THE-TORCH AGAIN?

The magnificent Great Falls (cotton) Mill, 1870, Rockingham, NC, which had been proposed for restoration as a southern textile museum, was totally destroyed by fire in October. Ironically, the owners of the mill, which was on the Natl Register, had just committed it for the purpose. Vacant industrial buildings, for which an imaginative adaptive use had just been disclosed, have in the past few years been burning down with a disconcerting frequency. (Recall the ill-fated Fairbanks Truss noted in the SIAN 1:3).



GREAT FALLS FALLS. North Carolina Office of Archives & History photographs by Kenneth J Wallner (L) and Al Honeycutt (R).

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But even without Harry. An apparent accident with naphtha, in this case, caused an explosion and fire that in mid-Dec. levelled the Libby woolen and blanket mill on the banks of the Androscoggin in Lewiston, ME. The brick mill, c1840-70, was an attractive complex. Its loss reduces to a pitiful handful Lewiston's once numerous fine mills.

### PATERSON

The wide-ranging interrelated schemes for archeology, preservation and adaptive use of the remarkable industrial survivals in Paterson, NJ, (SIAN 1:5) progress, progress now being reported periodically in *Paterson*, an illu newsletter of the Great Falls Development Corp. Vol 1 No 1, Nov 1972, has appeared, describing in general the status of its many activities. It contains an article on the meaning to the project of designation as a Natl Register Historic District by Edward S Rutsch (SIA Bd), archeological consultant to GFDC, and one on the best of the city's early industrial buildings, the Rogers Locomotive Works erecting shop, 1871, by Sally Gibson (SIA). (see also Tice, *Publs*)

### FICCIM ELABORATED

The First International Congress on the Conservation of Industrial Monuments, Ironbridge, England, 29 May - 5 June (basic information, SIAN 1:3, qv) is taking final form. Seven working sessions will deal with various aspects of IA conservation: Philosophy & Legislation; Practical Techniques in the

Care of Areas, Structures & Machinery; and The Organization & Management of Conservation Projects & Open Air Museums. Also sites visits in England & N Wales. Total cost incl fee, board & lodging, trips and 2 copies of the ensuing *Transactions*: c\$140. Continental and N American delegates are expected. Kit with Booking Form; Program; rules for Papers submission: the Editor. *You must act now if interested—bookings close shortly.*

### PRESERVATION DILEMMA

What is probably the oldest steam-powered iron-furnace blowing engine in the US and one of few remaining of any age miraculously has survived the years and the wartime scrap drives, complete with its pair of simple underfired boilers,



at the Carrick Furnace, Metal, Franklin Co, PA. The furnace, always charcoal and cold blast, went into operation, 1828; ceased, 1884. The engine, replacing an unknown [but presumably also steam] blowing engine [no water power at site], was built by Weimer Bros, Lebanon, PA, 1879. As is, the engine/boilers are on a state route, fully visible, and so exposed to vandalism. If removed (say) by the state Historical & Museum Commn to another furnace or a museum, they are wrenched from their native site with loss of historical integrity. Left as is but protected with appropriate structures and staff would require funds and personnel the state can't furnish. SIA Treasurer, Vance Packard, is receptive to comments.

**Enquiry—Blast engines.** Drawings, illustns, specifications, of horizontal iron-furnace blast (blowing) machinery, c1850, solicited by Vance Packard (SIA), Wm Penn Memorial Museum, Box 1026, Harrisburg, PA 17108.

### The Historic American Engineering Record

**SUMMER EMPLOYMENT.** Investigate the works of America's Great Engineers and Industrial Entrepreneurs: Canals, Railways, Bridges, Textile Mills, Mines, Machines & Factories to be recorded & documented throughout the US. June—August. HAER needs:

Project Supervisors— \$1100-1820 per month

Historians— \$750-1820

Student Architects, Engineers, Historians— \$545-745

**REMINDER.** The Society's Annual Conference, meeting in the acoustically famed Troy Music Hall, will be held in Troy-on-Hudson, NY, 5 & 6 May: papers of interest and tours of the area's rich IA.



Applications & Details: Chief, HAER, Natl Park Service, Dept. of the Interior, Washington, DC 20240. Application Deadline: 15 March.

**AMERICAN STATIONARY STEAM ENGINE INVENTORY.** In cooperation with the American Society of Mechanical Engineers History & Heritage Committee and several museums, HAER this summer will undertake an inventory of all stationary and possibly marine steam engines in the US, above a certain size. A qualified person is being sought to conduct the ASSEI. If interested contact Eric DeLony, c/o Chief, as above.

**HAER INVENTORY.** And finally, HAER is about to embark upon a nationwide inventory of IA sites, structures, and objects of all types, similar to Gt Britain's Natl Register of Industrial Monuments. A provisional inventory card, on the McBee system, is available in small quantity to those interested in applying it on a pilot basis. DeLony, as above.

### THE WORK OF IA

One of the most intriguing and important IA projects currently in progress is the excavation of the basement of the



**Wilkinson (cotton) Mill**, adjacent to the famed Old Slater Mill in Pawtucket, RI. The stone mill, built 1810, as with most small mills in urban areas, in its lifetime housed a variety of enterprises, textile and otherwise, and had made to its power-producing elements a number of major and minor modifications. Believing that the evidence of much of this probably was intact to an unusual extent beneath the last basement floor, OSM Museum director Paul E Rivard (SIA Bd) in Oct 1970 commenced excavation. The project, latterly under direction of Albert F Bartovics (SIA), Brown Univ graduate student, has now progressed to the point of discovering the wooden breast of the original water wheel, the routes of the original and several subsequent head and tail races, and other related elements. The *large* water wheel as a factory and mill prime mover was so long ago superseded by the turbine, that physical survivals of installations are almost unknown. This work was viewed during the Oct SIA tour. "A Preliminary Report" (illus) by Bartovics is in the Dec *Flyer*, the engaging monthly of the OSM Assn. (Box 727, Pawtucket, RI 02862)



What can be achieved by one dedicated man is at times astonishing. James Lee, of Stewartville, Warren Co, NJ, has uncovered what most likely is the only **Scotch or Barker (reaction) hydraulic turbine** surviving in the US *in situ* (only 2 others known), at the bottom of its 30-ft supply shaft. The 13'-9" diam turbine, c1850, powered the winding gear of (inclined) Plane No 9 West of the **Morris Canal**. When canal operations ceased in 1924, the shaft above the turbine was filled in as a safety measure. Lee, who lives in the Plane Tender's house, convinced that the turbine was still in place, began several years ago to dig out the shaft and has also cleared the 160-ft discharge tunnel. He is attempting to restore the entire plane, its machinery, and a portion of the canal proper. (acct: N J Historical Commn Newsletter Nov 1972)

**The UTM/KGS.** The use of latitude and longitude coordinates to locate points on the surface of the earth, while having certain advantages such as universality, is also cumbersome for many purposes, and is for certain applications being supplemented, if not supplanted, by 6-digit designations based on the Universal Transverse Mercator Kilometer Grid System, whose chief advantage is convenience in use. The US Geological Survey is slowly beginning to adapt its maps to this system. Information: Peter H Stott (SIA), Haines Rd, Mt Kisco, NY 10549.

**Canal Survey.** The American Canal Society (SIAN 1:1) has established a Canal Index Comm to undertake a survey of existing, defunct and merely proposed canals in NA as a resource for research. A well organized inventory form and further information are available from ACS, CIC Chrmn P Stott, as above.

### Eli Whitney and Industrial Archeology

One of the difficulties facing historians attempting to define Eli Whitney's role in the formative years of American technology is the absence of a detailed description of the process introduced in his Gun Factory established on the Mill River, 2 miles north of the New Haven Green in 1798. Neither Whitney nor his many prominent visitors in its early years have left an account of the machines and processes used. We do have a variety of remains which give us insight into Whitney and his manufacturing system: the site of his factory and 3 of its original buildings survive.

Employing the techniques of Industrial and traditional archeology, the New Haven Colony Historical Society and Yale Univ have begun to document the Eli Whitney Gun Factory site. The project was initiated last spring in the form of two Yale undergraduate courses: "Man & Machine in America: The IA of 19thC New Haven," and "Archaeological Techniques." The IA seminar studied the remaining above-ground evidence while the techniques course began a dig at the site of the factory's main building. (see SIAN No 2)

The above-ground evidence includes the barn of the factory farm which Whitney designed and built in 1816, the single men's boarding house, and the only building remaining from the factory itself—the carpenter shop. These, and elements of races and the masonry river walls, were measured and photographed. Particular details of the survivals were recorded and a film strip of the site prepared. To augment their site investigation, the students worked with the Whitney Papers at Yale attempting to document the artifacts under study.

Seven test holes were dug at what was believed to be the location of Whitney's first factory building. In addition to files, butt plates, and breech blocks, what is believed to be the NE foundation of the building was uncovered. Possibly the most significant find was the indication that below the two-foot level the evidence is fairly untouched. A major dig of the entire area would likely uncover outlines of the factory plan and further indications of the machines and processes.

The Society and Yale are continuing their studies at the site during this school year. The progress and results of this work will be a testimonial to the possibilities and value of IA to the study of American technology and the preservation of important industrial historic sites. *Robert R MacDonald, NHCHS.*

### Projects Available

**Recording (if not preservation) Needed.** Icabod Williams & Co, **veneer and sawmill**, Carteret, NJ. A large installation, much steam-operated equipment (but not main saw), cranes, materials-handling equip, etc. Imminent abandonment and liquidation. Information: Conrad Milster (SIA), 178 Emerson Place, Brooklyn, NY 11205, (212) 857-9524.

**In Danger of Extinction.** An entire class of structure almost totally ignored by the historian is the **ferry terminal and port structure**. The earliest of New York's, along the Hudson River



waterfront, have disappeared only recently, and the few remaining are in grave danger from redevelopment projects and vandalism. There is a crying need for two efforts: at the very least an inventory and recording survey of the survivors; and better yet, a serious, thoughtful examination of their seemingly enormous re-use potential within the framework of the existing redevelopment schemes. *Theodore Prudon, Columbia Univ School of Architecture.*



*DL&W Ferry Terminal,  
Barclay St, NYC*

*Photo by Theo Prudon*

## SITES & STRUCTURES

**Charcoal Kilns Memorialized.** The State of Nevada has purchased 80 acres 20 miles S of Ely, White Pine Co, for establishment of **Ward Charcoal Ovens State Park**. On the site are 6 convexo-conical "beehive" kilns built c1870 to furnish charcoal for gold and silver smelting. They are considered the best preserved examples of the once many in the state, and are the sole remains of Ward, a former mining town. Charcoal burning in kilns was apparently a western practice, that produced in the east for iron smelting invariably being charred in expendable, earth-covered piles. The Ward kilns, 27 ft diam by 30 ft high, held 35 cords.

**Delaware & Raritan Canal Project.** The D&R, Bordentown to New Brunswick, NJ, 1834-1933, most of its 42 miles still water-filled, has been studied by a group of Rutgers Univ students who propose its conversion to a state park, principally in connection with the Bicentennial, but also as a potential element of NJ's state and regional transportation system. Information: Cooper P Bright, Dir, Center for Transportation Studies, Eagleton Inst, RU, New Brunswick.

**More on CUT** (SIAN 1:6). Univ of Cincinnati's Dept of Art History has received a grant to mount an exhibition on Cincinnati Union Terminal, part of the campaign to save it. Opening this month, the exhibition will travel in the spring.

**Agnes & the C&O Canal.** The Natl Park Service now estimates that at least one year will be required to restore the Georgetown, DC—Seneca, MD stretch of the Canal, where it was most heavily damaged by the June floods, to "historic integrity." Congress reportedly has just appropriated \$34 million for the work, for fiscal-year 1974. The importance of the Canal, not only historically but recreationally, cannot be overstated.

### Mr Lee Responds

*We note with some surprise that despite the considerable outpouring of reaction to the "Lee Letter" (SIAN 1:5 & 6), there has been little reaction to the reaction. Perhaps it has all been said, although not likely. In fact, the sole additional comment comes from Mr Lee himself, who, below, re-emphasizes his views on our sometimes indistinctly defined field(s) of concern. If we may repeat: a thoroughgoing general discussion—perhaps a panel-dealing with these divergent notions of the Society's directions, is an absolute necessity at the Troy meeting.*

### TO THE EDITOR:

I should think that most SIA members would be pleased as I was with the animated responses that my earlier letter (SIAN 1:5) provoked. It would be difficult not to be sympathetic with all of the respondents as it would be difficult to deny the acuity of the comments and criticisms so ardently pressed.

Sympathy is one thing, however, and agreement another. I am not at all persuaded that historic preservation should, or legitimately could, be considered a subjunctive part of archeology. That it can, or should be an adjunct, a matter of meaningful, related interest, I would not dispute. Neither would I question the contribution that research, including the archeological kind, can make to serious pre-

## Adaptive Use



*Photo by Robert Noyes*

**The ideal of adaptive use:** historic preservation of a worthy structure combined with creation of useful space at a cost less than for equivalent new construction, has been achieved in the Park Ridge, NJ offices of Noyes Data Corp and Noyes Press, publishers (SIAN 1:6- *Spl Pubs Progs*) by pres Robert Noyes (SIA). Built in the 1850s as a briar pipe factory, it later became a clothing factory. It was obtained in 1965 by Noyes, who extensively remodeled the interior and resheathed the exterior. The project was feasible principally because of the building's sound "mill-construction" (heavy-timber) frame.

**And yet another Adaptive Use for RR Stations.** The Monaca-Center Lodge No 791, F&AM, has purchased and converted into an attractive Masonic Temple the Pittsburgh & Lake Erie's Monaca, Beaver Co, PA station (c1912), confirming the belief that there is no single type of industrial building more readily adaptable to other purposes than the *small* RR station: dwellings, shops, police stations, liquor stores, club rooms, etc. *Field Curry.*

**The Ghirardelli Square syndrome.** The inspiration of the Chocolate Factory conversion in San Francisco continues to spread, boding well for industrial-structure preservation through creative adaptive use. The latest scheme is Salt Lake City's privately financed Trolley Square, based on the 1908 complex of Union Light & Traction's car barn, shop buildings, water tower and misc buildings, on a 10-acre site. In the barn itself are 4 300-seat movie theaters, a large ice cream parlor, a restaurant, 2 banks, a gas station and a gang of small shops. (Illus acct: NY Times 12 Nov p L-76)

## SIA AFFAIRS

It is with the deepest regret that we report the death on 30 Dec last of Frank Harley, able naval architect-engineer and resourceful marine conservator, head of the Marine & Industrial Section, Restoration Services, of the Canadian Govt's National Historic Sites Service. He had most recently been in charge, and had almost completed total restoration, of the

servation efforts, but the direction of the interdependency is just as explicit as the analytical autonomy of archeological inquiry is implicit in the separability of research efforts. Simply put, preservationists may be nice people but they are not archeologists.

It is hard to fault those who feel that practical matters such as public interest and financial support are important. This very—American view, all the while, must not lead to a corruption of practice or dilution of purpose. Such considerations lead, temptingly, to the term "elitism." If elitism is inherent in the pursuit of excellence, then so be it, but that is not a necessary consequence. No one is so sublime an expert, for example, that he should risk the exposure of lofty, defenseless complacency nor should anyone be so craven an amateur as to hold excellence in contempt.

Most importantly, it serves well to remember that a person may be interested in industrial archeology, historic preservation, "colonial reproductions" and two dozen other things, all at the same time and with a high degree of care and sophistication. The hazard of failing to distinguish clearly between the main emphases of the various interests, however, may be the inadvertent mass-production of intellectual rubbish. Admittedly, most archeologists recognize the informative value of rubbish heaps—but few would make such places their first choice for attention when more complete and more auspicious sources were at hand.

71 Martin St, Cambridge, MA 02138

James E Lee



wooden vessel *Ste Roch*, 104 ft/197 tons. Built in Vancouver 1928 for the RCMP's Arctic Patrol Service, she was, in 1944, the 1st vessel through the Northwest Passage in both directions, and earlier, the 1st to circumnavigate NA via the Panama Canal. Frank was loved and respected by all who worked and associated with him. An early member of the SIA, he believed strongly in its potential. He was an enthusiastic participant in the NY Conference in April, and contributed the sketch of the City Hall IRT station interior that appeared in the *SIAN Conference Supplement*. He would have become an important member of the Society.

There appears to have been some confusion in the matter of **membership renewal**. If you joined *after* 1 Nov 1972, you *have* paid for the 1973 calendar year. If you fit this description or have already paid for 1973, but nevertheless received a Dues notice with the Nov SIAN, we are sorry. Ignore it. BUT IF you joined *before* 1 Nov, and did *not* receive a notice, 1973 Dues *are* due, to Vance Packard, Treasurer, SIA, Box 1026, Harrisburg, PA 17108. \$10 regular; \$15 couples; \$5 student; \$25 contributing. With thanks.

The Society remains grateful to those supporters *extraordinaire*, that select group who have chosen to further our aims beyond the normal call of duty: our **Contributing Members**. By our interpretation of the IRS rules, only regular members who work in some aspect of IA can deduct their dues, as a professional expense. But Contributing Members can deduct at least \$15, as a non-profit-organization contribution; all \$25 if they work at IA.

We have been beset by a hard core of disgruntled members who allege that the SIAN's policy of abbreviation (intended to conserve space, and so, funds) is callous, excssv, unnsry, & mks the Nwsltr vy dfclt to rd. We shl try 2 crtl ths unatrcv prctc hncfrth.

### MISC NOTES

The National Trust now publishes *Work*, a quarterly bulletin of **job openings** for architects, preservationists, curators, historians, craftsmen, et al. Vol I and subscription information: the NT, 740 Jackson Pl NW, Wash, DC 20006.

**D & H Sesquicentennial STEAM RUN.** To honor its 150th anniversary, the Delaware & Hudson Ry, among other festivities and events, will sponsor an overnight run behind an (unspecified) Pacific locomotive 28-29 April, Albany to Montreal & return. Details & order form: Ticket Agent, D&H Sesquicentennial Steam Train, Delaware & Hudson Ry, The Plaza, Albany, NY 12207.

**Cast Iron Around the World.** The Second Annual Cast-Iron Lecture, sponsored by the Friends of Cast Iron Architecture (SIA), will be delivered by Malcolm Higgs, architect and Lecturer in Architecture, Univ of Edinburgh, Thurs 1 March, 7:30 PM, Donnell Library, NYC.

**Foundry & machine shop equipment available- South:** From the Rome (Georgia) Foundry, defunct. Patterns for water turbines, mill gearing & hardware; machine tools c1880-1900; 10 ft x 14 ft lathe, c1850; etc. Terms, details, inside track with the owners: Robert L Johnson (SIA), Rt 1 Box 265A, Rossville, GA 30741. (404) 375-4326.

**Harry L Rinker (SIA)**, a founder of the PA Canal Society, the Canal Press, and the Canal Museum at Easton, PA, has been appointed director of the York County (PA) Historical Society, where IA activity presumably will now bloom.

**Enquiry, Steam Engines.** A private inventory is being conducted by Harry E Young II (SIA), 485 Hillside Dr, Canfield, Ohio 44406 who asks for information on extant stationary engines, with photographs if possible; also builders' catalogs.

**Enquiry**—Any information—publ or MS—on the **Matteawan Machine Co**, on the Hudson, probably Putnam or Dutchess Co, NY, mfgs of cotton & general machinery by the late 1820s, in which a principal was one Wm B Leonard; and material on the early cotton industry of the Brandywine watershed, is solicited by A F C Wallace (SIA), 614 Convent Rd, Aston, PA 19014.

### PUBLICATIONS OF INTEREST

Carl W Condit (SIA), "Train Sheds Preserved in Stations of the Louisville & Nashville RR," in *Railroad History* No 127, Oct 1972, pp 5-21.

Stanley Freese, *Windmills & Millwrighting*. (orig publ Lond, 1957) Reprinted 1971, David & Charles. US: A S Barnes & Co, Cranbury, NJ 08512. \$7.95. One of the best works on the subject, English orientation. Technology, lore, restoration, et al. Good glossary, fine illus.

P Gaskell, *The Manufacturing Population of England . . . and the Changes that have Arisen from the Use of Steam Machinery*. (orig publ 1833) Reprinted 1972, NY: Arno Press. 361 pp. \$17.

Lawrence W Sagle, "America's Oldest Railroad Shops—Mt. Clare," in *Railroad History* No 127, Oct 1972, pp 22-40.

George A Tice, *Paterson*. Rutgers Univ Press, 1972. \$17.50. A photographic essay: views of the city at large, including, of course, the factories and mills and the Great Falls.

Charles Tomlinson, *Illustrations of Trades*. (orig publ Lond, 1860). Reprinted 1972. Early American Industries Assn, Old Economy, Ambridge, PA 15003. 106 pp. \$7.75 to non EAIA membs, paper. Description and full pages of small views of the tools, activities and products of those in the food production, shelter, furniture and locomotion trades; mostly hand-crafts but some factory, and in "Locomotion" are the Surveyor, Road-Maker, Bridge-Builder, Canal Engineer, etc.

### Special Publications

**Old Mill News**, Vol 1 No 1, Oct 1972. Society for the Preservation of Old Mills, Box 435, Wiscasset, ME 04578. The first issue of this quarterly, edited by Donald W Martin (SIA), is filled with information and photographs of (mostly) grist mills, consistent with SPOM's intent to "keep abreast and report on changes and happenings" concerned with mills. (SIAN 1:5).

**Railroad History**, (John H White, Jr, ed) the semiannual journal of the Railway & Locomotive Historical Society, is recommended. Although RR rolling stock naturally is given the largest treatment, it is a rare issue that doesn't have one good IA article. No 127, flying Condit & Sagle, above, is not atypical. Editorial quality is high; illustrations good & plenty. Howard F Greene, Pres, R&LHS, 15 Angier Circle, Auburndale, MA 02166.

**Railway History Monographs**. (William A Rapp, ed). A quarterly covering all aspects of RR history. Wm F Rapp, "The RRs of Nebraska;" Richard F Palmer, "A Railway for Limestone" (the early horse-gravity RR built to haul limestone for the building of the Erie Canal in Onondaga Co, NY); Leonard Y Tripp, "Street Rys of S Dakota;" Richard C Kistler, "Discontinued Depots of Nebraska, 1919-70," available; to come, Jan 1973: Wilson Jones, "The NY & NJ RR." Offset, illus. \$6 per year; \$2 per issue. J-B Publ Co, 430 Ivy Ave, Crete, NB 68333. (Manuscripts of 25+ pp sought.)

Ellis, Arndt & Truesdell, Inc (achts & planners), *The Erie Canal Recreation-Way, Cohoes, NY*. 1972. A detailed, thoughtful, illus report on the utilization of Cohoes' textile-mill and Erie-Canal remains for public use. A model study, filled with usefulness for others considering similar adaptive use schemes. Available: EA&T, 402 Garland St, Flint, MI 48503.

**How to Complete National Register Inventory-Nomination Forms.** The National Register, NPS, 1100 L St NW, Wash, DC 20005. Sept, 1972. 38 pp + appendixes. A utile guide that tells you exactly HTCNRI-NFs, though leaving out, regrettably, the important part about how-to-quit-registering-and-inventorying-houses-and-churches-and-get-on-with-the-important-stuff.

**Historic Resources Survey Manual.** NY State Board for Historic Preservation, South Swan St Bldg, Albany 12223. x + 76 pp. Splendid outline of historic preservation philosophy, adaptive usage, and especially, the value of individual local surveys of structures, sites and districts, with instructions and examples on the NYS forms. Good industrial emphasis.