



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

Volume One Number 2

March 1972

SIA ANNUAL CONFERENCE AGENDA

Cooper Union, Astor Place (8th St & Third Ave) NYC

Saturday, 8th April

8:30- 9:00 **Registration**

9:00-10:00 **Business Meeting:** Election of Officers and Directors; ratification of the Constitution; other business.

10:00-12:30 **Morning Session:** Chester H. Liebs, Chairman

The Adjustable Wrench—1831-41: Its Meaning in IA. *Theodore Z. Penn, Old Sturbridge Village.*

Original Bridges on the National Road in Eastern Ohio. *Harley J. McKee, FAIA, Univ. of Syracuse.*

Development of Water Supply & Irrigation Technology in the American Southwest. *Cliff H. Keho, Texas Tech Univ.*

A Study of the Barrackville Covered Bridge. *Emory L. Kemp, West Virginia Univ.*

The Convergence of Industrial History & The "New" Archeology: A Theoretical Model. *Charles W. Tremer, Muhlenberg College.*

12:30- 2:00 **Lunch** (individual arrangements)

2:00- 5:00 **Afternoon Session:** *Ted Sande, Chairman*

19th Century Stove Foundries in Troy and Their Preservation. *John G. Waite, NY State Historical Trust.*

The IA of Some Virginia Canals. *William E. Trout, III, American Canal Society.*

The Erie RR from Deposit, NY to Susquehanna, PA. *Chester H. Liebs, VT Division of Historic Sites.*

IA in the Redevelopment of Paterson, NJ. *John Young, Urban Deadline Architects.*

Wood-Buring Lime Kilns in the Clove Valley, Montague, NJ. *Edward S. Rutsch, Fairleigh Dickinson Univ.*

General discussion; informal reports; work-in-progress; inquiries.

Sunday, 9th April

10:00 **Assemble at Cooper Union** for walking & subway tour of IA sites:

The Cast-Iron District—c1850-80

City Hall [loop] Station, IRT—1904 (closed to public)

Brooklyn Bridge—1869-1883 (walk to Brooklyn on the Promenade)

Manhattan Bridge—1901-09 (possible option)

D L & W Ferry-RR Terminal, Hoboken—1906

The Nominations Committee will present the following slate for election:

President—Ted Sande

Vice President—R. John Corby

Secretary—Richard M. Candee

Treasurer—Vance Packard

Directors—

(for 1 year initial terms) Edward S. Rutsch; Charles W. Tremer (for 2 year initial terms) Chester H. Liebs; John G. Waite (for 3 year regular terms) Richard L. Deily; Paul E. Rivard
The SIA (proposed) Bylaws permit nominations to be submitted by mail prior to—or from the floor at—elections, provided that they have the support of at least five members and the nominee's consent.

Affiliations of the nominees are in the January *Newsletter*.

A flyer containing additional information on lodging and other local matters is available from the editor. For questions on the Program, contact the Program Chairman: Chester H. Liebs, Vermont Divn. of Historic Sites, Pavilion Bldg, Montpelier, VT 05602. It would be helpful in planning the Conference if you would advise him if you plan to attend, ASAP.



Courtesy of Gerald Marks

*South and East Faces of the
Cooper Union, c1890.*

Industrial Archeology and the National Register

Districts, sites, buildings, structures and objects of national industrial or technological importance are eligible for listing on the National Register of Historic Places. The NR is an inventory of the Nation's cultural resources that are worthy of preservation. Nominations are made by the states through a State Liaison Officer designated by the Governor to supervise the program. The names and addresses of each SLO may be obtained from the National Register, National Park Service, Dept of the Interior, Washington, DC 20242.

Most states are now undertaking comprehensive surveys of their historical resources and welcome assistance in carrying them out. Industrial and engineering works frequently are overlooked in the more traditional survey which focuses upon old houses and churches. As it is difficult for a surveyor unfamiliar with IA to assess the value of an old mill complex or early iron bridge, most of the SLOs are very receptive to specialized assistance in identifying and evaluating these resources.

Once on the NR, a property is protected under Sect 106 of the National Historic Preservation Act of 1966 (PL 89-665), which provides for a review of Federally licensed or financed projects that might adversely affect the property concerned. Properties listed also are eligible for Federal acquisition and restoration grants through the Department of the Interior and HUD. Some states also provide historic preservation grants. *John G. Waite.*

A Problem

The history and growth of technology, into which our lives are inextricably woven, is dynamically reflected in thousands of existing sites, structures, and artifacts scattered throughout North America. These physical remains are of as many varying types as the processes and technologies that gave rise to them. Unfortunately, until recently, structures such as gas holders, mill complexes, railroad stations and shops, industrial ruins, bridges, etc., have been largely ignored as historical resources of major importance. Many of these structures, while outstanding examples of architecture and engineering, have been the primary targets of urban renewal and highway construction projects since the end of WW II. Plant modernizations have resulted in the disposal of early machinery, and significant archival materials have been discarded in library and record room cleanups. As a result, many key sites and materials have perished unrecorded and many structures that could have been re-used and thus continued as important features in the nation's historical environment have been destroyed.

We have also suffered from a failure to effectively use physical resources in teaching history. Teachers have been known to base whole courses of study exclusively on textbooks, while a few blocks away canals were being filled in for parking lots or the machinery and records of important early industries were being strewn along a river bank to rot and rust. A generation has grown up that can sense history only abstractly, unable to perceive its presence and continuity in the surrounding environment. One of our chief tasks is to create an awareness of IA as a means for expanding this limited comprehension of history. *Chester H. Liebs.*

THE WORK OF INDUSTRIAL ARCHEOLOGY

The National Trust for Historic Preservation, in its 1970-71 *Annual Report*, announced the following assistance projects: 1) \$10,000 loan from its National Historic Preservation Fund to help organize **Historic Harrisville** (NH), the early to mid-19th C industrial village that has survived in a state of such remarkable integrity to the present, its woolen mills, mill housing, and other community elements largely intact. When the mill was forced to close in 1971, the town was threatened with upheaval and became the object of widespread concern throughout the entire preservation community. The Trust loan

was instrumental in bringing about a number of creative influences that have assured Harrisville's survival as a historic entity. 2) \$600 for a feasibility study of future uses for **New London's endangered Union Station**, 1885, by H. H. Richardson. 3) \$500 for a rehabilitation study of the ill-fated **Quebec City Hotel-Station** (SIAN No. 1). 4) \$800 for a master exhibits plan for the **Springfield (MA) Armory Museum**. 5) \$500 for a restoration study of the **Busiel** (c1860) and **Belnap** (c1823) cotton mills, Laconia, NH. 6) \$500 to the **American Precision Museum**, Windsor, VT to study adaption of its building—the 1846 Robbins & Lawrence machine tool works—to more satisfactory museum usage. The Trust is to be applauded in its new policy, and encouraged, by membership, to continue its recognition of the importance of our industrial heritage. Since the *Report*, NT has granted the Historic Preservation Committee of Rensselaer County (NY) Historical Society \$700 to study the adaptive use potential of a group of 19th C industrial buildings along the Hudson near Troy.

The universality of IA and the importance of the role that can and must be played by young people in the discovery and recording of industrial structures has recently been gratifyingly demonstrated. In *Gas Houses of the Late 19th Century in Concord, New Hampshire*, Alexander P. Gratiot of Woodstock, VT, a junior at St Paul's School, Concord, has documented a group of **four brick gasholder houses** (the greatest number of these rare structures in one area) in a professional manner that stands as a striking example of what a single dedicated individual can accomplish. The report, produced in limited print last Sept as a school project, describes two holders at the local gas works and two remaining from isolated plants at local institutions. Included are a series of excellent photographs and four measured drawings, all by Gratiot.

Old Sturbridge Village has received \$63,800 in National Endowment for the Humanities grants and gifts to conduct an extensive study of vernacular architecture in the US, with strong emphasis on industrial structures, particularly the buildings of New England mill villages, 1790-1840. The study forms part of the groundwork being laid for the re-creation at OSV of an early NE manufacturing community, reproducing both buildings and the associated production machinery. The study, being conducted by Richard M. Candee, will involve extensive field surveying and photography of mill villages and their buildings, documentary investigation of company and public records, and identification of early 19th C prints and paintings. The project is expected to have considerable implications in both the study and preservation of industrial architecture. *RMC*

Revitalization of a local historical society and the community's growing awareness that it was an innovative center for technology have resulted in several projects to collect data on the **industrial history of New Haven, CT**. Under sponsorship of the New Haven Colony Historical Society in cooperation with Yale Univ, an archeological dig at the site of Eli Whitney's Gun Factory and survey of New Haven's 19th C industrial sites were initiated in January. Both take the form of undergraduate courses at Yale. The Whitney-site dig is part of a course in archeological techniques taught by Richard Ellis of the Dept of Near Eastern Studies. The course's purpose is to provide experience in an actual dig. The initial dig will attempt to locate the foundations of the original factory built by Whitney, 1798 to 1810, and to uncover artifacts related to its operation. The information found, it is hoped, will lead to a clearer understanding of the process introduced at the factory, felt by some historians to have been the origin of the "American system" of manufacturing. A seminar: The IA of 19th C New Haven is being presented at Yale's Berkeley College by NHCHS Executive Director, Robert R. Macdonald. A major part of the seminar, designed as an introduction to technological change in the US, will involve on-site documen-

tation of industrial sites. Although New Haven's redevelopment has destroyed many 19th C factories, several important buildings and monuments remain, including a barn and carpenter shop that were part of the original Whitney armory complex. We will report further on these projects. Information: Robert R. Macdonald, New Haven Colony Historical Society, 114 Whitney Ave, New Haven, CT, 06510. RRM

NOTES & INQUIRIES

The special preservation issue of *Architectural Record* (see Publications) contains (p 84) an invaluable listing of Federal grants available for preservation and related projects, to assist in surveys, inventories, studies, research, acquisition and restoration; from such agencies as HUD, the Highway Administration, the National Trust and the Endowments. This frequently unrecognized lode already has been effectively mined for some IA projects but has even greater potential for countering the "Houses-of-the-Great" preservation syndrome. Copies available from the editor.

Upstate NY, supplement to the *Rochester Democrat & Chronicle*, last April reminded us—if we needed reminding—of the many IA sites & structures to be discovered by **Railroad Hiking**: walking abandoned lines. No matter how well a line seems to be known, if covered shortly after abandonment interesting surprises are always likely.

The Occupational Safety & Health Act (PL 91-596), effective 28 Apr, has potentially fatal implications for many marginal "early" industrial enterprises. The Act's purpose generally is to assure safe and healthful working conditions, but the changes in physical plant that it will require naturally will be proportionally greatest and most burdensome for small plants whose methods and power transmission and production machinery are obsolescent (and consequently of greatest IA interest). Undoubtedly many of these companies, financially unable to comply with the new standards, will be forced out of existence. Two such firms, concerned for their future, already have contacted the National Trust: the well-known Tremont Nail Co of Wareham, MA, since 1848 mfg of cut nails; and Spaulding & Frost Co, Fremont, NH, coopers (*Yankee*, Dec 1970). A state inspection of S&F for example, uncovered 130 violations that would cost \$30,000 to remedy. The Advisory Council on Historic Preservation (instrument of the HP Act of 1966) has sent the Dept of Labor a Resolution seeking variances from the law for selected early industries. Peter H. Smith

PROJECTS, SITES & STRUCTURES

Indianapolis Union Station, 1888, a massive Romanesque structure by Thomas Rodd, has apparently survived threatened extinction, the city having purchased it from the Penn-Central for nearly \$200,000. Proposed are private restoration and development into a combined rail-air transportation center and office-shop-education complex. This enlightened plan followed



the customary depressing battle for the building, which stands on the site of the first US union station (1853), serving four lines. Full details: *Historic Landmarks News* of the Historic Landmarks Foundation of Indiana, 3402 Boulevard Pl, Indianapolis 46208, Vol II No 3 (see also *Preservation News* Jan 1972).

Conservationists and canal preservationists have locked horns with the City of Richmond (VA) over what must rank as the decade's most grotesque adaptive-use scheme, in which the boat basin of the former James River & Kanawha Canal is to be utilized as a "temporary" retention basin for 30 million gallons of storm water and untreated sewage! On the other side of the coin has been the enlightened work of the Reynolds Metals Co. in restoring part of the Canal and its structures—an aqueduct and some locks—that pass through its plant there, and encouraging similar efforts for other sections.

HUD has granted the Savannah-Chatham County Historic Site & Monument Comm (Box 1027, Savannah, GA 31401) \$100,000 to assist in acquiring and restoring what is probably the earliest standing RR repair shop facility in the US—a group



of five brick structures constituting the Old Central of Georgia Railroad Shops, built 1850-55. In its time a landmark of the species in the South, the complex also was regarded as notable with respect to others nationally. The site will be used for a RR museum, civic exhibition hall and historical information center.

PUBLICATIONS OF INTEREST

American Society of Civil Engineers (Antoinette J. Lee, ed), *A Biographical Dictionary of American Civil Engineers*. ASCE, NY, 1972. Available: ASCE, 345 E. 47th St, NYC 10017. 163 pp. \$5 soft cover. The 2nd ASCE Historical Publ, in cooperation with the Divn of Mechanical & Civil Engrng, Smithsonian. Highly detailed sketches of 175 eminent CEs born pre-1860, incl some portraits and illstns of their works. Approx 2000 additional men and their dates are listed. A useful reference.

Civil Engineering: History, Heritage & the Humanities. Assembled papers from the Princeton conference of that title, Oct 1970. Vol I: *Background Papers*; Vols II & III: *Selected Papers*, incl several on IA and closely related topics, illus. Available: Prof Robert Mark, Dept of Civil & Geological Engrng, Princeton Univ, Princeton, NJ 08540. \$6 ea postpd.

Francis Ross Holland, Jr., *America's Lighthouses—Their Illustrated History Since 1716*. Stephen Greene Press, Box 1000, Brattleboro, VT 05301, 1972. 240 pp. \$15. This first full-scale account treats the subject with gratifying competence. Holland, a Park Service historian who has made lighthouses his concern for years, was commissioned by Greene to take on this needed task. He deals not only with the establishment of the lighthouse service but to a satisfying degree with the technology of the structures themselves—masonry, iron skeleton and other forms—and of the illuminating apparatus, that interesting but heretofore somewhat arcane subject. Also covered are other navigational aids: lightships; buoys; audible

devices; et al. An important reference, there is a bibliography, index, and most useful, descriptions of all major and many lesser US lighthouses plus numbered maps of A & P, Gulf & Lakes coasts with all lights reference numbered. The first and last word in one superb volume.

Pat Parks, *The Railroad that Died at Sea*. Stephen Green. Paperback \$1.95. Good, illustrated account of Henry M. Flagler's venture in carrying his Florida East Coast Ry over open ocean to Key West (1905-12), for much of the way on concrete viaduct. A daring but curious chapter in US RR engineering.

Architectural Record. Dec 1971. Special preservation issue contains much of IA interest such as: "RR Stations: an Endangered Species," illustrating 21 examples, large & small, safe and threatened (pp 120-23); description of ex-paper warehouse's conversion to "luxury business space," San Francisco (pp 132-33); "The Heritage that Should be Saved," 33 worthy buildings endangered, incl several good warehouses, the famed Pillsbury "A" Mill, Minneapolis (1882), and some textile mills (pp 136-38). See also Notes.

1971 Steam Passenger Service Directory, Including Electric Lines & Museums. Empire State Railway Museum, Inc. Box 459, Wall St Station, NY 10005. \$1.50. An illus, useful directory listing all steam powered, trolley and museum operations with regularly scheduled or intermittent passenger service in the US, Canada, England and Wales. Schedule, price & technical data. Aimed at the railfan, but what whole IAist isn't?

Restored Village Directory 1971. Quadrant Press, Inc., Suite 707 19 W 44th St, NY 10036. \$1.50. Useful, illus directory of restored, recreated and replica villages of historic interest, US & Canada. Available at same price: nautical and automobile museum directories.

Carl W. Condit, "The Pioneer Concrete Buildings of St. Augustine," in *Progressive Architecture*, Sept 1971 pp 128-33.

Burlingame - Its Railroad Station. San Mateo (CA) County Historical Assn. 1971. 60¢. Available: publisher, On the College of San Mateo Campus, 1700 W Hillsdale Blvd, 94402.

Historic Cohoes. A Survey of Historic Resources. A study of the city's prospects as a historic area, emphasizing the archeology of its once huge cotton-textile industry in the form of surviving mills, housing and hydraulic canals. Diana S. Waite, project architectural historian; Marcou, O'Leary & Associates, Wash; and Rensselaer Polytechnic Institute. 1971. Available: Model Cities Agency, City Hall, Cohoes, NY 12047.

Edmund V. Gillon, Jr., *Early Illustrations & Views of American Architecture*. Dover Publs, NY, 1971. \$6.95 paperback (small folio). 742 unannotated reproductions of identified buildings from various 19th C publications, incl 60 good views of mills, factories, RR structures, lighthouses, windmills, etc. A useful resource.

Constance Greiff (ed), *Lost America, From the Atlantic to the Mississippi*. The Pyne Press, Princeton, NJ, 1971. \$17.95. A shocking accounting of the many significant structures lost in the names of the woeful twins: progress and neglect, beginning surprisingly early in our history. Chapters on Commerce & Industry and Travel & Transportation illustrate a number of worthy mills, factories and RR stations, as well as such landmarks as the Adams generating station at Niagara (1895), Girard Ave Bridge, Phila (1873), and Jasper F. Cropsey's Gothic 14th St station on the Sixth Ave elevated, NY. A volume for the West is in work.

Francis D. Klingender, *Art & The Industrial Revolution*. Schocken Books, NY, 1970. \$5.95 paperback. (First publ London 1947; edited & revised by Arthur Elton 1968) A brilliant exploration of the region where art and industry meet and interact, with 125 well documented illstns from fine prints and paintings of industrial scenes and works, mainly 19th C English.

William Carter, *Ghost Towns of the West*. Lane Magazine & Book Co., Menlo Park, CA, 1971. \$11.75. Well illustrated, much on mining camps.

Journals & Misc.

Northeast Historical Archaeology. Journal of the Council for Northeast Historical Archaeology. Spring & fall. Mowbray Co, publs, 222 W Exchange Pl, Providence, RI 02903. Vol 1, Nos 1 & 2 available at \$2.00 ea. Articles on ironmaking, site layout, recording, etc. Flyer with contents and order form available.

Railroading. William S. Young, editor & publ. Starrucca Valley Publs, RD 3, Susquehanna, PA 18847. Bimonthly: \$8.00. Undoubtedly the best of the journals directed at the serious student of RR history; not to be confused with the fan publications. A past special edition on the DL&W's spectacular concrete Tunkhannock Viaduct (1915) is the most thorough, competent treatise on that structure in print. Similar treatment is in work on the Erie's Starrucca Viaduct (1848). (Mr. Young has been the principal advocate and prime mover in the campaign to save the Starrucca House, 1865, the Erie station-hotel in Susquehanna)

Steam Man, the Magazine Devoted to All Forms of the Steam Engine. Steam Publs, 66 Neal St, London WC2. Quarterly: approx \$4. A highly professional, informative and important new publication on not only locomotive and marine steam, but for practically the first time, stationary; world over. Articles, notes, and a useful Steam Diary listing steam events in UK. US correspondent is Conrad Milster, well known to American followers of steam.

The Development of Industrial Society. Series 1, Spring 1970. Irish Univ Press, 1508 Pennsylvania Ave, Wilmington, DE 19806. 12 pp catalog of reprints-1806-1924-of important works on the industrial revolution, its effects and its implications. Heavily British, social and economic, but much that should be of concern to the IAist. Includes such pivotal works as John Anstie's Observations on the Importance and Necessity of Introducing Improved Machinery into the Woolen Manufactory, 1803, one of the best early defenses of the factory system and the use of machinery (\$5.50).

Review

A Guide to the Industrial Archaeology of Europe
by Kenneth Hudson, 1971. Adams & Dart, 40 Gay St,
Bath, Somerset, England. 186 pp, bound \$8.40.

"Industrial archaeology" or "technological monuments" by whatever name, says Kenneth Hudson, "what is meant is the material relating to yesterday's manufacturing and transport which has survived, more or less intact, on its original site." With these succinct introductory words Hudson goes on to outline in clear detail present-day attitudes and activities throughout Europe with regard to industrial archeology. Both when writing about the concept of this new discipline—to a large extent established by Hudson—and when writing about points of industrial archeological interest, Hudson's style is delightful and his knowledge extraordinary. Sites, buildings and machinery in 23 European countries are pinpointed and described in clear-cut, straight-forward prose. Numerous excellent photographs whet the appetite to visit every site in every country. And the matching typography, paper and binding make this book a pleasing addition to any library.

Altogether, Hudson's book is a must for everyone's collection and a worthy example to be followed. Creating a companion volume for North America is now a challenge for the newly formed Society for Industrial Archeology.

Richard L. Deily *The Iron Bloom*