

# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

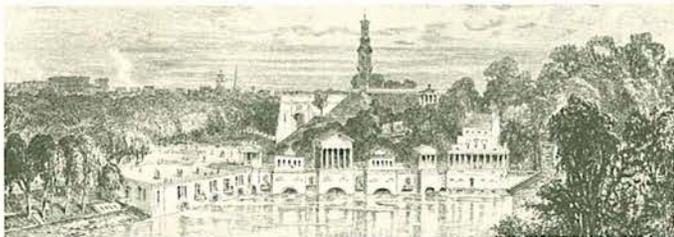
Volume Five Number 1

January 1976

### ASME & ASCE DESIGNATE ENGINEERING LANDMARKS

During 1975 the two major engineering societies designated a variety of national historic engineering landmarks with fitting ceremonies and plaques, notably:

**FAIRMOUNT WATER WORKS**, Philadelphia (17 June),



ASCE. Opened 1815 with one Boulton & Watt steam pumping engine; in 1817 an Evans high-pressure pumping engine added; from 1822 these were succeeded by a series, ultimately, of 8 large breast-wheel driven pumps (replaced between 1851 and 1866 by axial-flow water turbines that operated until the station's closure in 1911). The first large-scale municipal water supply system in the U.S. The classical buildings on the left bank of the Schuylkill and some of the machinery are intact. (ASME will designate the site also a Natl Mechanical Engineering landmark and the Secy of the Interior a Natl Historic Landmark, Spring 1976.)

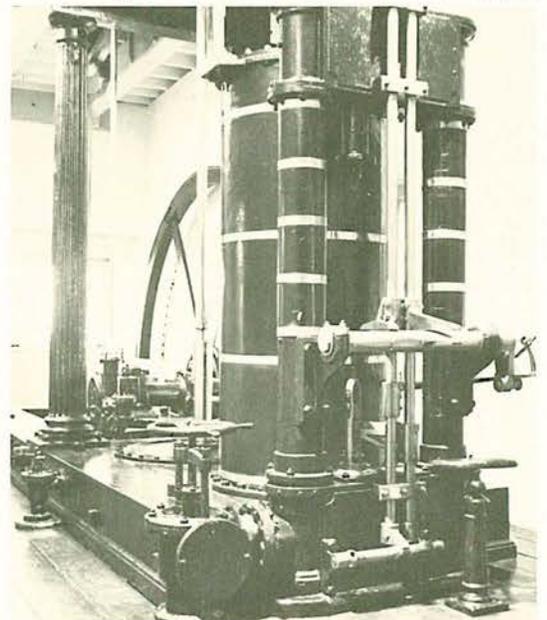
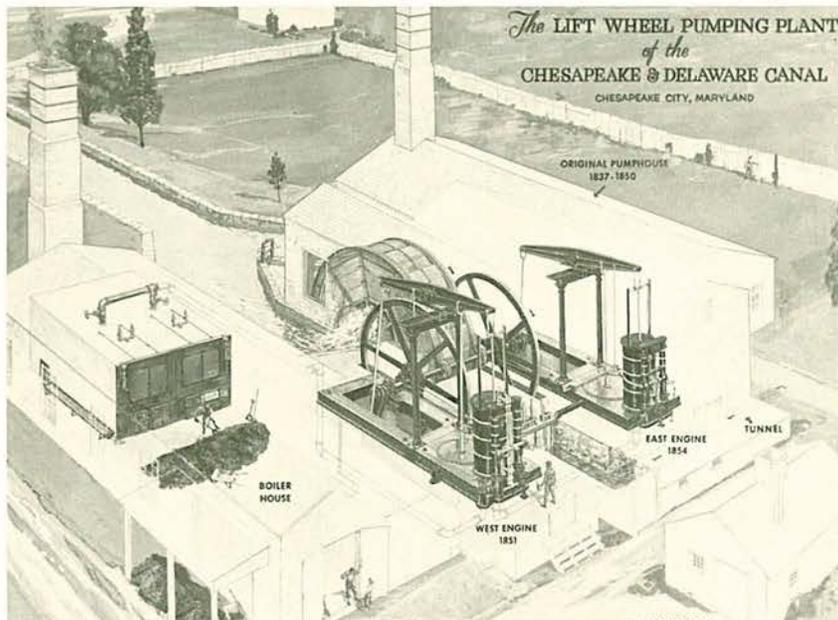
**PIONEER OIL REFINERY**, Newhall, Calif. (27 Sept), ASME. The first successful Western refinery, opened in 1876 several

years after the first extraction of oil in the state, producing kerosene and lubricating oils. Two 150-bbl per day stills and a storage tank remain.

**CROTON WATER SYSTEM**, Westchester County, N.Y. (16 Oct), ASCE. In addition to the Old and New Croton Dams [SIAN 2:5:3], the designation included the Old Croton Aqueduct (1837-42), a gravity-flow conduit that was the first major aqueduct in N America. Chief engineer was John Bloomfield Jervis (1795-1885). The NHCEL designation also included the New Croton Aqueduct (1885-93), whose principal feature was a tunnel nearly 30 miles in length and 50-500 ft below ground surface. Its inverted siphon 300 ft under the Harlem River utilizes two 12'3" diam shafts with a vertical drop of 174 ft and 321 ft at the N and S ends respectively. (Last summer the aqueduct was the subject of a HAER Survey, co-sponsored with the N.Y. State Divn for Historic Preservation and the ASCE Metropolitan Section.) *Peter H. Stott.*

**CHESAPEAKE & DELAWARE CANAL PUMPING MACHINERY: SCOOP WHEEL & ENGINES**, Chesapeake City, Md. (25 Oct), ASME. The 40-ft diam scoop wheel and a Merrick (Philadelphia) 150 hp condensing beam engine were installed in 1851-52 to supply water to the canal's summit level to make up for that lost in lockage; in 1854 a similar engine was installed to increase the system's capacity. The plant operated until 1927. These are the earliest American steam engines on their original foundations (the boilers have been removed). The site is operated as a museum by the US Army Corps of Engineers [SIAN 1:5:3].

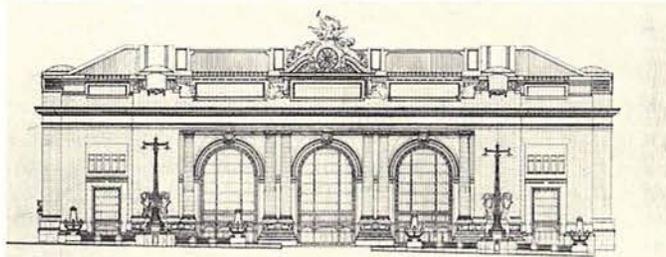
*Continued*



Chesapeake & Delaware Canal Pumping Station. (L) Original arrangement, ca1855-1927. Rendering by Frank Snyder [SIA]. (R) The West Engine today. Eric N. DeLony [SIA] photograph.

**STEAM ENGINES OF THE USS TEXAS**, San Jacinto, Texas (1 Dec), ASME. Next-to-the-last U.S. warship equipped with reciprocating engines and except for the USS *Olympia* (c1892), the last survivor. Built 1911-13 at the end of the period of transition to turbine propulsion; new superstructure, armament, and boilers 1925; decommissioned 1948; now a State museum. The twin engines, by Newport News Shipbuilding & Drydock Co, are 4-cylinder triple-expansion each of 14,050 HP @ 125 rpm and steam at 265 psi. Cylinders: 39" & 63" & (2) 83" x 48" stroke. Boilers: 14 Babcock & Wilcox water-tube type, originally coal fired, now oil.

### STATIONS & DEPOTS



#### GRAND CENTRAL OFF THE HOOK

In a 3-2 decision this winter the Appellate Division of the N.Y. State Supreme Court granted a stay of execution to the venerable Grand Central Terminal (1913) upholding the N.Y.C. Landmark Law and affirming the government's role in preserving historical landmarks. Specifically, the court's majority held that Penn-Central RR, GCT's owners, may not demolish the building on the basis that a new structure on the site would be more commercially profitable. P-C, the opinion said, had not demonstrated that preservation of the Terminal would deprive them of "all reasonable beneficial use" of the land, nor that the building cannot any longer be used for its intended function as a railroad station.

Justice Francis T. Murphy, writing for the majority, stated, "The need to preserve [landmarks] is beyond dispute . . ." *Preservation News*.

#### NEW LONDON UNION STATION ON THE TRACK

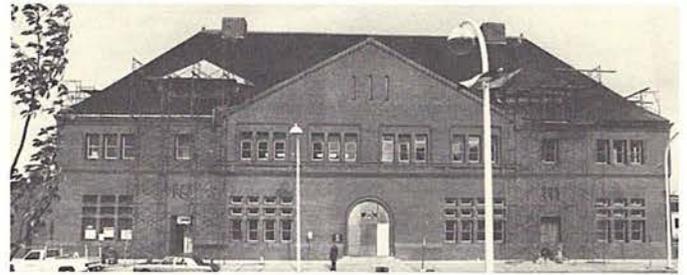
The 13-year struggle to preserve H.H. Richardson's Union Railroad Station in New London, Conn. from demolition is nearing a happy conclusion [SIAN 2:6:4]. The Boston architectural and preservation planning firm Anderson Notter Assoc [SIA] purchased the property from the New London Redevelopment Agency on 3 October 1975, the culmination of a two-year effort with local citizens to develop a convincing restoration plan.

Work began immediately on the exterior to restore its original 1885 appearance. The slate roof has been repaired with matching slate and new copper flashing and trim. Dormer roofs also will be in slate as in the original design. Richardson's elaborate brick patterns have been carefully cleaned and repointed with matching mortar.

Throughout the past winter work proceeded to transform the interior space to a modern Amtrak passenger facility, a restaurant, office space, and transportation-related activities.

The oak wainscoting, window trim and massive ceiling in the main waiting room have been cleaned and restored to their original finish. The preservation of the architectural features and space of the main waiting room has been highlighted by integrating the basement and first floor through a large opening between, in which a new staircase has been constructed. A mezzanine, introduced in a portion of the main space, overlooks the first floor and basement through the opening.

Office space already has been occupied by Morrison, Knudsen, Engineers, and Amtrak will move into their renovated space in June. A victory celebration in Anderson Notter style is scheduled for mid-July. *Paul McGinley, ANA.*



New London Station, 1976. *Anderson Notter Assoc. photograph.*

#### Corrections & Addenda

Herbert H. Harwood [SIA] offers C&A on the Germantown Depot note in SIAN 4:4/5, page 11. It was built in 1855 to replace the PG&N's original 1832 depot, which was merely some rooms in a pre-existing tavern on the same site. Service was transferred in 1872 to a new station elsewhere, although the old building was used by the RR to a limited extent for some years following. It was abandoned fully by the RR c1900 and thereafter leased for commercial use. At the rear were two stub-end terminal tracks covered by a 256 X 38-ft trainshed, now gone. There are nebulous plans to make it into a visitors' center for historic Germantown.

#### REGIONAL NEWS – CANADA

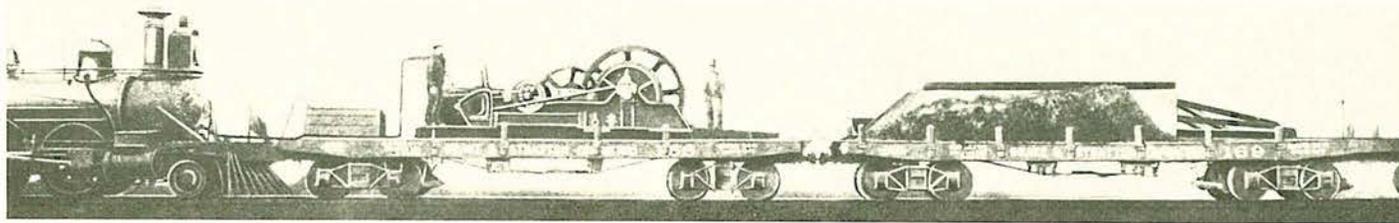
The St. Anne's swing bridge, spanning the Saguenay at Chicoutimi, P.Q. is in danger of demolition due to the construction of a new high-level road bridge nearby. The St. Anne's bridge is of quite recent origin, opened in Dec. 1933. It has a total length, including approaches of 2,995 ft. What makes it unique is its swing span, which at 375 ft is claimed to be the world's longest. This feature was incorporated to permit ocean freighters to proceed to the Alcan refinery at Arvida and it is presumably the prospect of having to maintain the mechanism in perpetuity which has inspired the Quebec government to undertake demolition, estimated at \$600,000+. A local group is endeavoring to persuade the authorities to invest this money in a trust fund, using the interest for future maintenance. The proposed use is for a cycle and pedestrian walkway, the crossing of the new bridge by these means being considered as particularly hazardous, especially during the winter.

The Natl Museum of Science & Technology, Ottawa, in cooperation with the British Columbia Provincial Museum, has repatriated three B.C. Electric Ry interurban cars taken to Wash. State when B.C.E.R. was abandoned in 1957. Although stored outside, the cars were well maintained, and the No. 1235, built by St. Louis Car Co. in 1913, is virtually in operating order. It is a fine example of contemporary steel-car engineering, complete with varnished interior and brass parcel racks. Restoration is scheduled for 1977. The Museum is currently restoring a 1921 2-truck 50-ton Shay locomotive built by Lima Locomotive Works, donated by Crown-Zellerbach of Elk Falls, B.C. in Nov. 1974. It had been used up until that July in the mill yard. Restoration is from the ground up, including extensive boiler work, with a view to operating it on the Museum's sidings on special occasions (such as I.A. extravaganzas?).

Another Museum acquisition is a 1918 "Lidgerwood" (or Ledgerwood), a peculiar piece of RR work equipment. Basically, it is a large steam winch mounted on a flat car, at the head of a train of flat ballast cars. The cable was paid out to the last car and a plow blade attached prior to loading the cars at the pit. This done, the train moved to the work site, the winch was engaged, and in winding in the cable, swept the ballast off the cars. An interesting feature is that the winch received steam via a flexible hose from the locomotive, operation being assigned to the fireman. It had been thought that no examples remained in Canada and it was therefore with some surprise that this one was discovered

languishing in CNR's Transcona (Winnipeg) Yard, where it was saved from the cutting torch in the nick of time. Even more astonishing was the discovery (beneath layers of asphalt paint) that it had been made in Montreal, by Allis-Chalmers yet. It had always been assumed that all were of US origin, by the

Lidgerwood Mfg Co. itself, so this fact opens up a whole new field of research. From photographs they appear to have been in fairly common use by 1900. If any SIA member has relevant information, the Museum would be most interested to hear of it. *R. John Corby, NMS&T.*



Locomotive, "Rapid Unloader," and Plow, after the train has been unloaded. *L.M. Co. 1913 catalog.*

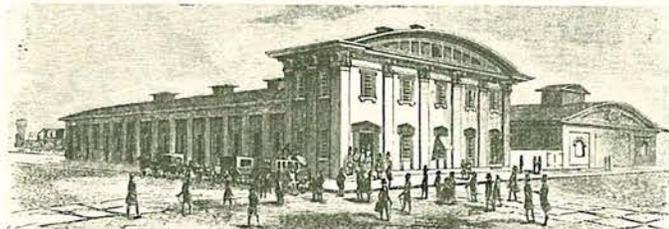
### REGIONAL NEWS – MARYLAND

**NATIONAL REGISTER:** During the past several months a satisfyingly sizable clutch of the state's IA sites & structures has been nominated to the NR, of which several have worked their way through the tortuous digestive process between nomination by the Governor's Consulting Comm (the state review board) and actual entry.

**Nominated: Inns on the National Road** – a series of 12 inns in Allegany & Garrett cos built between 1807 and mid-century, some still operating, most now residences. **Union Bridge Station, Western Md. Ry.** **Brunswick Historic Distr** – a town built by & for the B&O RR c1890 – a major maintenance shop & storage yard area, built on the site of Berlin, itself a C&O Canal town of the 1850s. **21 stone road bridges in Washington Co., 1819-50.** **Baltimore Glass Works Site, fl c1800.** **Canton Coal Pier, 1917 [SIAN 4:2/3:13].** **\*President St Station, PW&B RR, 1849.** **\*Ellicotts Mills and Oella Historic Districts, 19thC flour and cotton-mill towns on the Patapsco in Baltimore & Howard cos.** **Newcastle & Frenchtown RR, 1832,** a short but important early line connecting Newcastle, Del. with Chesapeake Bay (joint

nomination with Del.). **Bloomington Viaduct, 1851,** stunning stone arch bridge carrying the B&O mainline over the Potomac from Garrett Co. into W.Va. (width doubled with Melan-system concrete add-on in same configuration, 1916). **Southern Terminus of the Susquehanna & Tidewater Canal, Havre de Grace, Harford Co.: lockkeeper's house & lock, c1840.** **Martinsburg Road** – well preserved section of early concrete paving, c1925, in Montgomery Co.

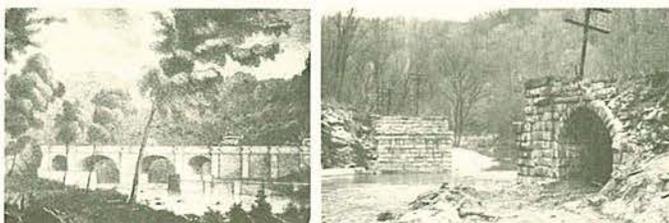
**On the NR: Weiskittel-Roehle Burial Vault, Loudon Park Cemetery, Balto.,** pseudo-stone in cast iron, c1885, final resting place of a dynasty of stove & pipe founders. **Nassawango Iron Furnace, Worcester Co (Eastern Shore),** only Md. furnace and one of few anywhere to use bog ore, and very early use of the hot blast, in operation 1830-49. **Patterson Viaduct,** the remains of a B&O crossing of the Patapsco, 1828, the bulk of which went down in the great 1868 "freshet," the one surviving abutment of which was incorporated into the successor Bollman truss span. **Antietam Iron Furnace & Village,** a complex of buildings relating to the furnace and associated industries, including fine stone bridge of 1832 over Antietam Creek, Washington Co. **Havre de Grace Lighthouse,** of stone, built 1827. Harford Co. *Continued*



President Street Station, then & now.



Weiskittel Burial Vault – the IA of termination.

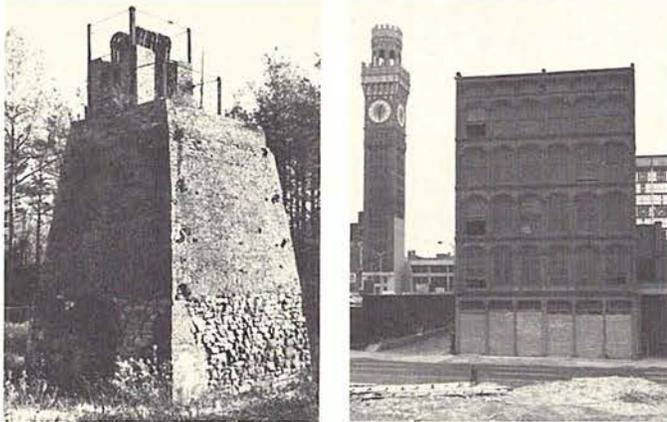


Patterson Viaduct. The Bollman iron truss erected when the original structure was partially destroyed in 1869 was removed in 1903 when the Patapsco River crossing was realigned. *Eric N. DeLony [SIA] photograph.*



B&O's Potomac River crossing at Bloomington. 1916 photograph during widening to 4-tracks by application of Melan arches. *B&ORR Collection, Natl Museum of History & Technology.*

OTHER MATTERS: the last two cast-iron fronts in Baltimore—the Robbins Paper Co and the \*Fava Fruit Co



Nassawango Iron Furnace, showing hot-blast stove at stack top, and Robbins Paper Co. Building with cast-iron front.

buildings of c1870, which have been hanging by a whisker for several years in the face of proposed improvements to the Inner Harbor area, have been the subject of feasibility studies, preservation campaigns, city council assaults, and a host of other attentions, both pro & con. Principal proposals are for demolition, conversion to shops/restaurants and other people-oriented, after-hours functions, and disassembly & reerection in a less sensitive area, a la the Laing Stores in NYC

## THE WORK OF IA

### EXCAVATION (SUBTERRANEAN & SUBAQUEOUS)

**Glassworks.** A team from Boston Univ, led by Electa Kane, prof. of American & New England Studies, next summer will resume excavation begun a year earlier at the 200-year-old site of Robert Hewes' New England Glassworks at Temple, N.H. The study suggests a number of economic and practical problems of early American manufacturers. In Hewes' case, the factory was isolated from population centers and from good land and water transportation; fuel was costly and needed in copious amounts. Hewes seems to have been a prisoner of ill fortune as well as an unforgiving environment. His original factory burned shortly after completion; in the rebuilt factory, moisture and frost silenced the furnaces after 10 days' operation. Hewes asked town selectmen for a loan, but a state lottery, set up for the purpose, failed to leave the ground. Fragments on the site show that the ill-fated factory produced pottery and crown glass (blown glass for window panes).

Lt Col Wilbar Hoxie [SIA] is leading **Georges River Canal Assn** members (ages 5 to 55) in excavating the site of a charcoal storage building adjacent to an old canal lock at Warren, Maine. The Georges River is one of the country's oldest canal systems, in use 1794-1840 between Searsmont and tidewater at Warren. Work has yielded iron nails, spikes, and hinges, as well as pottery, glass, and misc leavings of earlier travelers. The system was placed on the Natl Register five years ago.

The original Francis hydraulic turbine, 1847, has been found *in situ* in the turbine pit of the Northern Gate House at Pawtucket Falls in Lowell, Mass., where it was installed to operate the gate-hoisting machinery. Patrick M. Malone [SIA] of Brown University & Slater Mill Museum, who is writing a book on the Lowell [power] Canal System, explored the pit and found the old wheel, 8'-8" diam, intact if understandably rusty. The runner has 36 buckets; the unit generated about 60 hp under a ten-ft head. Precise measurements have been taken for HAER drawings. Francis' inward-flow turbine was to become the most important type, still widely used.

[SIAN 4:2/3:1]. A great center for both the fabrication and use of cast-iron structures, Baltimore lost most of hers in the disastrous center-city fire of Feby, 1904. The **Casselman River Bridge**, Garrett Co., 1813, the grandest in scale of the many stone arches on the National Road and now a Natl Historic Landmark, has been granted \$323,000 by the state for refurbishing. **Thomas Point Lighthouse** [SIAN 3:6:7] in Chesapeake Bay off Annapolis, 1875, has won a reprieve from automation by virtue of having been placed on the NR, which inspired the Coast Guard to drop plans for the extensive modifications necessary for automatic operation. Thus, it will remain a manned station, the last surviving of the many screwpile type lighthouses on the Bay, the first of which were erected in the early 1850s. [The historically-concious Coast Guard, incidentally, recently assigned Natl Trust historical architect Nathaniel Neblett, while on three-weeks reserve duty, to prepare Natl Register forms on approx 25 Wash. & Oregon Coast Lights.]

\*Sites seen on SIA Annual Conference field trip, 1975.



Casselman River Bridge on the National Road, 1813.

### RESTORATION

The **Rockport [Maine] Kiln Committee**, a coalition of safety- and preservation-minded civic groups, is working to save and restore the "Pet," one of Rockport's 7 remaining lime kilns, c1885, once important in the area's economy. Limestone was hauled to the kilns by horse and electric RR; and lime was packed in barrels made by coopers as far away as Nova Scotia, and shipped under sail. A great fire in 1907 destroyed much of the works and marked the beginning of the Rockport lime industry's decline. The area has been a Natl Register Site since 1970.

**Chesapeake & Delaware Canal Lock Restoration.** The 13-1/2 mile long canal, opened in 1829, provided a short cut between Delaware River and Chesapeake Bay ports. Its several locks — all enlarged in 1853-54 to pass steamers — were removed in 1927 when the Corps of Engineers rebuilt the entire canal as a sea-level route, except for the easternmost one at Delaware City, Del. which was spared by a realignment at that point. The lock survives, but deteriorated and silt filled. The state has just passed a bill authorizing a \$1.8 million bond issue for restoration of historic structures in the area, about \$250,000 of which will be used for the lock. As part of the project a small museum will be constructed interpreting the lock and nearby Ft Delaware. (A splendid C&D Canal Museum is in the former canal pumphouse at Chesapeake City, Md. [SIAN 1:5:3 and ASME, above].)



David G. Orr photograph.

Delaware's first hydro-electric plant, the "New Century Power House" (early 1890s) is being rebuilt at the Hagley Museum by Hydro International. The plant, scheduled for completion in late spring, 1976, will be a major museum exhibit and will supply power to the Museum buildings. Behind a restored period facade, the workings of the original plant will be modified for greater efficiency. A new dam, yielding three times as much power, well upstream from the early, modest Hagley Dam, will feed an underground penstock. Thus will the Brandywine again be put to work - this time in a cause more pacific than the old black gunpowder works it drove for over a century [q.v. SIAN 2:6:2]. *Hagley Museum Newsletter*.

#### DOCUMENTATION, RECORDING, EXAMINATION, &c.

The Committee for the Preservation of Architectural Records, a voluntary, interdisciplinary group, was founded in 1973 to: locate written and drawn records; establish a central national index of records; and save endangered documents for posterity. The Committee is supported by grants from the Architectural League of N.Y. and the N.Y. State Council on the Arts. Much of the Committee's attention naturally has gone to N.Y. state records and repositories; similar groups in other states have followed suit. Interest is high in industrial and engineering subjects as well as the purely architectural. 41 E 65th, N.Y.C. 10021. (212) 628-4500.

The Virginia Highway & Transp Research Council recently has published several studies of IA interest. Two are by Dan G. Deibler of the council staff: *Metal Truss Bridges in Va.: 1865-1932; An Examination of the Development of the Truss Form along with an Annotated List of 19th & early 20thC Bridge Cos, and Metal Truss Bridges in Va.: 1865-1932; The Staunton Construction District*, the first in a series of individual reports describing truss bridges in each of Virginia's construction districts. *A Brief History of the Staunton & James River Turnpike* by Doug Young also has been published. The series of historical engineering studies was conceived and is being carried out under the direction of Howard H. Newlon, Jr [SIA], Asst Head of the Council. Studies available: VHTRC, Box 3817, Univ Station, Charlottesville 22903. *Elsa M. Bruton, Natl Mus of Hist & Tech*.

#### EDUCATION

**IA Instructional Package.** In response to a growing interest and increasing number of formal and extra-mural IA courses, Ian Donnachie of the Open Univ. at Milton Keynes, England has assembled a package designed for instructors, lecturers and students. Despite its British orientation, much of the material should be extrapolatable to N. America as well. With the package one should be able to:

- Become familiar with the Indust. Revolution, which took place in G.B. roughly between 1760 and 1830.
  - Gain a clear insight into its causes and consequences.
  - Understand its basic technology, and how it was developed and applied during and after that period.
  - Know and understand how it affected various localities, and influenced social, economic, and political changes in them.
  - Observe the IA in one's own area, perhaps recording it.
- Contents: a reader's guide; *The Indus. Revolution* from the series, "The Age of Revolutions" (Open Univ. Press); *Introduction: Sources, Themes, & Projects*, from the series, "Gt. Britain 1750-1950: Sources & Historiography" (OUP); T.S. Ashton, *The Indus. Revolution 1760-1830*; R.A. Buchanan [SIA], *Indus. Archaeology in Britain*. \$10. PP. Open Univ, Box 81, Milton Keynes MK7 6AT, England.

At Syracuse Univ, Michael Gimigliano [SIA] last year taught a class in IA, using the city's brewing industry as a paradigm of city life in the late 19thC. Gimigliano found a richly textured field for study in that industry, between 1860 and 1900. At that time there were a dozen major family-owned breweries in Syracuse, doing mostly local business. Seminar topics explored included ethnicity in the industry, agriculture in the state

emphasizing hops growing, transportation, the social climate, temperance and taste, technology, marketing and competition, and preservation and adaptive reuse of breweries.

**Institute on IA.** The 3rd annual, at Rensselaer Polytechnic Inst, Troy, N.Y., 26-30 July, will differ from the previous two in providing concentrated training in field methodology, offering extensive on-site instruction in:

- Determining need for archeological procedures and appropriate scope & methodology;
- Recording techniques, including photography, sketching, measurement, & description;
- Reconstruction of industrial sites in imagination & on paper.

The institute will have access to one of the most spectacular IA sites in the U.S.: the Poestenkill Gorge, Troy, scene of industrial operations since the 17thC. The institute will occur half-way through a 6-week RPI (credit) course & field workshop on the Gorge under the direction of Edward S. Rutsch [SIA], whose landmark field work at Paterson needs no description. The two events will be coordinated. Brochure/application form: Office of Continuing Studies, RPI, Troy, NY 12181.

**Re-use education.** The preservation and re-use of existing buildings is a natural, though relatively unexplored, component of built environment education. Educational Futures currently is conducting a survey for the Natl Trust for Historic Preservation, in an effort to make teachers & communities aware of the need to educate children about the recycling of structures & space. EF needs help in uncovering existing resources. If you know of work being done in this field; people or organizations focusing on educating about recycling, or publications or materials being developed, we would appreciate your contacting us. Dr Aase Eriksen, EF, Inc., 5408 Regent St, Philadelphia, PA 19143.

#### HAER INVENTORIES

From time to time we have mentioned the various regional inventories undertaken by the Historic American Engineering Record of the Natl Park Service (N.B.: an *Inventory* is a listing of sites in a given area, with basic data for each gathered. A *Survey* is a more formal, intensive examination of a much smaller group of sites and structures, generally having a common topical or geographic relationship, involving measured drawings, photography, and full historical documentation.) The following list will bring this important activity absolutely up-to-date (the cooperating institution is shown in parens). All are published, avail from HAER, Natl Park Service, Washington, D.C. 20240, gratis.

- |         |   |
|---------|---|
| 1973    | New England   |
| 1973    | Oklahoma (Okla. State Univ)   |
| 1973    | Florida (Fla. Technological Univ.)                                      |
| 1974    | Long Island (Society for the Pres. of L.I. Antiquities)                 |
| 1974-75 | Delaware (Eleutherian Mills-Hagley Foundation)                          |
| 1975    | North Carolina (State of N.C. Dept of Cultural Resources)               |
| 1975    | Georgia (Georgia Institute of Technology)                               |
| 1975    | Colorado (Univ. of Colorado at Denver)                                  |
| 1976    | Lower Merrimack Valley (Merrimack Valley Textile Museum)                |
| 1976    | Lowell Canal Survey (20 pp "Selections" of larger publication in work.) |

#### Inventories in progress:

- Rhode Island (Slater Mill Historic Site)
- Michigan (Wayne State Univ., Mich. History Divn.)
- South Dakota (S.D. Dept of Education & Cultural Affairs)
- Stationary Steam Engines (Whistles in the Woods Museum)
- Trenton Area, N.J. (Trenton Dept of Planning & Devel)
- Western N.Y. State (landmark Soc of W.N.Y.)
- Cuyahoga County (Ohio) (Cleveland Landmarks Comm)
- Huntington & Centre Counties (Penna.)

## CENTER FOR THE STUDY OF MATERIALS

A Center for the Study of Archeological Materials is being planned by eight Boston-area universities and museums. The Center's long-range purpose is to "encourage a new direction for research in anthropology, archeology, art history, & related fields by providing these disciplines with a broader technical base in the sciences of organic & inorganic materials." Laboratory research programs will be emphasized, with development of specialized labs for specific classes of materials such as metals, ceramics, stone, and plant & animal remains. An educational program is planned to further "a double competency in both a humanistic discipline and a natural science" as an approach to research problems. Comments and questions: Joel Orlens, Office of the Provost, M.I.T., Cambridge, MA 02139.

## MISC SITES, STRUCTURES, & OBJECTS

**Baldwin Transposed.** The heroic, standing bronze statue of Matthias W. Baldwin (1795-1866), executed in 1905 by Herbert Adams, that from 1929 stood in front of the huge cruciform administration building of the former Baldwin Locomotive Works at Eddystone, Penna., has been removed to the new office building of the Baldwin-Hamilton Co at Malvern, Penna. The statue first stood at the original Baldwin site at Broad & Spring Garden sts, Philadelphia; was taken along when the firm built its new Eddystone Works S of the city, but stayed behind when B-HCo, Baldwin's successor, left in 1971. After some negotiations with the building's present owner, B-H reclaimed its founder early this year.

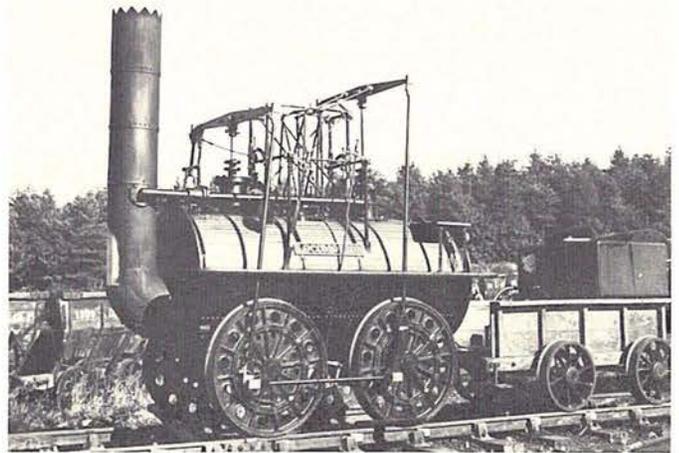


**IA Grants.** BP (British Petroleum) has given cash grants for nine IA projects through a plan worked out jointly with the Assn for Industrial Archaeology. Grants of £500, for example, went to the Arkwright Society, Cromford, Derbyshire, for development of local history trails at Cromford, Belper & Shardlow; and to the Tyne & Wear Industrial Monuments Trust, Newcastle-upon-Tyne, for filming the surviving traditional glass industry. £400 went to the Veteran Steamship Society, Dunmow, Essex, to restore the river steamer *Resolute*.

**Mill Sites.** A certain amount of good will derive from the Bicentennial, no doubt. One of the more constructive projects has been the marking with signs of 27 historic mill sites along the course of Jacobs Brook in Orford, N.H. by students, and the publishing of a booklet listing the sites and their history (\$1 from the Orford Bicentennial Commn, 03777).

**To Laugh or Cry?** Kimberly-Clark is closing its paper mill at Elizabeth, N.J. as it is elderly and would cost too much to modernize. It manufactured one of the highest grades of paper there is: cigarette paper.

**Trevithick Locomotive Replica.** It is a time of locomotive replicas. The new *Locomotion*, built for the Sesquicentennial of the Stockton & Darlington, was noted in SIAN 4:4/5:5. Now the Trevithick Society of Cornwall plans to replicate one of Richard Trevithick's early locomotives, having spent considerable effort to determine which of six he built 1801-1808, for use on both rails and common roads, would be the most appropriate model. Most were rejected because of inadequate construction data. The probable choice is his "Newcastle Locomotive" of 1805, for which several drawings exist, which would reduce conjecture to a minimum. This engine was built for 4'-8½"-gauge edge rail so would have the advantage of being operable anywhere in the U.K. and much of the world as



*Locomotion* replica, at Beamish Museum, County Durham, 1975.

well. Another point in favor of this particular machine is that as it operated in the Newcastle area, and Trevithick being a good friend of George Stephenson, it undoubtedly had considerable influence on the latter's locomotive designs, and thus is an important direct link in the development of the steam railroad. A replica of this locomotive would carry the message that Trevithick built practical, commercially successful locomotives well before the more widely credited Stephenson.

**Bridge Pier Rescue.** In 1839 the Raleigh & Gaston RR (in 1893 becoming part of the Seaboard Airline) constructed a high bridge over the Tar River near Franklinton, Franklin Co., N.C., 846 ft long, 94 ft above the river, with superstructure of Town-lattice timber trusses on simple ashlar stone piers. Until recently three of the piers remained, the original bridge having been superseded c1904 by a steel trestle. These were jeopardized by the recent construction of its successor. One was demolished; one was buried in fill; but the third was with some difficulty saved as a monument to the early history of the railroad in N.C. through the efforts of Michael Southern (who illustrated the HAER *N.C. Inventory*, SIAN 4:6:8), a survey specialist in the state Division of Archives & History. The pier is believed to be the earliest RR-related structure standing in N.C.

**Cement Kiln Site as Museum.** The battery of nine unique kilns near Coplay, Lehigh Co., Pa. [SIAN 3:6:7], visited during the SIA 1974 Fall Tour, will form the central feature of the 3.5 acre Saylor Cement Kiln Park, expected to be dedicated on 4 July. Completed then will be the landscaping and stabilization of the kilns' brickwork. The 2nd phase of the project, for which \$500,000 was raised through a bond issue, will be a museum of the American cement industry. The kilns and land were donated to the county by the Coplay Cement Mfg Co. There is, curiously, a certain amount of uncertainty surrounding Saylor's early work and that of others in cement production in the US and Canada, and strangest of all is that the date of the kilns' construction is unknown. Local accounts say "1860-1880", which isn't much help at all. A certain amount of sporadic research is being done in this important area — perhaps the enshrining of the Coplay site will spur more.

Lehigh County must rank first in the U.S. in recognizing the importance to its citizens of its industrial past and the archeology deriving therefrom. The County has restored a grist mill in Cetronia [SIAN 4:2/3:7], and on 20 Dec last the restored Lock Ridge Furnace Museum in Alburdis was dedicated, part of another County park, devoted solely to the furnace.

**Windmill.** What appears to be the only immigrant windmill in the U.S. is a mid-18C Dutch cap mill, brought to Holland, Mich. (a heavily Dutch area) in 1965.

**A Wooden Anchor!** The following account recently was received from Arthur H. Frazier of Washington, D.C.: "While browsing through the Manitowoc (Wisc.) Maritime Museum recently, I came upon the wooden anchor shown in the photograph. The sign said: 'Anchor used on the Erie Canal barges in the middle 1800s. On loan from the State Historical Society of Wisc.' In the hope that I might pass that on, and possibly more information, I wrote to the WSHS. They replied:



'...The anchor...[had]... been recovered in dredging at the mouth of the Fox River at Green Bay in 1887 or '88. Green Bay was and is an important Great Lakes port for transshipping either overland or via the Fox-Wisc. waterway which connected with the Mississippi at Prairie du Chien, Wisc. Most probably the anchor came from a lake boat, although it is possible a river boat may have used it — but it did not come from an Erie Canal barge...'"

### ADAPTIVE REUSE



*Merill Wilson photograph.*

**Denver's Victorian-Italianate Tivoli-Union Brewery (1890)**, closed since 1965, is the object of preservation efforts spawned by a late-blooming appreciation of local history and its material remains. "A Night in Old Denver" — recreating the region's bold past — recently was held in the old brewery's courtyard. The Denver Urban Renewal Authority now owns the brewery; various adaptive reuse plans are under consideration.

**Middlebury's "Old Mill," [Vt.]** Is being converted into a center for the performing arts as a bicentennial project. The original 18thC frame superstructure was replaced by one of stone in the late 1830s. Later in the 19thC the mill was used to process wool from local sheep, and in 1901 became the town power plant. The center, which may be near enough completion to house events in summer 1977, is the projected home for the Vermont Symphony and a host of other performing and visual arts groups.

**Asphalt Plant Conversion.** One of N.Y.C.'s more recent IA landmarks — a 1944 city asphalt plant at the E River Drive & 90th St, vacant since 1968 — stands a good chance of conversion to offices and a community gymnasium, all with private and foundation funds. The building is remarkable in being framed with four reinforced-concrete parabolic bents nearly 100 ft high, the form almost perfectly housing the equipment of the original plant, with minimum enclosed volume. The structure, by Kahn & Jacobs, has been declared a city historical landmark.

**The Great Western Power Co's 1916 substation** at 530 Bush St, San Francisco, until recently the property of Pacific Gas & Electric, has become the new home of the Sierra Club. Club staffers worked closely with the architectural firm Storek & Storek, which purchased the building initially from PG&E with a commitment to save and recycle it.

The long-discussed and highly controversial **Tocks Island Dam** across the Delaware, has virtually been consigned to oblivion. The project, first proposed by the Corps of Engineers in 1955 and authorized by Congress in 1962, would have inundated a vast area rich in industrial and cultural archeology. The Corps now has recommended deauthorization. A point for our side.

### SIA AFFAIRS

**The Annual Shrinking-Violet Sermon.** In this time of inflated egos we should be gratified, no doubt, to find the SIA so shot through with retiring souls who look upon their own works with apparent disdain. We're not at all. We wish that those of you out there — and by only the most circuitous routes has it become clear how many there are many of you — who are writing and having published books and articles that bear more or less upon IA, would inform us of this work. For example, only by chance did we learn recently of a splendid article in a journal that we should see regularly but don't — by a prominent member of the Society, dealing with early flour milling in one of the most important of the Middle-Atlantic states. Don't be shy. The Newsletter is traditionally easy on authors; only rarely comes down in critical wrath. Remember our motto: "If in doubt, send it along."

**The Roebling Chapter has been formed**, taking in a largish area roughly within 50 miles of N.Y.C. Contact: David V. Abramson, Trenton Planning & Development Dept, 10 Capitol St, Trenton, N.J. 08618. Dues: \$1./yr. This is the second SIA Chapter (the other: the Montgomery C. Meigs Original Chapter, Washington, D.C. area).

The Roebling Chapter (memorializing civil engineers & industrialists John A. & Washington A. Roebling of Trenton, N.J.) plans a measured-drawing project to document a c1885 double-intersection Pratt truss bridge by Phoenix Bridge Co. of the former N.Y. & Mahopac RR at Goldens Bridge, Westchester Co, N.Y. on 17 July. All welcome. Contact: Peter H. Stott, 197 2nd St, Troy, N. Y. 12180 (518) 237-8643/272-1188 (night).



**The Annual Fall Tour.** To a vast number of sites of extraordinary interest, in the Passaic River Valley of N.J., 23-24 Oct 1976. Hold the date, details to follow in and for a good time.

### WORKING PLACES

The Handbook, is now available, either from Ober Park Assoc, The Old Post Office, Allegheny Sq. W., Pittsburgh, PA 15212, or the Natl Trust Book Store, 748 Jackson Pl. NW, Washington, DC 20006. Prices in SIAN 4:4/5:10.

### MISC NOTES

**Re-Use Projects.** The Urban Land Institute is seeking examples of economically viable adaptive re-use projects to include in a publication providing data on the redevelopment process & financing techniques for a wide range of building conversions. Peggy Thomas, ULI, 1200 18th St NW, Washington 20036.

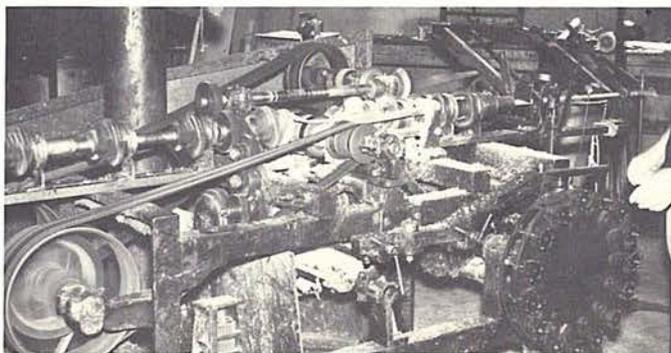
**Recording Needed:** Burlington & Missouri River RR in Nebraska (later CB&Q), Plattsmouth, Neb., Shops, 1880s. Built as locomotive construction shops, later car building & repair, in use to ca1964. Now abandoned, deteriorating.

**IA Session.** At the Annual Meeting of the Society for Historical Archaeology at Philadelphia in January, a half-day IA program assembled by David G. Orr [SIA], U Penna., featured, among other papers: Theodore A Sande [SIA] on "Adaptive Use in IA"; Orr on "Philadelphia as Industrial Archeological Artifact: A Survey Method"; Ralph Chiumenti on "Cast Iron Architecture in Philadelphia: A Survey"; Herbert Levy [SIA] on "Mapping an Industrial Building: the Meter House at the Point Breeze Gas Works"; and Edward S. Rutsch [SIA] on "Salvage Excavations in the Locomotive Works in Paterson, N.J." General chairman of the meeting and conceiver of the session — the first at an SHA meeting with a full complement of papers on IA — was John L. Cotter [SIA]. Abstract avail: Editor.

**Sewers.** Information sought on brick sewer construction 1850-1900 as background for archeological and impact project for a new sewer work, Northampton, Mass, Summer, 1976. Robert Drinkwater, 257 South St, Northampton 01060.

**Thames Shipyard, New London, Conn.** This important site was alluded to in SIAN 4:2/3:10, especially the steam-powered marine railway. The Coast Guard, present owners of the site, are anxious either to transfer the railway and attendant buildings to any individual or organization willing and able to take it all on as an operating museum or working facility. Otherwise it will be demolished, although with off-site preservation of some of the machinery. Contact: Clark Strickland, SHPO Office, 59 S. Prospect St, Hartford, CT 06106. (203) 566-3005.

**Available: Whip Machinery, c1875.** The last American firm in the business of making classical riding & buggy whips is folding and has available, on a negotiable basis, its entire complement of machinery for assembling and forming ("rounding") the rawhide core, the heart of the whip, and all other operations. A unique opportunity for an operating exhibit with a salable product. Contact: Harold J. Martin, Pres, Westfield Whip Mfg Co, Box 425, Westfield, Mass 01085. (413) 568-8244.



Whip rounder rounding whip core, 1974.

**Preservation Legislation Chart.** The Natl Register of Historic Places has just begun publication of a quarterly chart of Pending State Preservation Legislation, which is bound to prove a valuable reference. To give information or suggestions, or for a copy: Susan Mead, Natl Register, Natl Park Service, Wash. DC 20240. (202)523-5480.

**Director sought.** The Western Museum of Mining & Industry is seeking a Director. This is a relatively new historical museum with a large collection and a permanent staff of 6. Construction of a new display building is planned. Sought is a strong administrator with at least 10 years of professional museum experience, to be responsible for general administration, planning, & supervision of all aspects of museum operations. Salary from \$25,000 depending on qualifications. Contact: Frederick M. Farrar, Pres, Box 9186, Colorado Springs, CO 80932.

**Position sought:** archeological work related to site surveys, testing & salvage projects related to EPA requirements. Avail 15 June. Sandra Blaylock, 618 Middlebrook Hall, Univ of Minn, Minneapolis, MN 55455.

**Steam Excursions.** Variety of trips on Southern Ry lines, behind Nos. 4501 & 630, throughout the spring & summer. June-mid-July: Alexandria, Va. to various points; mid-July-Sept: other southern points. Day & weekend jaunts. Schedule: Jas Bistline, Southern Ry System, Box 1808, Wash, DC 20013. (202) 628-4460.

**8 German battleships & cruisers for sale, c1915-19,** totally approx 125,000 tons of steel, non-ferrous, & armorplate up to 14", est salvage value \$30 million. Now for the bad news: they lie in 120-150 ft in the N of Scotland, being the unfortunate fleet scuttled at Scapa Flow, 1919. Information: Scapa Flow Salvage Ltd, Dysart, Fife, Scotland. (0592) 52741.

**Rolling-Mill Engine Catalogs,** sought for purch or copying: Tod; McIntosh & Hempill; Mesta. Harry E. Young, 485 S. Hillside Dr, Canfield, OH 44406.

#### PUBLICATIONS OF INTEREST SPECIAL ISSUES

**OLD-TIME NEW ENGLAND, Summer-Fall, 1975.** Topical issue on the early 19thC growth of the textile industry:

Theodore A. Sande [SIA], *The Textile Factory in Pre-Civil War Rhode Island*, pp 13-31;

Charles Hammond, *Concord's "Factory Village": 1776-1862*, pp 32-38;

Richard M. Candee [SIA], *The "Great Factory" at Dover, N.H.: The Dover Manufacturing Co. Print Works, 1825*, pp 39-51.

\$1.50, Society for the Preservation of New England Antiquities, 141 Cambridge St, Boston, MA 02134.

**HISTORIC PRESERVATION, January-March, 1975.** Quasi-special issue, nearly all IA, finely illustrated:

Margot Gayle [SIA]. *Cast-Iron Architecture, U.S.A.*, pp 14-15;

Dianne Newell [SIA], *With Respect to Breweries*, pp 24-27;

Ronald Beckman [SIA], *The Stillman White Brass Foundry: Experiments in Energy Conservation* [SIAN 3:2], pp 28-33;

Martha & Murray Zimiles [SIA], *Windmills: Energy without Pollution*, pp 34-37.

\$1. Natl Trust, 740 Jackson Pl NW, Wash, DC 20006.

**NORTHEAST HISTORICAL ARCHAEOLOGY, Spring 1975.** Special double issue: 1974 Symposium on Industrial Archaeology, Paterson, N.J. A compilation of the papers delivered at the joint Council for Northeast Historical Archaeology/SIA/Great Falls Development Corp meeting at Paterson, 26-27 Oct, with additional material by the issue editors, Edward S. & Mary Jane Rutsch [SIA]. Contains:

Edward S. Rutsch, *Salvage Archeology in Paterson, N.J., 1973-75*, pp 1-16;

Brian Morrell, *The Evolution of the Rogers Locomotive Co., Paterson, N.J.*, pp 17-23;

Ralph J. Leo [SIA], *An Examination of the Technology that Evolved from the Rogers Locomotive & Machine Co., Paterson, N.J.*, pp 24-38;

Budd Wilson [SIA], *The Nature & Scope of Archeological Observation*, pp 39-43;

Jo Ann Cotz, *A Study of Ten Houses in Paterson's Dublin Area*, pp 44-52;

Richard D. Margrave, *The Role of the Paterson, N.J. Silk Industry in the 19thC Atlantic Economy*, pp 53-58;

Toni Ristau, *Mill Architecture in Paterson, N.J.: A Culmination of the Empirical Tradition in Construction*, pp 59-67;

Russel I. Fries [SIA], *European vs American Engineering: Pierre Charles L'Enfant and the Water Power System of Paterson, N.J.*, pp 68-96.

Avail: Lee Hanson Ed NEHA, Ft Stanwyx Natl Hist Site, Rome, N.Y.; GFDC, 176 Maple St, Paterson 07505. \$5. PP.