

Volume Three Number 5

L. T. C. ROLT

With the newly formed Assn for Industrial Archaeology barely underway, it is the sadder to have to report the death last May of Tom Rolt, its first president, at age 64. Rolt was perhaps the most prolific writer over the past 35 years in the history of technology and IA, his immensely readable and scholarly works on machine tools, railways, canals, industrial firms et al, and his lucid biographies of many of the giants of the industrial revolution achieving a well deserved fame world wide. He has been aptly described by Angus Buchanan in a touching memorial in the 2nd AIA *Bulletin* as one of the outstanding Founding Fathers of IA, who will be remembered far beyond Britain for his success in the preservation—among other things—of much of that nation's canal network and several of Wales' narrow-gauge rys, when both systems were on the brink of dissolution. There was no English board, commission, council, conference or other body or event of consequence dealing with IA with which he was not involved, both actively and creatively. His passing is a major loss to IA and the history of technology.

September 1974

HARD TIMES

Despite the good works noted on these pages, any celebration of a new golden day for industrial preservation would be premature. The wrecker's ball swings apace.



S J Raiche photo.

Contributors to this issue: Kay Byrum, E M Bruton, Bernard S Finn, Frances Frieder, Natl Mus of His & Tech; Richard M Candee, Old Sturbridge Vill; R J Corby, Natl Mus of Sci & Tech; David M. Hansen, WA State Advis Council on Hist Pres; Chester H Liebs, VT Divn of Hist Sites; Charles M. Sullivan, Cambridge Hist Commn; Wm S Young Starucca Valley Publs. Edison's Factory Demolished. In W Orange, NJ, 72 year old Theodore Edison sadly watched a series of blasts level the onetime home of his father's phonograph and record factory. The four-story structure was built in 1906 of reinforced concrete on a system developed by Edison, and its demolition was not easy. The factory was one of a handful of structures at the sprawling Edison laboratory campus to be spared by a 1914 fire. It had been in use up to two years ago for manufacturing by McGraw-Electronics. Said Edison, "To think that we are wasting so much good material that could be rehabilitated."

Boston Buildings Blasted Despite "Historic" Label. Twelve historic warehouse structures on the Boston waterfront were demolished by the Boston Redevel Auth in apparent defiance of the Natl Advisory Council on Historic Preservation, which had not yet completed its statutory review of the HUDfinanced project. Located in the Commercial, Lewis, and Fulton Sts blocks, the buildings had been put on the Natl Register only last year, thus supposedly protected from s_ch Fedl projects under the Hist Pres Act which provides for specific review by the Council before any demolition. Waterfront residents also had sought injunctions to prevent demolition of the buildings before the review process was completed.

Blast Furnace Destroyed Before Halt is Ordered. Blame it on



Room 5020

Published by the Society for Industrial Archeology Editor: Robert M. Vogel National Museum of History & Technology Smithsonian Institution Was

Washington, DC 20560

the mails? Demolition went on at the Troy, NY blast furnace operated until 1972 by Republic Steel Co, even while a letter from the Hudson River Valley Commn "initiating the (demolition) project for review" was enroute to the demolition contractor. An attorney for the contractor claimed he had not received the letter in time to stop demolition. The 100-ft high furnace, built 1925 by the Burden Iron Co, was the last major structure erected by the firm organized by the legendary Henry Burden-the Horseshoe King-1830. The furnace was purchased by Republic at Burden's liquidation in 1940. The end thus is marked of iron and steel manufacture in the Albany-Troy region, once the principal seat of the industry in the US.EMB,FF.

IA ON THE SUSQUEHANNA



Afloat on the Susquehanna above Harrisburg, PA are what must be two of the most remarkable vessels operating in NA today. Near New Buffalo is one of the few remaining culm dredges, an astonishing homemade primitive assembled of truck differentials, a diesel engine, a centrifugal pump and a miscellany of other oddments into a simple suction dredge that slowly hauls itself upstream along an anchored cable, inhaling riverbed silt with which is mixed a large amount of culm-a slack, finescreen coal formerly regarded as commercially useless and dumped as waste. Much of it over the years washed into the Susquehanna system from which, since c1935, it has been dredged, now a usable fuel. The culm recovery industry has had its up and downs, apparently being at the moment in a modest up. The vessel observed, hydraulically separates the culm and silt, dumping the culm onto sideless floats formed of heavy timbers, to be transported downriver for sale. It, and any other surviving elements of this unusual secondary-recovery industry are ripe for recording.



Several miles upriver between Liverpool and Millersburg, PA, the extremely shoal river has been crudely dammed by a string of boulders (returned each year by bulldozer after the ice has gone down) to form a 2-4 ft pool, about 1 mile wide, traversed by the Roaring Bull and the Falcon, of the Millersburg Ferry, the last on the Susquehanna. These are sternwheel vessels, claimed by the firm to be the only surviving (as ferries) east of the Mississippi (are there any on or west of?). As the culm dredge, these vessels are homemade, characterized by a random functional simplicity rather than any recognizable style of marine architecture. Both are bi-partite: a tow barge and a 4-car-capacity vehicle barge lashed side-by-side. The ferry was hand-poled from 1825 to 1873; then steam with side-wheels until replaced at some indeterminate time by the succession of gasoline-powered sternwheelers culminating in the present sister ships. Here too recording is badly needed.

RECYCLING OLD BUILDINGS CONFERENCE

Sponsored by the Boston Architectural Center, Oct 18-19 at their HQ, a series of lectures, workshops and tours offered insights into current professional standards in the rehabilitation of older buildings. IA examples were prominent: Gordon Marker on the plans for the Urban Cultural Natl Park in Lowell; planner Robert Gelardin and architect Simeon Bruner on their aims and successes in rehabing the Chickering Piano Factory into artists' apartments for a full range of income levels [SIAN 3:3]; George Notter [SIA¼ of Anderson-Notter on several projects (including the conversion to housing of a huge tannery complex in Peabody, MA [SIAN 3:2]); and Wilson Pollock of Add Inc on *re*conversion of a garage at Harvard Sq (originally a car barn) to a commercial mall. The garage and piano factory were toured. Peter Wilson (Hardy Holzman Pfeiffer) presented a slide lecture describing his firm's recent study of recycled RR stations, based upon Norman Pfeiffer's July Indianapolis talk.

Perhaps the greatest acclaim, however, went to John Karol [SIA] of Apertura Inc. who discussed the SIA slide film he is preparing [SIAN 2:4:2]. Showing selected views of IA rehab projects from many parts of the US, Karol explained his interviews with architects, developers, and local people, and how their words will form the framework of the film. The enthusiastic response to his presentation also produced some 25 inquiries for the sale or rental of the finished film. *RMC*.

RR STATION REUSE CONFERENCE

Methods of adapting old railroad stations to contemporary needs in communities with diminished or defunct rail service were explored in a pioneer national conference at Indianapolis, 22-23 July, organized by the Natl Endowment for the Arts in conjunction with Educational Facilities Laboratories, NY. It was attended by 250 mayors, government and RR officials, planners, legislators, bankers, developers, and nonprofitorganization representatives.

Indianapolis, because that city's Union Station. (1888) [SIAN 1:2:3:], now undergoing rehabilitation, provided a major case study in the preservation and adaptation of a large urban depot.

Cooperating natl and local agencies included the Natl Trust, US DOT Advisory Council on Historic Preservation, Natl Park Service, Indianapolis Museum of Art, and Historic Landmarks Foundation of Indiana.

The conference focused on four sources of potential support for station preservation: the Fedl Govt and natl non-govt organizations; local govts; the private sector; and nonprofit groups. An expert from each delivered a research paper which then was discussed by a panel. Speakers included Nancy Hanks, Chrmn, Natl Endowment for the Arts, and Frank Thompson, Jr. (D-NJ) (author of the RR Station Preservation Bill before Congress). Perhaps the most important recommendation resulting from the conference is the necessity of keeping the "Railroad" in the RR station. The city core location of most of the nation's depots, linked directly by a rail net, makes them one of the most important resources for America's future transportation needs. Consequently, the best reuse of stations would incorporate a multi-modal transportation interface with stores, offices or public areas occupying the excess space.

Specially prepared for the conference were: Stations, a 27-minute color film by Roger Hagan (premiered); Reusing RR Stations by Norman Pfeiffer (Publs, below); Historic RR Stations by Jandl et al (Publs).

The reaction to the conference, as evinced by the broad national publicity that recycled stations have received in the media over the past few months, has been encouraging.

With the SIA's slidefilm and handbook on adaptive use (funded by NEA, NEH, & EFL) nearing completion, 1975 would be the time for a second conference, with the same sponsorship: "Reusing Industrial Structures." CHL

STARRUCCA HOUSE

The famed Erie RR station-hotel (1865), last major one of the genre in the nation to survive, was saved from near destruction in 1973 by being placed on the Natl Register which, while having no legal effect on the City of Susquehanna, PA, which owned the splendid neo-Gothic building, sufficiently impressed them with its worth that they held off threatened demolition. Since then it has simply sat, unused, the while being heavily damaged by weather and bad boys.

Things are now moving once more, however. The Susquehanna Burough Council recently voted a modest sum to seal the building against further depredations, and the entire Erie complex there, which includes also a number of fine contemporary stone and brick shop buildings, is to be placed in the hands of the local industrial development corp, which in turn will deed the station building to the town for \$1. Through the local arts council and the station's principal champion, publisher William S Young [SIA], adaptive use schemes are being explored by restoration architects National Heritage, Inc of Westchester, PA. The station and shops, recorded by HAER in 1971, and nearby Starrucca Viaduct [SIAN 2:6:5], form one of the most interesting and important Victorian RR groupings in the US.

NEW LONDON STATION

The Boston architectural and planning firm of Anderson Notter Assoc [SIA] has succeeded in bringing off their ambitious adaptive use scheme for H H Richardson's masterpiece [SIAN 2:6], having been designated developers by the New London (CT) Redevelopment Agency to rehabilitate and restore the Station. Uses include an imaginative AMTRAK Station combined with historical, cultural and tourist exhibits of the New London area integrated into the waiting rooms. A multi-level restaurant and office space also are planned for the landmark.

The project is a comprehensive approach to historic preservation and includes the application of grants and low-interest loans from several public and private sources including HUD, the Natl Trust, and Dept of the Interior, which will permit first-class restoration that would otherwise not be possible. Information: ANA, 10 Thacher St, Boston 02113. (617) 227-9272.

ADIRONDACK REBIRTH

Passenger service between Albany and Montreal on the Lake Champlain scenic route was restored 6 August by the Delaware & Hudson, the NY State Dept of Transp, and AMTRAK after a three-year absence. The new *Adirondack* has through cars to and from Grand Central Terminal, NYC, with departures from Montreal and NY each AM. In their first month the trains averaged 250 riders daily. Way stations, several of them architectural classics, have been refurbished.

The Adirondack, no typical AMTRAK operation, is funded entirely by NY State, and north of Albany (Rensselaer) the equipment is entirely D&H, in their striking blue, gold, and silver. Moreover, the regular locomotives north of Albany are the world's last four Alco-GE "PA" diesels, highly regarded for their attractive styling. The 25-year-old PAs are being sent all the way to Boise, ID two at a time, for a rebuilding that includes new engines.

The D&H, one of the few solvent railroads in the Northeast, is also the first major railroad to make a conscientious effort to preserve historic diesels through practical use; joining the PAs are two rare Baldwin shark-nose units recently bought from the Monongahela Ry to power excursion trains. WSY

"UNIQUE NEW YORK" COMPETITION

Twenty-one winners of a competition designed to better New York State were awarded grants ranging from \$583 to \$1500 by the Preservation League of NY State, assisted by the NY Council on the Arts. Of the winning entries, two, receiving \$1500 awards, are of IA interest: a plan for utilizing a town-owned gas station site in Homer as a community center, and a proposal for the landscaping of the Delawre & Hudson Canal's "Old Lock 21" in High Falls.

A STREETCAR NAMED PEPSI-COLA



A Streetcar named Pepsi. (And Coca. And Fanta. And 7up) R J Corby.

The most recent rescue operation mounted by the Natl Museum of Science & Technology at Ottawa has been retrieval of an original horse-drawn Stephenson streetcar [see Publs: White] from St Andre-de-Kamouraska, PQ. Discovered some years ago, the car minus canopies, platforms, and truck, had until recently been serving as a roadside snack bar appropriately named "Au Petit Tram." Completion of the Quebec section of the Trans-Canada Hwy some three years ago diverted traffic to the point where the owner had no further use for the car, and offered it to the Museum.

The car (c1875) served on the Quebec St Ry Co's system in Quebec City. This company received its charter in 1863, and because of the steep grades between, actually operated a separate line each, in Lower and Upper Town. When the company's assets were acquired by Quebec Light & Power Co in 1895, the lines were amalgamated and electrified, making the horse cars redundant. An enterprising local businessman bought several and took them downriver by "goelette" (St. Lawrence River schooner) where they were sold for farmers' sheds and summer cottages.

Despite its present bizarre appearance, the car's interior is in remarkably good condition, and the clerestory contains much of the original glass, including the end panels bearing the maker's name. Eventual restoration is planned. *RJC*

MORE BEE-HIVE COKE OVENS



Yes-but in Washington State? To be sure. The Cascade Historical Soc, recently formed for the express purpose of preserving a battery of c30 pairs of ovens at Wilkeson nr Tacoma, has succeeded in placing them on the Natl Register, and forestalling their immediate destruction by the Burlington Northern RR, present owners. The ovens-believed to be the first on the West Coast-were built c1885 when it was discovered that the local high-sulfur coal made excellent coke. Wilkeson coke was widely used thereafter in the West until operations ceased in the 1930s.

Washington has always had a latent coal industry which has promised much but delivered little except the creation of small towns with names reminiscent of the cause for their existence: Newcastle, Black Diamond, Carbonado, &c.

The Historical Soc generally has been fighting uphill against BN, who have shown determined disinterest in the preservation of the ovens, but who seem more recently to be willing to allow at least some to remain. DMH

SIA-VSA NAVY YARD TOUR

The Charlestown (MA) Navy Yard was the subject of a June walking tour and symposium organized by SIA and the New England Chap, Victorian Soc in America, led by David Wright [SIA] of Harvard and the Natl Park Svc. In the course of extensive research by Wright and others [SIAN 2:4:3] into the Yard's industrial processes and structures, an extensive collection of drawings was uncovered in the CNY archives, from original 1830s sheets by engineer/architect Alexander Parris to those of the 1910s, representing bursts of construction corresponding to major wars. The buildings and machinery were abandoned in place last June as an economy move.

The 43 acre site is a major preservation problem. Although a Bill proposing its use as a Natl Historic Park has just passed, in June the Interior Dept opposed the proposals of its own study group for preservation of 1/3 of the site (not including the well-known Ropewalk, however). The land not used for a park is to be turned over to the City of Boston, which mostly is interested in maximum economic return. The 3.5 million sq ft of floor space is more than comes on the Boston market in seven years' time, however, and many of the buildings are in poor condition. A private shipbuilder has proposed taking over the S Boston Annex (c1910-20) for ship construction, and using 1/3 of the Charlestown Yard for fitting out hulls. The amount of compatible reuse of existing structures under this plan is unclear, and the remainder of the Yard is up for grabs. A Parris sail loft, some early timber sheds, and several other important structures are in danger of not being included in future development. CMS

ALBANY PRESERVATION

A new preservation organization, Historic Albany (NY) Foundation, Inc, has recently been formed, with Louise McAllister Merritt [SIA] as its director. HAF has outlined a program for the next two years including study, preservation planning, public education and institution of a revolving fund. The foundation is especially interested in several of the city's industrial structures, including the deserted Albany Union Station (1900) [SIAN 3:4:4]; the former Albany Card & Paper Co (c1875), just a block from the multi-million dollar South Mall state office complex; the Albany Hardware & Iron Co, a reinforced concrete factory (c1920) overlooking the



Hudson; and the sprawling Hinckel Brewery, 1880, (photo) located in a residential neighborhood adjacent to a city park. HAF, 194 Elm St, 12202. (518) 436-1292.

MISC SITES & STRUCTURES

Ist Q: When is a tunnel not a tunnel? A: When it's a conduit. Six miles of the little-known but in its own way famed 65-mile network of concrete-lined, 6-ft W x $7\frac{1}{2}$ -ft H tunnels deep below Chicago's Loop, used until abandonment in 1957 to haul coal, ashes, and goods (with small electric locomotives), will be refurbished for \$1.75 million by Commonwealth Edison to carry heavy power cables for new air-rights developments east of Michigan Ave, saving excavation of new trenches. 2nd Q: When is the US Army Corps of Engineers not necessarily a villainous builder of dams that inundate historic structures? A: When they devote money and effort to restoring and preserving historic structures. The Corps has, in fact, been in the van of industrial preservation, having in its possession one of the most important examples of IA in NA: the Chesapeake City (MD) Pumping Station, 1835 & c1850 [SIAN 1:5:3]. The water-raising element here, a 38-ft diam x 10-ft timber & iron scoop wheel, untouched since retirement in 1927, is in serious distress from rot and distortion. Conscious of the historical worth of the site, the Corps' Philadelphia Distr recently hired Robert A Howard [SIA] and Frank McKelvy of Hagley Museum to prepare a detailed analysis of the work needed, and the cost, to fully restore the wheel, possibly even to full operation. The report is in, the cost would be within reason. Let us all hope for the successful conduct of this worthy project.

Bryant Pond Revisited: Eat your heart out, Ma Bell. Perhaps you will recall the account last year [SIAN 2:4:5] of the Bryant Pond, ME independent telephone co, one of the last two ring-down or magneto (crank for operator) systems in the state, and the threat to its existence by the Public Service Commn on the basis of a complaint from one customer who imagined the service inadequate. In the time since, the PSC held a hearing at which some 200 happy customers turned out in full cry to support continuance of the company and its allegedly inefficient system. Opposed were two persons only: the original complainant and spouse. PSC took the only course open to it, leaving things exactly as they were.

The Belknap Mill, Laconia, NH, finally has been fully enclosed against weather & pigeons by the efforts of the Save the Mills Soc [SIA] [SIAN 2:5:4, 3:2;1], a major milestone in the preservation & restoration of a superb mill.

B&O "Old Main Line" restored. This historic route, which originally carried the B&O westward from Baltimore through Relay, Ellicott City, Mt. Airy, Frederick and Point of Rocks, MD, constructed c1828-34 and horribly mangled by the Patapsco Valley flood following *Agnes* in June, 1972 [SIAN 1:4], was restored to operation (freight-only) last April. While down, service had been via the RR's nearly equally historic Washington Branch (Baltimore-Washington, c1836) and Metropolitan Branch (Washington-Point of Rocks, c1870).

Coppertown, USA [SIAN 3:1:3] has received a grant from the MI Council for the Arts to plan restoration of the former Calumet & Hecla Mining Co library at Calumet as a historical library, and to catalog CUSA's collection of mining artifacts.

Gas Holder Terminal. One of the few surviving cast-iron gas holders, c1853?, is to fall shortly at the Lewiston, ME gasworks (itself of in-

terest having been one of the-if not the-last manufacturing gas from coal) [cf: Reviews, below]. Some of the columns may remain in Lewiston as decorative elements in a park, but the present owner of the site is anxious to sell the entire holder, or the columns & entablatures individually. He will hold off demolition until appearance of this notice. Can anyone take the entire structure? Al Devoe, DSB Enterprises, 108 Noyes St, Portland, ME 04103. (207) 782-2962.



IA IN ART

Japer F. Cropsey (1823-1900)

Born Staten Island, NY, of Dutch, agrarian descent, and trained in architecture, Cropsey's first love was landscape painting. His wash drawings and oils were most often fine topographical recordings of traditional industries (waterpowered mills, shot towers, etc.) or post-bellum scenes of agriculture and industry flourishing simultaneously (canal and RR scenes).



Cropsey's 14th St Station, Metropolitan (Gilbert) Elevated RR. c1876. New York Historical Society photograph.

His most serious architectural work was done in the '60s and '70s and his best-known designs were for the charming passenger stations of the Gilbert (6th Ave) Elevated RR (1876-1939), NYC. Designing 14 Queen Anne-style stations, including stairs, platforms, and waiting rooms, Cropsey worked in a medium new to him-cast and wrought iron.

Renewed interest in his works has led to a number of recent Cropsey exhibits and the publication, by the Smithsonian's Natl Colln of Fine Arts, of an illus, biographical essay by William S Talber. Smithsonian Press, 1970, 114 pp, \$2.50. Dianne Newell.

MUSEUMS

Malakoff Diggings State Hist Park. N Bloomfield, Graniteville Star Rt, Nevada City, CA 95959. Hydraulic gold mining town with exhibits on process.

Plumas - Eureka State Park. Johnsville Star Rt, Blairsden, CA 96103. Exhibits interpret hard-rock (quartz) mining. Misc mechanical items connected with the industry incl a stamp mill (c1870).

Shasta State Hist Park. Box 507, Shasta, CA 96087. Center of 1850s gold mining area, displays and graphic material dealing with hydraulic gold, silver, and copper mining, c1850-1900.

Columbia State Hist Park. Jackson St, Columbia, CA 95310. Re-created Gold Rush town.

Folsom Powerhouse. Riley St, and Greenback La, Folsom, CA 95630. 9-12 Wed - Sun, summers; weekends only, winter. Generated AC for first long-distance (22 mi) transmission. Powerhouse, in excellent state, includes 4 orig GE generators, c1895-1952, exciter, penstocks, turbines, and switchboard.

Marshall Gold Discovery State Hist Park. Box 265, Coloma, CA 95613. Site of James Marshall's gold discovery in 1848. Exhibits on '49 life and placer mining; operating sawmill.

Fort Humboldt State Hist Park. 3431 Fort Av, Eureka, CA 95501. Exhibits of the area's early logging and military life (1850s).

Bodie State Hist Park. Box 515, Bridgeport, CA 93517. A gold and silver (ghost) mining town (c1890-1914) conserved in a state of "arrested decay." Includes a well-preserved extraction mill with original machinery, and a reconstructed gallows (head) frame. Bodie was the terminal of one of the first long (14 mi) electrical transmission lines (by Westinghouse).



Newfoundland Govt Opens Cable Station Museum at Heart's Content. Heart's Content was the western terminus of several transatlantic telegraph cables, beginning with the first successful one in 1866. Operations were shifted from a wooden structure to the building shown in 1873; additions were made in 1917. The station was in continuous operation until 1964, when abandoned. The province acquired the property and has expended considerable money and effort on its preservation as a museum that is to serve both as a historic site and an educational center. The main operating room has been left as it was in 1964-including much equipment of the 1920s. Modern displays and graphics in other rooms explain some of the principles of submarine telegraphy to the visitor. This is the first of several projects aimed at developing non-military historic sites outside the main population centers. BSF



The Alexander Graham Bell Museum commemorates the inventor's contributions in medicine, aeronautics, marine engineering, genetics, eugenics, electricity, sound, and speech, as well as his invention of the telephone. The Natl Historic Site is located at Baddeck, Cape Breton Island, Nova Scotia, where Bell built his second Canadian home, in 1886, having left Ontario for Boston in 1871. The museum was built in 1955 using for its architectural design the tetrahedron, a geometric form Bell used in kites for testing the principles of flight. Among the displays are models of Bell's 1875 telephone and transmitter; the vacuum jacket he developed in anticipation of the iron lung; and sketches of the *Cygnet*, the 1907 giant man-carrying kite he worked on in his flight experiments, the hydrofoil boat, and the graphophone. FF

The Navy Memorial Museum, established 1961, is located in the Wash, DC Navy Yard in an ex-breech mechanism factory that when completed was "one of the longest buildings under one roof in the world..." The north end, built before the Civil War, in 1899 was extended 299 ft. The exhibits, on ship construction and naval engineering, extend from the Revolutionary War and Continental Navies to the present. KB

DeLaplaine Electrical Museum. 125 Georges Rd, New Brunswick, NJ. Antique electrical items, early appliances, medical devices, tubes, batteries, motors & electric wiring including the Edison System of 1880.

The Pump Room. Seneca Falls (NY) Hist Soc Bldg. Space allows the exhibit of hand pumps only, although since 1840 pumps up to medium size for handling every sort of liquid have been shipped by Seneca Falls mfgrs around the world. Illinois & Michigan Canal Museum. Documents, canal boat model, photos, &c, exhibited in the former canal co HQ bldg, 1838-1969, 1-4:30 PM. 803 State St, Lockport, IL 60441.

The Canal Museum. Weighlock Bldg, Erie Blvd E, Syracuse, NY 13202. Lock and boat models, tools, original engineering drawings, prints, photos. Extensive research library.

Merrimack Valley Textile Museum. [SIA] 800 Massachusetts



Av, N Andover, MA 01845. 1-5 daily; spinning & weaving demonstrations on Sun. Galleries include examples of machinery & equip used in each age of the industry, from primitive to modern. Semi-public stored research collections, the world's largest, in $100' \times 300'$ annex, "Machinery Hall," contain some 300 industrial-era & 150 pre-industrial-era machines dealing with every stage of cotton, wool, and worsted mfgr.

PROPOSALS

Brooklyn Bridge Museum. Assembled by the president of Downtown Brooklyn Development Assn, a group of about 30 met 6 Aug in Brooklyn to discuss establishment of a museum of and to the structure that many consider America's supreme IA artifact. The museum, to be located in a disused city fireboat house (1928), would be the major element in the "Historic Fulton Ferry Devel Area," in the shadow of the Bridge's Brooklyn tower. It would treat the span's historical background, design, construction, modern usage, and maintenance, and the careers of its designer and its builder: John and Washington Roebling. Although few Brooklyn Bridge artifacts survive, there are major holdings of fine graphic documentary material in the hands of the city itself-the entire collection of engineering drawings as well as some preliminary studies-and in several institutions, notably Rensselaer Poly, Rutgers, and the Museum of the City of NY, that could be used as the museum's basis, supplemented by models. The promoters intend that the museum will be operated by an existing institution such as the NY (Brooklyn) Polytechnic Inst, but self-supported by publication and print sales. Collaterally proposed was re-establishment of the Fulton Ferry (original route between Fulton Sts NY & Brooklyn-replaced by the Bridge itself) between the Brooklyn site and Manhattan's South Street Seaport (Museum).

"Spindle City 1820-1920: The Development & Evolution of an Urban Industrial Community," a study project funded by a \$32,000 NEH grant, will investigate, through a task force, the feasibility, ideal coverage and content, site, and likely cost of a proposed Lowell [MA] Museum/Cotton Textile Production Exhibition, a report to be made next summer. Fitting it is that America's first fully successful purpose-founded industrial city has become the seat recently of such intensive ferment in research, recording, preservation, and adaptive use: all the stuff of which IA is made [See SIANs 1:4:4-5, 3:2:1].

EXHIBITIONS

Frank Furness. The famed 19thC Philadelphia architect's works in drawing & photo, incl several of his finest RR stations: Phila & Reading at Chestnut Hill; B&O at 24th & Chestnut and PRR's Broad St Station, both Phila. AIA Gallery, 1735 NY Ave NW, Wash, DC. 4 Nov-29 Dec, 9-5 M-F.



Railroad stations, both great and small, well-known and unsung, have, like the railroads themselves, fallen into a sad state of decline. To ensure at least a partial record of their existence, the Historic American Buildings Survey and the HAER jointly have prepared a 13-panel traveling exhibit of measured drawings, photographs, and written historical accounts describing the importance of the station to the American scene over the past century and a half. The exhibit deals with both the stations' architectural and industrial/ engineering significance. Booking: HAER, Natl Park Service, Wash DC 20240.

Laing Stores. Like the phoenix rising from the ashes, Bogardus' famed cast-iron NYC landmark [SIAN 3:4], removed to make way for an urban renewal project, but carefully disassembled for re-erection—only to be stolen for scrap iron—is reborn, as part of a Smithsonian traveling exhibition.

The show, consisting of measured drawings and photographs, deals with the buildings' significance to the history of architecture. A second aspect of the show is a documentation of the systematic disassembling and recording process undertaken in 1971 by architectural historian Winston R Weisman of Penn State Univ. (Art in *Monumentum*, Vol 9, 1973 pp 63-75) Fee: \$215; c200 running ft. Booking: SITES, Smithsonian, Wash, DC. 20560. (202) 381-5035.

The Eads Bridge—an exhibition of engineering dwgs, prints, photos, memorabilia, artifacts and a 9½-ft model, commemorating the centenary of the opening of the 1st RR bridge over the Mississippi (St. Louis). The Art Museum, Princeton Univ, to 10 Nov. Tues-Sat 10-4; Sun 1-5. Illus catalog with essays, incl one by John A Kouwenhoven [SIA]: \$4. Princeton, NJ 08540. Travels next to St. Louis Art Museum.

Lead & Zinc Mining Scenes of the Past. Oils by Carol Riley of mine structures in the KA-MO-OK "Tristate" district, + ore samples and mining apparatus. Natl Museum of Hist & Tech, Wash, DC, 9:30-5:30 daily.

Florida's Engineering History—a graphic exhibition, was shown at Florida Tech Univ in June & July, assembled by John Paul Hartman [SIA], prof of CE. The exhibit, which included models, photos, drawings and archival material, was based on a HAER Florida Inventory in 1973, conducted by Hartman.

SIA AFFAIRS

The Questionnaire

About 150 of the questionnaires sent to individuals and couples in June were returned, a response of c30%. The results, analysed by Carol Hull, follow, FYI:

1) Should we actively seek more members?

Yes-126 No-13 No response-11. Consensus overwhelmingly favors expansion. Some feel that expansion should come naturally, through people finding their way to the SIA; others favor active recruiting campaigns.

2a) Should we be doing more with what we have?

Yes- 33 No- 26 No response- 58. Other: more field trips; frequent conferences; more misc publs; *monthly* SIAN; cut back on non-academic projects (trips, &c); broader natl PR; more preservation energy; assistance on preservation projects.

2b) Should we be doing something new?

Yes- 8 No- 29 No response- 62. Other: regular journal /magazine; more public involvement; local chapters & activities; seminars on available resources; slide/photo archive; IA films; IA catalog by state/area; bi-monthly suppl to HAER Inventory; interdisciplinary conference to develop more rigorous definition of IA. A general favoring of new involvement, especially on the local level.

3) Maximum dues.

\$10-11 \$15-75 \$20-41 \$25-14 No response-7.

Written comments indicate that few would object to an increase to \$15 (see Motion, below). Several felt increases inevitable but felt that more than \$5 / year would be too much. Others expected to get more for paying more.

4) If the SIA were to publish a "journal," would you favor a journal or a magazine format?

Magazine- 48 Journal- 68 No response- 18 Other: cheapest; neither; both, either. The question tended to draw response from the two choices offered, although others did not wish any publ beyond the SIAN. This is not indicated in the figures.

5) What type of material should the publ include?

Case studies; site reports; surveys; field notes/reports; current project reports; yearly index; biographies; &c &c. Response fell into two catagories: 1) Content & physical makeup, and 2) attitude: philosophical basis. Many were concerned that the SIA, in embarking on a more formal publ, was, or would become, too scholarly, ie, "The SIA is not to slide into a pure, plain stuffed-shirt scholarship organization. Let us save what we have, to study it. And let us study it so we can save it." But equally emphasized was that articles and the publ itself be scholarly, not buffish.

6) Would contribute time & effort to:

SIA Board- 32 Publs- 68 Local chaps- 68 Conferences-42 Membership- 18 Monitoring sites- 72 No response- 23 Other: public education on IA; technical translations; photo recording; legislative & lobbying; local recording; reviews; USA-UK liaison; &c &c.

•

The response overall was gratifying and will be extremely useful to the Board in guiding the future course of the SIA. Sincere thanks to all who took the trouble to respond. *Chester H Liebs, Pres.*

The Journal

Although yet nameless, the much discussed SIA journal seems at last to be on the verge of birth. The Editor is to be Board Member Emory L Kemp, Chairman of the Dept of CE, WV Univ. In hand are a number of manuscripts, prospects of more, and a set of hard prices. Because the existing budget does not provide for a journal, it has been decided to request a \$5 dues increase for 1975. This will not quite fully cover costs, to be made up from library and other sales; possibly grants. This effort has been greatly encouraged by the response to the recent questionnaire, which showed that the great majority of you both favored a journal and felt the dues increase acceptable.

At the Sept Board meeting, NYC, Preservation Committee head Louise M Merritt proposed a network to monitor endangered sites & structures, based on interested individuals, the state historic pres offices and other historic agencies, and the state depts of industrial development. Those of you who expressed interest in this activity on the questionnaire will be contacted in due course. Troy Poster. Copies of the poster for the 2nd Annual Conference, Troy, NY (1973), featuring in watercolor the brick factory (1862) of the W & L E Gurley Co (surveying & scientific instruments) are available; Hudson-Mohawk Industrial Gateway, 5 First St, Troy, NY 12180. \$4.

The Lehigh Valley Tour, 20-22 Sept, was the expected crackerjack. You have seen the announcement flyer so those of you not along know what you missed. No-you really don't. We'll try to set it forth in a Supplement, if we can get it all together. If we can't, then this will have to be the time & place to offer heartfelt thanks to Harry Rinker, York Co Hist Soc director, who got it all together.

MISC NOTES

Origins of a Term. The Assn for IA Bulletin reports receipt of a note from Michael Rix, acknowledged coiner of the term "Industrial Archaeology": "During the break at the AIA inaugural meeting back in March, I was in conversation with a fellow member. He dismayed me with the news that he had come across the use of the term 'IA' earlier than my article in the Amateur Historian of 1955. I asked him for particulars. He said, 'the date is 1951: the publication, History Today: an article entitled "Birmingham": the author, Michael Rix'."

Wind. In response to a growing, intense individual and institutional interest in wind energy, there has been formed the non-profit Wind Energy Society of America, to serve as a central source of information on wind-energy technology and a focus for related research. A quarterly journal is planned. Information: James Ranck, WESofA, 1700 E Walnut, Pasadena, CA 91106.

Archival Collection. An important addition to the group of archival holdings noted last issue is that acquired by the Merrimack Valley Textile Museum, N Andover, MA [SIA]: the Essex Co Colln. The ECo was to Lawrence, MA what the Proprietors of Locks & Canals was to Lowell: the land holding, developing & waterpower leasing firm, and included many of the same Boston capitalists. Their archive apparently has never suffered fire, flood, or new broom, leaving MVTM with an unsurpassed collection of drawings of mills and hydraulic works, corresp, accounts, specs, engineers' notebooks, &c, from 1845 on [see New City, publs, below].

Bryan F Tolles, Jr. [SIA], former Asst Director of the NH Hist Soc, has been appointed Director of the Essex Institute, Salem, MA. Tolles' works for industrial preservation and documentation in NH have been both plentiful and creative.

Position sought. Archeologist/anthropologist: prehist Denmark, France, Israel, SW US; 8 yrs teaching; strong intr hist & IA, living hist farms, all in wide "cultural" context. J Gell, 26 Cherry, Oneonta, NY 13820. (607) 432-4821.

UP Steam Locomotives. The Union Pacific is making available blueprints from its original drawings. List & prices: UPRR, PR Dept, 1416 Dodge St, Omaha, NB 68101.

RR Films. A large selection of 8 & 16 mm; sound & silent rental films on various aspects of railroading is available very inexpensively from the Brotherhood of Live Steamers. List: R M Winkle, 220 1st Ave SW, Rochester, MN 55901.

Restoration of Historic Concrete Structures: a symposium, part of the American Concrete Inst's Annual Meeting, Boston, 9-10 April 1975, sponsored jointly by ACI, Natl Trust, Natl Park Svc, & Assn for Preservation Technology, to develop contacts between those primarily interested in restoration and those whose background is concrete technology. Information, data memo: Howard Newlon, Jr. [SIA], Box 3817 Univ Stn, Charlottesville, VA 22903.

IA Comes to the Tube. On the Johnny Cash Show, 22 Nov, RRs will be featured, in a serious historical, thoroughly researched fashion, we are told.

Research

Guidebook Catalog. John Foundersmith [SIA], urban planner, believing that many professionals and members of the general public want more sophisticated information on cities and towns than is generally available in commercial guidebooks, is preparing an annotated bibliography of guidebooks and guide materials on the man-made environment: arch; urban planning; landscape arch; ce; historic pres; and IA. Designed to fill a gap, it is hoped this project will lead to establishment of a "guidebook system," making it possible to write ahead for guide materials, or to obtain them at regional centers. A central list, with evaluations, also should help improve the number and quality of guidebooks.

Relatively few guidebooks on IA have been published; it is especially important to include as many of these as possible, and to encourage the preparation of others in the future.

Ideally, Fondersmith would like to receive review copies of guidebooks; otherwise complete bibliographic information and a brief description. John Fondersmith, Box 186, Wash, DC 20044.

A Comprehensive IA Bibliography is being prepared by Barbara Abrash & Susan Blandy, who would appreciate copies of course bibliogs, and information on journal/magazine articles; pamphlets; theses, &c. This will be a continuing project, but will be published from time to time, with suppls. RD 1, Rensselaer, NY 12144.



Inquiry. Identification of the suspension bridge shown. Daguerreotype, c1860. Editor.

Still unnamed. Identification of the curious kiln/vault/oven/ whatever described SIAN 3:2:5, apparently has defied most of us. Tentative suggestions trickle in from time to time, but nothing hard. D Morley of Ft Steele Historic Park, BC, suggests a lime kiln, the low operating temperatures within which (as opposed to blast furnaces and brick kilns, say) left little evidence of fire. We are still profoundly interested in learning what is this remarkable remain?

PUBLICATIONS OF INTEREST

Frank Atkinson, Industrial Archaeology: Top Ten Sites in North East England. Newcastle upon Tyne: Frank Graham, in conj with the North of England Open Air Museum, Beamish, Co Durham. 1971. 48 pp, paper. \$1.50. Well illus descr of coal & iron mines & structures; glass works; Parsons' famed turbine boat (the first) *Turbinia*; and other primary sites.

_____, Industrial Archaeology of North-East England (the Counties of Northumberland and Durham, and the Cleveland Distr of Yorkshire). Pomfret, VT 05053: David & Charles. 368 pp in 2 vols. \$27. Vol I treats the industrial history of the NE in general, with chapters on coal, lead, iron, transport, power, &c, modestly illus with photos and cuts; vol II is mainly a gazetteer, with a short para on each place in the area and its IA, with appendices on preservation in the region; an outline of RR development in the Northumberland & Durham Coalfield; and a list of the ry inclines in Co Durham. An altogether fine work, but too thinly illus and heavily priced. Alvin Averback, San Francisco's South of Market District, 1850-1950: The Emergence of a Skid Row. In Calif Hist Quart, Fall 1973, pp 197-223. Sensitive account of a scientific study under Natl Housing & Econ Devel Law Project, Univ of CA, describing the district's evolution from a settlement of prospectors' tents (1850s); to an area of factories for miners' supplies, gas works, shot tower, ship building; to a workingclass center with union halls and hotels; to gradual emergence, after the 1906 quake, as predominently single men's quarters-skid row. "Skid Road" in Seattle had been the trail down which logs were skidded to the saw mill, and along which lumberjacks lived in a community of flop houses, saloons, etc. Eventually the generic term was used to describe the SF district of homeless men.

Brian Bracegirdle & Patricia H Miles, Thomas Telford (Great Engineers & Their Works series). David & Charles, 1973. \$9. Fine photographic record of the great civil engineer's works.

Stanley Buder, Pullman. NY: Oxford Univ Press, 1967 xv + 263 pp. Illus. \$7.95. The man & his factory & town.

Mary Stetson Clarke, The Old Middlesex Canal. Hilltop Press, 333 W Emerson St, Melrose, MA 02176. 191 pp, paper. \$5 + 3% in MA. Seemingly the last word on the earliest US canal of consequence, operating between Lowell and Boston, 1803-53. Fully illus acct of its planning, construction, operation, finances, decline and recent renaissance of interest. Splendid, thorough work.

John L Cotter [SIA], Above Ground Archaeology. Supt of Documents, USGPO, Wash, DC 20402. (Stock No. 2405-00528). 20 pp. \$.60. Sponsored by the American Revolution Bicentennial Commn, a charming guide for the layman to historical resources and projects easily conducted at home & school, incl lists of historical agencies for each state.

Thomas F Hahn [SIA], Towpath Guide to the C&O Canal-Section One: Georgetown to Seneca (MD) (Revised). American Canal & Transp Center, 809 Rathton Rd, York, PA 17403. 55 pp. \$2.50. Delightful, informative guide intended for the hiker but fine for anyone. Full of lore, maps, old & new photos, and lots of information, much on the Canal's IA, by its official Natl Park Service IAist. The other 3 Sections avail @ \$2.50; \$8.50 the set of 4.

H Ward Jandl, Jan Thorman, Katherine H Cole, Historic Railroad Stations—a Selected Inventory. Wash. DC: Natl Register of Historic Places, Natl Park Svc. 120 pp, paper. 1st printing exhausted; a 2nd, revised, in work. A listing of 562 US stations: all those on the NR and the 50 state inventories + recorded by HAER and HABS + a few more. Well organized, listed by state with present uses shown, illus. A thoughtful introd on the significance of the RR station and where it's going. Indexes by station name, RR, architect, and present use make it singularly useful.

useful.

Norman Pfeiffer, Reusing Railroad Stations. NY: Educational Facilities Labs, 477 Madison Ave 10022. 78 pp, heavilly illus. \$4. Fine survey of the entire movement to now by the firm most involved. Concepts, case studies, legislation, &c.

Palmer C Putnam, Power From the Wind (reprint-c1940). Van Nostrand Reinhold Co, 450 W 33d, NYC 10001. 224 pp. \$9.95. PCP was designer of the famed Smith-Putnam wind "turbine" at Grandpas Knob, VT [SIAN 3:4:6].

William H Shank [SIA], Historic Bridges of Pennsylvania. American Canal & Transp Center, 809 Rathton Rd, York, PA 17403. 72 pp. \$3.50 + .21 in PA. Massively illus account of PA's extraordinary bridge history, where were built some of the most important spans in the US: Wernwag's *Colossus*, Palmer's Permanent Bridge, Roebling's Delaware Aqueduct, the Starrucca, Tunkhannock & Kinzua viaducts, and on and on: for common roads, canals & RRs. Fritz Timmen, Blow for the Landing: 100 Years of Steam Navigation on the Waters of the West. Caldwell, ID: Claxton Printers, Ltd. xvii + 235 pp, c300 photos & maps. \$12.95.

Union Internationale des Transports Publics (Ave de l'Uruguay 19, B-1050 Bruxelles, Belgium), **Bibliography of Metropolitan Rys 1970-71**, Vol 4. 225 pp, 1000 bibl refs on construction and operation of metropolitan rys. \$32. And, Unconventional **Passenger Transportation Systems.** 320 pp. 2425 bibl refs to 352 different system types: monorails, air cushion, magnetic levitation, horiz elevators, &c &c; incl exotic propulsion systems & fuels. \$35. Both tri-lingual, F, E, G.

Joseph E Walker, The End of Colonization in the Middle Atlantic Iron Industry. In *Pennsylvania Hist*, Jan, pp 5-27, illus. Features Lebanon Iron Works and focuses on rolling mills, technology, and inventions.

James A Ward, That Man Haupt. LA State Univ Press. 278 pp. \$11.95. One of the 19thC's most important CE figures: US Military RR; Hoosac Tunnel; various other RRs; designer of bridges and the 1st oil pipeline.

Maxwell Whiteman, Copper for America: The Hendricks Family & a National Industry, 1755-1939. Rutgers Univ Press, 1971. 353 pp, illus. \$12.50. (review: the Penna Magazine, April 1972).

Charles Wollenberg, Working on El Traque: The Pacific Electric Strike of 1903. In Pacific Hist Review, Vol 42, No 3, 1973, pp 358-70.

W Ross Yates, Discovery of the Process for Making Anthracite Iron. In *The Pennsylvania Magazine*, April, pp 206-23.

Benjamin F G Kline, Jr, Pitch Pine & Prop Timber: The Logging RRs of South-Central PA. The author: Box 46, Strasburg, PA 17579. 1971. 196 pp, illus. Paper, \$3.

Dorothy Marshall, Industrial England 1776-1851. London: Routledge, 1973.

George S May, The Detroit-New York Odyssey of Roy D Chapman. In *Detroit in Perspective*, Autumn, 1973, pp 5-25. Illus story behind 1902 publicity stunt that was to popularize the Oldsmobile and make Detroit "Motor City."

Blake McKelvey, Rochester of the Genesee: The Growth of a City. Syracuse Univ Press, 1973.

James J Sheehan, Industrialization & Industrial Labor in 19thC Europe. Sussex, Engl: Jno Wiley & Sons, 1973. 185 pp.

W O Skeat, George Stephenson. The Engineer & His Letters. London: the Instn of Mechanical Engineers, 1973. 268 pp, <u>illus</u>. \$11.

John P Snyder, The Mapping of New Jersey: the Men & the Art. Rutgers Univ Press, 1973. 234 pp, illus. \$10. From Dutch times to now.

John W White, Jr, Horsecars, Cable Cars & Omnibuses: All 107 Photographs from the John Stephenson Co Album, 1888. NY: Dover Publs, 180 Varick St 10014. xxxiii + 107 pp. \$4. The customary first-class job from White/Dover. Stunning, betterthan-original reproductions of an album of works photos, the best of Stephenson's products for world-wide service, with long illus introduction on Stephenson, the man & co (several interior views of the works); and the competition.

The Story of Eddystone-a pictorial account of the Baldwin Locomotive Works in 1928. Complete description, fully illus, of the construction of a steam locomotive. 90 pp. Reprint. Newton K Gregg, Box 868, Novato, CA 94947. \$9.45 pp.

Special Publications

de Ingenieur (organ of the (Dutch) Royal Inst of Engineers) 20 June issue is devoted to IA, containing articles (in Dutch or Engl) on the state of IA in Holland and elsewhere by Neil Cossons, Michael Rix, J M Dirkzwager, M Bosscher, and J M Bos. ZIVI, Prinsessegracht 23, Den Haag, Netherlands.

Reviews

David Plowden [SIA], Bridges: The Spans of North America. NY: Viking Press (A Studio Book). 12x10¹/₄. 326 pp; 188 pp photos & dwgs. \$27.50.



Kentucky River Cantilever, Tyrone, KY, 1889. David Plowden.

I The Photography

The spans of North America are its finest structures, and David Plowden's text and photographs do them justice. The book began as a photographic study, but developed into a major work on the evolution of bridge design from the stone aqueducts of the Erie Canal to the pre-stressed concrete Columbia River Bridge, Kinnaird, BC.

Each chapter has its picture section—in addition to the superb photographs, a few engineering drawings and the occasional engraving are included. Surprisingly, these drawings do not obtrude and destroy the integrity of what are, in fact, a series of exciting photo-essays. No attempt is made to relate the photographs with the text; they simply complement each other effectively.

Plowden writes of the bridge that "there is no more overt, powerful, or more rational expression of accomplishment-of man's ability to build." This is illustrated unforgettably by his stunning photographs-whether a detail of a truss, or a long panoramic view. In these days of increasingly trivial and shoddy publishing, this is both a magnificent and a heartwarming book. *Ralph Greenhill, Toronto.*

II The Technology

This text constitutes the most substantial history of North American bridges yet published and will unquestionably serve as a convenient survey of the subject for many years to come. At the same time, it is a disconcertingly uneven production making a fair, short review extremely difficult.

The strength of the text lies in the sheer quantity of useful information provided. Plowden deals with literally hundreds of bridges wisely organized under chapters on stone and brick, wood, iron, steel, and concrete; a breakdown which works much better for American than for non-American bridges, where the categories of material do not correspond as closely to chronology and structural type. The book has been well researched and the information is accurate, though the lack of references or footnotes does not help the reader to follow up leads in which he may be interested, and the bibliography is uneven in the extreme. The author is especially to be congratulated on the inclusion of important regional examples which are not widely known but should be. The extensive travel undertaken for the book has provided him with a wealth of material as well as a remarkable feel for the American character. By good luck, Plowden also writes well, bringing out the significance of his material and turning a largely factual account into a most readable narrative.

Regrettably, the author does not seem to have arrived at a satisfactory relationship betwen text and illustrations. The text really requires diagrams of the structural types and details

described and would profit from even small photographs of the several hundred bridges mentioned but not illustrated. On the other hand, the magnificent, large plates invite detailed discussion of the structure and esthetic effect of the bridges illustrated instead of the sentence or two of factual information one often finds. The photographer-author has provided himself with a rare and much needed opportunity to discuss at some length the elementary linearity of the Poughkeepsie cantilever truss, the dense interlacing of timbers in the Hanover, Montana trestle, or the colossal weight of the Sciotoville through truss. Judging from the book's opening sentence ("one does not need to be an engineer to appreciate the idea of a bridge, or its beauty..."), one guesses that Plowden may expect his photographs to convey this correlation between structure and esthetic effect unaided by words or diagrams, but the average reader is unfamiliar with even the most basic structural types and there is no other field of architecture in which esthetic perception depends so heavily upon knowledge of structure. The uninformed layman will read the parabolas of the Washington Street truss as continuous and will therefore miss the delicate point at which the segments almost touch, but don't.

To make the correlation of plates and text worse, the relevant plate is never referred to when a bridge is mentioned in the text, and as the illustrations: are not indexed and there is no list of plates, the only way to determine whether or not a given bridge is illustrated is to thumb through the plates, an enjoyable but otherwise frustrating activity.

One must also regret that in such a major book the range was not somewhat broader. At least one example of each elementary structural type might have been included, especially where North America provides the world's most spectacular examples; as in the case of Oregon logging bridges (impressive spans of giant Douglas firs cabled togetherstructurally simple wooden beams) or the Capilano suspension bridge near Vancouver (the world's longest suspension footbridge-structurally a simple span in which the steel cables serve as handrails).

Plowden has set impressively high standards for the study of his subject which will have to be satisfied in some areas by other publications. *Charles S Rhyne, Reed College.*

Lewiston (ME) Historical Commission, Historic Lewiston: Franco-American Origins.

This two part study, the first of several proposed publications by the local historical commission to be devoted to Lewiston's various ethnic populations, combines two traditional approaches to the study of local history which are seldom presented together. The first, a brief historical sketch of the origins and life of Lewiston's Franco-American population by Charlotte Michand, synthesizes anecdotal reminiscences of French Canadians who were drawn to that textile manufacturing community during the second half of the 19thC.

What draws the attention of industrial archeologists to the booklet, however, is Pt II, the architectural survey of "Little Canada and Vicinity" by James Leamon of Bates College and architect Gridley Barrows, who provided the photographs. Rather than a traditional IA or architectural survey, it is associational in the best sense of the term. Delineating the urban geography of the Franco-American population, the survey exerpts examples of the impact of industry as well as the cultural impact of this ethnic group upon the city's development. Brief and to the point, the booklet places IA and other sites in a unified and humane cultural framework often missing from our own professional work.

Unrelated to the city's Franco-Americans (whose ancestors seldom "dare to go there uninvited"), is an Irish area adjoining "Little Canada," known as "Gas Patch," which contains the industrial structures and houes around the gas works of the Lewiston Gas Light Co. Here is found a remarkable gas holder with 6 sets of 3-tiered, paired cast-iron fluted columns, barely possibly as early as 1853, which despite its uniqueness in the state (only one other of the type known in the US), is scheduled for demolition—the result largely of local indifference [see Misc Sites, above]. RMC

Donald Beekman Myer [SIA], Bridges and the City of Washington. Washington: US Commn of Fine Arts. (From USGPO, Wash 20402, Stock No. 1000-00005) 96 pp. \$2.45



M C Meigs' "Waterpipe Arch Bridge" carrying Pennsylvania Ave & the Washington (water supply) Aqueduct over Rock Creek, Georgetown, DC. 1860. Still in use but invisible behind stone shrouding.

Since Washington is bounded on three sides by important rivers, bridges have played an important role in its political, cultural, military, social and economic development for the past 180 years. Myer offers the first comprehensive historical survey of over 40 bridges constructed in metropolitan Washington during this time.

The material is well organized in four broad chapters-the Potomac, the Anacostia, Rock Creek, and special bridges. The book is well illustrated with many early photographs and original drawings from the Commn's files, the Natl Archives and other collections. Myer, Asst Secy of the Commn, brings out the enormous thought and effort made during the 20th century in planning Washington's bridges to complement and embellish l'Enfant's 1791 Baroque design of the city.

The important role the CFA has played since 1910 in rejecting poorly designed bridges is abundantly clear. In fact, some of the book's most interesting illustrations are of bridge competition designs that were rejected. In a few cases, bridges of mediocre design have been constructed by the DC Hwy Dept against CFA recommendations; a case in point the Theodore Roosevelt Bridge, completed across the Potomac River in 1960-uninspiring in design and producing a multitude of unattractive access ramps between the Lincoln Memorial and Kennedy Center for the Performing Arts. In contrast, the handsome flat granite arches and classic simplicity of the Arlington Memorial Bridge make it one of the most imposing in the US. The author illustrates conclusively the national importance of certain other bridges, including the massive Potomac Aqueduct Bridge, begun 1833, built on stone piers sunk in especially deep cofferdams. This bridge simultaneously carried pedestrian, vehicular and (C&O) canal traffic. The concrete Taft Bridge carrying Connecticut Ave across Rock Creek achieved national fame when completed in 1907. James M. Goode, Curator, Smithsonian Bldg.

Advertisement

COLLECTORS ITEM FOR SALE

UNUSUAL CHRISTMAS CAROL RECORDING

A unique heralding of the joyous Christmas season occurs, in the city of York, Pennsylvania, every Christmas eve. The event has a tradition here of nearly half a century. At 12:15 A.M. Christmas morning Whistlemaster Marlin L. Ryan plays carols on a 100 year old factory steam whistle: *Silent Night, The First Noel, It Came Upon a Midnight Clear, and O Come All Ye Faithful.* 7 in., 33-1/3 LP Hi-Fi album \$4.50; Cassette Tape \$6.00; Reel-To-Reel Tape \$6.00. Marlin L. Ryan, P.O. Box 322, York, PA 17405.