

**SOCIETY FOR
INDUSTRIAL
ARCHEOLOGY**

NEWSLETTER

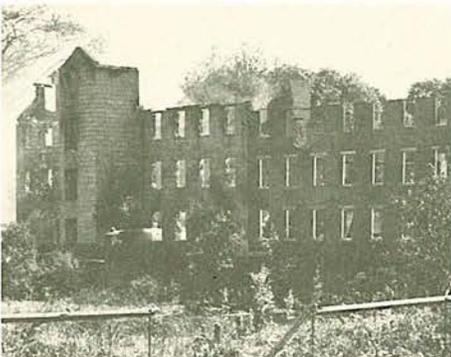
Volume Four Combined Number 4 & 5

July & September 1975

CROWN & EAGLE MILL BURNS



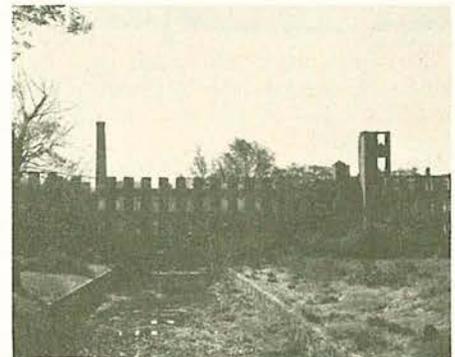
Worcester Telegram & Gazette.



Old Sturbridge Village.



Old Sturbridge Village.



Stanley Moss.

Story on next page.

Room 5020

Published by the Society for Industrial Archeology
National Museum of History & Technology

Editor: Robert M. Vogel

Smithsonian Institution

Washington, DC 20560

CROWN & EAGLE MILL

It is no exaggeration to describe the near-total destruction of the Crown & Eagle cotton mill, N Uxbridge, Mass. on 2 Oct, as one of the most tragic losses ever of America's IA. The cause was, as is so often the case, fire. The difference here, and the irony, is that the mill was not lying fallow, waiting for some adaptive reuse scheme to be brought forth (although it had, in fact, lain so off and on since 1924 when it last produced cotton sheeting and shirting). About three years ago the mill had been purchased by developers for adaptation to apartments in a promising plan [SIAN 2:3] that was just about to get underway.

The mill was composed of three principal elements: the granite Crown Mill of c1825, the nearly identical Eagle of c1830, and the unique 1851 brick connector spanning the Mumford River on granite arches and composite timber/wrought-iron trusses. It was widely regarded as the finest surviving textile mill in N America from the standpoint of its architectural splendor, age, structural and architectural integrity, and setting. It had been recorded in 1967 by HABS's New England Textile Mill Survey and was, fittingly, in the Natl Register.

Arson is a certainty, the fire having started at several points simultaneously. There is no official suspect but one local delinquent currently is a favorite.

The granite and brick walls of the mill were left nearly intact and largely sound. The developers, Healy, Healy & Dixon of Framingham presently are re-negotiating with the Mass. Housing Finance Agency for a major loan that had been withdrawn not because of the fire, but rather the current NYC fiscal debacle. Healy, despite the double setback, plans to go ahead, restoring the mill's exterior to original appearance. The fire largely spared the c1870 brick wheelhouse at the W end of the Crown section, which contains a Swain vertical turbine of the same period, among the earliest in the nation *in situ*. Wheelhouse and turbine will be retained.

Awaiting final approval is a Natl Park Service grant-in-aid of \$180,000 for restoration of the head and tail races, major site elements, the money to be dispersed through the Mass. Historical Society.

FILMING FINAL FOREST FLOAT



The final major pulp-wood river drive in the Northeast, bringing to a close over 200 years of river driving in the US, is being recorded on film by the White Mountain Museum of Forest History.

The log drive, down the Kennebec from Moosehead Lake, Maine, began in mid-May with the spring thaw. The Kennebec Log-Driving Co, chartered in 1835, is driving the 250,000 cords (equivalent to a pile 4 ft x 4 ft x 400 miles) downriver to the Scott Paper Co mill in Winslow. Filming has gone well so far, and will be completed next spring after high water, when the last logs are gathered from tributaries.

New technologies in paper making, allowing for extensive use of hardwoods, have brought about the obsolescence of river driving throughout New England. Since hardwoods do not float well, efficiency and environmental considerations

seemed to dictate the total change to truck transport. Legislation already enacted will prohibit river driving in Maine henceforward.

There are now, however, mixed feelings among residents, environmentalists, and fishermen who once wished to see river driving ended. The wholesale trucking of logs might well, in the long run, prove more costly in terms of energy use and environmental degradation. Riverside residents will miss the awesome spectacle.

Film editing will cost about \$15,000 and funds are vigorously being sought. Donations/information: Nuna Montgomery, WMMFH, 5 State St, Concord, NH 03301. *EMB*.

HUNSECKER COVERED BRIDGE REBORN

A new bridge of similar design has been completed to replace the 1848 Burr-type Hunsecker timber truss bridge spanning Conestoga Creek N of Lancaster, Pa. The original was washed downstream and damaged beyond repair by the hurricane Agnes floods in 1972.

For both economic and aesthetic reasons it was decided to loosely replicate the lost span rather than erect a bland modern counterpart. Albert Stallknecht, engineer with Rummel, Klepper & Bohl of Mechanicsburg, studied old photographs and inspection records to obtain the dimensions of the original. The new bridge, of 168-ft clear span, has been rendered in douglas fir with oak flooring, cedar shake roofing, and redwood sheathing. The original was framed in eastern white pine.

The basic Burr patent of 1817 specified rectangular, single-intersection trusses reinforced by full-span, full-height laminated timber arches. The system was employed in more timber bridges than any other. Where truss bridges typically are erected on falsework that supports everything until the trusses are complete and thus self supporting, the Hunsecker trusses were wholly fabricated on the bank and hoisted into place intact by crane. Total cost: \$321,000. *DB*.



Hunsecker Bridge. Framing complete and sheathing begun (above); one truss being hoisted into place (below). *Penna. DOT photos*.

Contributors to this issue: Debbe Baker (summer volunteer), Elsa M Bruton, Charles T G Looney, all Natl Museum of History & Technology. **A word of explanation.** Our regular subscribers may have observed that this issue, although denoted *July/Sept*, has, in fact, reached them in early *November*. Despite the fact that there appear herein several timely items dealing with events that occurred in, say, October, we steadfastly declare *that the fault lies entirely with the U.S. Postal Service, who promise to do better in the future.*

THE BEST LAID PLANS &c &c

We're far from a time of total enlightenment in the field of industrial preservation. As in any crusade involving masses of money and the large-scale modification of social and professional attitudes, battles are both won and lost in the name of the cause. There have been some stunning victories reported here in the past year or so, but news of defeats also comes, unhappily. Two recent cases involving outstanding railroad structures are especially tragic as both examples had been on the verge of salvation.

THE CENTRAL OF GEORGIA'S SAVANNAH SHOP COMPLEX, 1850-55, the oldest essentially unchanged RR repair shops in America (the B&O's Mt Clare, Baltimore, while an older site, has none of its early buildings standing) and a strong candidate for preservation and adaptation to a series of civic uses [SIAN 1:2:3], now is on the list of the doomed. The complex, an adjunct of the passenger and freight stations, was regarded as the most complete in the nation.

A consultant team engaged by the city to do a preliminary development plan of the area has recommended demolition of all but a few of the original structures in the grouping, justification being not only the need for a Bicentennial park on the site, but the "extremely poor condition" of the bulk of the shops. Alternatively it has been suggested, though, that instead of thinking in terms of total reconstruction, the cost of which would be intolerable, a more pragmatic approach might be to stabilize and maintain the structures as industrial ruins.

Precedents exist in the preserved ruins of some of the du Pont powder mills at the Hagley Museum near Wilmington and of various of Darby's early blast furnaces at the Ironbridge Gorge Museum in Shropshire. The plan is a valid and desirable option to a proper restoration, but if not taken up quickly will be mooted for the buildings inexorably are falling in on themselves. The complex is in the Register and was documented this past summer by HAER. The City of Savannah owns the property and is seeking funds to protect the site and stabilize the structures. The Savannah-Chatham Co Historic Site & Monument Commn was established by the city to explore alternatives on the future use of the site in conjunction with the proposed Revolutionary War Battlefield Park commemorating the Battle of Savannah which took place on the same ground.



CofGRR Savannah Shops. Machine Shop, May 1975. Compare with photograph of early 1972 in SIAN 1:2, page 3.

STARRUCCA HOUSE PLAN SINKING. The promising plan to adaptively reuse the Erie Ry's stunning neo-Gothic station-hotel in Susquehanna, Pa., last of the breed on a grand scale [SIAN 4:1, 4:2/3:8], is suddenly, appallingly, on the verge of total collapse. Reports F G Hough, Secy-Treas of the Council of the Borough of Susquehanna Depot, the group formed to administer the various grant funds looked for to restore and refit the building which is desperate condition and considerable jeopardy: "... the Borough has recently learned that ... title was not transferred by deed of gift as a result of legal and tax problems of the owner. These problems were recently resolved, but in the interim the major source of non-local funding through the (Fedl) Economic Development Admin dried up. This EDA grant of \$500,000 was most important because it would have made possible the repair and restoration of the exterior walls, roof, and fenestration plus the restoration of the Great Hall's spatial integrity, which would have given an impetus to the project.

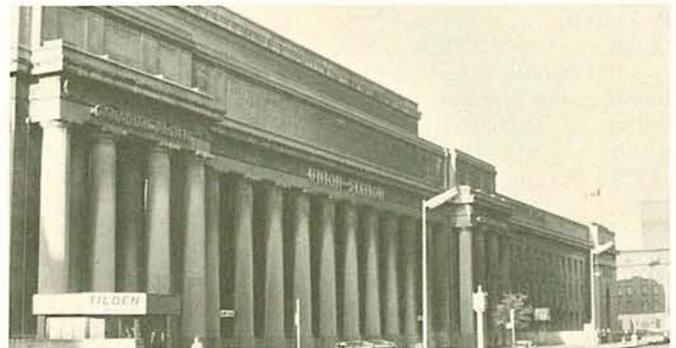
"Now the future of the Starrucca House is in great doubt because we do not have the resources locally for a 100% local share restoration ..."

NEWS OF THE MAJOR STATIONS

The following reports are by three of the SIAN's network of loyal, unpaid correspondents.

TORONTO. May 27 a press conference was called in Toronto, at which Premier Davis and Mayor Crombie announced that the Metro Centre project for the re-development of the Union Station area was to all intents and purposes, a dead issue. It will be recalled that a number of years ago it was proposed to build a massive complex of office buildings and hotels on the site now occupied by the CP Rail's and CNR's old freight yards and roundhouses. This involved demolition of the present Union Station and aroused an immediate outcry from architects, historians, and others concerned with the increasing tendency to construct edifices beyond the "human scale", and to concentrate these in an area already plagued with an unmanageable traffic problem. The situation inspired the book *Open Gate* which was reviewed some time ago in *SIAN*.

With the election of a reform-minded mayor and council in 1973, and the rapid escalation in building costs, the future of the project appeared to be in doubt, and this has now been confirmed. The only structure erected has been the CN Tower, an obscene concrete needle, now the dominant feature of the Toronto skyline. Dubbed the "world's most unnecessary building" it is alleged to be the tallest unsupported structure extant, being 1800 ft to the top of the TV tower. Under the proposed scheme, additional buildings will be put up to the south of the present station, which will involve destruction of the existing Bush train shed. However the station itself will be retained, the office areas modernized, and the east wing, presently the Toronto Postal Terminal, will be adaptively re-used once the Post Office moves to its new facility in October. *R J Corby, Natl Museum of Science & Industry, Ottawa.*



CLEVELAND. Amtrak and Cleveland city officials have foresaken an opportunity to revitalize Cleveland's 1929 Union Station ("an incomparable Art Deco example"—*Ada Louise Huxtable*) when inter-city rail service returns this fall. Instead of re-using the convenient downtown station it already has, a new "no frills" station on the city's lakefront is to be built, close to City Hall but blocks away from the city's mass transit hub at Public Square and the Euclid Ave commercial area.

Designed by Chicago's Graham, Anderson, Probst & White, Union Station was uniquely situated beneath the landmark Terminal Tower building, part of the Van Sweringen brothers' plan to link their new suburban development of Shaker Heights by rapid transit with the city. The building, which features marble floors and walls, seven Jules Guerin murals, and a plethora of architectural bronze, from shop fronts to ticket counters, is still used as a rail station for the Shaker and city rapid transit lines. But so, too, is it unfortunately used for fast food counters and a tennis club's courts (!), some of the lovely chandeliers and other decorations having been removed and sold with the installation of 10-ft cyclone fencing.

Amtrak claims that station, track, and signal restoration would cost some \$4 million and delay Amtrak operations in Cleveland for up to two years. These claims so far are unsubstantiated and there has been incredible lack of debate about this issue by either city council or citizens. Meanwhile, the design for the "new, modest little station" has been approved by the Fine Arts Committee, City Planning Commn, and City Council. Union Station continues on its path of slow, steady decay. *Carol Poh Miller, Cleveland.*

BOSTON. The note on Boston's South Station being placed in the *Natl Register* [SIAN 4:2/3:8] needs clarification. The Mass. Historical Commn, at the request of the Boston Redevelopment Auth, did not nominate the entire Station to the Register, just the curved central portion known as the "Headhouse." The great shed disappeared years ago, one wing already has been demolished, and the other wing—or at least the land under it—has been conveyed to Stone & Webster Corp under a contract entered into by the Dept of HUD, the BRA, and the developers. Present plans call for demolition of the wing by 1976 and construction of a landscaped garden in that area.

While the Register had hoped that Mass. would nominate the entire extant station, it was felt, however reluctantly, that insuring preservation of part of this once great station—the "Headhouse"—was more important than an entirely new building or an empty lot.

What is listed in the Register, then, is not South Station but a small fragment of it—the only tangible portion that the BRA has elected to preserve. *H Ward Jandl, Natl Register.*

S I C C I M—BOCHUM

The Second Internatl Congress on the Conservation of Industrial Monuments, following by two years the First, was sponsored by and held 3-9 Sept at the Bergbau [Mining] Museum, Bochum, in the heart of Germany's industrial *Ruhrgebiet*. There were about 60 delegates from W & E Germany, England, Wales, Poland, the U.S., Japan, Hungary, Czechoslovakia, France, Sweden, Norway, Denmark, Austria, Holland, and Belgium. A Russian delegation had been booked but failed to show. In the seven, full days both old and new ground was covered, much of it extensively.

The opening paper by, appropriately, Kenneth Hudson [SIA], posed the question, "Who Owns Industrial Archeology?" immediately establishing a theme that pervaded the Congress: while all industrial archeology may not be concerned with industrial monuments, all concern for industrial monuments is industrial archeology. Hudson made clear that *archeologists*, industrial and otherwise, don't own archeology, industrial and otherwise; they are nothing more than interpreters—one form of expert among many. The

clearest indication of the misconstrual—among archeologists themselves, at least—that they are the "owners" of archeology, is seen in the many archeological museums that display countless artifacts but tell nothing of the people who owned and used them. The industrial archeologist, at least, must be aware that industrial monuments are monuments to human effort even as a church is a monument to religious fervor. Industrial monuments thus are owned by the people who made that effort, and thus it is they—both the little and the big people—who own industrial archeology.

There were regrettably few and abbreviated reports on the progress of industrial monument preservation in the countries represented during the two years since FICCIM, but in the course of the Congress it gradually became evident that there had been considerable, especially in W Germany, the U.S., and Great Britain. In Sweden and E Germany things have been more or less stable, and in those nations heard from for the first time—Holland, France, Austria, the E Europeans—there is a rapidly growing awareness of the need to preserve industrial monuments which is being implemented with varying degrees of practical work. In Poland, particularly, there is strong concern for the preservation of early mining sites and relics, both *in situ* and in museums.

Following a trend set at FICCIM, and by Hudson's initial query, much attention was devoted both by speakers and in discussion to the "human" or "social" aspects of preservation, with special emphasis on the housing not only of workers, but all others associated with industry, including "management."

Interspersed with the papers were several short visits to sites near Bochum, including the reconstructed "Windenschmiede" (jack works) of J D Neuhaus at Witten-Heven where the production of wagon jacks began in 1745; one of the few surviving "Malakoff Towers," large masonry towers built in the Ruhr during the mid to late 19thC to house and support coal mine pithead gear (this one, the *Julius Philipp*, built 1875, has been preserved); and the "Egbert" colliery, with 5 miners the smallest operating in the Ruhr. The next to last day was taken up with a trip to a variety of remarkable sites, outstanding of which were the famed "Schwebebahn," the hanging monorail that has been operating between Wuppertal and adjacent towns since 1897; the Müngstener Brücke near Solingen (1893-97), longest steel arch bridge in Germany (main span 555 ft [170 M]); the 18th-19thC blast furnace "Luisenhütte" in Wocklum, with its water and steam-powered blast engines intact; the survivals of a medieval silver mining site on the Altenberg; and a preserved water-powered tilt hammer at Lendringsen. The final day featured tours of a large, recently abandoned ship lift (by water-filled caisson) (1899) on the Dortmund-Ems Canal; the spectacular Art Nouveau machine gallery (1903) of the Zollern II coal mine at Dortmund-Bövinghausen which though abandoned, has had the machinery left intact and preserved; and finally, the open-air industrial museum at Hagen. Here, on an enormous site, have been gathered a large number of 19thC shops, mills, and small factories, mostly in new structures. Most are waterpowered, fed by an elaborate system of races. The overall effect is splendid, although somewhat diminished by the compulsive orderliness of both the grounds and the building interiors—a textbook case of overrestoration.

Several mildly controversial issues arose during the course of the Congress, principal of which was the choice of location for TICCIM—the 3rd congress, to be held in 1977 or 78. The USA was heavily promoted as a logical host, not, as might be supposed, by the American delegates who resisted the idea for a variety of reasons. The final selection was Sweden with Holland and Poland as 1st and 2nd alternates.

A proposal by the hosts to organize an international committee for IA, to be associated with UNESCO, was debated, it being determined finally that for the moment little benefit would result in proportion to the masses of paperwork and lost motion that would inevitably be generated, so the notion was shelved.

FICCIM TRANSACTIONS

Coincident with SICCIM, appropriately, appeared the Transactions of the First ICCIM, held near Ironbridge, Shropshire in 1973 [SIAN 2:4]. Edited by Neil Cossons, Congress Secretary and Director of the Ironbridge Gorge Museum, it comprehensively reflects the state of industrial preservation and IA in the Western World at that time. In 25 articles—essentially the principal papers delivered at the Congress—are discussed government preservation and recording programs; and museum and on-site preservation, both general and specifically dealing with light houses, mine complexes, steam engines, suspension bridges, workers' communities, the S.S. Great Britain, windmills and watermills, and a 19thC "coal drop," in GB, Germany, Canada, Sweden, and the US. Both theoretical and practical aspects of these matters are dealt with, and the content of the papers is highlighted and supplemented by an edited version of the floor discussion that formed a vital part of the Congress. Many of the slides accompanying the papers are included as illustrations. A list of the delegates is included. The Congress is described and evaluated in an introduction by Cossons.

This probably is the most important document on IA directions to have appeared, presenting a view of the field totally different from those found in the pioneer writings of Hudson, Rix, Buchanan, & Raistrick.

Ironbridge Gorge Museum Trust, Ironbridge, Telford, Salop, England. 203 pp, paper. \$13 (£6) PP.

AIA ANNUAL MEETING—DURHAM

The Assn for IA held its Annual Conference at the Univ of Durham 12-14 Sept. Reflecting the Assn's largely British base, most of the 80-odd delegates were from GB, with three from the US and one from Canada. Four papers were heard, on various aspects of IA in the North-East of England, the outstanding one of which was the L T C Rolt Memorial Lecture (in honor of the AIA's first president, the late Tom Rolt [SIAN 3:5]) on "The Engineers of Sunderland Harbor 1718-1817," delivered by the eminent civil engineering historian A W Skempton. A description by Mike Satow, coordinator of the sesquicentennial celebrations of the opening of the Stockton & Darlington Ry in 1825, of the construction of a full-scale, working replica of the S&D's first locomotive, the *Locomotion*, was of enormous interest. The S&D, with *Locomotion*, was the world's first public railroad to be operated by steam locomotives. One afternoon was devoted to a variety of field trips to, among other places, the North of England Open Air (Beamish) Museum, a rapidly growing institution housing numerous large relics of mining, railways, and other IA, all from the North-East centering around Newcastle and Durham. Here the replicated *Locomotion* itself was seen, although, regrettably, not under steam on this occasion. The event concluded on Sunday with the business meeting, conducted with characteristic British devotion to both the major issues and the finer points.

SUMMITRY BY ALTERNATIVE MEANS

Three-quarters of a century ago the urban horse population began taking on the dimensions of a public nuisance with the streets being turned into canals of noxious broth. There were several options, and these were explored for fun and profit, before America signed and sealed in precious blood its pact with the infernal, um, internal combustion engine, c1915. Among also-rans were electric, steam and fly-wheel driven vehicles.

In June, the Mt Washington Alternative Vehicle Regatta demonstrated, *inter alia*, that we have come full circle, the collective effluvia of the gasoline engine having become as unacceptable as—if less visibly repugnant than—that of the equine based transport of yore. Also demonstrated was the fact that many of these early power sources—lead-acid battery, steam, fly-wheel, &c—were counted out prematurely, and dressed in the fine new clothes modern technology can fashion for them, might well deserve a warm welcome back.

The Regatta, which is expected to be an annual affair, was the brainchild of Charles E MacArthur [SIA] of Tolland, Conn., in real life "just a mild mannered report for the *Daily Planet*," who states that the objective is "to demonstrate durability, integrity, efficiency, economy, and best use of natural resources."

There was no typical entrant in the Regatta. If any single characteristic united the participants, it was an activist's sense of social responsibility. Otherwise, the event brought together backgrounds as diverse as motivations. A North Carolina oil company entered a fly-wheel car, powered by a diminutive gasoline engine, that doubles and triples (depending on driving conditions) ordinary gas mileage, which it is developing as "the car of the future" in a serious business enterprise. Similarly, Corbin-Gentry, Inc of Somersville, Conn. presented the "World's Best Buy in Electric Transportation"—a recycled VW, driven by a C-G battery-motor kit—and a variety of sleek and swift battery-powered motorcycles. These people are anticipating profitable future markets for their products and their machines, as might be expected, were high performers.

In contrast, there were hobbyists with such entries as a simple lead-acid battery powered "Volts Wagen;" an improbable looking torpedo-shaped electric two wheeler; and a steam-powered motorcycle from Calif. A windmill was erected near the summit by Enertech Corp of Norwich, Vt., to recharge batteries, demonstrating the interface between energy systems and sources.

So there is little new under the sun, with the exception of the silver-zinc batteries used in the commercial electric cars (highly successful, but presenting obvious cost problems for any possible mass-market scenario). But if the concepts are ancient ones, sophisticated technology and environmental pressures may soon make them practicable. *EMB*.



An electric VW conversion at Mt Washington summit, 4725 ft above and 8 miles beyond the base.

ALTERNATIVE VEHICLE REGATTA 1976

And in the wake of this event, Mark II is being planned. Note the date: 17-22 June 1976—a challenge to amateur and professional builders of prototype/production engine-driven alternative vehicles, with a trophy for efficiency and lowest resource consumption. Data, rules, &c: Mt Washington Trophy, Box 634, S Windsor, CT 06074. (203) 289-6852.

KNIGHT'S FOUNDRY ON N.R.

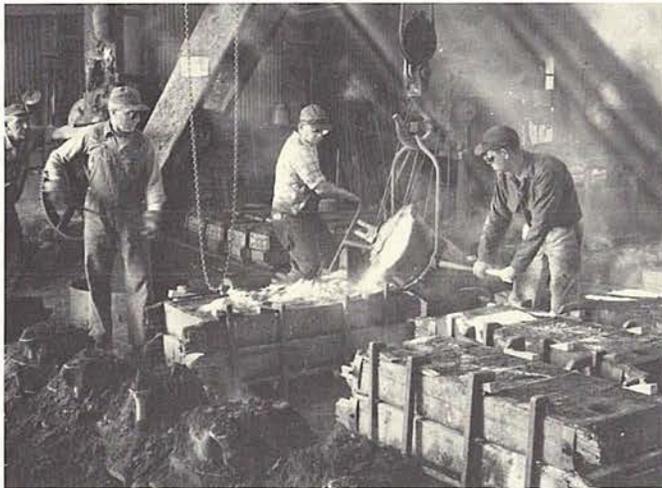
Still in operation, Knight's Foundry in Sutter Creek, Amador Co, Calif, was established in 1873 by Samuel H Knight and George Horne to supply the mining industry of the area with machinery and mining appliances and as a local general repair facility. It was not the first foundry in the area, but the first of sufficient size to meet all local demands. Knight's at one time had the largest machine shop in the West outside San Francisco, a foundry with 2 cupola furnaces, a riveted-pipe shop, and a complete blacksmithy.

From 1873 to 96 Knight's was concerned primarily with the production of impulse water turbines. The Knight wheel was used to power stamp mills, hoists, and other mining equipment in the Mother Lode area. In 1897, with stiff competition from the Pelton turbine, the firm began to direct its efforts to designing and producing heavy mining equipment and dredges,

and by 1912 was producing hoisting engines. A Knight Timber Framing Machine also was developed to square the ends of logs for mine framing.

In 1928 Knight's patented a new machine that would achieve statewide use: the scarifier, an early road ripper used on rutted country roads that could then be flattened by a grader. In 1936 fire destroyed the pattern shop, office, and part of the machine shop. That, coupled with the outbreak of war, greatly reduced operations, but the foundry still is in operation today engaging in specialty work and repairs.

Knight's Foundry, apparently the last water-powered commercial machine shop in the US, has just been placed in the Natl Register, due largely to the unrelenting efforts over several years of Robert D Spear [SIA] of San Mateo. The foundry is open daily and visitors are welcome. Casting on Fridays. *DB.*



The weekly pour at Knight's.

Robert D Spear photo.

TROLLEY CAR REVIVAL

Every day it's more like coming home again. Most recent impending revival of a prior technology is reported by the NY Times (and many other sources) in a lengthy article describing the growing "desire named streetcars." There have been, of course, a number of N American cities that never completely abandoned streetcar service: Boston, Newark, New Orleans, Philadelphia, Pittsburgh [SIAN Suppl 6], Shaker Heights, Ohio, and Toronto, to name the principal ones.

Most cities drove the trolleys off their streets, taken in by the unrelenting blather of the highway lobby (there was, regrettably, never a traction lobby, at least a visible or vocal one) assuring us that both urban street and interurban railways were old fashioned, inadequate to modern traffic requirements, inflexible, expensive, &c &c. Something like 20 years later there has come a gradual dawning that "light rail transit," as it now is styled (as opposed to high-speed, high-capacity lines operating in subways or on elevated structures or on-grade private rights-of-way), has substantial advantages over free-wheel transit (buses) in many areas. One of the classic objections to urban electric traction—the network of overhead wires—has been recognized by one public official as a small price to pay for elimination of the pollution of dieselbus fumes.

The new appreciation of urban electric traction is evidenced by:

- Dayton becoming the first American city to develop a plan for a comprehensive light rail system, with Rochester and Buffalo considering same;
- Boeing-Vertol having under construction for Boston and San Francisco 275 of the first trolleys to be built in the US since 1952; and
- A number of smaller cities planning to upgrade existing systems or build new ones.

MISC SITES & STRUCTURES

K & E Conversion. Adaptive reuse is the theme for the Keuffel & Esser factory in Hoboken, N.J. It is the first inner-city moderate-income factory-housing conversion in America.

William Keuffel and Hermann Esser brought their drafting supply and surveying instruments factory to Hoboken in 1874. The present structure was built in 1906, of reinforced concrete. K & E, outgrowing this facility, moved out several years ago leaving behind this great L-shaped landmark. Urban decay in Hoboken has provided an impetus for Federal programs, and the K & E renovation—a Model Cities project—has received \$5 million worth of funding. It is expected to inject new life into the neighborhood, and new hope into Hoboken's inner city.

By rehabilitating a factory into housing, costs may be cut 30% below conventional construction costs, since floors, walls, and some utility systems already are in place. Construction time also can be cut 6 months. The conversion will provide 173 modern apartments for families with incomes between \$7,600 and \$17,300. Apartments will rent from \$143 for efficiencies to \$255 for 4 bedroom units. Expected completion date is May 1976. *DB.*

'75ers. Sparked by rising gold prices and the new laws that allow Americans to own bullion for the first time since the 1930s, gold mining is making a comeback in Calif. Along the Yuba, Feather, and American rivers, hardrock miners have returned to the mines' decaying tunnels with more efficient machinery, safer working conditions, and a more scientific approach than that of the brawling '49ers. Airconditioned 4-wheel-drive vehicles have replaced the mules, the pick is now a pneumatic hammer, and the shovel a motorized scoop. The renewed work at 2 mines in Yumas County will bring in about 35 miners and add approximately \$450,000 annually to employment revenues. *DB.*

Graniteville Examined. The Alicia Patterson Foundation Fellowships, awarded annually in the autumn for a year of travel and inquiry, have been awarded to 5 journalists for 1975. Applications are accepted from newspaper, magazine, wire service and broadcast journalists; editors, and free-lance writers, with at least 5 years' professional experience. Fellows examine their chosen subjects—areas or problems of significant interest, foreign or domestic—and write regular newsletters about them. These are circulated to editors and others interested, and are available for publication. [A P Fndn, 535 Fifth Ave, NYC 10017. (212) 697-0868.]

The topic of one 1975 recipient, Richard Pearce, free-lance film-maker/journalist, concerns "The American Industrial Revolution: Textile Mill Towns of New England & the South." In his publications Pearce has given a brief historical account of Graniteville, S.C., a "mill town with a large two-story cotton factory at its center, built 'in the New England manner' out of huge blocks of local blue granite quarried from the surrounding hills." The town was begun by William Gregg (1800-1867) who was "one of America's earliest guerilla fighters for industrial capitalism in the heart of the Antebellum South." Pearce devotes one newsletter to the company's present president and past valuable employees. Further bulletins are planned.

Silk Mill. In *SIAN 4:1* appeared a brief note of a former silk mill in Derby, England, to which this is a supplement.

In this mill, built in 1702, Thomas Cotchett began for the first time seriously to mechanize the process of throwing or twisting silk thread for the broad silk weavers and knitters in the area. By its expansion in 1717 it intensified silk production in England, and was directly influential on the later development of the wool and cotton knitting industries of Leicestershire and Nottinghamshire.

Broad silk was manufactured in England from 1620 and, although the industry developed quickly, it could rival its European competitors only after Cotchett's great mill had been built. The process of throwing organzine had been a

well-kept secret until Thomas and John Lombe lifted plans from Sardinia. This "industrial espionage" enabled the Lombes to build a larger factory extending the old Cotchett mill. So great was the Lombes' undertaking that at the end of their 14 year patent the growing silk industry still clamored for organzine. Parliament ordered them to allow mills to copy the machinery, and the mill's decline began.

A museum presently is located in the structure, which still retains its approximate external dimensions, its 5 shallow stories having been converted into 3. The ground floor gallery houses the Rolls Royce Collection of Historic Aero Engines. The first floor gallery's theme is "An Introduction to Derbyshire Industries" in which the geology of the county is shown to have determined past and present industries. A special section is devoted to the textile industries. *DB.*

Hard times in the Metals Trades. Phelps Dodge Corp, the venerable copper firm, in June closed its legendary 80-year-old Copper Queen (deep) mine at Bisbee, Ariz. due to depletion of economic ore; U.S. Steel has been forced by the Environmental Protection Agency to close down five elderly, polluting open hearths at Fairfield, Ala.; and Jones & Laughlin Steel Corp has shut down at its Pittsburgh Works a blast furnace, a blooming mill, and three open hearths, describing it as temporary pending a business upturn, but alarming labor and other local groups affected who fear that a complete and permanent shutdown is possible, due to the plant's general obsolescence. Much of this plant, including the open hearth furnaces, was toured during the SIA 1974 Annual Conference. (Articles on Bisbee: *Arizona Highways*, Sept, Oct.)

Coolidge Mill Passes to City. The mill, built in 1909 by the mighty Amoskeag Mfg Co of Manchester, N.H. (at its height the largest textile manufactory on one site in the world), for most of the time since Amoskeag's demise in 1936 occupied by a Johnson & Johnson division making medical cotton fabrics, has been abandoned by J&J and given outright to the City of Manchester which is seeking a single industrial tenant in hopes of avoiding subdivision among several small firms. With 700,000 sq-ft the largest of the numerous Amoskeag mills and their next to last major building erected (the last in 1915), it was the first to be designed exclusively and expressly for electric drive.



Part of the Amoskeagscape bordering the Merrimack River at Manchester. Coolidge Mill at arrow. *Natl Park Service photo.*

Harrisville. The N.H. mill village that is so widely regarded as the finest surviving example of the type in New England, and which was saved from certain death following closing of the supporting woolen mill in 1970 through purchase of the mill by the Filtrine Corp and its adaptation to light manufacturing, continues to flourish. One of our roving reporters, Harold C Field of Harrison, N.Y., advises that he stopped off there last May to see how things were: "... humming. The mill building that straddles the dam [the Harris Mill, 1833] was vacant until recently, but is now being readied for occupation. Harrisville Designs, whose owners were the guiding spirit of the whole conservance project, will be occupying the ground floor, while a Canadian woodworking company has taken the second floor and loft. Electricity &c was being installed, partitions built ... and all looks extremely hopeful. There is still a dedication to making H'ville a working village and not a tourist show, viz, no tours, no special parking place, no restaurant quaintly

decked out. The town was sparkingly beautiful, serene yet purposeful ... Woodwork freshly painted, brick glowing in the unreasonably warm morning, mill pond decorated with ducks and ducklings."

Can the Washington Elm save the Old Schwamb Mill? In 1775 Washington took command of the Colonial troops under this tree, in Cambridge, Mass. It stood until 1925 when it was inadvertently pulled down in the course of restoration work. Recently, the last of its surviving timbers came into the hands of the Old Schwamb Mill, a turnery of round and oval pictures frames—the only one in the U.S. Schwamb, about to go under in 1969, was rescued and preserved as a combined living museum continuing to produce frames, and an arts and crafts center, all operating as a non-profit charitable trust headed by the project's prime mover, Patricia Fitzmaurice [SIA]. To finance massive structural renewal of the c1864 building, OSM has placed on sale a limited edition of 75 oval spandrel frames, 4 x 5 inches, made of the Washington Elm timber. The frames, turned on the Schwamb lathes, contain an original woodblock print of Washington taking command &c. Each is authenticated & numbered and is priced at \$500. Schwamb Mill Preservation Trust, 17 Mill La, Arlington, MA 02174.



Windsor Locks, Conn Station Registered, Saved, Painted, Attacked, Defended, &c. The pleasant NYNH&HRR brick station of 1875 saw its last ticket sales in 1969, and its last RR use of any kind last April when it was taken from service as an ad hoc freight station. The local Save the Station Committee, headed by Robert Bickford [SIA], has managed, after a long struggle, to get the building cleaned out and painted—paint contributed by AMTRAK!—and placed in the Natl Register, eventually to be used for some civic purpose. In the midst of all this, the town's redevelopment agency, presumably fearing that registration would hamper its plans, appealed the listing, at a hearing in July sending up a flurry of doubts that the station, the railroad and who-knows-what-all played any part in Windsor Locks history, concluding that the station did not meet any of the criteria for NR listing, and expressing their wish not to see the NR "overburdened." Nice guys.

An Erie Canal Trail through the city is being constructed by Cohoes, N.Y. with some federal aid, involving the seven or so surviving locks. These are the double locks of the major improvement of the 1840s, that accommodated simultaneous up and down lockage. The restoration and general design is under the direction of Latham architect Robert L Trudeau.



Lock 10, Enlarged Erie Canal.

Jim Shaughnessy photo.

MARINE NOTES

The Nobska. In SIAN 3:4 & 3:6 we reported that the fate of the last steamer operating in the Woods Hole-Marthas Vinyard-Nantucket (Mass.) service was in a state of limbo, the operating authority unprepared to lay out the funds for some needed repairs and maintenance despite the real need for another vessel in the service. You might have guessed the outcome: the by-now traditional floating restaurant, in Philadelphia. [We keep telling ourselves that better this than broken up but don't always wind up convinced.]

The *Sequin*, a late-19thC steam tug, has been obtained by the Bath (Maine) Marine Museum and is being restored by volunteers under a high school work-study program.

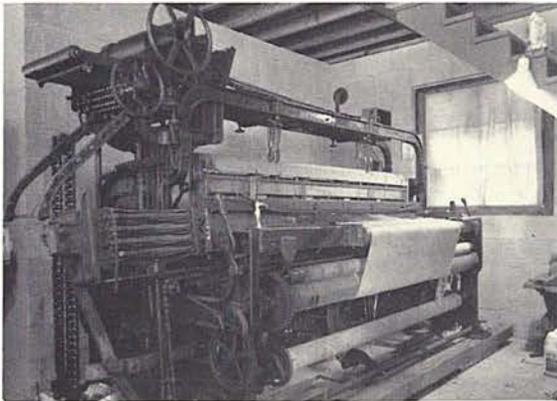
THE MUSEUMS

Neligh Mills, Neligh, Nebraska. A medium sized flour mill that flourished 1874-1956 has been restored by the State Historical Society and is open to the public. 9-5 Mon-Sat, 2-5 Sun, June-Aug. 2-5 weekends, April, May, Sept, Oct. (402) 887-4303.

Johnstown (PA) Flood Center. Opened recently by the Park Service, with models, documents and audio programs on the events leading to the Great Flood (1889: 2,200 lives lost), the flood itself, and the subsequent outpouring of help for the survivors. At jct of Routes 219 & 869, near St. Michael.

Another loom in captivity [See SIAN 4:2/3:10]. The Powerhouse Museum, St Matthews, S.C. has acquired a large Crompton & Knowles (Worcester, Mass.) dobbie loom, from a bag works in Chattanooga, Tenn. Although it has a 24-harness capacity, it was, when found, performing the somewhat simple-minded task of weaving feed-bag cloth. The loom appears to date from the 1920s.

Powerhouse, incidentally, actively seeks machine tools of the period 1880-1910 for museum preservation/exhibit and active use in its restoration program. This period has been largely neglected in other museum machine tool collections, in which earlier ages almost universally are stressed.



And Yet Another Corliss Saved. This time it's the Slater Mill Historic Site, Pawtucket, R.I., which under its new director Patrick M Malone [SIA] has determined to extend its concerns beyond the early-19thC cotton industry into such adjuncts of the later industry as the powering of mills. The engine, a 150 HP Harris-Corliss (Providence) of c1890, was removed from a Pawtucket box factory which it had driven until c1969. The parts are in storage awaiting funds to erect an engine house at Slater. With the engine at work and the mill's original waterpower system restored, this will be one of the few industrial sites in N America—commercially operating or museum—where the two principal sources of 19thC factory prime motion can be seen at full scale, in a natural setting.



The Slater Mill Harris-Corliss engine flywheel, crank, &c, leaving.

America's Inventive Genius, a major three-year Bicentennial exhibition, opened last January at the Museum of Science & Industry, Chicago. Combined with a theater program, the project traces America's scientific, technological, and industrial development, pointing out the contributions of key individuals, and consequences and likely future directions, divided into four periods: 1776-1826, the Formative Years; 1826-1876, The Inventive Surge; 1876-1926, The Industrial Giants; and 1926-1976, The Technological Era. Director of the Museum and the project is Victor J Danilov [SIA].

Erie Canal. Another stretch of rewatered canal now has an operating horse-drawn tourist packet, near Rome, N.Y. No details avail.

Ironbridge Gorge Museum Trust, Shropshire, [SIAN 1:3:2 & 2:4:2] in June received one of 20 Special Heritage Year Awards by the Civic Trust in recognition of its continuing program of conservation of industrial and engineering monuments associated with the origins of the industrial revolution. The IGMT and its activities have reached their present high state of excellence under the energetic guidance of director Neil Cossons [SIA].

The Museum of Florida History, part of the R A Gray Archives, Library & Museum Bldg, is now being constructed and will open to the public in Sept 1976 with 3,000 sq ft of exhibit area. The first and only state operated history museum in Fla, it is expected to be a history museum different from all others, approaching history in Florida on the basis not only of the past, but by comparing the past to the present and future through the use of man made objects.

Work has been underway since Jan'y on the initial series of exhibits to cover 5,000 sq ft. The exhibits will start with Fla. Before Man and end with the future. The largest portion will deal with the "Boom" or "Growth" period by featuring industry as it developed in Fla. and the rest of the South. Each industry will be illustrated from its beginning to the present.

Appropriate artifacts are actively being sought. (Jim Macbeth, Chief, Bur of Historical Museums, The Capitol, Tallahassee, FL 32304.)

The Museum of Independent Telephony, 412 S Campbell St, Abilene, Kan., is a repository for early communications artifacts. Located in the Dickinson Co Historical Society & Museum building, it houses a fine collection of insulators, a display tracing the evolution of the telephone instrument, and changing exhibits. With the expiration of Bell's patent in 1894 several independent telephone companies not originally associated with Bell sprang up. Independents, once more than 5,000 strong, now number about 1600 serving half the U.S. and approximately 1 out of every 6 phones. *DB*.

MISC NOTES

History of Agriculture. The American Society of Agricultural Engineers has formed a History Committee to produce a history of agricultural engineering, among other projects.

The Public Works Historical Society has been set up by the American Public Works Assn as an outgrowth of its bi-centennial goal of preparing a "History of Public Works in the United States, 1776-1976." PWHS is dedicated to "fostering greater awareness and understanding of the role of public works in the growth and development of American civilization through the collection, preservation, and dissemination of public works history." The Society is accepting members. Information: Public Works Historical Society, 1776 Massachusetts Ave NW, Washington, DC 20036. (202) 833-1168.

The Massachusetts Fndn for Humanities & Public Policy and the Natl Endowment for the Humanities recently awarded a grant to the Merrimack Valley Textile Museum to study the future of the North Canal area of Lawrence, and Shawsheen Village in Andover. As part of the project, pictorial exhibits on both areas were mounted. In addition, there was a series of slide-presentations and panel discussions.

Canal Touring—France. Well known are the opportunities for touring England by canal boat, but the same thing can be done in France. Despite the fact that unlike the English canal network, the French still is used primarily for commerce, there is considerable pleasure traffic, cheek by jowl with 120-ft-long narrow boats carrying bulk cement, sand, steel, wood, and agricultural products on some 3000 miles of canal and 25,000 miles of navigable rivers. Tourists can join tours, hire boats with crews, or lease U-pilot-its. Most locks still are manual. Article: NY Times 20 July Sect XX p 7. Info: French Govt Tourist Office, 610 5th Ave, NYC 10020; Waterways of Europe, 425 E 9th St, NYC 10009.

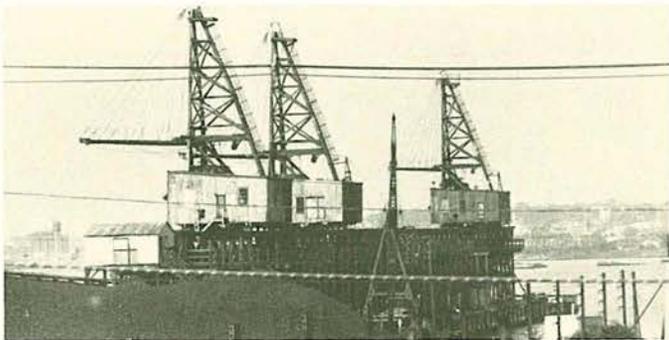
Ted Sande, SIA Director & co-founder, has resigned his teaching post at Williams College to become Director of Professional Services for the Natl Trust, Washington. Sande will supervise all professional & technical preservation programs and activities in the office of Properties, including architecture & archeology, gardens & grounds, curatorial services, art history, architectural history, & interpretive programs. He also will be responsible for developing new programs and supervising long-range planning in these fields. Sande is, incidentally, IA Book Review Editor and would be pleased to hear about books for review.

Margot Gayle [SIA], founder and vibrant spirit of the Friends of Cast Iron Architecture, has been elected to a 2nd year's term as president of the prestigious Fine Arts Federation of N.Y. [City], formed in 1895 to bring together a variety of art, architectural, and cultural groups to "... foster the artistic interests of our City," an important element of which is concern for the preservation of "significant and beloved buildings erected by earlier generations."

Melvyn Green [SIA], El Segundo, Calif. consulting structural engineer, has been awarded a contract to survey building codes across the country as related to historic structures, by the Bureau of Standards' Office of Bldg Standards & Code Services. The study will identify the significant building code provisions of the states, territories and major cities in the U.S.

Barnes Riznik, Vice Pres of Old Sturbridge and long a force in the introduction and interpretation of industrial exhibits at OSV, and organizer of the 1967 conference on Early Transportation in New England, in Jan'y will become 1st director of the Waioli Mission House & Grove Farm Plantation museums on Kauai, Hawaii. Grove Farm, a sugar plantation occupied since 1864, contains the plantation records and under Riznik's hand will, we trust, become a meaningful museum of this industry.

Recording Needed: Bulk materials-handling equipment in general. Much survives at water-rail transfer points, mostly in N American coastal and lake cities. I.e.: a trio of steam-powered, timber-frame, tower & boom type coal unloaders presently is in active work at Providence, R.I., unloading the Polish coal that is being imported cheaper, in certain instances,



than hauling it up from West Virginia! Date of construction is uncertain, probably WW-I period, and they are virtually original.

At the Salvage Depot, 213 W Pratt St, Baltimore, city home owners can find parts salvaged from condemned, city-owned

houses to reuse in renovations. The project is "an attempt to recycle limited resources and . . . preserve some of the unique aspects of older dwellings." Why could not Balto and other cities follow this scheme, but with industrial relics?

Parking Meter 40th. Another one of those marginal areas, but then, if 19thC street furniture is IA as it seems by most regarded to be, then, by golly, so too must be parking meters. Anyway, philosophy apart, FYI: Serial No 1 of Mark I (the Park-O-Meter) was installed 16 July 1935 in downtown Oklahoma City, amidst controversy that has been as durable and unchanging as the hardware itself. The concept was that of Carl B Magee, a newspaper publisher, a means of checking the proliferation of automobiles in city centers.

Hydropower at Lowell. Despite the wane of the cotton industry in Lowell, many of the surviving mills, whose hydro-mechanical power systems were converted to hydro-electric c1915-30, have become home to other industries but many of the power installations remain, in service. At least 18 turbines still operate, producing 20 million kwh's of electricity annually. About a dozen more remain in place, in standby, which may well be put back on line as fossil fuel prices continue on their course through the roof.

FILMS

Volcano. The late-19thC oil field pumping system based on a central oil engine prime-mover driving a series of scattered pumps via endless-wire loops, still (barely) in service at Volcano, W. Va., has been filmed. Copies available from WWVU-TV, West Virginia Univ, Morgantown 26506, @ \$200. 16mm, b/w, sound, about 20 minutes.

Paper—A Cycle of Growth. Available on loan from Westvaco, Philadelphia National Bank Bldg, Philadelphia, PA 19107.

RESEARCH INQUIRIES

Baclay's Iron Works. This unlocated site illustrated last issue, turns out to be, advises bridge and ironworks historian Richard S Allen [SIA], who we should have asked in the first place, the works of Henry Barclay at Saugerties, Ulster Co, N.Y., below the falls of Esopus Creek. It started 1825, operated to the 1880s, and was not a furnace, but a forge, powered by one 30-ft 30 HP and one 20-ft 80 HP water wheel. The view appeared on Staffordshire china.

Funicular & Incline Railways of N America. An inventory of all *passenger-carrying* ever built is being compiled by William F Rapp [SIA], publisher of Railway History Monographs. Information sought, especially on the obscure. 430 Ivy Ave, Crete, NB 68333. (402) 826-3356.

Notches in Colonial road marking. Nathaniel Mason Pawlett [SIA], Va. Hwy & Transp Research Council, has turned up certain evidence that leads him to ask: was there a generally recognized system of marking roads by notches on trees in the Colonial and early natl periods of Virginian and American history, the number of notches or blazes indicating the general direction of the road? Is there anything in woodcraft or scouting that might bear on this? Box 3817 Univ Station, Charlottesville 22903.

EVENTS

Steam Train Excursion: Steam in the Snow. All-day, 106-mile round trip, Bennington to Rutland, Vt. & return, 27 Dec. Information: Steamtown, Box 71, Bellows Falls, Vt. 05101.

Bridges & The City of Washington—an exhibition by Donald B Myer [SIA] of photographs & prints. 4 Nov - 30 Dec. The Octagon, 1799 N.Y. Ave NW, Wash, DC.

Society for Historical Archaeology, Annual Conference. 7-10 Jany 1976, University Museum, Philadelphia. The SHA extends a warm welcome to SIA members, pointing out that there will be a session on industrial sites in general and Phila. in particular, chaired by Ted Sande [SIA]. Information: Daniel Crozier, Anthro Lab, Gladfelter Hall, Temple Univ, Phila 19122.

Policy. A recent seminar at the University of Mass. addressed itself to the need for more effective and enlightened policies for historic preservation, archeological salvage, and conservation. Recognizing that Mass., as the birthplace of the Industrial Revolution in the New World (and home of many important sites of pre-Columbian culture), should be exemplary in preserving the physical remains of this unique historical heritage and putting them to wise and creative uses, the seminar laid the groundwork for a comprehensive state wide organization to work toward these ends.

EDUCATION

"Historic Preservation & Recycling of the Built Environment" is the title of a course being taught this semester at New York's Elizabeth Seeger (private high) School by two students in the Columbia Univ program in Restoration & Preservation of Historic Architecture, Mark R Edwards [SIA] and Steven Elmets. The course is a product of the growing realization that quite as vital to our continuing well being as conservation of the natural environment, is preservation of the historical built environment. The course emphasizes the architectural aspects of this environment, using as a laboratory the architecture of NYC in all its endless variety of purpose, period and style, concentrating on what the American Inst of Architects has called the "new modern architecture"—adaptive use and recycling. The course will include lectures, basic instruction in architectural drawing, and field trips to recycled cast-iron buildings in the city, the Old Croton Aqueduct seen as a recreational amenity, and various abandoned RR rights-of-way having recreational potential [SIAN 4:2/3]. The course has been backed and coordinated by the Columbia Univ Center for Advanced Study of Urban & Environmental Affairs.

"American Transport History," a research seminar being proposed for Spring Semester, 1976 by Sheafe Satterthwaite [SIA], Center for Environmental Studies, Williams College, Williamstown, Mass. 01267 (415) 597-2346. "Attempting a visual and historical analysis of the movement of passengers & goods in the US as evidenced in such artifacts as seaports, roads, canals, RRs, airports. Primary emphasis on the planning and design of permanent way or ground facilities, secondary emphasis on craft/rolling stock."

WHEN IS A TRACING A TRACING?

Engineering and architectural drawings are now made on "tracing" cloth, paper, or mylar, but not traced, yet called tracings. One hundred years ago drawings were made on good quality opaque paper such as cartridge paper, and carefully inked with India ink rubbed down from a solid stick. Working copies were made for the shop or builder on oiled semi-transparent paper called tracing paper; they also were made on starched and glazed linen called tracing cloth (or linen). Each copy had to be individually traced, requiring a great deal of drafting time. With the advent of blue printing c1885 the original was made directly on tracing cloth or paper, from which many copies could be made almost instantly by direct exposure through the drawing, a primitive photographic process. This original drawing, although not traced, still is called a tracing. The blue-printing process requires a powerful actinic light to expose the relatively insensitive treated paper. Sunlight originally was used, but a marked improvement was the blueprint machine. This consisted of a vertical plate-glass cylinder usually about 24 x 60 inches in two half cylinders. The tracing was wrapped round outside the cylinder, the sensitized paper put around over that, both sheets held tight by a canvas cover. An electric arc light descended slowly down the axis of the cylinder controlled by a timing mechanism. The exposed sensitized paper then was developed, washed, and dried. Where exposed to the light, the paper turned blue; where masked by the inked lines, it remained white. *CTGL.*

SIA AFFAIRS

WORKING PLACES—THE HANDBOOK

WORKING PLACES: The Adaptive Reuse of Industrial Buildings, by Walter C Kidney. Sponsored by the SIA. 200 pp, 90 illus.

The long awaited handbook of adaptive reuse, the major SIA project funded by the Natl Endowment for the Humanities and published by Ober Park Assoc [SIAN 2:5], is in final production and will be out in January. It should be a valuable tool for developers, architects, preservationists, building owners, and tenants of obsolescent industrial structures. The price is \$14.50 hardbound, \$8.00 soft. To members: \$13.10 and \$7.20; \$11.00/\$6.10 for 5 or more. 6% tax in Pa. If a member (individual or institution) and not using the specially stamped order form in the accompanying flyer, identify yourself when ordering. Ober Park Assoc, The Old Post Office, 1 Landmarks Sq, Pittsburgh, PA 15212.

WORKING PLACES—THE SLIDE FILM

WORKING PLACES: The SIA Slide Film by John Karol on the adaptive reuse of industrial buildings, premiered at the Baltimore Conf last April, has appeared, and in its present edition of two sets of slides & tapes has been available only on a very limited basis. It has, however, been shown far (at the AIA Conference in Durham—see above) and wide (at the Natl Trust's annual meeting, Boston), eliciting in all cases wild enthusiasm verging at times upon the hysterical. The problems of distributing and showing the film in its present form, requiring two projectors, a dissolve unit, and synchronized tape recorder are formidable. To overcome these it presently is being translated to standard 16mm sound film. Full details on availability and purchase/rental fees should appear in the next SIAN. In the meantime, some bookings in the present version are available: Natl Trust, Education Svcs Divn, 740 Jackson Pl NW, Wash, DC 20006, (202) 638-5200.

IA: The Journal of the SIA: birthing an elephant. Those in a position to know—the West Va. Univ Press who are doing the publication—expected that Vol 1 No 1 would be out by June. There has been an unending stream of unavoidable hitches, however, and by more recent estimates, it should have reached you before you read this. If it hasn't, we still have problems and must ask that you be patient a bit longer. The results will be worth the wait we trust.

STAFF. With the growing membership (now at something approaching 800) and the added burdens imposed by the routine aspects of dealing with *IA*, there developed a need for a regular (volunteer) staff person. With real pleasure we reveal that Irmgard ("Nicki") Taylor has joined with Prof. Charles T G Looney in this vital work, as Membership Director and Promotion Mgr for *IA*.

1976 ANNUAL CONFERENCE: Papers & Nominations. It is not at all too soon to think of both these important matters. The Conference (Lowell, Mass—23-26 April) is going to be a colossal event, the intellectual content of which should be of the highest order. Papers dealing with any area that can be construed as *IA* are welcome. Title and a brief synopsis should be submitted by 1 Feb to Program Chrmn Richard M Candee, Old Sturbridge Village, Sturbridge, Mass. 01566, who would be glad to have suggestions for other program matters as well. Nominations for officers & Board members by 1 Feb to Paul E Rivard, 10 Mountainbrow, Corning, N.Y. 14830. To be elected are Pres, VP, two Directors. The slate will be announced in March. General questions & suggestions to Conf Chrmn Patrick M Malone, Slater Mill Hist Site, Pawtucket, R.I. 02865.

TORONTO-HAMILTON TOUR. This stunning Sept occurrence went off with the eclat customary to the Society's Canadian ventures. It was brilliantly staged and well attended. A full account will appear in the Nov issue. In the meantime, on hand are a number of the handsome, illustrated *Tour Notes*, constituting a guide to and description of the outstanding *IA* in the two cities. 12 pp, \$1, from the editor.

Modulus of Elasticity. It has gotten out of hand. The Treasurer reports that an alarming number of membership and renewal checks have come winging back to him, causing a grievous expenditure of time, emotion, and worst, bank charges. While he recognizes that the utterance of this paper is based on inadvertence rather than malicious intent to defraud, he has instituted, with reluctance, the following harsh counter-measure as a means of curbing a growing blight: henceforth, all utterers of bad checks will be assessed \$5 against their next year's membership fee.

MCMOC. On 20 July the SIA's *Montgomery C Meigs Original Chapter* (Greater Wash, DC) held its first official gathering: a motorcoach jaunt to a number of sites in near Western Md. & W. Va, including a large tannery in the last stages of dissolution and what may be the world's smallest vertical-lift bridge (over the C&O Canal, 1923) in Williamsport, Md., and Potomac Edison's Dam 4 hydroelectric station of 1909 having rope drive from the turbines to the generators [SIAN 4:2/3]. Even as this is in press, a small MCMOC party has made a foray to measure & photograph a 2-span bowstring wrought-iron pony highway truss of c1873 in Carroll & Frederick cos, Md., under HAER auspices. Such projects are among the best of the reasons for the formation of local chapters.



Industrial archeology is where you find it, but it's also where you know where to look for it. Former Phila, Germantown & Norristown RR (now Reading Co) depot, Germantown (Phila), Pa. Built c1850, replaced and adaptively used 1854.

Herbert H Harwood discovery & photo.

PUBLICATIONS OF INTEREST

* = Review in *Business History Riview*, Summer; † = Fall, 1975.

David E Bick, *The Old Metal Mines of Mid-Wales. Pt 1-Cardiganshire S of Devil's Bridge.* The Pound House, Newent, Glos GL 18 IPS, Engl. 52 pp, illus. \$2.

Arch Fredric Blakey, *The Florida Phosphate Industry: A History of the Development & Use of a Vital Mineral.* Cambridge: Harvard Univ Press, 1973. 197 pp. \$13.00*

Dave Bohn, Kinsey, *Photographer.* In *The American West*, May. Trees and loggers in the Pacific NW as pictured by a master documentarian, and . . .

Clark Kinsey's *Logging Photographs.* In *Pacific Northwest Quarterly*, April.

Robert C Braunberg [SIA], *The Seneca [MD] Sandstone Quarries.* In *Echoes of History*, April. (Pioneer America Society, SIAN 3:6:9.) The famous "redstone" of which the Smithsonian Institution Building ("Castle") and much of Washington is built.

Kirby Brumfield, *The Wheat Album: A Picture & Story Scrapbook of Wheat Harvest in Years Gone By.* Seattle: Superior Publ Co, 1974. 192 pps, \$12.95.

Anthony Burton, *Remains of a Revolution* (photos by Clive Cotte). London: Andre Deutsch. 225 pp. \$14. (To be reviewed in *IA*.)

W R Chitwood, *Grain Mills & Iron Furnaces in Wythe County, Virginia.* In *Echoes of History*, April.

Thomas R Cox, *Mills & Markets: A History of the Pacific Coast Lumber Industry to 1900.* Seattle: Univ of Washington Press, 1974. 322 pps. \$17.50.

John Michael Cudd, *The Chicopee Mfg Co, 1823-1915.* Wilmington, DE: Scholarly Resources, Inc., 1974. 325 pp. \$8.95.* (To be reviewed in SIAN).

Robert E Dalton [SIA], *Tennessee's Industrial Heritage: A Vanishing Resource.* In *The Courier* (TN Historical Commn, 170 2nd Ave N, Nashville 37201), Vol 13 #3, pp 6-7.

A A Dornfeld, *The Freight Tunnel Under Chicago.* In *Chicago History*, Spring, pp 23-31. A defunct telephone company's cable tunnel once used for freight traffic, even banquets, now lies fallow.

Grady Gammage, *Mission & Mediterranean Revival RR Stations.* J-B Pub Co, 430 Ivy Ave, Crete, NB 68333. 19 pp, 26 photos. \$3.

Enid Gaudie, *Cruel Habitations: A History of Working-Class Housing, 1780-1918.* NY: Barnes & Noble, 1974. 363 pp. \$15.75.*

Howard M Gitelman, *Working Men of Waltham: Mobility in American Urban Industrial Development, 1850-90.* Baltimore: Johns Hopkins Press, 1974. 192 pp.

John R Grabb, *Shear Steel: A Forgotten but Useful Metal.* In *Chronicle of the Early American Industries Assn*, March.

Charles F Gritzner, *Hispano Grist Mills in New Mexico.* In *Annals of the Assn of American Geographers*, Dec 1974, pp 512-24.

Oswald W Grube, *Industrial Buildings & Factories* (Engl transl: E Rockwell). NY: Praegar, 1971. 200 pp, illus. \$25. Engl & Ger text. Superlative, thorough account of the current technol of the indust bldg: planning, framing, sheathing, HV&AC; based on 45 examples worldwide.

Joseph Hariss, *The Tallest Tower: Eiffel & the Belle Epoque.* NY: Houghton Mifflin. 257 pp, illus. \$10. The Tower's symbolism & engineering rationale. (Reviewed NY Times 24 May.)

Richard Hegel, *Carriages from New Haven: New Haven's 19thC Carriage Industry.* Hamden, CT: Archon Books, 1974.

John R Herbert (comp), *Panoramic Maps of Anglo-American Cities: A Checklist of Maps in the Collections of the Library of Congress, Geog & Map Divn.* Wash: Library of Cong, 1974. 118 pp.

Wiliam F Hollingsworth, *Fifty-Year Development: Construction of Steel Arch Bridges.* In *Modern Steel Construction* (American Inst of Steel Const, 1221 Ave of the Americas, NYC 10020), Vol 15 #2 (1975), pp 3-15. Fine, well illus account—from Eads Bridge (1868-74) to several not yet complete—of erection techniques.

Arthur L Johnson, *From "Eastern State" to "Evangeline."* A History of the Boston-Yarmouth, Nova Scotia Steamship Service. In *American Neptune*, July 1974, pp 174-87.

Richard E Kotter, *The Transcontinental RR & Ogden City Politics.* In *Utah Historical Quarterly*, Summer, 1974, pp 278-84.

Kathryn Lamboley, *The Milwaukee & Rock River Canal Unlocked Little But Controversy.* In *Wisconsin Then & Now*, Sept 1974, pp 2-3; 7.

Alfred L Lomax, *Later Woolen Mills in Oregon: A History of the Woolen Mills which Followed the Pioneer Mills.* Portland: Binfords & Mort, 1974. 301 pp. \$12.50.*

Ernest Mahan, *The History of McNally Pittsburg.* Wichita, KA: McCormick-Armstrong Co, 1972. 270 pp. \$7.50. The largest builder of coal preparation plants in the W Hemisphere.*

Michael P Malone & Richard B Roeder, 1876 In the Gulches: Mining In Montana. In *The Magazine of Western History*, Spring, pp 20-27.

Alexander C Meakin, *Four Long & One Short: A History of the Great Lakes Towing Co, Pt II*. In *Inland Seas*, Spring.

Clay McShane, *Technology & Reform: Street Railways & the Growth of Milwaukee, 1887-1900*. Madison: the Society Press of the State Historical Society of Wisc. 187 pps. \$5.95.†

Cabell Phillips, *The West Virginia Mine War*. In *Amer Heritage*, Aug, pp 58-61; 90-94. 1921 labor war. Illus.

SPECIAL PUBLICATIONS

Jack Goodwin [SIA], *Current Bibliography in the History of Technology*. In *Technology & Culture*, April, pp 195-286. 12th in this ongoing, vital series that covers all areas of the H of T, wandering, naturally, far into IA, now with a separate category on same. (Society for the H of T, Journals Divn, Univ of Chicago Press, 5801 Ellis Ave, Chicago, IL 60637. \$15/yr, incl quarterly T&C.)

Nathaniel Mason Pawlett [SIA], (a series:) *Historic Roads of Virginia—Louisa County Road Orders 1742-48; Albemarle County Road Orders 1744-48; and Goochland County Road Orders, 1728-44*. Charlottesville: Virginia Hwy & Transp Research Council. Transcriptions of all road orders from the Court Order books, describing establishment and maintenance of public roads.

William S Young [SIA], *A Susquehanna County [Penna.] Calendar, No 1, 1976*. Starrucca Valley Publs, Starrucca, PA 18462. 8½ x 11. \$1.70 PP. Actually Nov 75 - Dec 76, each month with a fine early b&w photo of RR activity: shops, bridges, locomotives, trains.

Edwin York & Conrad Johnson, *Historic New Jersey Occupations*. NJ State Dept of Education, 225 W State St, Trenton 08625, Aug 1974. 42 pp. Most interesting for its accounts of various historic villages and museums in NJ dealing with industry & crafts: The Museum of Early Trades & Crafts, Madison; Liberty Village, Flemington; Volendam Windmill Museum, Milford (recreated full-size Dutch smock mill); Clinton Historical Museum; Batsto Village; Historic Howell Works, Allaire; &c. Lists also many craftspeople willing to give demonstrations. Bibliography.

Benjamin Henry Latrobe & Moncure Robinson: *The Engineer as Agent of Technological Transfer*. Proceedings of the conference (May 1974) at Eleutherian Historical Library. Pubs Dept, Eleutherian Mills-Hagley Fndn, Greenville, Wilmington, DE 19807. \$1.25.

Hot Air Pumping Engines. American Machine Co, Wilmington, DE, Catalog J, 1908, 32 pp; *Ericsson Hot Air Pumping Engine*, DeLamater Iron Works, NY, 1890 catalog, 21 pp; *Rider-Ericsson Engine Co, 1906 catalog*. 32 pp. Reprints of fine quality by Alan G Phillips, 2803 Wright Ave, Orlando, FL 32803. \$2.25 each PP; \$6. all 3. 20+, \$1. ea.

Newsletter One: One Year Later . . . A Supplement to Wind & Windspinners [SIAN 3:6:9]. 26 pp. \$2. Earthmind, Josel, Saugus, CA 91350. Good stuff on windpower and such matters.

Recent Reports of Interest on Wind Energy. ERDA Wind Energy Conversion Br. 3 pp. Copies from Ed for stamped envelope.

Watch Pennsylvania Make It. Folder listing variety of visitable industries, arranged by category. Travel Development Bureau, Rm 431, Dept of Commerce, Harrisburg 17120.

Tentative listing of the c280 identified-to-date canals & navigations in N America, compiled by the American Canal

Soc Canal Index Comm. From Wm Trout, 1932 Cinco Robles Dr, Duarte, CA 91010, \$1. Assistance requested in firming and completing list.

Canal Publications. The American Canal & Transportation Center, 809 Rathton Rd, York, PA 17403, publishes & distributes a rich collection of canal-related publications of all sorts. Lists.

MICROREVIEWS

A mind-stretcher for IAists is *Tunnel Through the Deep* (in England: *At Last a Transatlantic Tunnel, Hurrah!*) by science-fiction writer Harry Harrison. In this parallel world of atomic-powered railways and coal-powered airplanes, GB and its American colony are united by a railway tunnel, designed by Sir Isambard Brassey-Brunel and constructed by Capt Augustus Washington, descendant of you-know-who. Putnam, 1972, \$5.95 hardback. Berkeley Publ, 1974, \$.95 paper. *William E Trout, III*.

Vicent F Seyfried, *The Long Island Rail Road: A Comprehensive History, Vol 6—The Golden Age, 1881-1900*. The author: 163 Pine St, Garden City, NY 11530. 283 pp. \$10.

The latest in an excellent, meticulous, but apparently endless series on the LI RR's history, this volume has considerably more IA interest than the usual RR history: historical data on each station building, freight facilities, signal towers, rail & roadway, steamship operations, & misc facilities. *Herbert H Harwood, Jr*.

LETTERS

Editor:

I must protest the notice in the last Newsletter concerning *Long Island: An Inventory of Historic Engineering and Industrial Sites*. No credit was given to the extensive work of John Gable (Director of the Inventory and author of the introductory essay) or Dennis Wood. Their's was the long task of correspondence, and archival and site research that made up 98% of the Inventory. By comparison, the role of the editor, outlined in the Editor's Preface, was strictly limited. *Peter Stott, HAER, Washington, D.C.*

. . . while Peter Stott certainly provided essential editorial services, it is an injustice to Dr Gable to credit the volume to the HAER editor alone. the HAER staff intended to give John Gable primary credit for the volume when they set his name in larger type than the editor's on the title page. Apparently the newsletter confusion was caused by the phrase "directed by." In future volumes, HAER should avoid bibliographical difficulties by listing project directors as either authors or editors on the title page. *Patrick M. Malone, Slater Mill Historic Site, Pawtucket, R.I.*

SPECIAL OFFER

The Noyes History of Technology Reprint Series (1972).

Through the generousness of publisher Robert Noyes [SIA ex-Board] these works are being offered at below cost, all sales revenue going to the SIA.

James Leffel, *Construction of Mill Dams, 1881* (1st edn 1874). 167 pp, 52 illus.

William R Billings, *Some Details of Water Works Construction, 1898*. 96 pp, 27 illus.

J De Brevans, *The Manufacture of Liquors & Preserves, publ in France c1885; transl & Publ NY 1893*.

Dionysis Lardner (ed), *The Manufacture of Porcelain & Glass, 1832*. 334 pp. 36 illus.

All are facsimile reprinted, in a consistent, high-quality cloth binding. \$3.00 each or \$10.00 the set of four, post-paid. SIA (Paterson), 17 Van Houten Street, Paterson, NJ 07050.