

# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

Volume 18

Summer 1989

Number 1

### Quebec City hosts first Annual Conference in Canada



The massive portal of the great Pont de Québec, the Québec Bridge, longest cantilever span in the world (1,800 ft.), and an International Civil Engineering Landmark. Turn page for more photos of this extraordinary structure. R. Frame photo.

The SIA's 18th Annual Conference, the first ever in Canada, opened with an elegant reception hosted by Lise Bacon, Deputy Premier and Minister of Cultural Affairs, complete with a response *en français* by SIA President Emory Kemp. David Mendel, who was to lead several tours throughout the conference, presented a lecture on regional IA.

Friday was devoted to tours of the City of Québec, located at the confluence of the St. Lawrence and St. Charles rivers. Each of the four tour busses ventured off on its own itinerary of stops, drive-bys, and process tours. Tourgoers moved through the walled Vieux-Québec (Old Québec), admiring the architecture responsible for the city being named the first in North America to be included on UNESCO's world heritage list. Not to be missed was the architecturally extraordinary (and romantic) Chateau Frontenac, built in 1892-93 by the Canadian Pacific RR.

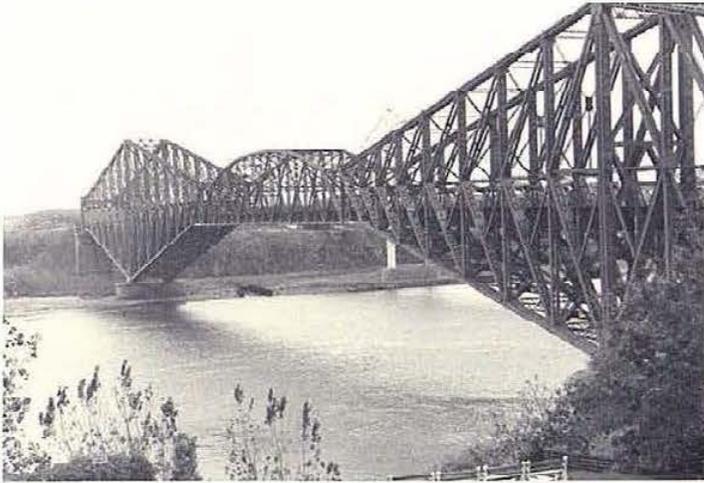
Beyond any doubt, the premier site visited was the celebrated **Pont de Québec, the Québec Bridge**, whose profile graced the conference

logo, along with the Chateau Frontenac. Containing the longest cantilever span in the world at 549 meters (1,800 ft.), it is one of five International Civil Engineering Landmarks designated by the American Society of Civil Engineers. Work on this monumental steel bridge began in 1907, but it collapsed during construction, killing about 80 men. It then was rebuilt according to a new design and, after two attempts, was completed in 1917. Since then, it has been an important rail and later, road, link between the north and south shores of the St. Lawrence. SIA tourers had an opportunity to discuss the bridge with one of the CN Rail engineers responsible for its maintenance. We also viewed several trains moving along the tracks on the side of the deck. Alongside the great cantilever stands the **Pierre Laporte bridge** (1966-70), the longest suspension span in Canada.

Among the most interesting process tours was the **Maranda & Labrecque Tannery**. There have been tanneries on SIA tours before, but never one devoted to dressing only furs, a special process necessary to

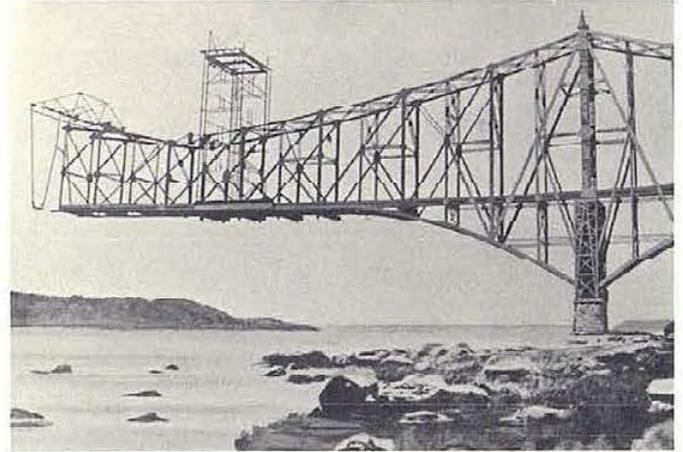
Published by the Society for Industrial Archeology Editor: Robert M. Frame III

Room 5020 National Museum of American History Smithsonian Institution Washington, D.C. 20560



### THE QUÉBEC BRIDGE.

*Above left:* The bridge in perspective. *Above right:* The CN engineer responsible for the bridge's maintenance shows photos from a book on the bridge's history. *Right:* The first span under construction, just before its collapse in 1907. *Dave Farrier & R. Frame photos.*



### DAISHOWA, INC. (formerly Reed Paper).

*Below:* Open door on the mechanical grinder shows logs about to become fiber. *Bottom left:* On-site log dump. *G. Weinstein photos.* *Bottom right:* The complex, between 1975 when Reed purchased it from Anglo Canadian and 1988 when it was sold to Daishowa. *Photo courtesy Commission des biens culturels.*

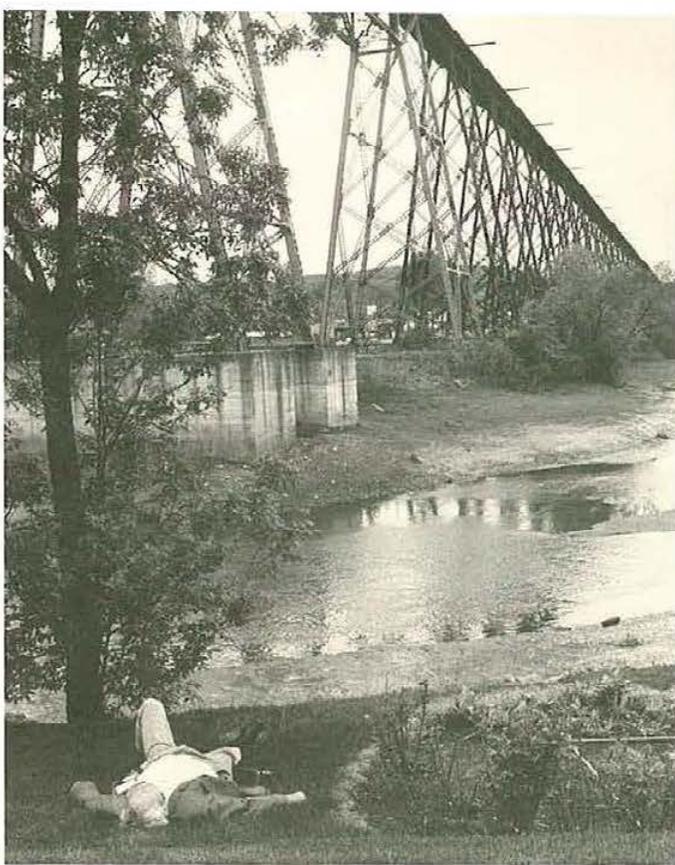


retain the hairs on the skins. Situated in the Saint-Malo Industrial Park since 1986, the firm was founded in 1911 and represents a long established regional industry. It handles Persian lamb, muskrat, rabbit, beaver, mink, otter, wolf, raccoon, and fox furs, the majority from "ranch" animals. We observed workers manually "fleshing" wet skins on vertical blades, removing all traces of tissue, and watched large paddle-wheels slowly turn the skins in wooden vats of water to open the fibers for additional mechanical fleshing, prior to tanning. After drying, oil is returned to the skins by "kicking" or pounding it in. Some 700,000 skins are dressed annually.

Paper manufacturing is a significant Quebec industry, and tourgoers visited **Daishowa, Inc.**, which began life in 1927 as Anglo-Canadian Pulp & Paper Mills Ltd., the city's first paper mill. In 1975 it became Reed Paper and last year was sold to Daishowa, a Japanese firm. Daishowa's introductory video was an intriguing view of how a Japanese-owned business operates in North America. In the mill the entire paper process was on display, starting with the logs barged in from the company's reserves in Forestville. The plant runs four fourdrinier-type machines, and is capable of turning out a 224-in.-wide product.

Further bridge interest was provided by the one-kilometer-long **Cap-Rouge Viaduct**, built 1906-08 to permit trains to cross the Cap-Rouge River Valley. Standing 53 meters over the river, the structure is carried





The one-kilometer-long Cap-Rouge Viaduct (1908) leaves George Bryant [SIA] awestruck *R. Frame photo.*

on 30 steel towers. Thick clay in the riverbed caused engineers to revise the tower and foundation plan in that area, replacing the regular concrete tower bases with deep foundations that required the use of pneumatic caissons in their construction. With only a single train per day, the viaduct's continued existence is in doubt.

Tourgoers visited an archeological site, which once was the location of the first brewery in Canada and later Intendant Jean Talon's palace. The brewery operated from 1670 to 1684, when it became the **intendant's palace**. Two palaces later, in 1852, another brewery was erected, becoming Canada's largest in 1879. Boswells' brewery stood until the 1970s.

A brief walking tour of the **Place-Royale** was on the itinerary, where a wide variety of restored and reconstructed 17th, and 18th, and 19th-C buildings were visible. Located at the foot of Cap Diamant, Place-Royale encompasses the earliest vestiges of French civilization in North America. We all pondered the cultural and artistic significance of "Dialogue avec l'histoire," a 1984 sculpture given to Québec by the City of Paris.

The day concluded with a popular and crowded "show 'n tell" at the



**Centre d'interprétation**, a maritime museum in the Vieux-Port.

Saturday brought an extremely interesting variety of paper presentations in the hotel conference rooms. For SIA members from unilingual areas of the states to the south, the simultaneous translation of French English, English-French was nothing less than amazing. Presenters spoke into microphones and were monitored by translators housed in tiny, sound-insulated cubicles erected in the rear of each conference room. Those who had never before experienced simultaneous translation were incredulous at the skill and speed with which the translators work, hearing English and repeating it back in French almost instantly, or vice-versa. The audience listened through wireless earphones. The translators struggled valiantly with the often archaic, technical language common to SIA gatherings, but if it were not for this marvelous service, half the audience would have heard little of half of the presentations. An additional benefit of registration was a massive spiral-bound volume of texts of the presentations, in the language of the author.

For some attending the conference, Saturday provided one of the few opportunities to escape from the planned events and, however briefly, wander the narrow streets of Old Quebec, shopping and sightseeing.

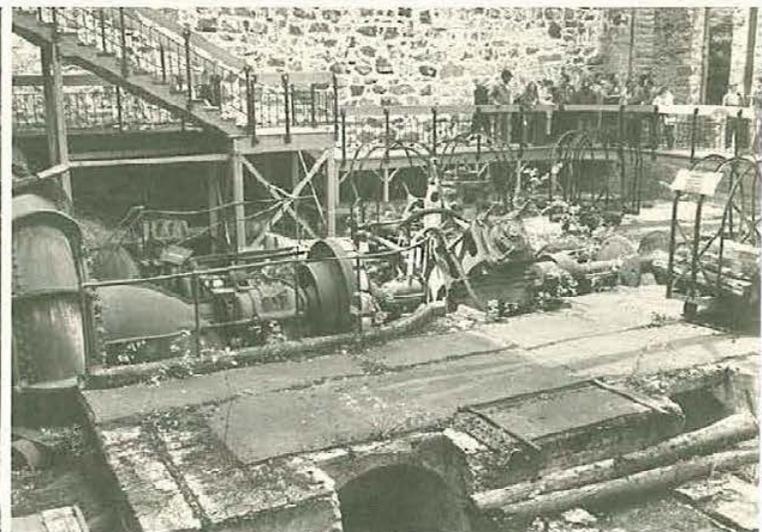
In the evening, conferees retired to the nearby **Manège Militaire Drill Hall**, a structure of architectural interest, where the conference banquet was served in an informal, buffet style. The dinner, with champagne and great Canadian beer (as at the opening reception), provided an excellent social opportunity for SIA members.

On Sunday, for those who lusted after one last day of tours, there were two optional bus forays out of the city and into the Province of Quebec: the Saguenay/Lac Saint-Jean tour and the La Mauricie tour.

Two busses headed north and east on the Saguenay/Lac Saint-Jean journey, through the Laurentian Mountains and Le Parc des Laurentides, a flora and fauna reserve. The mist and occasional light rain only added to the atmosphere of the forested area (spruce, spruce, and spruce, say park rangers), which did not receive the road on which we travelled

**VALJALBERT PULP MILL.**

*Bottom left:* The mill and its water-power. *Bottom right:* Viewing remains of turbine (left) and grinder (right center), which was hand-loaded from logs on carts. *Below:* Inspecting concrete grinders in millyard. *Right:* Workers' housing near the mill. *R. Frame photos.*





Left: Shipshaw Hydroelectric Station, world's largest hydroelectric plant when completed in 1943. R. Frame photo.

Right: The Jonquière-Arvida aluminum smelter of Alcan, consumer of Shipshaw's power. HQ'd at Montréal, Alcan is the largest aluminum producer in the world. G. Weinstein photo

until 1930. IA-wise, it is a region of hydro-mechanical and -electric-powered pulp and aluminum plants.

The sun broke through the clouds and mist as we drove into the Village historique de Val-Jalbert, where we wandered through the remnants of the **Val-Jalbert mechanical pulp mill**. Some relics of the machinery remain in situ, and a very good diorama reveals how the mechanical and power systems operated. The 1900 plant drew power from a spectacular 72 meter falls alongside the mill building. The works closed in 1927, but was reopened in 1960 by the Québec government as a ghost-town tourist attraction. A good stock of original workers' housing remains.

We visited **Shipshaw Hydroelectric Station** (1941-43), or at least its public reception area. Its twelve 350-ton generators (6 Westinghouse & 6 GE) combined produce 896,000 KW for the Alcan aluminum's Arvida (now named Jonquière) smelter. It takes about 15 KW-hrs to produce one kilogram of aluminum. When completed, it was the world's largest hydroelectric plant. At Shipshaw, everything is

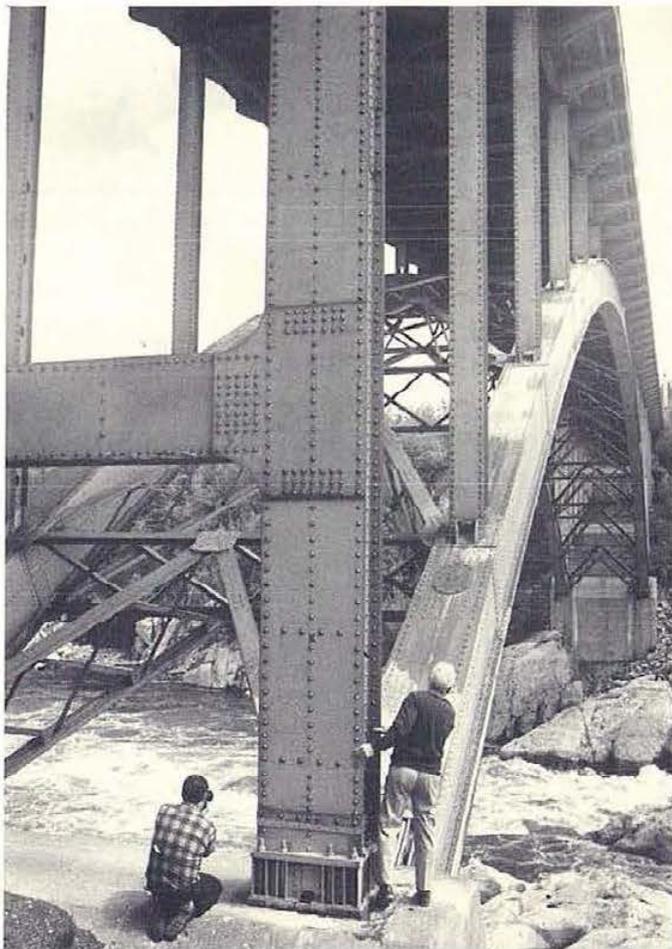
aluminum, including ashtrays, the flagpole, a wall mural on aluminum sheets, and even a curling trophy with an aluminum "stone."

The area's premier IA monument to the industry, however, is the **world's first aluminum bridge**, built 1948-50 at Arvida. The 150-meter-long structure weighs 40% of a comparable steel bridge.

We drove past the monster **Alcan works at Jonquière** on the way to the city of Chicoutimi. HQ'd in Montreal, Alcan is the world's largest aluminum producer, with over 10,000 employees in Quebec province alone.

The **Chicoutimi Wood-Pulp Mill** was active from 1896 to 1930. In 1923 it had five factories, a repair shop, a foundry, and an electrical substation. Now there are only five structures in varying states of integrity. When merged in 1915 with its subsidiary in Val-Jalbert, North American Pulp & Paper Co. was created, the largest pulp and paper consortium in North America. Here mechanical pulp (i.e. ground rather than chemically processed) was produced by 850 workers. Today it is operated as a historic site by a nonprofit corporation, and includes a modern theater built in one of the structures. As we toured the site, the mayor of Chicoutimi, Ulric Blackburn, came walking through and offered a bit of interpretive narrative of his own. He was there with the president of Pulperie de Chicoutimi, Lucien Emond, to honor the SIA with a gift of an aluminum miniature of one of the site's pulp mills. The Chicoutimi representatives were extraordinarily pleased to have their industrial history visited and appreciated by the SIA, and former SIA president Helena Wright represented the Society in showing our appreciation, in near-flawless (merely credible, she says) French.

Meanwhile, Sunday's alternate tour proceeded south in two busses, one carrying Francophones, the other Anglophones, illustrating the hi-



#### ARVIDA BRIDGE.

Left: Spanning the Saguenay River is the world's first aluminum bridge, built 1948-50 by Dominion Bridge Co. Ltd. using Alcan 26S, a new structural alloy with 99.85% pure aluminum coating. Right: Inspecting the drilling and innovative cold riveting, which used 2-cm. annealed rivets. R. Frame photos.



lingual nature of the conference. Following Le chemin du Roy (The King's Highway), tourgoers arrived at **Les Forges du Saint-Maurice** (Saint-Maurice Ironworks), Canada's first heavy industry. The ironworks began in 1735 and operated until 1883. After 1863 mostly pig iron was produced for the rail industry in Montreal. The Ironworks interpretation was a subject of some discussion among the SIA visitors.

The other major site visited was Shawinigan, where the St. Maurice River passes over **Shawinigan Falls**, providing hydroelectric power for the aluminum industry. A hydroelectric complex was built in 1899, the same year that aluminum manufacturing got its start in Canada with the opening of Northern Aluminum Co. Shawinigan 2 was built in 1910, and by 1925 the Shawinigan Water & Power Co. system was producing more than 2 billion KW-hrs. The Rapide-Blanc power station opened in 1934, raising production to 5 billion KW-hrs.

Many thanks for a superb Québec conference go to our Canadian hosts, the Organizing Committee: Adélar Guillemette, André Bérubé, Jacques Lecours, and Jean Lavoie.



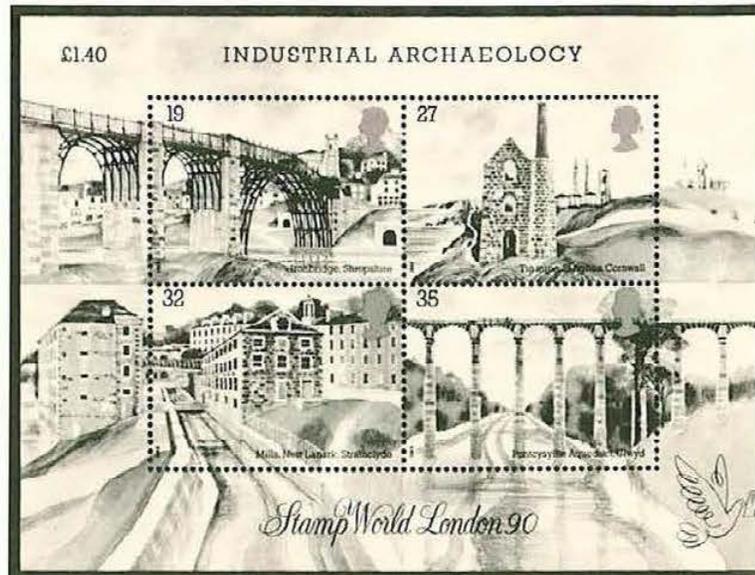
Above: Remains of the pulp mill and surge tower at Chicoutimi. Right & below: On behalf of the SIA, former SIA president Helena Wright accepts aluminum miniature of the Chicoutimi pulp mill, presented by Lucien Fmond (left), president of Pulperie de Chicoutimi, and Chicoutimi mayor Ulric Blackburn (right).



#### CONTRIBUTORS TO THIS ISSUE

David Bowie, Phila., Pa.; Alan R. Clarke, Northern Va. Community College; Luther Dietrich, Annandale, Va.; William J. Ellenberg, Wash. D.C.; Betsy Fahlman, Arizona State Univ., Tempe; David Farrier, Warner Robins, Ga.; Douglas Franklin, Heritage Canada, Ottawa; Margot Gayle, Friends of Cast Iron Architecture, N.Y.C.; Jeffrey A. Hess, Minneapolis; Randall G. Lawrence, Sloss Furnaces; Paul J. McGinley, Boston, Mass.; Richard Margolis, Rochester, N.Y.; David G. Orr, Natl. Park Service; Fredric Quivik, Butte, Mont.; Edwin L. Rothfuss, Death Valley Natl. Monument, Calif.; Gerry Weinstein, N.Y.C.

With thanks.



Industrial Archaeology Miniature Sheet, issued July 25, 1989. Courtesy British Philatelic Bureau, Edinburgh, Scotland.

#### IA IN PHILATELY

### Stamps go IA in big way in the UK

IA is no small matter in the nation where it was conceived and nursed to maturity. With two major stamp releases this July, Great Britain not only has commemorated four of its premier IA monuments, but has promoted the general concept of industrial archeology as well, perhaps the only time that IA itself has been philatelically honored. The four sites are the world's first iron bridge at Coalbrookdale (1779); the tinne enginehouse at St. Agnes head, Cornwall; the cotton mills at New Lanark in the Scottish region of Strathclyde; and the 1,000-ft. Pontcysyllte Aqueduct near Llangollen in Clwyd, built by Thomas Telford to carry part of the Shropshire Union Canal over the River Dee.

The four stamps appear in two different versions, as four individual stamps in vertical format, issued on July 4, and as a miniature sheet, in horizontal format, issued July 25. All were designed by Ronald Maddox (also responsible for earlier historic-structures stamps) and printed in multicolor photogravure by Harrison & Sons Ltd. The miniature sheet is especially interesting because the designs are extended into the wide borders of the sheet. The British P.O. says that this double version of the same stamp set is a "first" for them, and it is somewhat unusual for any country.

The June 1989 *British Philatelic Bulletin*, a marvelous publication, announced the issue with a full-color cover photo featuring the canal barge *Saracen* crossing the Pontcysyllte Aqueduct. [The brochure/order forms for each issue are titled *In-Phil.*] Inside are detailed articles on these stamps and other British philatelic matters. Lest no detail be considered too small for the philatelic historian, the *Bulletin* carries a series on "Posting Boxes," with the June issue featuring No. 100, the Penfold box. The Penfold was the most popular of Victorian posting boxes, and the example at hand is near Bray in County Wicklow, Irish Republic. Its situation, appearing "to be sinking into the ground," provokes the question, is the box sinking or is the ground rising? An expert on boxes "suggests that as the box has probably stood on the same site for over 100 years, the ground has gradually built up around it." The notion of a North American mailbox surviving even ten years without vandalism or graffiti, to say nothing of obsolescence, defies the imagination.

For ordering info., and for copies of the *Bulletin*, write Interpost, Box 378, Malverne NY 11565, or the British Philatelic Bureau, 20 Brandon St., Edinburgh EH3 5TT, Scotland.

L.D.

## Ottawa Hangar Jeopardized

On the eve of its 50th anniversary, Hangar 66 at Rockcliffe airbase in Ottawa is endangered by the proposed Rockcliffe Parkway, which cannot be properly built without the hangar's demolition, according to the National Capital Commission (NCC). Three Rockcliffe hangars, 66, 67, and 68, were constructed in 1940 for the Royal Canadian Air Force. According to *Impact: A Publication of Heritage Canada*, they "were regarded as important works of engineering, not because they were unique—there were 48 similar ones built across Canada—but because they employed Canuck resourcefulness. The great, clear interior space of 224 feet by 160 feet by 30 feet high was made possible by the Warren truss system constructed with native Douglas fir." This was necessary because of wartime steel shortages. With its double bays, 66 covers 28,000 sq. ft.

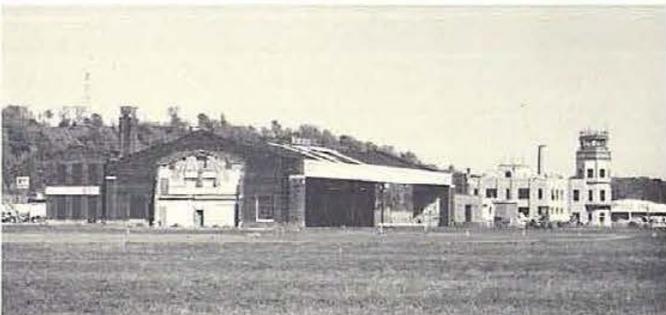
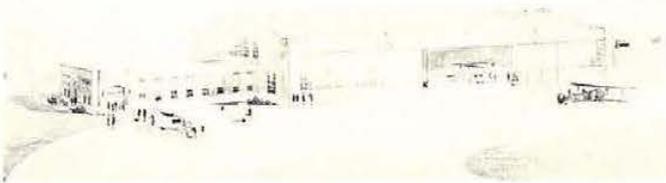
In 1983 the Federal Heritage building Review Office classified the hangars as heritage buildings, and last Nov. the City of Ottawa



Royal Canadian Air Force Hangar 66 (1940) at Rockcliffe airbase, Ottawa. John Blumenson photo.

designated 66 as a municipal heritage structure. Despite extensive protests by local, provincial, and national organizations, the NCC persisted in requiring the demolition of all three hangars. Heritage Canada has argued that the World War II hangars deserve preservation and could serve multiple uses. The Ontario conservation Review board declared that Hangar 66 had national historical and architectural significance. As of May, the Minister of Public Works planned to review the NCC decision, giving some hope to preservation, military, and aviation groups.

## Lasts and firsts for Northwest Airlines in Minneapolis - St. Paul



NORTHWEST HANGAR (1930), St. Paul, Minn.

Left top: 1929 rendering by architect C.H. Johnston. Courtesy Univ. of Minn. Left bottom: Prior to razing. Right top: Truss system, from *ENR*, Aug. 21, 1930. Right bottom: Interior, 1930. Burt Levy photos for HAER.

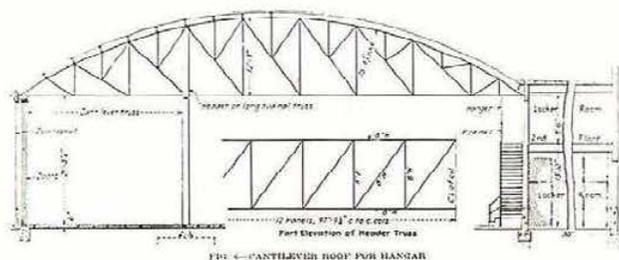
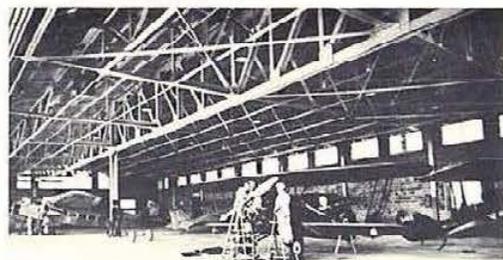


FIG. 4—CANTILEVERED ROOF FOR HANGAR



Northwest Airlines, known in the past as Northwest Orient, has been in the news in its twin hometowns of Minneapolis-St. Paul, Minn., during the past year. Most of the local talk has been about corporate takeovers, but there also have been two events of historical significance. In Nov. 1988 Northwest retired its 30-year-old fleet of Convair 580 turboprops, marking the last time a major airline in the U.S. operated a propeller-driven aircraft. Actually, Northwest thought it had flown its last prop in 1972, but with the acquisition of Republic Airlines in 1986, turboprops rejoined the fleet. For the Northwest employees as well as aviation historians, the end of the propeller era was cause for nostalgic get-togethers. For passengers interviewed in the local press, however, it was no great loss. They liked the jets better, forgetting, perhaps, that in the Convairs all seats were first-class jet size. The retired turboprops were sent off to Air Resorts Airlines of San Diego.

While Northwest was flying its last propeller aircraft, the Metropolitan Airports Commission (MAC) was beginning the demolition of Northwest's first hangar, at the St. Paul Downtown Airport (Holman Field). Completed early in 1930, the Northwest Airways Hangar & Administration Building [NR, HAER] was the airline's first corporate HQ built expressly for that purpose. Additionally, in its materials, structural engineering, and layout, the building was highly representative of American hangar design during the early years of commercial aviation.

The Northwest structure at Holman Field was a "depot hangar," a

multi-purpose structure generally modeled after the urban RR depot. A depot hangar might include, in addition to the actual storage space for planes, a waiting room, lounge, observation deck, rest rooms, general offices and shop, sleeping quarters for pilots and mechanics, a large machine shop with stock room, and a classroom. Structurally, the Northwest hangar employed a cantilevered roof-truss system with a steel column midway between the two east-west side walls, supporting a massive, riveted Pratt truss, whose ends were carried on steel columns embedded in the side walls. The Pratt was a "carrying truss" for seven evenly spaced, north-south roof trusses, that were anchored at the rear (north) end by a steel column in the wall masonry. The forward 28 ft. of the roof trusses were cantilevered out at the front of the hangar, allowing a clear span with an unobstructed door opening of 200 ft.

As with other hangars [see note/photos re 1924 Albert Kahn hangar, *SIA* 1985(4):8], the cantilevered clear-span so disturbed those needing to see traditional supports, that architect Clarence H. Johnston, Sr., framed the hangar opening with non-load-bearing piers for effect.

When demolition first was proposed in 1982, the SHPO was unaware of the structure's significance and the razing was approved. Staff at the Natl. Air & Space Museum, Smithsonian Institution, commented that the hangar was one of the few remaining examples of aviation-related industrial buildings erected during the infancy of the development of commercial aviation. The hangar couldn't be saved—it was in the way of flight-control upgrade work—but the comments did inspire a HAER recording project, which was completed by Jeffrey A. Hess [SIA].

## THE YEAR OF THE GRAIN ELEVATOR

### Last Oconomowoc elevator razed

The ongoing demolition of a country grain elevator in Oconomowoc, Wis., has given Univ. of Wis.—Milwaukee architectural historian Paul Sprague an opportunity to study the construction of an 1884 wood-cribbed design. It was built on land leased from the Chicago, Milwaukee & St. Paul RR by Williams & Thompson, grain dealers, to receive wagon-loads of grain from farmers and consolidate them into carload lots for shipment out. The elevator retained its interior elevator leg and a distributor at the head to send the grain into the selected bin. Later run by individual electric motors, it originally was powered by steam. The first floor below the 12 bins, at grade, was the “working floor”; the floor above the bins was the “distribution floor.” As with all wood-cribbed designs, this one employed planks laid flat and spiked together. This example used only 2x4 planks; others sometimes used 2x8s and 2x6s, decreasing as the bins extended upward. The exact origin of cribbed construction for elevator bins is not known, but Sprague speculates that one related use is the timber-cribbed breakwater. Both were used in the 1860s, and both used dimension lumber. An unusual feature of the Oconomowoc elevator is its board-and-batten exterior siding rather than the corrugated steel used on most wood elevators.



Wood-cribbed elevator (1884), Oconomowoc, Wis., during demolition. Note cribbing on end. *Ocono. Enterprise photo.*



*Courtesy U.S. Postal Service, Bismarck, N.D.*

### The North Dakota Centennial stamp: To elevate or not to elevate

It's not enough that the preservation and reuse of grain elevators is difficult and controversial. It turns out that one of the states most identified with grain elevators, North Dakota, seems to want nothing to do with them. Elevators and grain may be vital for the state's economy past and present, but the *image* of the country elevator is exactly what some state officials would like to forget.

This is North Dakota's centennial year, along with several other western states, and the U.S. Postal Service commissioned a centennial design featuring a wooden country grain elevator standing in a vast wheat field. Not a design that would offend anyone, it would seem, and would even be appealing to the IA-minded. During the Feb. 21 first-day-of-issue ceremonies in the state capitol of Bismarck, however, Gov. George A. Sinner launched an attack on the elevator stamp, declaring, “The stamp does not represent the North Dakota of today, nor does it suggest a positive image of our future.” S.F. “Buckshot” Hoffner, executive director of the North Dakota Centennial Commission, wrote: “The sense of abandonment and despair suggested by a deserted grain elevator and wagon are not the feelings we want portrayed about the state at any time, let alone during our centennial.”

The centennial stamp design for the 39th state, whose motto is “Strength from the Soil,” was created by Western landscape artist Wendell Minor from New York City (another grievance). Minor worked from historic elevator photos supplied by the North Dakota Heritage Center. The generic elevator that Minor produced would be at home in any number of midwestern states. One structural oddity, however, is seen in the horizontal bands around the elevator, which identify it as a “studded” or balloon-frame elevator, rather than a conventional, and more common, cribbed design.

State officials may have been out of touch with state residents, who like the design. “We feel the design is distinct and many of our customers feel likewise, especially the N.D. Grain Elevator Assn., who are delighted by our choice,” writes USPS Marketing Director George Andres in Bismarck. Not only have state customers bought the stamp, along with others nationwide, but they also have snapped up the grain-elevator T-shirts (\$8), sweatshirts (\$15), totebags (\$6), and other stamp items marketed by the Postal Service. “The negative publicity really was the deciding factor in our marketing the artwork,” says Andres. For further info., or to order, contact Andres at USPS, 220 E. Rosser Ave., Bismarck ND 58501-9996.

owned by the city, “house” No. 2 (1916) and “house” No. 3 (1926) were built as receiving elevators for the Washburn-Crosby (later General Mills) milling complex that now is a National Historic Landmark. If a viable use can be found for these concrete giants, the city will be happy to preserve them; otherwise, demolition will be considered. But even demolition is not easy or cheap for a grain elevator, as the recent example of Toronto's Monarch elevator attests. The work took a full year, cost \$1 million, and bankrupted the Thunder Bay wrecking company that did the work [*SIA*/Spring 88:1]. Anyone knowing of a grain-elevator reuse project, or even plans for such reuse, is urged to contact Bob Frame at POB 65158, St. Paul MN 55165-0158 (612-227-9531 day; 612-291-7882 eve).

### Minnesota Elevator Madness

The Minnesota State Historic Preservation Office is winding up a year-long project to produce a National Register Multiple Property Documentation Form (MPDF) for grain elevators. The work is being done by Bob Frame [SIA], who authored the essay on Minnesota grain elevators for the *Guide to the IA of the Twin Cities*, published for the 1983 SIA Annual Conf. The “historic context” statement for the MPDF will review the development of all types of elevators, from about the 1870s through 1945. Minnesota is an excellent state for these projects, for not only has it historically been among the nation's leading milling and grain-trade centers, but it retains one of the finest collections of large terminal elevators anywhere. Among the surviving major elevators in the Twin Cities are: the world's prototype circular concrete grain elevator—the Peavey-Haglin Experimental Concrete Elevator (1899-1900), now a National Historic Landmark; the Northwestern Consolidated Elevator A (1908; NR), the largest brick elevator in the world when built; St. Anthony Elevator No. 3 (1901), one of the earliest tile elevators; Pioneer Steel Elevator (1901), one of the earliest steel elevators and the first with an all-steel working house; and the Shoreham Elevator, a rare, 1894 wood-cribbed terminal elevator.

The historic context discusses and differentiates the two major elevator types, “country” (officially termed “primary” in Canada) and “terminal.” It then traces the general development of the types in terms of structural materials: wood, steel, tile, brick, and reinforced concrete. An interesting preliminary observation for Minnesota is the persistence of the traditional wood-cribbed construction for country elevators, at least through the 1940s, despite the dominance of reinforced concrete for large, terminal elevator construction since about World War I.

In a related project, administered by the Preservation Alliance of Minnesota, Frame is attempting to discover all examples of the reuse of grain elevators, especially the circular reinforced-concrete type. This research was precipitated by the presence of two large concrete elevators within Minneapolis's St. Anthony Falls Historic District (NR). Now

## NOTES & QUERIES

**"HARVESTING THE RIVER: LIFE & WORK ON THE ILLINOIS RIVER,"** is a floating exhibit that will journey aboard the working towboat *Belle Reynolds* to eighteen towns along 640 miles of waterways in Illinois between Chicago and St. Louis, Aug. through Nov. The route includes a large part of the newly designated I&M Canal National Heritage Corridor. The exhibit is divided into three sections: "The Nature of the River" presents an introduction to the natural setting of the river valley; "The Harvesters & Their Workplace" introduces the history of commercial fishing, mussel gathering, and social life of river-industry workers; "Conflict & Change" examines the social and environmental changes of the past century and their impact on river life. It includes artifacts, historic photographs, audio and video tapes, lectures, music, and demonstrations. When the voyage is concluded the exhibit will become part of a permanent waterfront project managed by the Peoria Historical Society. It is funded by the Natl. Endowment for the Humanities, the Illinois Humanities Council, and corporate sponsors. For a brochure, ports-of-call schedule, and other info., contact Craig E. Colten [SIA], Illinois State Museum, Springfield IL 62706 (217-785-4842).

**PRR RECORDS OPENED.** The Hagley Museum & Library has opened the records of the Pennsylvania Railroad for research. This 1,600-linear-ft. collection includes minutes, board files, and other corporate records of the PRR proper (1846-1968) and nearly 400 of its predecessor and subsidiary firms (1810-1968), making it a major resource for the study of RR corporate strategy, technology, labor relations, and operating practices. Correspondence and case files are available from V.P. Samuel Rea (1898-1912), and from the Financial (1900-68), Operating (1893-1968), Motive Power (1881-1950), Test (1903-35), Engineering (1913-55), Personnel (1910-68), Safety (1927-56), and Legal (1910-68) depts. Substantial information also is available on the origins and workings of the Relief and Pensions depts. (1886-1960), the full records of which are housed at the Urban Archives at Temple Univ., Phila. Info.: Manuscripts & Archives Dept., Hagley Museum & Library, POB 3630, Greenville DE 19807 (302-658-2400 X330).

**HAGLEY FELLOWSHIPS & PROGRAMS FOR 1990-91.** *Advanced Research Fellowships*, funded by the Natl. Endowment for the Humanities and the Andrew W. Mellon Foundation, support independent study in Hagley's fields of interest at its Center for the History of Business, Technology, and Society. Scholars working in the humanities or in those aspects of the social sciences that employ historic or philosophical approaches are encouraged to apply. Fellowships are offered for six to twelve months' work with a maximum stipend of \$27,500. These fellowships are restricted to individuals pursuing advanced research; awards will not be made to degree candidates. Completed applications must be received by Feb. 15, 1990; awards will be announced by April 1, 1990.

*Dissertation Fellowships*, in support of doctoral work in the topical fields of Hagley's research and collecting interests: business, industrial, and economic history, and the history of science and technology. No more than two fellowships, with a maximum stipend of \$13,500, will be offered to applicants from any university in the U.S. or abroad. The fellow must demonstrate the pertinence of Hagley's collections to the dissertation topic, spend nine to twelve months in residence, and take part in Center programs. Dates same as above.

*Grants-in-Aid* are also offered for calendar year 1990. These grants support short term (two to eight weeks) research in Hagley's imprint, manuscript, pictorial, and artifact collections. They are available to both degree candidates and advanced scholars. Applications will be accepted throughout the year; awards in 1990 will not exceed \$1,000 per month of study.

*Hagley-Winterthur Fellowships in Arts & Industries* is a cooperative program of short-term fellowships for scholars interested in the historical and cultural relationships between economic life and the arts, including design, architecture, crafts, and the fine arts. Jointly funded by Hagley and Winterthur, they support two to eight weeks of research at both

institutions. Dates same as Grants-in-Aid.

Additional fellowship info.: Executive Administrator, Center for the Hist. of Business, Technology, & Society, Hagley Museum & Library, POB 3630, Wilmington DE 19807 (302-658-2400).

*Hagley graduate programs:* The Hagley Museum & Library and the Dept. of History at the Univ. of Delaware offer a two- and four-year course of study leading to an M.A. or Ph.D. for students interested in careers as college teachers or as professionals in museums and historical agencies. The Hagley Program's focus is the history of industrialization, broadly defined. Historically, most students in the program have been interested in American industrial history, but the program also covers the industrialization of Europe. *Hagley Fellowships* cover tuition for courses at the Univ. of Delaware and provided a yearly stipend of \$8,170 for M.A. candidates and \$9,050 for doctoral candidates. Fellowships may be renewed once for those seeking a terminal master's degree and three times beyond the initial year for those seeking the doctorate. Hagley Fellows also receive support for travel to conferences, archives, and museums, provided by the Hagley Program Alumni Assn. Info.: David A. Hounshell [SIA], Assoc. Coordinator, Hagley Program, Dept. of Hist., Univ. of Delaware, Newark DE 19716 (302-451-8226).

**EAIA 1989 AWARDS ANNOUNCED.** The Early American Industries Assn. has announced the recipients of its annual Grants-in-Aid Program awards of \$1,000 each:

—a study of how techniques to produce handforged tools were adapted in mass production of tools. Charles M. Keller, Champaign, Ill.

—a study to determine the importance and scope of early American industries and their practitioners in the homes and ships of the southern backcountry of North Carolina. Johanna M. Lewis, Williamsburg, Va.

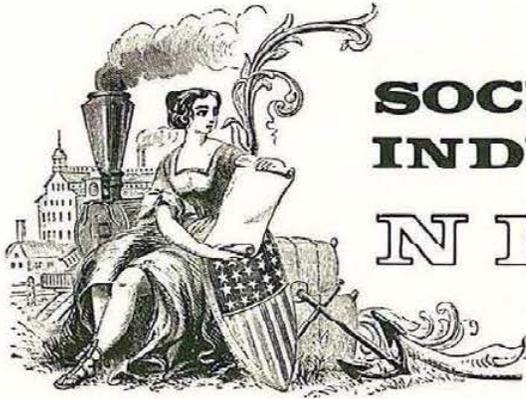
—a study to document the transition from hand tool to power-driven woodworking in the Shaker chair industry, 1850-1930; will result in a book and an exhibit to open at Mt. Lebanon Shaker Village in May 1990. Timothy D. Rieman, New Lebanon, N.Y.

For Grants-in-Aid info.: Charles F. Hummel, Winterthur Museum & Gardens, Winterthur DE 19735. For EAIA info.: John S. Watson [SIA], POB 2128, Empire State Plaza Station, Albany NY 12220.

**AQUEDUCT RESEARCH/TRAVEL COMPANION SOUGHT.** Brian M. Kutner [SIA] is seeking a male companion to accompany him on a research and field-study project involving Spanish water-supply aqueducts. The trip is planned for Jan. or Feb., 1990, and applicants must be physically fit for a vigorous trek. Applicant must pay air and food costs; Kutner will pay car and room costs. Interested parties should contact Kutner at 211 Buck St., POB 584, Millville NJ 08332 (609-825-0077 or 609-327-5073).

**PUBLIC WORKS WOLMAN AWARD.** The 1989 Abel Wolman Award for the best new book in the field of public works history has been awarded to Joel A. Tarr and Gabriel Dupuy, editors of *Technology & the History of the Networked City in Europe & America* (Phila.: Temple U.P.). The volume builds from the fact that between approximately 1850 and 1930, cities in the industrialized world constructed a series of systems or networks for water, wastewater, vehicles, energy, messages, and people. This volume contains a collection of essays on the development of these technological systems in European and American cities from the middle of the 19th C through World War II. It is the first book to focus on the history of these urban networks in both Europe and America. The \$1,000 annual award was created by the American Public Works Assn. and the Public Works Hist. Soc. in honor of the late public works engineer Abel Wolman. Info.: PWHS, 1313 E. 60th St., Chicago IL 60637 (312-667-2200).

The 1988 Wolman Award went to Bruce E. Seely [SIA] for *Building the American Highway System: Engineers as Policy Makers* (Phila.: Temple U.P.).



# SOCIETY FOR INDUSTRIAL ARCHEOLOGY NEWSLETTER

PUBLICATIONS OF INTEREST

A SUPPLEMENT TO VOL. 18 NO. 2

SUMMER 1989

Compiled by John M. Wickre, Minnesota Historical Society

## STRUCTURE

Sally A. Kitt Chappell, "Urban Ideals and the Design of Railroad Stations." In *T&C* 30, June 1989, p354-75. Incl. the Terminal Station at the World's Columbian Exposition in Chicago (1893); Union Station in Wash., D.C. (1903-1907); Union Station in Chicago (c.1918-1980s?), the Cleveland Terminal Group (1920s?); and the Pennsylvania Station at 30th St. in Phila. (1927-1934).

Erin S. Christensen et al, **Challenge to Build: A History of Public Works & APWA in Colorado.** Colo. Chad. Amer. Public Works Assn. (Denver). 1987. 162p, photos, index. \$18 pap. Rev.: *Public Historian* 11, Spring 1989, p77-80.

[Carl W. Condit special issue:] *T&C* 30, June 1989, subtitled *Essays in Honor of Carl W. Condit*, includes:

— Sharon Irish (introducing to the issue), "Essays in Honor of Carl W. Condit," p249-54;  
— Melvin Kranzberg, "A Tribute to Carl W. Condit," p255-57;  
— Debra N. Mancoff, "Carl W. Condit's Publications—a Chronological Bibliography, 1946-1985," p258-65.

See Chappell, Constant, Irish, Konvitz, Mark & Billington, Sanabria, Stamper, this issue, for related essays.

Cathy A. Gilbert, **Historic Landscape Report: American Camp & British Camp, San Juan Island National Historical Park, Washington.** Natl Park Service (Pacific Northwest Region NPS, 83 King St., Seattle, WA 98104), 1987. Joint occupation by U.S. and British forces on San Juan Islands of Puget Sound, 1859-1872, with related military posts on San Juan Island itself. Rev. in *Public Historian* 11, Spring 1989, p94-97, includes discussion of "ghost buildings" (3-dimensional outlines of nonexistent buildings) as a dubious alternative to total reconstruction.

Sharon Irish, "A 'Machine That Makes the Land Pay': The West Street Building in New York." In *T&C* 30, June 1989, p476-97. Cass Gilbert. 23-story skyscraper (1905-1907); pile-supported foundation; mechanical plant; real estate and commercial considerations.

Josef W. Konvitz, "William J. Wilgus and Engineering Projects to Improve the Port of New York, 1900-1930." In *T&C* 30, June 1989, p398-425. Failure of efforts to restructure the port; problems of regional planning.

Robert Mark and David P. Billington, "Structural Imperative and the Origin of New Form." In *T&C* 30, June 1989, p300-329. Incl. Pantheon and Hagia Sophia, gothic vaulting, cathedral domes, suspension bridges from Niagara to Tacoma Narrows, reinforced concrete "from Aarburg orracks to Schwandbach curves," modern tall buildings.

Philip P. Mason, **The Ambassador Bridge: A Monument to Progress.** Wayne State U. Pr. (Detroit), 1987. 250p, illus., notes, appendix, index. \$25/17 pap. Bridge over Detroit R. connecting Detroit and Windsor, Ont., completed 1929. Sources used incl. records of the Detroit Ind. Bridge Co. Rev.: *T&C* 30, June 1989, p475-76.

Sally McMurry, **Families & Farmhouses in 19th C America: Vernacular Design & Social Change.** Oxford U. Pr. (NY), 1988. 274p. \$30. Rev.: *JEH* 49, June 1989, p508-509.

*Old-House Journal* 17, July/Aug. 1989, includes articles on **Kitchens** and **Queen Anne style houses.** Its *Old-House Journal Catalog*, 1989 ed., lists 10,000+ restoration products & services (240 pp. pap., \$15 from OHS, 403 9th St., Brooklyn NY 11215).

Woodard D. Openo, **The Sarah Mildred Long Bridge: A History of the Maine-N.H. Interstate Bridge from Portsmouth, N.H., to Kittery, Maine.** Portsmouth Marine Soc. (Box 147, Portsmouth NH 03801), 1989? 160p, illus. \$30. Bridge opened 1939. Incl. reminiscences of the bridge's resident engineer.

*Postcard Journal* is the newsletter of the Curt Teich Postcard Collection of the Lake County Museum (Route 170 & Fairfield Rd., Wauconda IL 60084). Vol. 5, No. 3, 1989, includes an article on disaster photos (incl. fire, flood, aviation, shipwrecks), and a review of S. Frederick Starr, **The Oberlin Book of Bandstands** (Preservation Pr., Wash. DC, 1987). — This issue also publishes views from **Ducks and Diners** (roadside architecture) and **Picture Palaces** (movie theaters, 1890-1949), and notes the April release of **Mostly Moderne** (art deco and streamlined architecture and ornament). Each of these three publications contains 24 ready-to-mail postcards from the museum's collections. Avail.: \$8 each from the Teich Collection or the Pres. Pr.

Sergio Luis Sanabria, "From Gothic to Renaissance Stereotomy: The Design Methods of Philibert de l'Orme and Alonso de Vandelvira." In *T&C* 30, June 1989, p266-99. Masonry fitting techniques; de l'Orme (d.1570) in France, de Vandelvira (c1550-1625) in Spain.

Karen L. Smith, **The Magnificent Experiment: Building the Salt River Irrigation Project 1890-1917.** Univ. of Ariz. Pr. (Tucson), 1986. 212p, illus., notes, bibliog., index. \$33. Ariz., rev. in *T&C* 29, Oct. 1988, p970-3, considers it "based on careful... research" [but] "uncritical"; a "congratulatory institutional history."

John W. Stamper, "The Galerie des Machines of the 1889 Paris World's Fair." In *T&C* 30, June 1989, p330-53. In 1889, the world's largest wide-spanned iron-framed structure.

R. Gregory Turner, **Construction Economics & Building Design: A Historical Approach.** Van Nostrand Reinhold (NY), 1986. 136p, figures, tables, appendixes, bibliog., index. \$28. "Technology plus Economics yields style." Rev.: *T&C* 30, June 1989, p477-8.

## TRANSPORT

**Assault on Snow!** W.B. Video Productions (6447 S. Heritage Place W., Englewood CO 80111). Video (VHS/Beta), 52 mins. Blizzard on Wyo. & Colo. RR in southern Wyo., Feb. 1968. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p35.

Jay Bendersky, "Brooklyn's Waterfront Railways." Meatball Productions (POB 302, East Meadows NY 11554), 1988? 68p, illus. (most color). \$23 pap. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p32.

**Best from American Canals No. 3, 1980-86.** Amer. Canal & Transportation Center (809 Rathton Rd., York PA 17403), 1989. 88p, illus., maps. \$6 pap. Reprints from *Amer. Canals*, covering canals in U.S., Canada, Europe. Nos. 1-3, 1972-1986, same pp. & \$, still avail.

**The Big Power: Norfolk & Western — Then & Now.** Interurban Films (POB 6444, Glendale CA 91205). Video (VHS/Beta), color, sound, 30 mins. Mostly 1950s, plus surviving steam. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p34-36.

Malcolm L. Druno, "Lamoille Valley's Railroad." In *Natl. Ry. Bull.* 54, No. 2, 1989, p10-21. Green Mountains, Vt.-N.H.

Anthony Burton, **Steaming through Britain**. David & Charles (N. Pomfret VT), 1987. 154p, illus. \$23. Rys., but also stationary, marine, mills. Photos poor. Rev.: *RRH* No. 160, Spring 1989, p157-8.

Thero Barker, ed., **The Economic & Social Effects of the Spread of Motor Vehicles**. Sheridan House (145 Palisade St., Dobbs Ferry, NY 10522), 1987. 337p, tables, notes, index. \$40. Rev.: *T&C* 50, June 1989, p472-74.

W. Forrest Beckum, Jr., and Albert M. Langley, Jr., **Central of Georgia Rwy. Album**. Union Station Publishing Co. (785 Murrah Rd., North Augusta SC 29841), 1986. 144p. \$20. Rev.: *RRH* No. 159, Autumn 1988, p92.

John Bellwood and David Jenkinson, **Gresley and Stanier**. 2d ed. Her Majesty's Stationery Office (London), 1980. 180p, illus., bibliog. \$14 pap. Steam locomotives: 20th C British chief mechanical engineers. Rev.: *T&C* 29, Oct. 1988, p954-5. (Avail.: Bernan-Unipub, 10000-F King Highway, Lanham MD 20706).

Carla Black, "Corkscrew Gulch Turntable." In *Railroad Model Craftsman*, Mar. 1989, p61-68. Fine illus. article on unusual 1889 covered switchback turntable on Silverton RR in Colo. mountains.

Robert Darwin, **The History of the Union Pacific Railroad; Cheyenne**. Express Press Limited (POB 1133, Carmel Valley CA 93924), 198?. \$100, due to oversize format and duotone photos. Cheyenne, Wyo.?

Bruce William Dearstyne, **Railroads and Railroad Regulation in New York State, 1900-1911**. Garland (NY), 1986. 393p. \$62. Rev.: *RRH* No. 159, Autumn 1988, p87-9.

A. A. Den Otter, "Nationalism and the Pacific Scandal." In *Canadian Historical Rev.* 69, Sept. 1986, p316-30. [OP RR?]

Timothy S. Diebert & Joseph A. Strapac, **Southern Pacific Co. Steam Locomotive Compendium**. Shade Tree Books (POB 2268, Huntington Beach CA 92647), 1987. 432p, illus. \$45. Primarily a roster. Rev.: *RRH* No. 160, Spring 1989, p140-42.

Otto P. Dahnke, "Finding a New Use for Two Abandoned Bridges." In *Trains*, May 1989, p24-5. Burlington Northern now [as of Fall 1988] using bridges abandoned by the Soo Line, on its multi RR line serving Twin Ports [Duluth MN / Superior WI]; BN likely to abandon the ex-Great Northern bridge previously used [anybody need 2200 ft. of c1929 steel bridge/trestle?].

William D. Edson, "Locomotives of the Elgin, Joliet & Eastern." In *RRH* No. 159, Autumn 1988, p51-72. Chicago, Ill., vic. Primarily a roster; some text and photos.

William D. Edson, "The National Railways of Mexico." In *RRH* No. 160, Spring 1989, p60-131. Primarily locomotives, with rosters, photos, index by road numbers. Historical background & maps, p00-09.

Arthur N. Evans, **Cambridge Introduction to World History: The Railways**. Cambridge Univ. Pr. (NY), 1988. 48p, illus. \$5 pap. Mostly U.K. Rev.: *RRH* No. 159, Autumn 1988, p100-101.

Stephen Fisher, ed., **Studies in British Privateering, Trading Enterprise and Seamen's Welfare, 1775-1800**. U. of Exeter (Exeter, Ct. Britain), 1987. 178p. \$9 Rev.: *JEH* 49, June 1989, p482.

Kenton Forrest and Charles Albi, **Denver's Railroads**. Revision of 1981 ed. Colorado RR Museum (Box 10, Golden CO 80401), 1986. 260p. \$30. Rev.: *RRH* No. 159, Autumn 1988, p91.

**Freight Cars Journal** includes current news (Cryo-Trans CO-2 cooled refrigerator cars, for example) as well as historical articles. Avail.: 4/yr., \$16 with membership from Society of Freight Car Historians (c/o David G. Casdorff, POB 2480, Monrovia CA 91017). Vol. 6, No. 3, Issue 31, July 1989, includes articles on **milwaukee road flexi-vans** (1954-1955 era container system, highway trailer to special flat car), p13-22; **late steam era LP-gas tank cars**, p23-25; and **Illinois Central / IG Gulf box car paint schemes, 1960s-1989**, p28-31 + color covers.

**Glory Machines Vol 3 Herron Rail Services** (2016 N. Village Ave., Tampa FL 33612). Video (VHS/Beta), mostly color. Wide variety of RRs, 1936-1968. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p30-30.

H. Roger Grant, "A Railroad Wins Friends: The Chicago & Northwestern and the Little Fellow." In *S. Dakota Hist.* 18, Fall 1988, p117-31.

John Gruber, **Focus on Rails**. Mid-Continent Railway Historical Soc. (POB 55, North Freedom WI 53951), 1989. 49p, illus. \$6 ppd. RR photography since the 1890s, of both art and engineering interest.

John G. Hartzler, **The Ol' Hook & Bye—a History of the Kishacoquillas Valley Railroad**. Pub. by the author (RD2, Box H155, Belleville OA 17004), 1986. 170p, illus. \$16. Central Pa. Rev.: *RRH* No. 160, Spring 1989, p154-5.

G. M. Heathcliff & Alvin K. Traz, **Rails Along the Schuylkill**. Associated Artists of Dixie (Box 558, Andover NJ 07821), 1988. 72p, illus. \$13 pap. Reading RR, Phila. area. Rev.: *RRH* No. 160, Spring 1989, p153-4.

Eugene L. Huddleston, **Appalachian Crossing—The Focaluntas Roads**. TLC Publishing (303 Aaron Ct., Sterling VA 22170), 1989. 64p, illus., maps. \$13. Coal haulers: Norfolk & Western, Chesapeake & Ohio, Virginian.

John A. Kirchner, **Baja California Railways**. Golden West Books (POB 80250, San Marino CA 91108), 1986. 350p, illus., maps, rosters, index. \$30. Incl. mining, salt-hauling, pier and levee RRs. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p30.

Larry Lowenthal & William T. Greenberg, **The Lackawanna Railroad in Northwest N. J.** Tri State Ry. Historical Soc. (Box 1217, Morristown, NJ 07960), 1987. 244p, illus., maps, bibliog., index. \$40. Rev.: *RRH* No. 160, Spring 1989, p152-3; *Natl. Ry. Bull.* 54, No. 2, 1989, p30-31.

Terry Lynch and W. D. Calleff, Jr., **Kansas City Southern—Route of the Southern Belle**. Pruett Publishing (2928 Pearl St., Boulder CO 80301), 1987. 223p. Illus. (some 1970 color). \$35. Photographic overview. Rev.: *RRH* No. 159, Autumn 1988, p91-2.

Donald F. MacLachlan, **The Esquimault & Nanaimo Ry.: The Dunsmuir years—1884-1905**. British Columbia Ry. Historical Soc. (Box 114, Victoria BC V8W 2M1), 1986. 168p. RR on Vancouver Island. Rev.: *RRH* No. 160, Spring 1989, p147-8.

**Mainline Modeler** 10, July 1989, includes a Northern Pacific coal dock (500 hours to construct), 40-ft. truck/flatcar trailers, pulpwood cars, CSX Sealand ship-to-rail containers (incl. color photos).

Bruce Nelson, **Workers on the Waterfront: Seamen, Longshoremen, and Unionism in the 1930s**. U. of Ill. Pr. (Champaign), 1988. 366p. \$30. Rev.: *JEH* 49, June 1989, p26-7.

Martha L. Olney, "Credit as a Production-Smoothing Device: The Case of Automobiles, 1913-1938." Financing autos as a means of smoothing formerly seasonal buying patterns; eventually finance companies tied to auto mfrs. wrote 90% of the credit business. In *JEH* 49, June 1989, p277-91.

William J. McKelvey, Jr., **Lenign valley Transit Company's Liberty Bell Route**. Canal Captain's Press (103 Dogwood Lane, Berkeley Heights NJ 07922), 1989. ?p, illus. (some color), maps, bibliog. Phila.-Allentown, Pa.; incl. account of a 1940 trip.

John Pandosh, "The Railroad's Little Billboards." In *Natl. Ry. Bull.* 54, No. 2, 1989, p4-9. Advertising matchbooks, incl. full color.

Jim Panza, "Thrall's Double-Stack Cars." In *Railroad Model Craftsman* 57, Jan. 1989, p69-95. RR container cars; drawings, tables, photos (some color), incl. 3 added views on p133-4.

Richard W. Pelouze, "Research Note: Santa Fe's 120-Ton Industrial Works Derricks." In *RRH* No. 160, Spring 1989, p50-59. "Big hooks" (wrecking cranes) built a 1900-1913 [one still extant at Orange Empire Ry. Museum, Perris, CA, awaiting restoration].

**A Rainbow of Traction**. Bulletin 126, of the Central Electric Railfans' Assn. (Box 500, Chicago IL 60690), 1988. 144p, illus., bibliog., index. \$45/\$25 pap. All color, 1939-64, N. Amer.; incl. misc. technical essays. Rev.: *RRH* No. 160, Spring 1989, p155-6; *Natl. Ry. Bull.* 54, No. 2, 1989, p31.

Jack Rhodes, **Intercity Bus Lines of the Southwest: A Photographic History**. Texas A&M Univ. Pr. (College Station TX), 1988. 173p, illus. Texas, Okla., N. Mex.; rwy. relationships. Rev.: *RRH* No. 160, Spring 1989, p144-5.

**Rio Grande Today**. W.B. Video Productions (6447 S. Heritage Place W., Englewood CO 80111), 1988? Video (VHS/Beta), color, sound, 2 hrs. D&RGW, 1980s, from 16-unit diesel coal trains to a private car trip. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p34-35.

Joel Rosenbaum & Tom Gallo, **The Broadway Limited**. Railpace Co. (Box 927, Piscataway NJ 08855), 1986. 90p, illus. (many color). \$18 pap. Classic Pennsy passenger service. Rev.: *RRH* No. 160, Spring 1989, p151-2; *Natl. Ry. Bull.* 54, No. 2, 1989, p28.

Mike Schafer, comp., **Passenger Train Annual 1988**. Interurban Pr. (Box 6444, Glendale, CA 91205), 1988. 80p. \$18 pap. Rev.: *RRH* No. 160, Spring 1989, p150-51.

Jack E. Schramm, et al, **When Eastern Michigan Rode the Rails, Vol. 3**. Interurban Pr., 1986. 224p, illus., rosters, index. \$40. Interurbans, 1890s-1920s. Rev.: *RRH* No. 160, Spring 1989, p156.

David A. Geidel, **Fremont, Elkhorn & Missouri Valley R.R. Co. Harbor** Mist Publ. (Columbus NE), 1988. 120p, tables, illus., appendix, roster, timetables. \$20. Neb. RR from 1809 incorp. to 1903 C&NW takeover. Avail.: \$28 ppd. from Camerail Club, POB 791, Columbus, NE 68601-0791.

John R. Signor, **The Los Angeles & Salt Lake RR Co.: Union Pacific's Historic Salt Lake Route**. Golden West Books (POB 80250, San Marino CA 91108), 1988. 286p, illus., maps, bibliog., index. \$55. Rev. *Natl. Ry Bull* 54, No. 2, 1989, p32-33.

Carlene Stephens, "The Most Reliable Time: William Bond, the New England Railroads, and Time Awareness in 19th-C America." In *T&C* 30, Jan. 1989, p1-34.

Bernard W. Stern, **Rutledge Unionism: Labor Relations in the Honolulu Transit Industry**. U. of Hawaii Center for Labor Education and Research (Honolulu), 1988. 147p. \$20. Art Rutledge, leader of teamsters, hotel workers & transit union, 1939-present. Rev.: *Labor History* 30, Winter 1989, p146-7.

FRED A. STINDT, **The Northwestern Pacific Railroad, Vol. 2, 1904-05**. Publ. by the author (3363 Riviera W. Dr., Kelseyville CA 95451), 1985. 176p, illus., maps, roster. \$32. Rev.: *RRH* No. 160, Spring 1989, p145-6.

Robert D. Turner, **West of the Great Divide: An Illus. History of the Canadian Pacific Rwy. in British Columbia, 1880-1988**. Sono Nis Pr. (1745 Blanshard St., Victoria BC V8W 2J8), 1987. 336p, \$C40/\$32 U.S. Rev.: *RRH* No. 160, Spring 1989, p146-7.

Adrian Vaughan, **Signalman's Nightmare**. David & Charles (N. Pomfret VT 05083), 1987. 164p. \$25. Last of a trilogy; this one a bitter indictment of British Rys. management. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p33.

Hol Wagner, "Covered Hoppers." In *Burlington Bulletin* 20, 1989. CB&Q freight cars; text, p4-5; well-captioned photos (some color) on covers & p6-63. (Avail.: Burlington Route Historical Society, POB 456, LaGrange IL 60646).

Russell Wahmann, **Narrow Gauge to Jerome: The United Verde & Pacific Rwy.** Pruett Publishing (2928 Pearl St., Boulder CO 80301), 1988. 92p, illus., maps, roster, bibliog. \$15 pap. Narrow-gauge copper co. rwy., 1894-1920, Prescott-Jerome, Ariz. Rev.: *RRH* No. 160, Spring 1989, p143-4.

James A. Ward, "Early Railroad Empire Builders, 1850-1873." In *RRH* No. 160, Spring 1989, p5-21. All the major groups, U.S.-wide; no footnotes, but nice bibliographical essay.

Robert Thomas Whiting, "A Railroad to White Pass." In *Natl. Ry. Bull.* 54, No. 1, 1989, p4-19. White Pass & Yukon Rwy., Alaska / British Columbia / Yukon Territory, 1898-1988.

Richard E. Winslow, "Wealth & Honour": Portsmouth During the Golden Age of Privateering, 1775-1815. Portsmouth Marine Soc. (Box 147, Portsmouth NH 03801), 1989? 324p, illus., \$30. Primarily "from the viewpoint of the captains and crews down at the waterfront and aboard ship."

Ted Wurm, "'Crookedest Railroad in the World—Who Says So?'" In *RRH* No. 160, Spring 1989, p22-49. Illus., some full-page; incl. lines in India, Col., Utah, Cal., Ariz.

Ron Ziel & Richard Wettreau, **Victorian Railroad Stations of Long Island**. Sunrise Special Ltd. (POB 433, Bridgehampton, NY 11932). 176p, illus. \$40. Rev.: *Natl. Ry. Bull.* 54, No. 2, 1989, p33-34.

## MATERIALS

Daniel Barbezat, "Cooperation & Rivalry in the Intl. Steel Cartel." Europe. In *JEH* 40, June 1989, p435-47.

Raymond E. Dumett, "Sources for Mining Co. History in Africa: The History & Records of the Ashanti Goldfields Corp. (Ghana), Ltd." In *BHR* 62, Autumn 1988, p502-515. Records in Guildhall Library, London, of company operated 1897-present. Includes bibliog.; other archival sources.

Lon L. Peters, "Managing Competition in German Coal, 1893-1913." Rhenish-Westphalian Coal Syndicate. In *JEH* 49, June 1989, p419-33.

Terry S. Reynolds [SIA], "Iron in the Wilderness: The Michigan Iron Industry Museum." In *T&C* 30, Jan. 1989, p112-117. Review of site, structures, and exhibits of museum in upper peninsula.

Douglas L. Smith, **The New Deal in the Urban South**. La. State U. Pr. (Baton Rouge), 1988. 287p. \$30. Birmingham, Ala., iron, steel, & coal; Memphis, Atlanta, New Orleans also. Rev.: *JEH* 49, June 1989, p525-6.

Samuel D. Omith, et al, **Tennessee's Western Highland Rim Iron Industry: A Cultural Resource Survey, 1790s-1930s**. Tenn. Dept. of Conservation, Div. of Archaeology (701 Broadway, Nashville TN 37219-0207), RESEARCH SERIES No. 8, 1988. 209p, maps, photos, drawings, tables, bibliog., appendixes. \$6. Historical overview of iron mfg. technology (furnaces and forges) and local industry; inventory of iron industry sites by county; related architectural resources; indexes of personal and corporate names.

Robert L. S. Spude & Sandra McDermott Faulkner, **Kennecott, Alaska**. Natl. Park Service (Alaska Region NPO, 2500 Gambell St., Anchorage AK 99503), 1987. 52p, illus., bibliog. \$? **Copper mining**, complete with Jet Lowe photos, HAER dwgs., process diagrams, but only 5 pp. of text. REVIEW by Larry Lankton [SIA] in *Public Historian* 11, Spring 1989, p93-94, notes that the site merited more attention than it received, while a companion HAER study by Faulkner & Spude gives abandoned military bases at Dutch Harbor and Fort Mears more attention (192-pp.) than they merit.

Barry Supple, **The History of the British Coal Industry, Vol. 4: 1913-1946: The Political Economy of Decline**. Clarendon Pr. (Oxford, England), 1987. 758p. \$98. Rev.: *JEH* 49, June 1989, p484-85.

Geoffrey Wheeler, **Fired by Steam**. David & Charles (N. Pomfret VT), 1987. 39p, illus. \$35. Coffee-table side view full-color paint schemes, esp. Great Western.

## MISC. INDUSTRIES

Sergio Aiolfi, **Calicos und gedrucktes Zeug: Die Entwicklung der englischen Textilveredelung und der Tuchhandel der East India Company, 1650-1750 (the English textile industry and the East India Co.)**. Franz Steiner Verlag (Stuttgart), 1987. 451p. DM 76. Rev.: *JEH* 49, June 1989, p481-2.

**Bulletin of the American Society of Arms Collectors** focuses on identification and minutiae related to arms and armor but includes some good IA material. Early issues (1950s-60s) typewritten but illus. with b&w photos; later issues glossy, many photos, some color. Seems to be rather exclusive in membership, but apparently makes back issues available to deserving libraries. Address: Robert F. Rubendunst, 6550 Baywood Lane, Cincinnati, Ohio 45224. Examples of articles:

- U.S. patent models (No. 1, Sept. 1955, p8-27).
- American revolving long arms (No. 3, Spring 1961, p18-30).
- Harpers Ferry and its firearms (No. 11, Spring 1965, p11-30).
- Virginia Manufactory of Arms (No. 41, Fall 1979, p23-32).
- Asheville (N.C.) Armory and rifle (No. 44, Mar. 1981, p21-26).
- California Powder Works (No. 46, 1982, p2-5).
- Arms and armor collections in Gt. Britain (No. 50, 1984, p2-55).
- Smith & Wesson factory & workers (No. 53, 1985, p44-58).
- Marlin Firearms Co. (No. 55, 1986, p41-47).
- Spruce Brook Mill, Simeon North's pistol factory, Berlin, Conn. (No. 57, 1987, p61-70).
- Springfield Armory swords & sabers (No. 58, 1988, p21-30).
- Care & preservation of firearms (No. 59, 1988, p27-32).

**Canadian Papers in Rural History, Vol. VI**, Donald H. Akenson, ed. Langdale Pr. (Gananoque, Ont.), 1988. 353p. \$35. Incl. Williams Lake District lumber industry, 1947-56. Rev.: *JEH* 49, June 1989, p538-9.

Ann M. Carlos & Stephen Nicholas, "Giants of an Earlier Capitalism: The Chartered Trading Companies as Modern Multinationals." In *BHR* 62, Autumn 1988, p390-419. Argues that "the 16th- & 17th-C British and Dutch trading companies shared important characteristics with today's modern multinationals." IA interest includes Russian cordage works of Muscovy Co.; saltpeter & textiles of [English] East India Co. & Dutch East India Co.; Hudson's Bay Co.; Royal African Co.; marine transport.

Charles Cheape, "Not Politicians but Sound Businessmen: Norton Co. & the Third Reich." In *BHR* 62, Autumn 1988, p444-66. German managers of U.S.-based mfr. of abrasives, grinding machinery, & refractory materials "variously cooperated with, ignored, or violated Nazi policies," 1933-40, in protecting their firm's long-term interests.

Edward W. Constant II, "Cause or Consequence: Science, Technology, and Regulatory Change in the Oil Business in Texas, 1930-1975." In *T&C* 30, June 1989, p426-55.

Susan J. Douglass, **Inventing American Broadcasting 1890-1922**. Johns Hopkins U. Pr. (Balt.), 1987. 392p, illus, notes, index. \$45/15 pap. Rev.: *T&C* 30, June 1989, p404-0.

Ronald Edsforth, **Class Conflict & Cultural Consensus: The Making of a Mass Consumer Society in Flint, Mich.** Rutgers U. Pr. (New Brunswick NJ), 1986. 310p, notes, bibliog, index. \$40/12 pap. GM auto mfg. Rev.: *BHR* 62, Autumn 1988, p533-4.

## GENERAL SUBJECTS

Edwin Gabler, **The American Telegrapher: A Social History, 1860-1900.** Rutgers U. Pr. (New Brunswick, NJ), 1988. 272p, illus., notes, bibliog., index. \$45/20 pap. Rev.: *T&C* 30, June 1989, p483-4.

William J. Hausman, "Engineers and Economists: Historical Perspectives on the Pricing of Electricity." In *T&C* 30, Jan. 1989, p83-104. Comparison of two books written published in 1921.

Peter Hayes, **Industry and Ideology: IG Farben in the Nazi Era.** Cambridge Univ. Pr. (NY), 1967. 439p. \$40. Chemical industry, incl. synthetic fuels and rubber. Rev.: *Amer. Hist. Rev.* 94, Apr. 1989, p474-5.

Walter Kirchner, **Die deutsche Industrie und die Industrialisierung Russlands, 1815-1914.** Scripta Mercaturae Verlag (St. Katherinen), 1986. 414p. DM 58. German industry in Russia, incl. electrical equipment, chemicals, machine tools, iron and coal. Rev.: *JEH* 49, June 1989, p403-406.

Richard N. Langlois & Paul L. Robertson, "Explaining Vertical Integration: Lessons from the American Automobile Industry." In *JEH* 49, June 1989, p361-75.

Leroy Lewis, "The Art & Science of Fire Assaying for Gold." In *Idaho Yesterdays* 32, Summer 1988, p15-22.

Jonathon Liebonau, **Medical Science & Medical Industry: The Formation of the American Pharmaceutical Industry.** Johns Hopkins U. Pr. (Baltimore MD), 1957. 210p, notes, bibliog., index. \$35. Incl. Phila. firms. Rev.: *BHR* 62, Autumn 1988, p539-41.

Kenneth Lipartito, "System Building at the Margin: The Problem of Public Choice in the Telephone Industry." AT&T strategies. In *JEH* 49, June 1989, p323-338.

Marc Scott Miller, **The Irony of Victory: World War II and Lowell, Mass. U. of Ill. Pr. (Champaign), 1988. 244p. \$25.** "War . . . accelerated the creation of used-up industries . . ." Rev.: *JEH* 49, June 1989, p527-8.

Brian C. Mitchell, **The Paddy Camps: The Irish of Lowell, 1821-61.** U. of Ill. Pr. (Champaign), 1988. 260p, illus., tables, charts, notes, bibliog., index. \$25. Textile workers. Rev.: *BHR* 62, Autumn 1988, p526-7.

Richard Salvucci, **Textiles & Capitalism in Mexico: An Economic History of the Obrajales, 1539-1840.** Princeton U. Pr. (Princeton NJ), 1987. 264p. \$40. Woolen textile manufactories. Rev.: *JEH* 49, June 1989, p604-606.

Harm Schröter, "Risk & Control in Multinational Enterprise: German Businesses in Scandinavia, 1918-1939." In *BHR* 62, Autumn 1988, p420-43. Incl. hydro-electric power; iron, copper, & nickel ores; timber, pulp, & paper; chemicals.

Helen Shapiro, **State Intervention & Industrialization: The Origins of the Brazilian Automobile Industry.** Ph.D. dissertation, Harvard U. Summarized in *JEH* 49, June 1989, p448-50.

William Sones, "Physics Lite." In *Discover* 10, Aug. 1989, p56-60. Physics of beer, incl. mfg. for best head.

Robert Louis Stein, **The French Sugar Business in the 18th C.** La. State U. Pr. (Baton Rouge), 1988. 201p. \$28. Incl. production, transport, refining, and distribution. Rev.: *JEH* 49, June 1989, p486-7.

**The Sterling Cotton Manufacturing Company.** Sterling Historical Society (RD Box 443, Moosup CT 06345), 1989??p. \$10. Sterling, Conn., 1810-1880. Based on manuscripts now in the Conn. Hist. Soc.

John P. Swann, **Academic Scientists & the Pharmaceutical Industry: Corporate Research in 20th C America.** Johns Hopkins U. Pr. (Balt.). 1988. 260p. \$33. Rev.: *JEH* 49, June 1989, p521-22.

Bennett H. Wall, **Growth in a Changing Environment: A History of Standard Oil Co. (N.J.) 1950-78 and Exxon Corp. 1978-79.** McGraw-Hill (NY), 1988. 1065p. \$40. Rev.: *JEH* 49, June 1989, p531-3.

Fred E. Weick & James R. Hansen, **From the Ground Up: The Autobiography of an Aeronautical Engineer.** Smithsonian Institution Pr. (Wash. DC), 1988. 463p, illus., notes, appendixes, index. \$40. Weick designed various light aircraft incl. the Ercoupe (1940) and Piper lightplane to 1060. Rev.: *T&C* 30, June 1989, p486-8.

Carl Abbott, "Perspectives on Urban Economic Planning: The Case of Washington, D.C., Since 1880." In *Public Historian* 11, Spring 1989, p5-21. W. once proposed as the business and transport center for the New South; mfg. vs. governmental employment base.

Ian R. Bartky, "The Adoption of Standard Time." In *T&C* 30, Jan. 1989, p25-56. 19th C, incl. RRs.

Mansel G. Blackford, **The Rise of Modern Business in Gt. Britain, the U.S., & Japan.** U. of N.C. Pr. (Chapel Hill), 1988. Good perspective on origins of industry; focuses on structure. rev. in *JEH* 49, June 1989, p543-4. asks author to "supplement his structural teleology with an ontological account of business performance."

Scott L. Bottles, **Los Angeles & the Automobile: The Making of the Modern City.** U. of Cal. Pr. (Berkeley), 1987. 315p, illus., maps, charts, notes, index. \$28. Decline of public transit; evolution of decentralized city. Rev.: *BHR* 62, Autumn 1988, p538-9.

David Brody, "Time and Work During Early American Industrialism." In *Labor History* 30, Winter 1989, p5-46.

D. Clayton Brown, **The Southwestern Division: 50 Years of Service.** U.S. Corps of Engineers (Dallas TX), 1967. 204p, illus., tables, notes, bibliog., appendix, index. The Corps from New Mex. to Ark. and north to Missouri. Rev.: *T&C* 30, June 1989, p490-91.

R. A. Buchanan, **The Engineers: A History of the Engineering Profession in Britain, 1750-1914.** Jessica Kingsley Publishers (London), 1989. 240p. bibliog., index. £25. Avail.: Kogan Page, 120 Pentonville Road, London England N1 9JN.

Alfred Chandler, **The Essential Alfred Chandler: Essays Toward a Historical Theory of Big Business.** Edited & with an intro. by Thomas K. McCraw. Harvard Business School Pr. (Boston MA), 1988. 549p, illus., charts, tables, notes, list of publications, index. \$35. From the author of **The Visible Hand**, basic IA background reading on large-scale mfg. & transport, and the forthcoming **Scale & Scope**. . . . Rev. article by Maurice Lévy-Boyer in *BHR* 62, Autumn 1988, p516-21.

Scott Cline, ed., **Guide to the Archives of the City of Seattle.** City of Seattle Municipal Archives Program (Office of the Comptroller, 101 Municipal Building, Seattle, WA 98104), 1988. 242p, illus, maps, index. \$8 pap. Incl. departments concerned with engineering, water, public power, etc. Rev.: *Public Historian* 11, Spring 1989, p86-88.

Joseph Corn, ed., **Imagining Tomorrow: History, Technology & the American Future.** MIT Pr. (Cambridge MA), 1986. 243p, illus., notes, index. \$18/10 pap. Predictions, mostly 1903-1939; World's fairs; mistaken assumptions. Rev.: *T&C* 30, June 1989, p459-60.

Melvyn Dubofsky, "Big Bill" Haywood. St. Martin's Pr. (NY), 1987. 192p. \$20. IWW leader (1905-1918). Rev.: *JEH* 49, June 1989, p518.

Bernard Elbaum, "Why Apprenticeship Persisted in Britain But Not in the U.S." 19th C. In *JEH* 49, June 1989, p337-49.

Robert Fichman, **Bourgeois Utopias: the Rise and Fall of Suburbia.** Basic Books (NY), 1987. Techno-cities with technoburbs defined by auto driving convenience; incl. Los Angeles. Rev.: *T&C* 30, June 1989, p497-8.

Betsy Fahlman, ed., **IA in Art [special issue].** In *IA: The Journal of the SIA* 12, No. 2, 1986. Review, with illus., in *T&C* 30, June 1989, p460-64, generally favorable, but reviewer wishes for more on aesthetics.

James R. Hansen, **Engineer in Charge: A History of the Langley Aeronautical Laboratory 1917-1988.** National Aeronautics & Space Admin. (Wash. DC), 1987. 658p, illus., notes, appendixes, bibliog., index. \$30. Focuses on accomplishments; little on the lab as a dull, unimaginative bureaucracy. Rev.: *T&C* 30, June 1989, p488-90.

John M. Jordan, "Society Improved the Way You Can Improve a Dynamo": Charles P. Steinmetz and the Politics of Efficiency." In *T&C* 30, Jan. 1989, p57-82. (1865-1923) a "non-Marxian socialist", believed in replacement of elected U.S. govt. by corporate functionaries; GE use of S. to promote corporate image.

### Abbreviations used in this Post:

**BHR:** Business History Review

**RAH:** Railroad History

**JEH:** Journal of Economic History

**T&C:** Technology & Culture

Readers are urged to send all notices of pertinent publications to John M. Wickre, Compiler, Publications of Interest, SIA Newsletter, P.O. Box 65168, St. Paul MN 55165-0168 (612-296-6980).

## NOTES & QUERIES

**TEXTILE HISTORY CALL FOR PAPERS.** The Museum of American Textile History [SIA], in cooperation with the Natl. Museum of American History, Clemson Univ., and the Pasold Research Fund, will sponsor the third Textile History Conf. in Sept. 1990. The primary focus will be on events in Gt. Britain and North America leading to the establishment of the factory system. As the occasion will mark the bicentennial of Samuel Slater's successful attempt to manufacture yarn with water-powered machinery, trends in 18th- and early 19th-C North America will be of particular interest. Examples of proto-industrial and early industrial development in other nations also will be considered. Those with work in progress in any of these areas are invited to submit expressions of interest in the program to Thomas W. Leavitt, Director, MATH, 800 Massachusetts Ave., North Andover MA 01845 no later than Oct. 1, 1989.

**SHOT PRELIMINARY CALL FOR PAPERS.** The 1990 Program committee of the Society for the History of Technology will consider early paper and session proposals from scholars outside the U.S. for its Annual Meeting in Cleveland, Ohio, Oct. 18-21, 1990. This preliminary overture is to encourage participation by non-U.S. citizens and to enable those interested to receive early notification of acceptance in order to secure travel funds. Early consideration will be given *only* to persons outside the U.S.

The committee seeks proposals in all areas of the history of technology. Especially welcome are proposals for full sessions and group or individual proposals that accent the Third World, Latin America, and the Great Lakes Region, as well as gender, pre-20th-C topics, and comparative studies. Also invited are proposals for presentations in alternative formats. Such formats might include carefully prepared audio-visual or computer demonstrations. Such proposals should clearly describe formats (including length and dimensions) and equipment. Presenters will be expected to adhere to guidelines issued by the committee and will be responsible for all equipment and set-up requirements.

The deadline for preliminary proposals is Oct. 1, 1989. Decisions will be made at the annual meeting in Oct. and notifications made shortly thereafter. Proposers of papers must provide 150-word abstracts and one-page curriculum vitae. Proposers of sessions must provide the theme of the session, an abstract of each paper, and a c.v. for each participant including chair and commentator. Send materials to the program chair, Lindy Biggs, Dept. of Hist., Auburn Univ., Auburn AL 36849 (205-844-6645 or Bitnet electronic mail H1ST@AUDUCVAX). Preliminary inquiries are welcome.

Limited program space means that not all proposals can be accepted. Persons who have presented papers at the previous year's SHOT meeting are ineligible to present papers, although they may organize or chair sessions.

**CULTURAL CONSERVATION CONF. CALL FOR PRESENTATIONS.** Throughout the 1980s the concept of cultural conservation has been steadily gaining currency among specialists in a variety of fields seeking a more holistic approach to heritage protection. Under the rubric of "cultural conservation," historic preservationists, archeologists, anthropologists, folklorists, planners, and others concerned with heritage protection have begun joining forces. With the concept of cultural conservation gathering force, the time is ripe for the first national conference, "Cultural Conservation: Reconfiguring the Cultural Mission," sponsored by the American Folklife Center. The conf. will be May 16-19, 1990, at the Library of Congress, Wash. D.C. Participants will be encouraged to articulate concepts and practices that link their fields, identify overlapping data and issues, develop a critique of the cultural conservation enterprise, and propose a course of action for the future. Conf. goals include: the identification of a framework-in-common, linking cultural and natural conservation; theoretical and methodological growth in the field of cultural conservation; the building of a strong interdisciplinary coalition; the strengthening of networks linking persons engaged in cultural conservation initiatives; and a

renewed articulation of cultural conservation goals and policies, along with strategies for implementing them.

Proposals are solicited for either case study presentations or issue-oriented presentations. Each proposal should be 500 words, typewritten and double-spaced, and accompanied by brief biographical sketches of the presenters. Deadline is Sept. 30, 1989, with notifications of acceptance by Nov. 15. Send to Mary Hufford, American Folklife Center, Library of Congress, Wash. DC 20540 (202-707-6590).

**PAPERS ARE SOLICITED** for the Middle Atlantic Archaeological Conf. (MAAC), Mar. 30-April 1, 1990, in Ocean City, Md. Session Four (of five) is of IA interest: "19th-C Industry & Social Context (June Evans, chair). Submit abstracts by Nov. 15, 1989, to the program chair, Louise E. Akerson, Center for Urban Archaeology, Baltimore City Life Museums, 800 E. Lombard St., Baltimore MD 21202 (301-396-3156).

**VAF CALL FOR PAPERS.** The Vernacular Architecture Forum is soliciting proposals for presentations at its Annual Meeting, May 9-12, 1990, in Lexington, Ky. Papers may address any aspect of vernacular architecture in the U.S. or abroad, and should be primarily analytical rather than descriptive in content. Proposals may be for either a 20-min. paper on an extensively researched subject or a 10-min. work-in-progress report. Selection will be based on the proposed paper's original contribution to the study of vernacular architecture. Proposals should be typewritten with the author's name, address and phone in the upper right corner and a maximum of 400 words. The text should succinctly state the paper's content, delineating the scope, argument, and method, not just outline its topical considerations. Deadline is Oct. 15, 1989; accepted papers due Mar. 30, 1990. Submit proposals in triplicate to Gary Stanton, VAF Papers Chair, Dept. of Hist. Pres., Mary Washington College, Fredericksburg VA 22401-5358. Meeting info.: Julie Riesenweber, Ky. Heritage Council, 12th Fl. Capital Plaza Tower, Frankfort KY 40601 (502-564-7005).

**CALL FOR MANUSCRIPTS ON TOOLS.** The editors of *Tools & Technology*, the quarterly journal of the American Precision Museum, are accepting manuscripts of 500 to 2,500 words relating to the history of tools and to the broad range of products that tools have made possible. All time periods are of interest, and suitable topics may embrace any of the fields of engineering, the trades, or the professions. Articles that examine the relationship between tools and products are especially welcome, as are synoptic articles in which the broad influence of a particular tool is reviewed. Articles should reflect the mission of the American Precision Museum, which is to promote an understanding of the ways in which the combination of tools, energy, and machines is indispensable to the conversion of raw materials into finished goods for the benefit of human society.

Articles in *T&T* are intended for the lay person, not the specialist. Authors are encouraged to include photographic prints and/or transparencies concurrently with submission of manuscripts. Published articles are eligible for the semiannual Dwight B. Fairman Memorial Prize. Submission guidelines avail. from Edwin A. Battison, Editor, *T&T*, American Precision Museum, POB 679, Windsor VT 05089.

**INDUSTRIAL ARTIFACTS WANTED.** The Valentine Museum in Richmond, Va., is seeking artifacts for its developing industrial history collection. The collection focuses on Richmond history, but generic industrial pieces that would likely have been used by local industry (e.g. machine tools) are of interest. The collection also has room for some artifacts relating to Va. industry in general. Items from small hand tools to heavy machinery are desired. Primary industries in the Richmond area include tobacco, flour, paper, and iron. Also needed are artifacts representing specific sites, such as the Kanawa Canal, and local manufacturers, such as Tredegar Iron Works. The museum specifically wants a Brinkop lump machine and a Bonsack cigarette machine. Contact Greg Galer [SIA], Coordinator of Industrial History, The Valentine, 1015 E. Clay St., Richmond VA 23219 (804-649-0177).

## SITES & STRUCTURES

**WADDELL A-TRUSS PROJECT HONORED.** The 1987 re-erection of the a Waddell A-truss in Parkville, Mo. [*S/AN* Spring 89:2-3], received a Special Citation in the American Society of Civil Engineers' 1989 Outstanding Civil Engineering Achievement Award (OCEA) competition. The award recognizes engineering projects that demonstrate the greatest engineering skills and represent the greatest contribution to CE progress and mankind. The citation particularly noted the combined volunteer efforts of all members of the community and federal govt. George F.W. Hauck [*SIA*], volunteer engineer on the project and author of the write-up in *S/AN*, commented simply, "How about that?!"

**SIA's ROEBLING, WEINSTEIN, SUPPORT BOGARDUS HONOR.** In honor of James Bogardus, the 19th-C engineer/architect/inventor/entrepreneur, who devised the iron-front building, of which so many remain in SoHo and downtown Manhattan, and whose free-standing, iron, fire-lookout towers foretold later steel-frame construction, the Friends of Cast Iron Architecture persuaded the City of New York to name permanently a small public space in Tribeca as "James Bogardus Triangle."

The proposal was supported by the SIA, along with other city, state, and national organizations, and Roebbling Chapter president Gerry Weinstein testified at the public hearing in April, after which Mayor Edward Koch signed Local Law 22 of 1989.

The newly named Triangle, with its six trees, lies at Chambers St., where Hudson St. meets West Broadway. The Triangle is under the jurisdiction of the city's Dept. of Transportation, which is being urged to erect a temporary identification sign, to be followed later by a permanent marker. Info.: FCIA, 235 E. 87th St., 6-C, NY NY 10128 (212-369-6004).

M.G.

**SLOSS FURNACES UPDATE.** A \$250,000 federal preservation grant was secured for Sloss Furnaces Natl. Historic Landmark [HAER] in May thanks to an agreement between the City of Birmingham and the Natl. Park Service. This is the first federal funding received by Sloss, and the grant was supported by both Alabama senators, Heflin and Shelby, and Congressman Ben Erdreich of Birmingham. The funds will be used to complete engineering evaluations, stabilize the No. 2 Furnace and sections of the stock trestle, and install additional interpretive displays on the site.

The Oral History Assn. has selected Sloss as its 1993 national conference site, responding to a concerted effort by Sloss to attract conferences and visitors to the historic steel site. In 1985 Sloss hosted the SIA for an outstanding Fall Tour [*S/AN* 1985(3):3-6].

R.G.L.

**HISTORIC OREGON BRIDGE AVAILABLE.** The Oregon Dept. of Trans. (ODOT) is offering at no acquisition cost to interested parties the historic Coquille River Bridge at Coquille, Coos County. The 700-ft.-long structure, designed under the direction of Conde B. McCullough, Oregon highway engineer, on the Oregon Coast Highway (now U.S. 101) includes a 235-ft. steel-truss swing span built in 1922. The bridge has been bypassed and is no longer needed by the state.

The bridge is eligible for the National Register of Historic Places. ODOT is requesting proposals for adaptive reuse of the structure, both in place and at a new location. Historic preservation covenants and restrictions will be applied. Although the ODOT is primarily soliciting proposals for reuse of the historic bridge in place or relocated, all proposals will be considered, including the salvage of architectural or mechanical components for historical display and/or reuse in other similar historic bridges.

Interested parties are invited to request the announcement flier for further details. Final proposals are due Oct. 2, 1989. Direct requests for the bridge announcement, other inquiries, and proposals to Jim Gix, Region 3 Engineer, Oregon State Hwy. Div., ODOT, POB 1128, Roseburg OR 97470 (503-440-3399).



Gardner & Son building (1855-56), Scotland, W.E. Ellenberger photo.

**GLASGOW IRON.** New York City has more of them, but Glasgow, Scotland, has an iron structure of which it is especially proud. Gardner's Iron Building, built 1855-56 at 36 Jamaica St., resulted from the combined efforts of architect John Baird and iron-founder R. McDonnell. They made architectural history by using wrought iron in the building frame and cast iron in the facade. Designed as a warehouse, it is now Gardner's cabinetmaking and upholstery establishment. The iron facade permitted a large expanse of window glass, giving the interior more natural daylight, desirable in a city known for its often dreary weather. While it is not evident in the photograph, the four horizontal sections above the second floor (the British would say first floor) have the following cast in the members: "Gardner & Son/Cabinet Makers/& Upholsterers/Gardner & Son."

W.J.E.

**THE TIMBER BRIDGE REDUX.** West Virginia is beginning a bridge replacement project using W.Va. red oak as their major component, thanks in part to the Timber Bridge Initiative, sponsored by Sen. Robert Byrd and approved by Congress for fiscal 1989 for \$3.35 million, which also includes \$1 million for timber bridge construction in states other than W.Va., \$650,000 for research at W.Va. Univ. and the Forest Products Lab in Madison, Wis., and \$700,000 for technology/information transfer throughout the U.S. from the Timber Bridge Information Research Center in Morgantown. The timber bridge is proposed as a cost-effective structure using an abundant, renewable resource, and providing "the opportunity to implement new and improved timber bridge designs," according to the Forest Service Resource Center. As reported in the *West Virginia Hillbilly* (Richwood, W.Va.): "The structures have stressed decks. Creosote-treated red-oak planks 12 ins. deep are joined together with post-tensioning rods through their thickness—up to two lanes wide—and nuts threaded onto the ends of the rods." For bridges longer than 35 feet, webs of laminated Douglas fir are added beneath the deck, this being the only material not from W.Va.

A.R.C.

**TIME SHORT FOR LAST UK STEAM MILL.** Queen Street Mill, a Lancashire cotton mill-museum, is still "weaving out" its last few orders, thanks to an English Heritage grant of £50,000 allowing it to remain open until sometime this summer, according to the *London Observer*. But if a feasibility study fails to find new ways of financing the factory, it will close for the second—probably the last—time. Unless someone offers to pick up the bulk of the £200,000 annual costs, Burnley Borough Council (the owner) will stop the looms, which are now on a three-day week. Prince Charles reopened the mill three years ago to manufacture traditional union (wool & cotton mixture) Lancashire workmen's shirts. The mill is powered by a 95-year-old steam engine named "Peace." Neil Cossons [*SIA*], director of the Science Museum in London, sees the mill as a test case of the nation's attitude toward the conservation of its industrial heritage and calls for "a national trust for industrial archaeology."

# PHILADELPHIA IN 1990

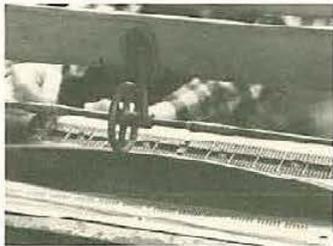
No doubt we all know much about early Philadelphia, the Federal City, but little about 19th-C industrial Philadelphia, the "Workshop of the World." Through the SIA's 19th Annual Conf., the Oliver Evans Chap. intends to return the 19th and 20th centuries to their proper place in the city's history.

Representing the Delaware Valley, the chapter eagerly anticipates hosting the SIA May 31-June 3, 1990. The conf. HQ will be the Sherraton University City, on Chestnut St. across from the Univ. of Pennsylvania campus. Student housing is located nearby.

The opening reception on Thurs. evening, May 31, will be at the Atwater Kent Museum, the original 1825 Franklin Institute building, now the Museum of the History of the City of Phila. It was converted to a museum by Kent, of Atwater Kent radio fame, and an AK radio exhibit will be open during the reception. Special Phila. eats are planned, including Phila. cheese steaks, hoagies (reportedly so named when Hog Island was a shipyard in World War I), Phila. cream cheese, Nabisco crackers, TastyKakes, Hires' Root Beer, Frank's Beverages, Dock Street and Schmidt beers, Chunkys (and maybe Whitman's Chocolates), possibly topped off with Double Bubble Gum.

Friday process tours are being negotiated, and there may be as many as five separate tours. One will be the Samuel Yellin Metalworkers in West Phila., where Mrs. Yellin has expressed pleasure that the SIA is coming to town and will have the welcome mat out for us. We are investigating the possibility of taking the Frankford "El" (1909, 1919) to the next stop, the Pennsylvania Woven Carpet Co., on the other side of the city, where there is only a remnant of the once-extensive early 20th-C textile industry. As the "El" is in the midst of a needed reconstruction effort, the trip scheduled is tentative. A possibility is a tour of the Phila. Navy Yard, one of the area's few remaining operating ship building and repair facilities. Two major bridges will be visited enroute between sites: The Benjamin Franklin Bridge (1919-26) over the Delaware River, and the Falls Bridge (through-truss, 1895) over the Schuylkill.

Arrangements are being made for a Fri. evening party, possibly at the



Top left: Oliver Evans, c1813. Top right: Jacquard card cutter, Pa. Woven Carpet Co., Kensington. Top right: Jacquard card cutter, Pa. Woven Carpet Co., Kensington. Top right: Jacquard card cutter, Pa. Woven Carpet Co., Kensington.



## CALL FOR PAPERS

The Saturday paper program for the May 31-June 3, 1990, Annual Conf. in Phila. now is being assembled. If you wish to present a paper on your latest IA work, the deadline for submitting your abstract is fast approaching.

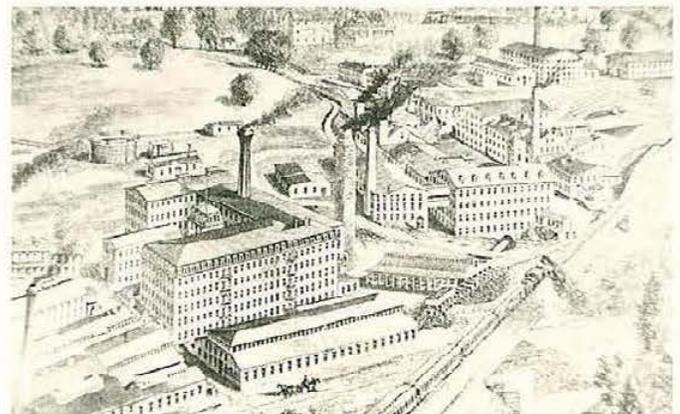
Papers on all aspects of IA are welcome: field investigations, recording projects, archival research, public programs, and educational activities. Two special sessions are planned, "The Engineering Legacy of Oliver Evans," and "Phila.-Area IA."

Participants may suggest 30-min. papers or more informal, 15-min. work-in-progress reports. Please submit a 150-word abstract by Dec 1, 1989, to the program chairman: Carter Litchfield, Olearius Editions, Drawer H, Kemblesville PA 19347.



Right: Inside the Disston & Sons Saw Works in Tacony, a section of Phila.

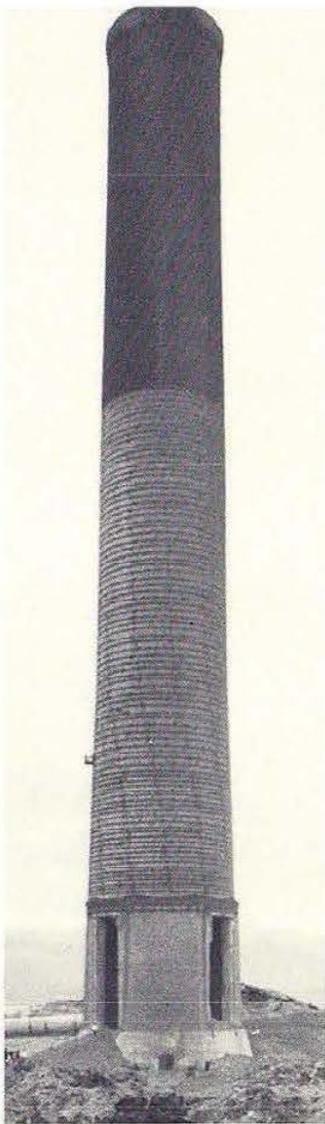
Below: John & James Dobson Carpet Mill, East Falls.



Fairmount Waterworks [HAER]. This Schuylkill River complex, including Fairmount Dam (1822), represents a 19th C technological wonder. In the early years (1812-22), two steam engines (one low pressure, one high) were in the Engine House and had the "duty" pumping water to reservoirs on the hill above, where the Phila. Museum of Art now stands. In 1822, eight breast wheels took over when they were installed in the "mill" buildings, and from 1851 water turbines were employed. The waterworks is a National Historic Landmark as well as national civil and mechanical engineering landmarks. Extensive stabilization and reuse efforts are under way, and by conf. time it is expected that work will have been done on the 1851 turbine room, with its 7-ft.-diam. Jonval turbine.

Sat. will be devoted to paper sessions and the annual business meeting. In the evening, a dinner cruise is planned for the Delaware River, complete with an Oliver Evans Chap. narration.

Sun. drive-by plans include the Conrail Coal & Iron Ore Loading facilities, with its 1924 coal pier (reconstructed 1979) and operating original Rotary Dumper, and 1956 iron-ore pier (reconstructed 1989). Other possible drive-by sites are the 30th St. Station, Reading Terminal, Sparks Shot tower, Bromley Mills, Disston Saw Works, Dobson Mills, Schuylkill Navigation Canal (& Manayunk generally), Phila. Gas Works, Phila. Water Dept. filtration & pumping stations, and Frankford Arsenal. The RittenhouseTown enclave of sites and industrial housing along Paper Mill Run and the Wissahickon, where the first paper mill was established 300 years ago and which will be celebrating its tricentennial, may also be a stop.



Incredible 585-ft. Anaconda Stack (1919), world's largest free standing masonry structure.

## THINK BUTTE!

The 1989 Fall Tour will be held at the "Richest Hill on Earth," Butte, Mont., Oct. 12-15. The SIA will tour sites associated with the incredible mining industry (copper, silver, and other precious metals) in Butte and Anaconda (described in *SIA*N Spring 89:11). Registration materials are being mailed to all members during Aug.

The Fall Tour package costs \$80 for an information packet, all transportation and admission fees, lunch on both tour days, and a banquet. One lunch will be the traditional miner's meal, a "pasty," and the other will feature the local Butte delicacy, a pork chop sandwich (other options available). Tour HQ will be the Capri Motel, adjacent to Historic Uptown Butte. For registrants, a single room is \$28.41, double is \$30.01.

Butte is served by Northwest Airlines, via a commuter link to Billings, and Delta Airlines using its own jets or via a commuter link to Salt Lake City. Northwest fliers should route through Billings; Delta fliers should route through Salt Lake City, whether arriving in Butte by jet or commuter link. Shamrock Travel (406-723-3228 or 800-821-9911) is the SIA Fall Tour official travel agency and offers 40% off any standard coach fare or 5% off the lowest discount fare available.

Interstates I-15 and I-90 intersect at Butte, making it an easy drive from other Montana cities or from other air destinations for those wishing to drive through the state's scenic

countryside. Butte is about 1,000 miles from Minneapolis-St. Paul or Winnipeg, 800 miles from Denver, 600 miles from Salt Lake City, and 500 miles from Seattle or Calgary. Tourers may wish to stop at Yellowstone National Park or other regional sites, which are especially beautiful—but much less congested—during Oct.

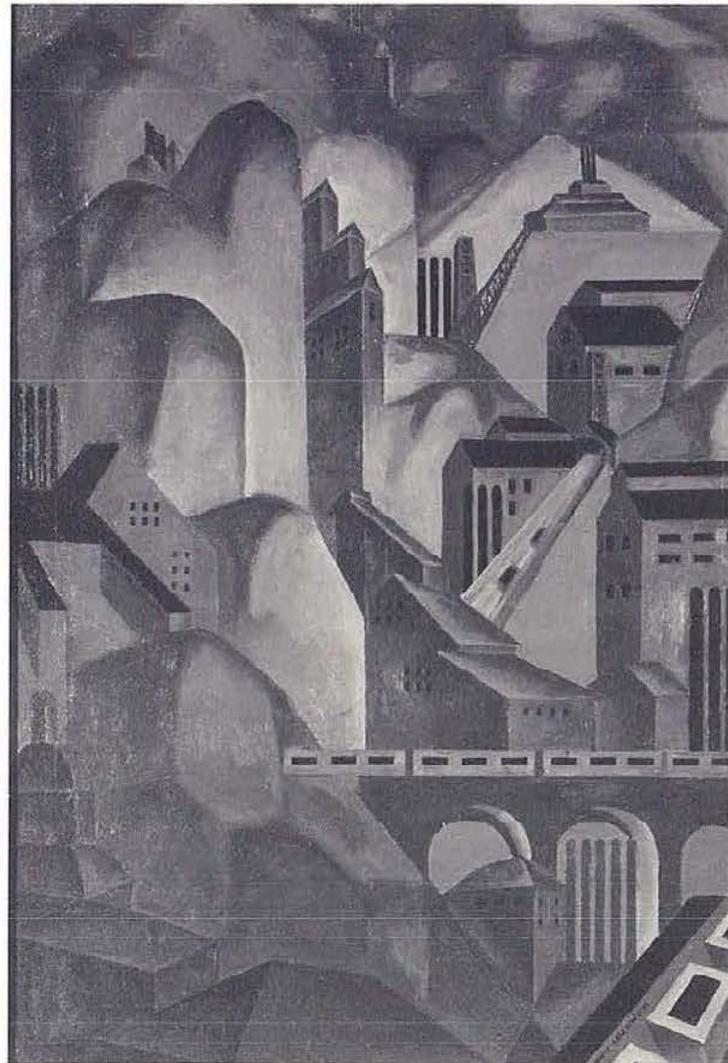
Worried about Montana weather? Rest assured that the tour organizers specifically chose Oct., because Sept. weather is unusually dreary, while a beautiful Indian summer is typical of Oct. Butte visitors realistically may expect bright, sunny days with temps. in the 60s and 70s; clear, crisp nights; and little precipitation. Nevertheless, be prepared for very cold weather and, in Montana, snow is possible any month of the year.

For additional SIA 1989 Fall Tour info., contact (during office hours, Mountain Time) Fred Quivik or Lon Johnson (406-782-0494) or Brian Shovers (406-723-4387).

*F.O.*

**SUGGESTED READING FOR BUTTE.** Getting to Butte may mean a long plane flight, so stuff a paperback copy of Dashiell Hammett's first novel, *Red Harvest*, in your carry-on luggage. Hammett, creator of the hard-boiled detective, worked for a time as a Pinkerton operative in Butte, and sets his story there. As depicted in the 1929 novel, Butte is a gray and ugly place dirtied up by mining and smelting, the personal town of mining baron Elihu Willsson—hence the city's name "Personville," appropriately mispronounced "Poisonville." The story of the lawless city, a morass of thugs, untrustworthy police, the IWW, and brutal officials, is told in the first person by an unnamed private detective. Just the thing to put you in the mood for process tours and other IA matters.

*Ed.*



*BUTTE*, by Louis Lozowick. Oil on canvas, 30 x 22 in. Courtesy Hirshhorn Museum & Sculpture Garden, Smithsonian Institution, Gift of Joseph H. Hirshhorn, 1966.

## Louis Lozowick's Butte

With the 1989 SIA Fall Tour scheduled for Butte, Mont., it is appropriate to focus on an industrial depiction of that state—*Butte*—by Louis Lozowick (1892-1973). Typical of the subject matter favored by the Precisionists, the painting in Cubist Realist style presents in abstract form the multiplicity of structures associated with copper mining.

When Lozowick left his native Russia in 1906, he settled in New York City. Following art studies at the National Academy of Design, he decided to pursue a traditional college program and graduated from Ohio State Univ. in 1918. After a year in the U.S. Army, he made a cross-country trip during the summer of 1919, stopping in several important cities. The industrial architecture he saw impressed him deeply, and soon became a significant impulse in his art. *Butte* was painted between 1926 and 1927. During the latter year, Lozowick was active organizing the Machine Age Exposition, and in an essay titled "The Americanization of Art," published in the accompanying catalogue, he observed: "The history of America is a history of stubborn and ceaseless effort to harness the forces of nature—a constant perfecting of the tools and processes which make the mastery of these forces possible. The history of America is a history of gigantic engineering feats and colossal mechanical construction.

"The skyscrapers of New York, the grain elevators of Minneapolis, the steel mills of Pittsburgh, the oil wells of Oklahoma, the copper mines of Butte, the lumber yards of Seattle give the American industrial epic its diapason."

Granted U.S. citizenship in 1919, Lozowick left at the end of that year

for an extended trip to Europe, where he had direct contact with members of the French, German, and Russian avant-garde in Paris, Berlin, and Moscow. While still abroad, he began painting seriously and made his first lithographs. Best known during his lifetime as a print-maker, his earliest graphic works focus on American urban and industrial subjects, and by the time of his return from Europe in 1924, his mature style and themes were well established. Although his travels occasionally resulted in industrial art, as with his depictions of the Panama Canal and Soviet installations, his city and machine subjects generally remained American in their sources and were well received when exhibited in Europe.

Lozowick's industrial interests were broadly distributed throughout his career. His father had worked in a gristmill, and in America the artist had found employment both in a Newark factory and at Consolidated Edison's gas plant. There were connections to the theater and in 1926 he designed a state set for the Chicago production of playwright Georg Kaiser's *Gas*.

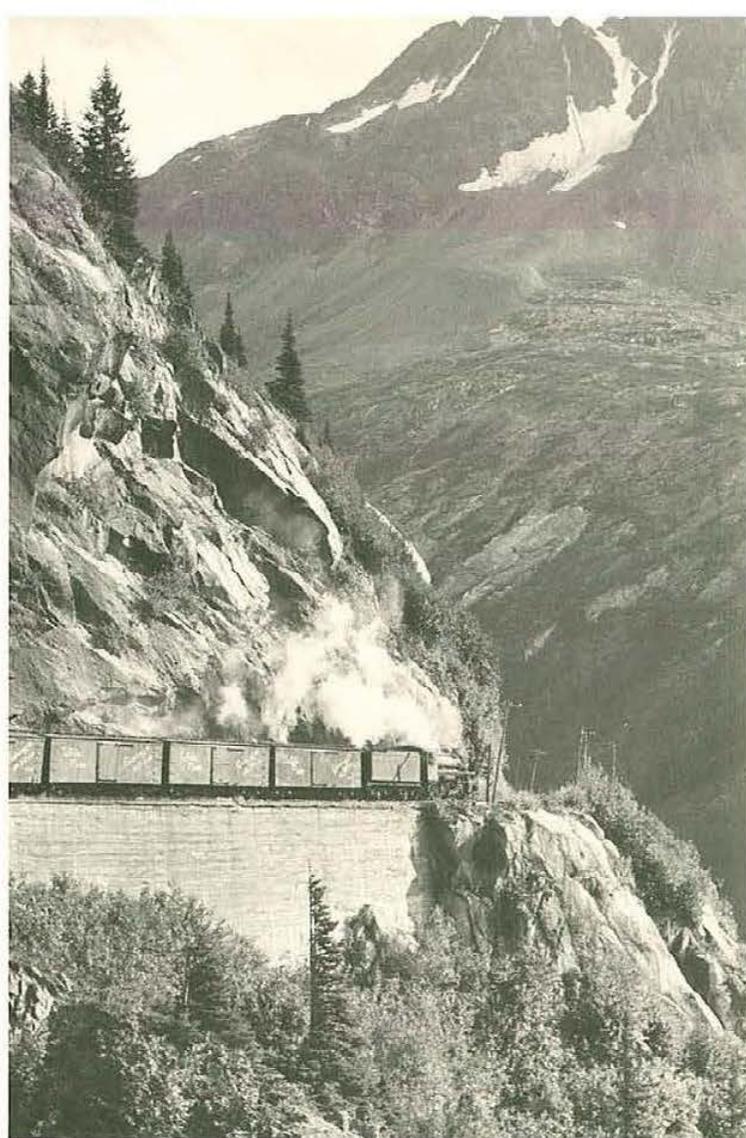
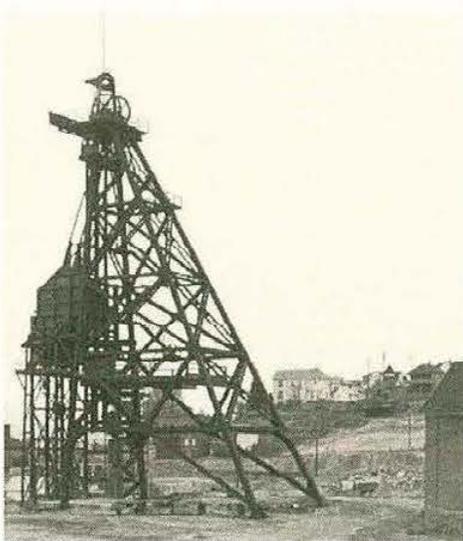
During the 1940s, several of his works were the result of specific industrial commissions. He made prints of the Merck's Co.'s chemical factory and the plant of the Quinn & Boden Co., both in Rahway, N.J. In 1945 the E.F. Schmidt Co. of Milwaukee published a calendar featuring "A Tribute to American Industry." Lozowick designed an appropriate image for each month, exemplifying the steel, synthetics, transportation, communications, manufacturing, power, mining, construction, oil, and timber industries. The artist chose grain elevators to symbolize the food industries and the graphic arts were embodied in a massive printing press.

Lozowick established himself as one of the most important American delineators of industrial subjects from the early 1920s until the mid-1940s. Inspiring much of his strongest work, his characteristic themes reveal a wide range of IA concerns—mining, bridges, grain elevators, construction, coal yards, factories, canals, steam shovels, electric transmission wires and towers, breweries, and oil rigs. Blast furnaces and steel plants engendered especially powerful images, and he favored the distinctive cylindrical forms found in these complexes. Waterfront activities also interested him, and he recorded the typical cranes, piers, ships and tug boats associated with ports and shipping.

Modern transit too fascinated Lozowick and elevated lines, subways, trains, and planes are prominent in his work. Important industrial centers stimulated paintings and prints, including Chicago, Cleveland, Minneapolis, Pittsburgh, New York, Hoboken, Weehawken, Newark, Omaha, Bayonne, and Seattle. Mining imagery is less common in his work, though he recorded the limestone and granite quarries in Buchanan, N.Y., and Rockport, Mass., respectively. The dynamos of his machine ornament drawings of the 1920s are powerful emblems of the era. During the Depression, the artist's own views became less optimistic, but Lozowick's earliest images of the American urban industrial metropolis celebrated the positive aspects of modern technology.

B.F.

Headframe & mine-  
yard, Original Mine  
(1898), Butte.



White Pass & Yukon Rwy., near White Pass, 1946. Dieselized in 1950s, closed 1982, reopened 1988. You'll be here on the SIA 1990 Fall Tour. *Canadian Pacific Rwy. photo.*

## 1990 Fall Tour Follows 'Trail of '98'

Gold was discovered in the Yukon in 1896 and prospectors followed in 1898. The Yukon was industrialized virtually overnight. From Skagway, Alaska, to Dawson, Yukon Territory, boats, railways, housing, and mining equipment were required to extract and ship the gold and accommodate miners.

The 1990 SIA Fall Tour, in cooperation with the U.S. National Parks Service and Canadian Parks Service, will retrace the trail of "98." The excursion will include visits to the dredges and gold fields of Bear Creek, near Dawson; a ride on the narrow gauge White Pass & Yukon Rwy.; operation of the most northerly navigation lock in North America; and a vintage-DC3 "flightseeing" tour between Whitehorse and Dawson.

The nine-day tour schedule will be from Sat., Aug. 18, through Sun., Aug. 26, beginning and ending in Vancouver. Travel in the Yukon and Alaska will be by bus, rail, and chartered plane. In addition, there will be special pre- and post-tour options. A three-day hike over the Chilkoot train will be offered for six hardy souls prior to the main tour. Also, the tour agent will arrange individual tours for anyone wishing to arrive or leave by coastal ferry, tracing the original gold-seekers' boat route.

The current cost estimate for the tour is \$1,800 (U.S.), covering all travel from and to Vancouver, accommodations, and most meals. Tour details will be mailed to members in late Sept. For additional info, write SIA HQ, Rm. 5020 NMAH, Smithsonian Inst., Wash. DC 20560, or phone Chris Andreae [SIA] at 519-657-1851.

## SIA AFFAIRS

**ROYALTY TO SIA.** The Society is pleased to announce receipt of the eleventh royalty annual check (\$61.41) from sales of *Historical Archaeology: A Guide to Substantive and Theoretical Contributions*, ed. Robert L. Schuyler [SIA] (\$24.95 + \$2.50 post., Baywood Publishing Co., Inc., Amityville NY 11735).

### LETTERS TO EDITOR

#### L&RP Subscription Info.

Thank you for the review of "Eleanor P" [*Locomotive & Railway Preservation*, acronymed "L&RP"] The review reinforces the concurrence of efforts between the IA community and railroad preservationists. Hopefully we'll see more of that in the future. In the enthusiasm of your article, you neglected to note our subscription information: 1 yr., \$18.50/21.50 Can./24.50 foreign (6 issues); 2 yrs., \$34.00/41.00 Can./46.00 foreign (12 issues); 3 yrs., \$51.50/60.50/67.50 (18 issues). Send to L&RP, Subscription Dept., POB 246, Richmond VT 05477.

MARK SMITH  
Editor/Publisher, L&RP

#### Hi-Tech Southern Rwys.

I read with great interest the account of Robert M. Vogel in the Fall 1988 *SIA*. He has had a wonderful career and my hat is off to him. Just one exception, which was voiced by Vance Packard. About the southern railroads that "still lighted the way at night with a bonfire on a flat car pushed before the engine." That is no longer the case. As a small boy I was weaned in the State of Mississippi, and the old timers told me the flat car custom began shortly after the Civil War, when the South still was cluttered with carpetbaggers.

Those bonfires, Suh, were a convenient way of getting rid of the critters. And now that all the rascals are gone, the headlights have been restored to the locomotives, and the flat cars are now being pulled, not pushed, carrying valuable commodities to the North.

When my wife read about those bonfires, she promptly went out and bought me a little Southern flat car for my HO railroad. And she has built a bonfire on it. All we need now are a few carpetbaggers, but they are hard to find these days!

JOHN W. GREEN  
Appleton, Wis.

### NEWS OF MEMBERS

**Hugh C. Miller**, former Chief Historical Architect for the Natl. Park Service, was appointed head of Virginia's Dept. of Historic Resources, a new department established July 1 by the Va. General Assembly, with expanded responsibilities for statewide archeology and historic preservation programs, including a grant program and a revolving fund to assist in the preservation of threatened historic properties. Info.: Dept. of Hist. Resources, 221 Governor St., Richmond VA 23219 (804-786-3143).

**John R. Hensley** has been promoted to gallery development director at the St. Louis [Mo.] Science Center, where he formerly served as technology and humanities curator.

The Historic Mining Workshop at Death Valley National Monument in Jan., sponsored by the Natl. Park Service and particularly the Historic American Engineering Record, reportedly was quite successful, thanks in part to several SIA speakers, including **Eric DeLony**, **Charles Hyde**, and **Fred Quivik**. With its arrangement of days of sessions and a day of mining-site field visits, not to mention "show & tell" evenings, the workshop was suspiciously similar to an SIA conference.

### Peter Stott: 'Goodbye to All That'

Some 50 friends and colleagues of Peter Stott gathered on May 20 for a surprise party to celebrate Peter's "IA Retirement" after a decade of outstanding IA work in Mass. After a six-month survey effort in New York State, Peter embarks on a new career with the Foreign Service in



Peter Stott

Washington, D.C. Appropriately held at the Museum of American Textile History's Machinery Hall in North Andover (site of the SIA 1976 Annual Conf. banquet), the party attracted SIA members from all of the New England states. Food, cheer, Stott T-shirts, gifts and warm friendship were dispensed with gratitude to Peter. As energetic president and program coordinator of the Southern New England Chap., Peter generated dynamic programs and great IA enthusiasm. He also was a key member of the planning committee for the SIA's 1984 Annual Conf. in Boston.

Peter graduated from Trinity College and attended the historic preservation program at Columbia Univ. From 1979 to 1985 he served with the Mass. Hist. Commn. as industrial historian on the statewide cultural resource survey. His publications include *A Guide to the IA of Boston Proper* and *Historic & Archaeological Resources of Cape Cod & the Islands*. For the past two years he worked with McGinley Hart & Associates as the survey director of the MBTA's Commuter Rail historic property survey throughout eastern Mass., and also worked as a consultant on the cultural resource survey undertaken by the Parks Div. of the Metropolitan Dist. Commn.

Our very best wishes to Peter in his future endeavors.

P.I.McG.

### Mary Jane Rutsch

With great sadness, the Society reports the death on April 28 of Mary Jane Rutsch, 47, following a long bout with cancer.

As one of the SIA's founders, Mary Jane was the registrar at the First Annual Conference at Cooper Union in New York. She was elected to the SIA board in the 1970s and also was director of two SIA Fall Tours, Paterson's Historic Industrial Landmark District and the IA of the Passaic River Valley. She helped found the Roebing Chapter and served as its first president. Her SIA work also included designing (with graphic artist Lynda Spozarsky) the poster for the 1985 Annual Conference in Newark and preparing the layout for the Iron Master's Symposium newsletter. Her IA editorial contributions resulted in the 1974 publication of a joint SIA and Council for Northeast Archeology *Journal* on IA in Paterson, N.J. She co-authored (with Jo Ann Cotz) a study of Dublin, a Paterson workers' housing district.



Mary Jane Rutsch

In 1985 she became a part-time film critic for the *New Jersey Herald* in Newton, earning several writing awards, including a second place prize in the critical writing category of the N.J. Press Assn.'s annual competition.

A graduate of Mount Holyoke College with a B.A. *cum laude* in English literature, she attended the Columbia Univ. Historic Preservation Program from 1973 to 1978. She worked in a variety of editorial positions until 1973 when she founded a cultural resource management firm specializing in industrial sites, Historic Conservation & Interpretation, Inc., of Newton.

She is survived by her husband, Edward S. Rutsch [SIA]. Memorial donations may be made in her name to the local history section of the Sussex County Library, RD3, Box 170, Newton, NJ 07860.

## Master Millwright Charles Howell Retires



Charles Howell dresses a French-buhr millstone in 1971, Philipsburg Manor Mill. Courtesy Historic Hudson Valley.

Following almost 20 years as resident Master Miller/Millwright at the Philipsburg Manor Grist Mill in North Tarrytown, N.Y., Charles ("Charlie" to us) Howell retired at the end of 1988. Philipsburg Manor is one of the historic properties owned and maintained by Historic Hudson Valley, formerly known as Sleepy Hollow Restorations.

He continues with his established professional consulting practice on early water-powered and wind-driven grist and flour mills. He also is available for any kind of work on mills, including millstone dressing, roller-mill flour plants, water wheels and turbines, traditional windmills, attrition steel-plate grain mills, and saw mills. He has facilities for the building of complete mills, foundry work, pattern making, and heavy timber work, and he buys and sells new and second-hand mill machinery.

Charlie ranks at the top of the small list of historic-mill operators who truly have *earned* the title "master miller/millwright." The descendant of at least five generations of British millers and millwrights, he was born in 1926 at Brook End Mills, Longdon, Rugeley, Staffordshire, England, next door to a working water-powered mill of which his father was the proprietor. From 1940 until 1969 he worked as a miller-millwright in milling and related trades at several mills in the British Midlands.

When a late-17th-C mill was reconstructed at Philipsburg Manor in the 1960s, Charlie was brought in to put it in good operating condition, and remained until his retirement. His work there expanded to include interpreting 18th-C milling technology for the site's thousands of visitors annually. In 1971 he co-authored *The Mill at Philipsburg Manor and a Brief History of Milling* (Tarrytown: Sleepy Hollow Restorations). When "off duty" he consulted on historic mills and sites throughout the U.S. and Canada.

In 1976 he was invited to Mlowe, Malawi, Central Africa, to advise on the operation of a recently erected water-powered grain mill. Although not designed for historical purposes, but simply to grind grain for hungry people, the Mlowe mill had millstones and wood gearing.

A longtime SIA member and IA activist, he lectured on historic mills at the IA institute of the Staffordshire College of Technology in England in 1968-69.

Charlie can be reached at 42-B Kenwood Dr., New Windsor NY 12550.

## SITES & STRUCTURES

**1820s ROCHESTER WATERWHEEL UNCOVERED.** This spring archeologists from the Rochester [N.Y.] Museum & Science Center have been investigating a wooden waterwheel first discovered in 1983 when a backhoe and its operator plummeted through what was thought to be the foundation of a building burned six years earlier. The operator had discovered a 40-ft. stone pit containing a wooden wheel, iron shaft, and gearing believed to have been built about 1820 by Francis and Matthew Brown on their land along the Genesee River's west bank. It had been sealed since the 1890s under the foundation of the Triphammer Building on Brown's Race. The Browns reportedly used the wheel to power a triphammer in a plant manufacturing, at various times, scythes and other tools, boilers, and fire engines. While the wood has deteriorated since the site was uncovered, the original diameter of the wheel is estimated to have been 30 ft. When removed and restored the city anticipates using it as part of a display in their Urban Cultural Park along the Genesee.

R.M.

**IA IN SIDEWALKS: BUFFALO PAVING MARKERS.** Two historic preservationists have been walking the historic streets of Buffalo, N.Y., locating and recording 5-in.-diam. brass identification plates (some bearing dates) embedded in concrete by sidewalk contractors. According to their research, tracing contractors' names in city directories, the markers were used in sidewalks that were poured from the mid-1880s to the 1920s. They have located over 500 markers, representing more than 60 designs, from 37 contractors. The most common plates were from the Buffalo Concrete Paving Co., Crescent Pavement Co., Climax Crushed Stone Pavement Co., Buffalo Granolithic Pavement Co., and Electric Paving Co. The work of John Hague and Paul Rooney was reported in Dec. 1988 issue of *Preservation Report* of the Pres. Coalition of Erie County. Info.: John M. Hague III, 186 Linwood Ave., Buffalo NY 14209 (716-882-5761).

**CLEVELAND WORSTED MILLS REDFERN MILL** in Ravenna, Ohio, has been listed in the National Register. In operation since 1890, it originally was the dyeing and finishing department of an 11-mill operation spread throughout the eastern U.S. Cleveland Worsted Mills was Ravenna's largest employer. The oldest building in the Redfern complex was built in 1890; the largest is the four-story main mill, built c1905 and expanded in 1920. The property currently is owned by Oak Rubber Co. Info.: Ohio Hist. Pres. Office (614-297-2470).

**CONN. LIGHTHOUSE PRESERVATION.** The Conn. State Historical Commn. has announced three historic preservation grant-in-aid awards for the protection of historic lighthouses, funded by the Bicentennial Lighthouse Fund of the Natl. Park Service: Norwalk Seaport Assn., \$15,283, for the restoration of the Sheffield Island Lighthouse for use as a museum; Stonington Historical Soc., \$25,600, for restoration of the Stonington Borough Lighthouse; and the Conn. Historical Commn., \$600, for the nomination of the Old New Haven Lighthouse to the National Register.

### STOP PRESS NEWS FLASH

David Shayt, chair of the Nominations Committee, has announced the official results of the SIA annual election of officers, following release of the ballots impounded by the Canadian customs office in Montreal.

**Secretary:** Nicholas Westbrook (by acclamation)  
**Directors:** Thomas R. Flagg  
Carol Poh Miller  
David A. Simmons

**Nominations Committee Member:** Robert Casey

# CALENDAR

Have a meeting, conference, or event of interest to SIA members? Submit announcements to the Editor, SIAN.

**Sept. 15-17:** Annual Meeting, Assn. of Railway Museums, Edmonton, Alberta. Info.: ARM, POB 3311, City of Industry CA 91744-0311.

**Sept. 16-23:** Intl. Conf. on History, Technology & Industrial Archeology of Glass, Lisbon, Portugal. Presented with the support of TICCIH. Info.: Associacao Portuguesa de Arqueologia Industrial (APAI), Apartado 5374, 1708 LISBOA CODEX, PORTUGAL (telephone Portugal 01/555367).

**Sept. 21-22:** Special conf., "Building the West: Vernacular Architecture West of the Rockies," Reno, Nev. Co-hosted by Nev. SHPO & Nev. State Council on the Arts. Paper themes may involve Mormon, mining, ranching, ethnic, commercial, Native American, railroad, or company town architecture. Selected papers may be published in *Nev. Hist. Soc. Qtrly.* Info.: Ronald M. James, Deputy SHPO, 201 S. Fall St., Carson City NV 89710 (702-885-5138).

**Sept. 28-Oct. 1:** Annual Meeting, Lexington Group in Transportation History, St. Louis. Co-sponsored by St. Louis Mercantile Library, Amtrak, and St. Louis Southwestern Rwy. Info.: Don L. Hofsommer, Dept. of Hist., St. Cloud St. U., St. Cloud MN.

**OCT. 12-15: SIA FALL TOUR, BUTTE-ANACONDA, MONTANA.** Info.: Fredric L. Quivik, Kleptko Chapter SIA, 511 Metals Bank Building, Butte MT 59701 (406-782-0494)\*

**Oct. 12-15:** Annual Meeting, Society for the History of Technology, Sacramento, Calif. Info.: Thomas J. Misa, SHOT Program Chair, Dept. of Humanities, Ill. Inst. of Tech., Chicago IL 60616 (312-567-3465).

**Oct. 19-21:** 11th Annual North American Labor History Conf., Wayne State Univ., Detroit. Info.: Philip P. Mason, Walter P. Reuther Library, Wayne State Univ., Detroit MI 48202 (313-577-4003).

**Oct. 26-28:** "After Hours: Life Outside of the Work Place," Lowell Conf. on Industrial Hist., Lowell, Mass. Info.: Edward Jay Pershey [SIA], Tsongas Industrial Hist. Center, Boott Mill #8, Foot of John St., Lowell MA 01852 (508-459-2237).

**Oct. 29:** "Industrial Heritage in Waterloo," Fall Tour, Ontario Society for Industrial Archaeology, Seagram Museum, Waterloo. Program includes tour of 1920s pumping station with operating Goldie & McCulloch corliss engine. Info.: David Rollinson (519-836-7142), Ian Livesey (416-224-2263).

**Nov. 9-11:** Annual Meeting, Pioneer America Society, St. Charles, Mo. Abstracts of paper proposals due Sept. 1. Info.: Keith A. Sculle, Ill. Hist. Pres. Agency, Old State Capitol, Springfield IL 62701 (217-785-6916).

**Nov. 9-12:** 3rd Intl. & Interdisciplinary Forum on Built Form & Culture Research: Intercultural Processes, Arizona State Univ., Tempe. Info.: David G. Saile, School of Architecture, ASU, Tempe AZ 85287-1605 (602-965-2507 or 3536).

**Nov. 10-11:** Conf. on "The Material Culture of Gender/The Gender of Material Culture," Winterthur Museum, Del. To examine links between gender and material culture. Info.: Kenneth Ames or Katharine Martinez, Winterthur Museum, Winterthur DE 19735 (302-656-8591).

## 1990

**May 9-12:** Annual Meeting, Vernacular Architecture Forum, Lexington, Ky. Info.: Julie Riesenweber, Ky. Heritage Council, 12th Fl. Capital Plaza Tower, Frankfort KY 40601 (505-564-7005). Paper proposals due Oct. 15 to Gary Stanton, VAF Papers Chair, Dept. of Hist. Pres., Mary Washington College, Fredericksburg VA 22401-5358.\*

**May 16-19:** First national conference on "Cultural Conservation: Reconfiguring the Cultural Mission," sponsored by the American Folklife Center, Library of Congress, Wash. D.C. Info.: Mary Hufford, American Folklife Center, Library of Congress, Wash. DC 20540 (202-707-6590). Proposal deadline is Sept. 30, 1989.\*

**MAY 31-JUNE 4: SIA 19TH ANNUAL CONF., PHILA., PA.** Info.: Jane Mork Gibson, Oliver Evans Chap. SIA, 32 Rex Ave., Phila. PA 19118 (215-242-4971).

**Sept.** [date not set]: Third Textile History Conf., Museum of American Textile History. Info.: Thomas W. Leavitt, Director, MATH, 800 Massachusetts Ave., North Andover MA 01845. Paper proposals due Oct. 1, 1989.\*

**Oct. 18-21:** Annual Meeting, Society for the History of Technology, Cleveland, Ohio. Program info.: Lindy Biggs, Dept. of Hist., Auburn Univ., Auburn AL 36849 (205-844-6645 or Bitnet electronic mail HIST@AUDUCVAX)\*

\*Find details on this event elsewhere in this issue.

The *SIA Newsletter* is published quarterly by the Society for Industrial Archeology. It is sent to SIA members, who also receive the Society's journal, *IA*, published annually. SIA promotes the identification, interpretation, preservation, and re-use of historic industrial and engineering sites, structures, and equipment. Annual membership: individual \$25; couple, \$30; institutions \$30; contributing, \$50; sustaining, \$100; student, \$20. Send check payable to SIA to Treasurer, Room 5020, National Museum of American History, Smithsonian Institution, Washington, DC 20560; all business correspondence should be sent to that office.

ISSN 0160-1067

Submission deadlines: Feb. 1 (Spring), May 1 (Summer), Aug. 1 (Fall), and Nov. 1 (Winter).

The *SIA Newsletter* is included in the *Avery Index to Architectural Periodicals*, Avery Architectural & Fine Arts Library, Columbia University.

Mailing dates for Vol. 18 (1989): No. 1, April; No. 2, August. If you have not received an issue, apply to SIA-HQ, Rm. 5020 NMAH, Wash. DC. 20560 for replacement copy.

**TO CONTACT THE EDITOR — WRITE:** Robert M. Frame III, Editor, *SIA Newsletter*, PO. Box 65158, St. Paul, MN 55165-0158.

**USE ELECTRONIC MAIL!** If you are a computer user and subscribe to MCI Mail, you can send messages directly to the *SIAN* Editor. Address your MCI Mail to Robert M. Frame III, MCI ID 258-5345.

**USE FAX!** Transmit to Bob Frame at TeleFax phone 612-222-4139.

Room 5020 National Museum of American History  
Smithsonian Institution Washington, DC 20560

**SOCIETY FOR  
INDUSTRIAL  
ARCHEOLOGY**

Return and Forwarding Postage Guaranteed  
Address Correction Requested

Non-Profit  
U.S. Postage  
PAID  
Permit No. 100  
Chanhasson, MN