

SOAP FACTORY BURNS IN LONDON, ONTARIO



NEW WAYS TO RAISE IA \$

Rock concerts at an Alabama iron furnace and sales of old foundry patterns in New York, both novel fund-raising ventures for IA projects, have successfully raised needed dollars.

Some 900 rock-music devotees gathered in the East Cast Shed amphitheater on June 29th in a musical benefit entitled "Save A Smokestack" at Sloss Furnaces Nat'l Historic Landmark in Birmingham. Aided by five local rock bands who donated their services, the museum earned \$2,742 toward the preservation of the furnace smokestacks.

The amphitheater at Sloss is a popular Birmingham gathering place. On July 4th more than 2,400 attended a concert by the Alabama Symphony Orchestra and less than two weeks later on July 13th a rock music benefit for African famine relief attracted 1,700 fans.

A massive 17.4-acre complex erected 1927-29, Sloss is one of the best surviving sites representing early 20th-C ironmaking technology [HAER; *SIAN* Summer 82:6-9, Spring-Sum. 83:16] and will host the upcoming SIA Fall Tour, Oct. 24-27. Concert fund-raising and Fall Tour details are available from Director Randall G. Lawrence [SIA], Sloss Fur., P.O. Box 11781, Birmingham AL 35202 (205-254-2367).

In New York state, selling old foundry patterns raised over \$5,000 in April for the Preservation Coalition of Erie Co. The large and small patterns for pulleys, gears, bearings, etc., were from Bethlehem Steel. The proceeds will fund a guide to the industrial heritage of the Buffalo River and Erie lakefront. Interior designers and antique dealers elbowed aside TV, radio, and newspaper crews to get inside where a former pattern maker and Coalition members were being interviewed. The first five hours saw sales of \$1,400, and one man hauled out \$450 worth. The incredible interest overwhelmed volunteers who had to make an emergency pick-up and complete washing of an additional truckload of patterns. To find out how they did it, contact PCEC, 20 Angle St., Buffalo NY 14214.



LONDON SOAP CO. Above: In 1980. Left: In ruins, following the devastating fire on April 2. Chris Andreae photographs.

The c1873 building that once housed the London Soap & Cosmetic Co. on South St. was destroyed in a fire in April. Soap had been manufactured on or near the site since the mid-1860s. Additions had been made to the original two-story brick building up to 1916. In 1980 the property was acquired by the City of London and the Upper Thames River Conservation Authority with plans to continue soap-making, intending to maintain the building as an operating museum. Disputes between owner and tenant brought the end of manufacturing early last year. The Ontario Soc. for IA had been one of the few groups allowed to tour the plant (in 1982), and members' photos may be its last record. They will assemble this material, along with documents found after the fire, for the London Archives. OSIA president Chris Andreae [SIA] was unable to get the city to undertake an operation to save machinery in the ruins. However, negotiations with the demolition contractor have resulted in the salvage of some equipment. If OSIA cannot find a museum to receive the artifacts, they will be scrapped. The city later agreed to support OSIA plans to retain a four-ton toilet-soap milling machine on-site as an industrial monument. Thus far, OSIA has donated considerable time and funds in the ongoing preservation effort. A cl885 soap factory, similar to the London plant, still operates in Guelph, Ont.



A BLAST AT SLOSS! Rock band "The Cast" raises needed cash during the "Save A Smokestack" benefit concert at Sloss Furnaces, Birmingham. Sloss Furnaces photograph.

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SIA AFFAIRS

ANNUAL BUSINESS MEETING

May 11, 1985

Newark, New Jersey

The meeting was called to order at 1:15 p.m. by President Helena Wright in the Quality Inn Park Place.

MINUTES. The past year's minutes were approved without discussion.

TREASURER'S REPORT. Because Treasurer Marlene Nicholson was not present, there was no formal treasurer's report. Assistant Treasurer Howard Cayton stated that, balancing expenditures and revenues, there was a \$14.00 surplus in the 1984 operating budget.

NEH PROJECT. Nicholas Westbrook reported that the SIA educational curriculum had been completed with teachers' guides and student workbooks to be completed soon. Although not a stipulation of the NEH grant, it is hoped that the product can be marketed and become self-supporting.

LOCAL CHAPTERS. Sandra Norman reported that there are six active chapters: Montgomery C. Meigs Original, Northern New England, Southern New England, Roebling, Latrobe, and Oliver Evans. The Southern and Northern New England chapters will assist with the 1986 Fall Tour. The Detroit and Chicago chapters apparently defaulted on their commissions. Canadian affiliate Ontario Society for Industrial Archeology was busy in the northland.

PUBLICATIONS. Robert Frame, newsletter editor, and David Starbuck, journal editor, thanked the membership for their past help and urged contributions for their respective publications.

FALL TOUR. Robert Casey encouraged everyone to participate in the Birmingham, Ala., tour Oct. 24-26. Focus will be on Sloss Furnaces NHL and Birmingham's formidable industrial development.

1986 ANNUAL CONFERENCE. Theodore Sande invited members to participate in the 15th Annual Conf., June 12-16, in Cleveland. The theme will be "Industry & Urbanism in the Midwest."

ANNUAL ELECTIONS. The results of the annual elections:

Director: Dennis Zembala Nominations Committee: Carol Poh Miller

NEW BUSINESS. Margot Gayle, Friends of Cast Iron Architecture, moved a resolution commending the New York City Landmarks Commn. for designating the Bogardus Building on Canal Street as a City Landmark [see story this issue]. Seconded and passed. There were several announcements of upcoming meetings and events.

THANKS. President Wright praised the conference organizers for their efforts. The Planning Committee included Nanci Kostrub Batchelor (Chair), Ronald Batchelor, Ingrid Wuebber, Herb Githens, Terry Karschner, Thorwald Torgersen, Edward Rutsch, Mary Jane Rutsch, Thomas Flagg, and Aron Eisenpress. Special recognition and appreciation was extended to tour hosts: Wiss Co., Watts-Campbell Co., Edison Nat'l Historic Site, Port Authority of N.Y., Elizabethport [N.J.] Marine Terminal, and Steinway & Sons.

The meeting was adjourned at 1:50 p.m. by President Wright. Terry Karschner, Secretary

NEWS OF MEMBERS. Daniel D. Reiff was appointed chair of the art dept., State Univ. of N.Y. at Fredonia. Specializing in architectural history, Reiff has conducted numerous surveys of the Fredonia and Chautauqua county areas, among other projects. SOCIETY SUPPORTS ST. PAUL SHOPS. Pressured by preservationminded citizens, including local SIA members, and letters from SIA President Helena Wright, St. Paul, Minn.'s mayor intervened to halt bulldozers and save three of the city's oldest RR buildings in July. They are part of a large Burlington Northern complex, viewed during the 1983 Annual Conf., that included some eight limestone buildings built in 1881 as the first shops for James J. Hill's newly organized St. Paul, Minneapolis & Manitoba, later the Gt. Northern, and today BN. Alerted



DOOMED. This 1881 St.P.M.&M. shop building wasn't among those chosen to be preserved in St. Paul, Minn. R.M. Frame photograph.

to the developing situation in Jan., the SIA Board had voted to support to support designation as a St. Paul Heritage Preservation Commn. (HPC) site. The State Hist. Pres. Office hastily organized a recording to minimum HAER standards, which was completed in the spring. By June, the total demolition demanded by the site's developer, the St. Paul Port Authority, appeared imminent, when the City Council denied the HPC's request for designation. President Wright's letters and telegram to the council and mayor stressed the shops' national IA significance. Within days, the mayor had forced the SPPA's limited compromise (three buildings) with the HPC. The SPPA indulged in a "name-the-site" contest, concluding ironically that the remains of Hill's shops would be billed as "Empire Builder Industrial Park." By Aug., the remainder of the complex was gone.

CURATOR POSITION OPEN. The Charles River Museum of Industry seeks a full-time curator to take responsibility for collections, physical plant, and exhibit program in the early stages of development. Strong technical skills and knowledge of 19th- and 20th-C industrial technology required; research interests and post-graduate education in fields related to industrial history and industrial archeology are a plus. Send resumé and salary requirements to Curator Search Committee, CRMI, 154 Moody St., Waltham MA 02154. CRMI is an equal opportunity employer.



CONTRIBUTORS TO THIS ISSUE

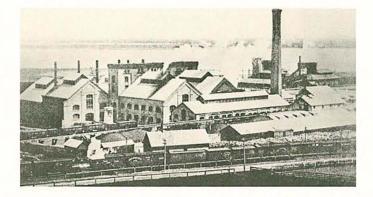
Thomas Flagg, Photo Recording Assoc., Bogota, N.J.; Margot Gayle, Friends of Cast-Iron Architecture, N.Y.C.; Edward F. Heite, Camden, Del.; Charles K. Hyde, Wayne State Univ.; Randall G. Lawrence, Sloss Furnaces, Birmingham; Carol Poh Miller, Cleveland; Daniel Mordell, Binghamton, N.Y.; Roger Robertson, Kensington, Md.; William D. Sawyer, San Francisco; Thorwald Torgersen, Hackettstown, N.J.; Robert M. Vogel and Helena Wright, NMAH Smithsonian; John M. Wickre, Minn. Hist. Soc., St. Paul; Suzanne Spencer-Wood, Univ. of Mass./Boston. With thanks.

Save Solvay Site in Syracuse

Editor:

I am writing to request urgent assistance regarding the impending closure and destruction of the Syracuse Works of Allied Chemical Corp. This is the first alkali plant in the U.S. to successfully use the Solvay ammonia soda process for the manufacture of carbonate of sodium [created 1861-65 in Belgium by Alfred & Ernest Solvay]. It also is the largest and oldest synthetic soda-ash plant, having run continuously since Jan. 10, 1884. It was the site of the first battery of by-product coke ovens built in the U.S., as well as the location of the first rotary cement kiln, whose designer, Edward Trump, was chief engineer for the Solvay Process Co.

No complete inventory has been made of significant equipment in the plant. We know, however, that it contains several Morse steam engines, side-dump quarry cars, a steam drill, and—most important—







original machines built for the Syracuse works by the original (and still operating) Solvay Co. in Belgium.

Name the steel mill, and chances are that they had at least one battery of Semet-Solvay coke ovens. The contribution of a single division of the Solvay interests resulted in the huge coking complex at the Sloss works in Birmingham, Ala. *[Sloss Furnace is the site of the SIA Fall Tour, Oct. 24-27. Ed].* This alone should grant the site a premier place in industrial history, but it will not be so unless we move to see it happen.

This plant will be closed and demolished in Jan. 1986 by Allied Chemical. We cannot sit idly by and watch such an important chapter in industrial history and chemical engineering be destroyed. I have an abundance of material on the history of the Solvay interests, all of which will be made available to the SIA or to any other organization endeavoring to save at least a portion of this plant's history.

> Mark W. DeLawyer Box 2107, 550 S. Clinton St. Syracuse NY 13202

The True "Super Mover"

Editor:

The 1,600-ton, 1906 Fairmount Hotel in San Antonio, Tex. [SIAN 1985(1):7], may not be the largest building ever moved on wheels, depending on your definition of "large." Since you provide weight data and not dimensions, one can assume weight is the criteria.

If so, the Church of the Virgin Mary, located in Most, Czechoslovakia, and moved in the mid-1970s, is the "largest." The 14th-C church tipped the scales at 10,560 tons. It was moved on steel wheels, eight to each of 53 trolleys, each trolley supporting a jack capable of lifting 500 tons. The trolleys ran on tracks and the building was moved nearly a mile. I suspect the Fairmount Hotel was moved on rubber wheels and this could add substance to their claim.

For further info. on the subject, I might mention the Nat'l Park Service's Technical Preservation Service Div.'s publication *Moving Historic Buildings*.

Jack E. Boucher HABS/HAER Div., Nat'l Park Service

LOCAL CHAPTERS

ROEBLING CHAPTER. Although recovering from the successful and rewarding Annual Conf. work, Roebling visited the Easton [Pa.] Canal Museum during a tour of Lehigh River Valley sites in June. In July, chapter president Tom Flagg hosted a show-n-tell slide party, followed the next day by a tour of two Brooklyn sites: Bush Terminal, and the classic warehouses known as Brooklyn stores (1860-80). Later in July there was another eastern Pa. IA trip, including Saylor Park Cement Industry Museum and the Crane Iron Works, along with a ride on the 1884 carousel at Bushkill Park. In August was the first annual chapter IA overnight campout. Scheduled events include the Annual Roebling corn roast at the Charles Emmerich farm (Sept. 7). *T.F.*

Roebling's **1985 IA Symposium** will be **Sept. 28**, 10 a.m.-5 p.m., at Drew Univ., Madison, N.J. Organized by Thorwald Torgersen, scheduled presentations will include "Assembly Line Layout at Ford's Edgewater Plant" (James C.A. Thompson), "Sugar Refineries on the Hudson" (Ken Hanson), "Anthracite Iron Furnaces on the Lehigh River" (Craig Bartholomew), "Technology of Carfloating in N.Y. Harbor" (Thomas Flagg), "Newark's City Rwy." (T. Torgersen), "Pa.'s Gravity Coal RRs" (Ed Steers), "History & Dev. of Coal Strip-Mining Equipment" (Bill McKelvey), "Recording the Remains of Brooklyn's Ridgewood Aqueduct" (Ed Rutsch), and a 1924 film of Pa.'s Delaware Canal (Lance Metz). Registration is \$13, inc. lunch. Info.: Thorwald Torgersen, P.O. Box 429, Hackettstown NJ 07840 (201-852-8630).

ONTARIO SOCIETY FOR IA. Werner Kroker, director of the Bochum Mining Museum, W. Germany, spoke on interpreting history and technology in German museums in a special program hosted by OSIA in Jan. at the Inst. for the Hist. & Philos. of Science, Victoria Coll., Univ. of Toronto. In March, vintage photographs from the private collection of Ralph Greenhill were presented in a special one-night members' showing at the Isaacs Gallery, Toronto. Greenhill is author of *Engineer's Witness: A Photographic Panorama of 19th-C Engineering Triumphs* (Toronto: Coach House Pr.). OSIA is working to preserve surviving documentation of the burned London Soap Co. building [see story this issue.].

SOUTHERN NEW ENGLAND CHAPTER had their spring meeting in June at the restored Zeiterion Theater (1923), New Bedford, Mass., featuring a slide lecture on the "Revitalization of New Bedford's Waterfront Historic Dist." by John K. Bullard. Lunch at the New Bedford Whaling Museum was followed by a tour of the Quiticus Pond Pump House & Filtration Plant (1899) in Rochester, Mass., housing the New Bedford Waterworks.

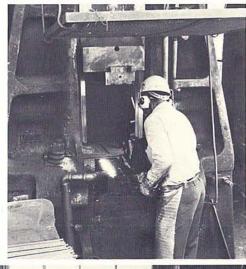
THE 14TH ANNUAL CONFERENCE-NEWARK & N.Y.C., MAY 9-12, 1985

You can guess what we imagined we'd encounter in Newark and New York City, those of us living far enough from the Metropolitan Corridor that we could only fantasize about the dark evils and secret pleasures awaiting us as we alighted Thursday, May 9, from our People Express (thank God!) flights to the most infamously urban of all urban areas. Breakfasts would find the innocent outlanders exchanging airport cab-ride tales. Others, living out their jaded lives in the Northeast, could get right to the heart of the matter. Washingtonians immediately zipped to stellar IA attractions known to be in the area, even before checking in at Newark's Quality Inn Park Place—a friendly hotel that sometimes seemed to be staying in business just long enough to end our conference. Registration found us struggling under the weight of conference materials, mainly Terry Karschner et al.'s jumbo volume on *Industrial Newark*. But not to worry! Our ingenious Roebling Chapter hosts had provided canvas tote bags featuring the conference logo.

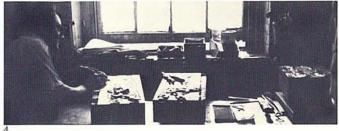
Thursday evening we shuttled (if we were smart; over-confident walkers wandered in later, dazed) to N.J. Inst. of Technology's Colton-Campbell Hall (School of Architecture), where we were treated to food, drink, and an exuberant multi-projector show on the rise, decline, and struggling re-rise of Newark. Here we were introduced to the city's Ironbound District and, aided by Roebling resident restaurant critic Ingrid Wuebber's guide, inducted into the Ironbound's gastronomical secrets (Portuguese & Spanish). This information, all true, proved to be of great value for those on-your-own dinner times.

Many began Friday morning, and every morning, with the preregistered breakfast buffet, a pricey but efficiently convenient extra. Then it was off in four directions as four tour buses departed to the four corners of Newark, each eventually to visit the same sites but along unique routes. At the Port Authority's **Ports Newark and Elizabeth Marine Terminals** (1962), an official representative came aboard to guide the bus through the maze of activity for which the area continues to be significant: the big-time cargoeing of ships. The place seemed endless—vast plains of imported cars and mountains of bulk freight. Towering alongside were awesome container cranes (whose operators claimed equally awesome salaries, we were told). Our guide's provocative account of the various inducements and arrangements necessary to extract work from longshoremen these days was, to say the least, interesting.

At the Wiss Co. (est. 1848), we had a true SIA process tour, soaking up the heavy thuds as massive drop-forge hammers shaped red-hot bars



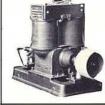
WISS CO. Right: Drop-forging parts in the light hammer. Below: Tool-and-die maker at work. R.M. Frame photographs.



into parts of scissors and shears, and wondering how a worker could stand there, putting the stock metal in just the right spot each time, for so many hours. Fascinated, we watched highly skilled tool-and-die makers meticulously create the dies for the drop forge. We saw it all just in time, too, for the Wiss plant soon leaves Newark for the South.

The Edison National Historic Site at West Orange, where Thomas Alva Edison did much of his research from 1887 until his death in 1931, provided a sharp contrast with the process-tour sites. Here, carefully preserved, cataloged, and interpreted, is a complex of long-established world-class IA significance, untroubled by the necessity to remain profitably operating like the other plants we toured. To be in the 1887 Main Laboratory or Edison's double-tiered Library/Office was to stand





EDISON NAT'L HISTORIC SITE.

Above: Original bamboo carbon-filament bulbs are demonstrated by Curator Edward Pershey, using Edison bipolar dynamo (*inset*). Below: Turning the reconstructed "Black Maria," Edison's movie studio, to face the sun.

Edison's movie studio, to face the sun. R.M. Vogel & R.M. Frame photographs,

amongst artifacts of legendary proportions. Many watched reverentially as Curator Edward J. Pershey fired up a set of original bamboo carbon-filament bulbs using an Edison bipolar dynamo powered from the lab machine-shop's line shafting. Last Feb. 11, Edison's birthday, the publication of Part I (28 reels covering 1850-78) of the microfilm edition of the Thomas A. Edison Papers was announced at the West Orange Lab, whose centennial will be observed from Feb. 1986 through Thanksgiving Day 1987.



Friday's highlight was the spectacular Watts-Campbell Co. (est. 1851), possibly N.J.'s oldest machine shop in continuous operation. Proprietor Charles "Chad" Watts had prepared many interpretive displays in the shop for us and also provided a floor plan and descriptive list of extant machinery—all a great aid in understanding this array of historic c1880-1920 equipment. Of special interest was a pre-1883 vertical boring mill designed and built in the Watts-Campbell shops, and a 20-ton wooden trussed traveling crane. Displayed in upstairs offices were early company records and memorabilia, including old measuring devices that had Robert Vogel in apparent ecstasy attempting to figure out what they were for.

We ended the day with the Edward Rutsch-engineered "Jersey Bounce," a meandering hour-long drive, crisscrossing the filled tidal flats of Newark Bay and the meadows of the Hackensack and Passaic rivers, during which we viewed (and sniffed) Jersey's refineries, chemical plants, truck and RR yards, container ports, and chemicaland waste-treatment plants. Roebling Chapter insiders pronounced it all a bit tame, though, compared to their regular Garden State diet of *SIA Newsletter*, Vol. 14, No. 2, 1985

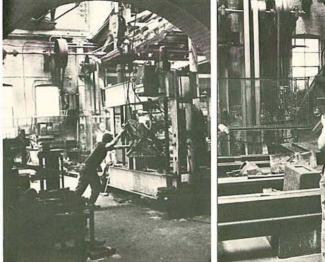


the vast Naporano scrapyard, the odoriferous outskirts of the Linden refineries, and rock-throwing punks and RR bulls who regularly hassle IA scholars in the rail yards. Being innocents from the hinterlands, we were spared the rough stuff.

That evening, following perhaps an eye-poppingly huge Portuguese paella in the Ironbound, came the traditional IA show-and-tell slide sessions and an IA mini-film-festival arranged by Bill Moss and featuring selections from the collection of Mitch Dakelman. Noteworthy was *Thundering Rails*, one of the most breathless, incoherent publicity films of all time, chock-full of 1940s RR vignettes.

Saturday was devoted to the paper sessions, the meat of the conference, and as usual there was a triple-concurrent embarrassment of riches. A new and particularly interesting session for SIA focused on "Industry in American Art, 1900-1940." The Society's Annual Business Meeting and announcement of new officers was held during the luncheon (see the official minutes under SIA Affairs).

The day closed with the Annual Banquet, an all-stops-out, you-can't top-this buffet at nearby Trinity Cathedral Community House, universally proclaimed to be one of the finest feasts ever at an SIA conference. The only act that conceivably could have followed was the one we got: Robert M. Vogel at Large. Vogel, co-founding member, former president, and first *SIAN* editor, characterized SIA members as "idiosyncratic persons" and proceeded to prove the charge by screening ten years of *Newsletter* outtakes and field-trip outrages. Ed Rutsch rounded out the evening by producing a chorus line of past Society presidents, in-



WATTS-CAMPBELL CO. Scenes in the main machine-shop area. David Shavt (L) & R.M. Frame photographs.

cluding himself, having persuaded almost all of these significant IA artifacts to make the Newark trip. The collection was dutifully recorded on videotape.

Early Sunday, as clear and fine a day as the others, we boarded our three buses for Manhattan and our tour of the Big Apple. Cruising across the Jersey Meadows and past rail networks, our guide pointed out huge, rubbish-generated man-made "mountains" (e.g. Mt. Hoffa). Then it was down through the Lincoln Tunnel, up and out, across 42nd St., to **Grand Central Terminal** (1905-14), where we were guided through what Carl Condit has hailed as the "supreme achievement of urban technology." And how encouraging to find this world-class monument in the thick of rehabilitation! GCT encompasses a vast and complex rail yard on two levels (not toured), surmounted by an architecturally



The SIA rides the N.Y.C. Subway, R.M. Vogel photograph.

distinguished labyrinth of rooms, halls, concourses and walkways. We treaded the catwalk betwixt the inner and outer glass of the terminal's towering end window walls.

Out of Grand Central and—High Drama!—into preparation for our **N.Y.C. Subway** transit to SoHo, carried out like a guerrilla invasion of Afghanistan by the Boy Scouts. Our Roebling hosts, now armbanded



GRAND CENTRAL TERMINAL. *Right:* Heading for GCT's main entrance. *Left:* Dwarfed by the vast proportions of the main waiting room. Note the huge windows. *Center:* Standing on a catwalk inside one of the waiting-room windows. *R.M. Frame photographs. SIA Newsletter,* Vol. 14, No. 2, 1985

in yellow for instant identification, issued each of us a Holy Token while calming perceived outlander fears with bullhorn assurances and instructions. Thus soothed and reassured, we trotted down alien stairways and halls and onto the platform. Soon the assigned train wooshed and clattered into place and we hustled aboard, keeping a bit of an eye on our armbanded guides. Doors slid shut and off we went, encapsulated in graffiti. Few natives aboard seemed interested in our venture with its array of cameras and presumably curious SIA nametags and scattered yellow armbands. The N.Y.C. subway system is awesome in its intricacy and efficiency—there's nothing quite like it.

Reaching SoHo without crisis, we exited up and out, into the world's most extraordinary collection of cast-iron architecture. Under the

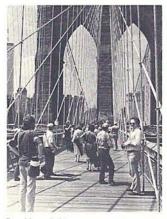


HAVING FUN IN SOHO. The good news: Margot Gayle (*left*) leads the cast-iron district walking tour. The bad news: Uninvited vapor-sniffing resident (*right*) entertains the group with zany antics. *R.M. Vogel photographs*.

tutelage of Mrs. Cast-Iron Architecture herself, the indomitable Margot Gayle (see related story this issue) and friends, we maneuvered through the district (1860-95) in quest of the ultimate iron front. Up one street and down another, a steady progression of iron facades—some ornate, some plain, some meticulously restored, some groaning under the stress of daily warehouse labors. Some ancient iron buildings, their fronts ravaged and iron parts missing, best revealed their secrets of construction.

Lunch-on-our-own at **South Street Seaport** followed, with an optional on-deck walking tour of the **Brooklyn Bridge** (1870-83) led by Richard Lenat. We had to walk fast, but for those who'd never done so, the chance to experience this legendary bridge was not to be missed. For some, South Street Seaport was an object lesson in how *not* to run a museum—the full Rouse Co. treatment, with eateries and cute shops a' la Baltimore's Harborplace and San Francisco's Ghirardelli Square, now repetitive and commonplace—showing no signs of living up to its original goal of conjuring up an urban 19th-C waterfront's sights, sounds, and smells.

We bussed to the harbor terminal to board the Staten Island Ferry for the timeless voyage across New York Bay, viewing the Statue of



Brooklyn Bridge stroll. R.M. Frame photograph.

Liberty in her steel-cage rehab garb but little else in this now largely empty harbor, thanks to the newer containerport at Port Elizabeth, N.J. At St. George it was off the ferry for a ride through Staten Island's Kill van Kull waterfront on the return trip to the hotel.

And such was the nominal end of the Annual Conf. But, what was there for the addicted who wouldn't (or couldn't) quit Newark? A desperate few of us, lusting for one last IA hurrah, commandeered a nearempty car on the **Newark subway system** (didn't know there was one, did you?), secreted in a tunnel that once was the bed of the Morris Canal. Dauntless, we rode one of the U.S.'s best maintained PCC trolley cars (ex-Minneapolis/St. Paul, and they're sorry now) the full four miles and back, even persuading the motorman to run us around the terminal loop.

Yet, there was still more. For the lucky 30 who had signed up for the Monday tour there was an encore the likes of which comes only





STEINWAY & SONS.

Top: Steinway tourers pose with company executives at the main entrance. Left: Henry Z. Steinway. R.M. Vogel photographs.

Below: No photos were allowed in the factory, but little has changed from these 1915 views: stringing uprights (L) and bending rims on grands (R)—they still use the same jigs. Underwood & Underwood stereographs. R.M. Vogel collection.





to those who, after the big show, wait patiently at the dressing room door. Try to top our dazzling tour of the **Steinway & Sons piano** factory in Astoria, Queens, hosted by the Steinway execs. with Henry Z. Steinway himself in exuberant attendance. Seldom has an SIA tour viewed such painstaking hand craftsmanship as seen here, from the exhaustive search for fine woods to the ear-to-the-soundboard "voicing" of the completed Steinway. We followed the entire year-long production process, including kiln-drying the wood, laminating and shaping, the meticulous assembly of the action, hand-carving of details, and the extraordinary surface finishing that would make jaws drop in most furniture factories. Staggering out, most felt life was hardly complete without a nine-foot Model "D" Concert Grand Steinway in the parlor (at ca. \$60,000!).

Thus ended the SIA's 14th Annual Conference. Thanks go to the many fine companies and the Port Authority for graciously opening their doors to us—above all to those at Steinway. Thanks to Nanci Batchelor, who masterminded this conf.; with Ron Batchelor and Ingrid Wuebber, she worked endless hours with planning and financial details—and kept us solvent. Terry Karschner, SIA Secretary, organized the Friday tour and compiled the guidebook. Edward and Mary Jane Rutsch assembled the paper sessions and prepared graphics. The fabulous banquet buffet was the work of Ingrid Wuebber. Thomas Flagg put together the Sunday and Monday tours, with much help from Richard Lenat and others. A salute to all. It was excellent. *R.M.F., et al. SIA Newsletter,* Vol. 14, No. 2, 1985

NOTES & QUERIES

NEW ADVISORY COUNCIL MEMBERS. Cynthia Grassby Baker of Denver, Colo., was appointed by Pres. Reagan to a four-year term as Chairman of the Advisory Council on Historic Preservation, succeeding Alexander Aldrich of Saratoga Springs, N.Y., whose term had expired. Simultaneously three new members were appointed: Gov. Michael N. Castle, Delaware; Mayor William J. Althaus, York, Pa.; and Jennifer Blackburn Dunn, Bellevue, Wash. The Council, an independent Federal agency that advises the President and Congress on historic preservation policy matters and administers the Section 106 review process, has 19 members.

Baker formerly served the Nat'l Endowment for the Arts as Deputy to the chairman for Private Partnership. Castle, the Council's requisite representative governor, was associated with the restoration of Rockford Village, Wilmington. He succeeds Gov. Victor G. Atiyet of Oregon. Althaus, an attorney and York mayor since 1981, succeeds Mayor Virginia W. Brenberg of Glendale, Calif., as the requisite mayor. Dunn, appointed as Council member representing the general public, is chairman of the Wash. State Republican Party and succeeds Calvin Carter, Tampa, Fla.

THE IA OF PETER COOPER'S WORLD is a new fall course offering in the Continuing Education Div. of the Cooper Union for the Advancement of Science & Art., N.Y.C. Co-lecturers for the eight sessions are Edward Rutsch and Thorwald Torgersen, with guest lectures by Conrad Milster and Herbert J. Githens [all SIA]. Peter Cooper's Trenton Iron Co. is the focus for a study of 19th-C regional ironworking. Field trips include Great Falls Nat'l Industrial Landmark District in Paterson, the Cooper Hewitt mansion, a portion of the ironworks in the Ramapo Mt. region, and the Pratt Inst.'s steam engine museum in Brooklyn. For a course outline, contact Marion Ferri, Continuing Ed., Cooper Union, 41 Cooper Sq., NY NY 10003 (212-254-6300).

IA PROJECTS HONORED. Several IA-oriented projects are associated with recipients of the 1985 Preservation Honor Awards and Commendation Certificates from the Nat'l Trust for Historic Preservation. The May Honor Awards included:

--Virginia Devine, Pasco, Wash., "for her outstanding individual effort and personal financial commitment to the successful fight to ensure compliance with Sec. 4(f) of the Dept. of Trans. Act in order to save the Pasco-Kennewick Bridge" [NR, 1921-22; *SIAN* Spring-Summer 83:3].

-Friends of Wheeling, Inc., Wheeling, W.Va., "for its exhaustive effort to save the Wheeling Suspension Bridge (1849) through grassroots lobbying, fundraising and educational programs designed to make the public aware of the significance of this engineering landmark."

-Georgia Power Co., Atlanta, Ga., "for being an unrivaled exemplar of responsible corporate citizenship in promoting the preservation of our architectural heritage through such efforts as the adaptive reuse of the Terminal Station [NR, 1916, Alfred Fulheimer archt.], Macon, Ga.", and other works. David Sherman [SIA], former Ga. SHPO, adds: "Such corporate responsibility should be recognized and highly commended, and I hope that it will encourage others to join in this important effort."

The Certificates of Commendation included:

-Calif. Dept. of Transportation, Sacramento, "for its Peninsula Station rehabilitation program, through which Caltrans acquires the historic stations along the San Jose-San Francisco rail line, nominates the stations to the National Register, documents the station's significance and rehabilitates them according to the Sec. of the Interior's Standards for Rehabilitation."

-New Jersey Transit Corp., Newark, "for initiating a statewide rail station survey resulting in the thematic nomination of 53 historic RR stations to the National Register and implementing a preservation program administered by a full-time preservation planner." The survey, funded by a grant from the Office of N.J. Heritage and NJTransit, was done by Heritage Studies, Inc., Princeton, and resulted in the publication of *The Operating Railroad Stations of N.J.*, *An Historical Survey*.

SIA Newsletter, Vol. 14, No. 2, 1985

THE EARLY AMERICAN INDUSTRIES ASSOC. has announced the recipients of its grants-in-aid for 1985. Rabbit Goody, supv. of domestic arts at The Farmer's Museum, Cherry Valley, N.Y., will investigate the double-hub vertical spinner (used in yarn production). Robert St. George, asst. prof. at Boston Univ., will study "work exchange in New England towns." Nancy Shedd, of Petersburg, Pa., will investigate vertical corner-post log construction. Jonathan Thornton, objects conservator in the art conservation program, St. Univ. of N.Y. at Buffalo, will study composition ornament for architectural surfaces.

20TH-CEN. IRON. Look for a follow-up report on last Sept.'s international symposium on "The Role of Iron in the Historic Architecture of the First Half of the 20th-C," held in Munich. The ICOMOS Committee in the Federal Republic of Germany will publish the proceedings. Details will be announced in an upcoming issue of *ICOMOS/Information*.

NEW STATIONARY-STEAM GROUP. Members of the Gt. Britainbased Stationary Engine Research Group (SERG) are eager to help establish an affiliated organization in North America. SERG has assembled a comprehensive inventory of the larger engines surviving in Britain and wants to expand efforts to other countries. They publish a newsletter, quarterly bulletin, and an annual journal.

Last year, Conrad Milster and Roger Robertson both [SIA] accompanied SERG members on a European tour of large engines, some still operating. During the trip they were asked to explore interest in the formation of a SERG affiliate on this side of the Atlantic. If interested, contact Robertson at 3706 Emily St., Kensington MD 20895 (301-942-3507).

THE IA OF FILMS. Old industrial training films can be an important source for documenting now-obsolete industrial processes. Equipment mfrs., unions, school dists., and the federal gov't produced thousands of training films during the first half of the 20th C. Letterpress printing, for example, was the subject of several comprehensive series of films. Many were discarded when the technology they showed became obsolete. Film librarians, like anyone else, are likely to discard obsolete materials for which there is little or no demand, and whenever a film library moves or updates its cataloguing methods, a valuable resource is in jeopardy. These old industrial training films have become invaluable historical documents and as library shelves are purged, historians should identify and preserve appropriate specimens. Who knows what school dist. or state library has the last surviving print of a film on steam locomotive construction or the operation of vacuum-tube computers? E.F.H.

W.I.T.H. NEWSLETTER is a publication of Women in Technological History, a subgroup of the Society for the History of Technology (SHOT). It is issued three times annually: Jan., May, and Sept. Submission deadline is one month before publication. Info.: K.H. Ochs, Humanities & Social Sciences Dept., Colorado School of Mines, Golden CO 80401.

THE REEL ROLLER is a new bi-monthly newsletter for students and collectors of combines, threshers, and related harvesting machinery. Subscriptions are \$12/yr. with the premier issue in May-June, 1985. Info.: Linda G. Rogers, Editor, Rt. 1, Box 594, Morgan TX 76671.

STREET STEALING. Attracted by rising prices for paving stones and the allure of granite-block patios, thieves have been ripping out portions of N.Y.C.'s cobbled streets, according to the city's Bureau of Hwy. Operations. Sections of the Henry Hudson Pkwy., the Harlem River Dr., and streets in Brooklyn have disappeared. In one case, police seized two men who were trying to make off in a van with a corner of 161st St. & Jerome Ave. in the Bronx, having just pried out 200 stones. In July, Bronx police arrested four men with 107 cobblestones from E. 172nd St. & Teller Ave. N.Y.Times

7

THE PUBLIC WORKS HISTORICAL SOCIETY celebrated its 10th anniversary in April with the publication of a special retrospective issue of the *PWHS Newsletter*. Included are reviews of the Society's ongoing programs: Essays in Public Works History (including one by SIA past president Larry Lankton), Luncheon Speaker Series, "People in Public Works" column published in *American Public Works Assoc. [APWA] Reporter*, and the APWA Heritage Award. Each PWHS past president has contributed a comment on the state of public works history. Copies from PWHS, 1313 E. 60th St., Chicago IL 60637 (312-667-2200).

AMOSKEAG PROJECT GETS GRANT. The Nat'l Historical Publications & Records Commn. (NHPRC) has awarded a \$28,000 grant to the Manchester [N.H.] Historic Assoc. to process and describe the records of the Amoskeag Mfg. Co. and Amoskeag Industries. Founded in 1838, Amoskeag Mfg. was one of the world's larger textile companies (and the largest ever on one site) until its demise in 1936. Amoskeag Industries was formed by local citizens as a community response to the loss of the major employer. Info.: Alan M. Schwartz, Project Archivist, MHA, 129 Amherst St., Manchester NH 03104.

Business Archives Newsletter

INT'L INDUSTRIAL CONF. IN FRANCE. "The Industrial Heritage: What Policies," Oct. 22-25 in Lyon Vaulx-en-Velin is the first international meeting on the industrial heritage organized by the Council of Europe. It is cosponsored by the French Section of ICOMOS. Representatives from England and Europe will present papers in English/French-language sessions on industrial research, preservation, and museums. Field trips are planned to St. Eitienne (mines, iron metallurgy), Ardeche (cement), Alpes-Dauphine (factory-convent, hydroelectricity), and Lyon (automobile and early textile industries). The colloquy will meet at the Ecole Nationale des Ingenieurs des Travaux Publics de l'Etat. Registration is free. Info. on conf. & accommodations: Council of Europe, Architectural Heritage & Urban Policies Div., 67006 Strasbourg Cedex 6, France (Telex: Strasbourg 870943).

IRON WORKSHOP REPORT. An informal workshop on the IA of ironmaking met at Williamsburg, Va., in Mar. David Harvey of the Deane Forge staff, Colonial Williamsburg, demonstrated the reconstructed bloomery ironworks that he built. In the evening workshop participants heard papers on the IA of Va. ironmaking. Sunday's session was devoted to films about primitive ironmaking and ironworking processes in Africa, Asia, and Europe. Since the audience included blacksmiths, metallurgists, archeologists, historians, and other iron students, there was a lively interpretive discussion during the German-subtitled silent films. *E.F.H.*

PAPERMAKING-MACHINE MODEL AT NMAH. A working, half-size model of the earliest papermaking machine, invented and first patented in France in 1798 by Nicholas-Louis Robert, has been donated to the Smithsonian's Nat'l Museum of American History. The machine, a direct ancestor of the modern fourdrinier equipment, is installed in the Hall of Graphic Arts. The model was commissioned by Leonard B. Schlosser, chairman of Lindenmeyr Paper Corp., and given to the museum to mark the 125th anniv. of the N.Y.-based paper merchant firm.

The hand-cranked machine was the first to produce paper by the roll, replacing the ancient hand process. Robert received a patent for his invention from the French govt., but it was unsuccessful there. In 1801 Robert and his brother-in-law, John Gamble, patented the machine in England, with the backing of Henry and Sealy Fourdrinier, who gave not only financial support but their name to the new technology.

The Smithsonian's model was built from the original drawings meticulously executed in color by Robert when he applied for the British patent. They were acquired by Schlosser in 1978 for his extensive personal collection of historic material bearing on paper and printing.

The original machine was approximately 10 ft. long, producing paper at about 20 ft.-per-min. in a 4-ft.-wide roll. Today's fourdrinier machines run up to 3,500 fpm and can produce a 400-in.-wide roll. The first two fourdriniers in the U.S. were set up in 1827. **OHIO BRIDGE CONF.** A conference on historic bridges will be held Nov. 1 at Ohio State Univ. in Columbus. Cosponsored by the univ.'s Dept. of Civil Engineering and the Historic Preservation Div., Ohio Hist. Soc., the conf. will bring together the perspectives of engineers and preservationists. Included will be a report on the results of the Ohio historic bridge survey that was conducted by the state Dept. of Trans., a discussion of historic bridge repair, restoration, and removal, and several presentations highlighting the state's most notable bridges, including examples in Cleveland and Cincinnati. Info.: Dept. of Confs. & Insts., OSU, 2400 Olentangy River Rd., Columbus OH 43210 (614-422-8571).

ONCE-IN-A-CENTURY OPPORTUNITY. Proliferating like pieces of the True Cross, "authentic materials removed from the Statue of Liberty-Ellis Island Nat'l Monument during the current restoration" are now available in numerous formats. Pulverized in vials, set into acrylic, stamped into jewelry, and mounted on pedestals, "authentic metal fragments" from Lady Liberty and "authentic concrete" from the Statue's base are offered for sale by Gold Leaf Corp. of Tallahassee, Fla. They are priced from \$9.95 (retail) for a rectangular lapel pin or pouch of fragments to \$399 for a 211/2-in. bronze replica of the complete Statue. Each product comes with its Certificate of Authenticity signed by Lee Iacocca, chairman of the Statue/Ellis Island Foundation, and part of the proceeds of each sale will be contributed to the preservation work. Actually, the 1/4-in. armature bar segment, with accompanying blueprint showing where it was extracted, looks rather neat. It comes mounted on a pedestal (measuring 4 x 5 x 8 ins.) for \$99. Write for your catalog today: Gold Leaf Corp., 4909 N. Monroe St., Tallahassee FL 32303. They're the Official Licensee for recycling. Or would it be adaptive use? H.E.W.

IA ANNIVERSARIES IN 1985

Editor's Note: Following the lead of The Newcomen Bulletin, we record a number of IA anniversaries to be celebrated in 1985. Readers are invited to submit additions and corrections.

BICENTENARIES (1785)

Michael Faraday discovered self-induction of a coil of wire.

Birth of M.H. Havier, French engineer, founder of modern structural analysis.

Berthollet's use of chlorine in bleaching.

150TH ANNIVERSARIES (1835)

Samuel Colt patented his revolver.

Andrew Carnegie, ironmaster and philanthropist, born at Dunfermline, Scotland.

CENTENARIES (1885)

William Burroughs invented the earliest commercial adding machine. The Canadian Pacific RR, Montreal to British Columbia, was completed.

- The first use of refrigeration to freeze and consolidate ground in tunnel construction (Stockholm, Sweden).
- William Stanley invented the transformer.
- Luiz I bridge over river Douro at Oporto, Portugal, completed with world's longest non-suspension span (566 ft.), in wrought-iron. Gustave Eiffel, engr. & bldr.

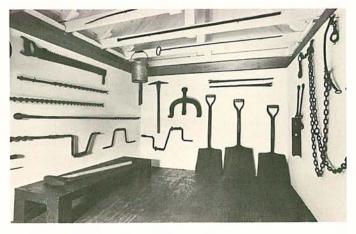
50TH ANNIVERSARIES (1935)

- Buzzard's Bay Bridge, Cape Cod Canal, Mass. RR bridge with lift span of 544 ft. (longest in world) and vertical lift of 135 ft., completed.
- Huey P. Long Bridge over the Mississippi River, Louisiana, 4.4 miles long.
- Helium balloon ascent into the stratosphere by A. Stevens and O. Anderson reached 74,000 ft.
- 35mm. Kodachrome film was devised.

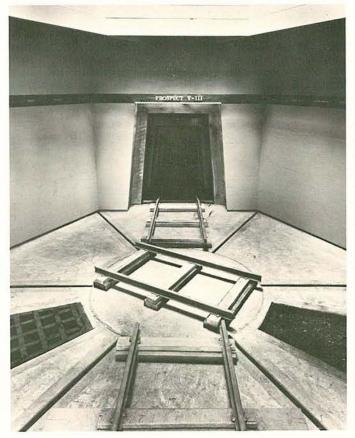
C.C. Magee invented the parking meter.

IA IN ART

ANDREW LEICESTER'S 'TRIBUTES TO INDUSTRY'



Andrew Leicester describes himself as a public sculptor and environmental artist who creates, among other things, memorials and monuments to the industrial landscape and its workers. His work attempts to coalesce the themes of local history and personal community with those of industrial and manufacturing technologies. Illustrated here is *Prospect V-III*, a coal-mining monument erected at Frostburg, Md. in 1982. From the lookout tower (*below*), the viewer gazes over the area's entire coal basin. Back against the hill are representational miners' cottages. Each houses a symbolic room, such as the Room of Memory (*above*), which contains memorabilia donated by local miners. The last room is the octagonal Rotunda (*right*), inscribed with a miner's six hazards and six necessary skills. From here, one enters a shaft, which penetrates the hill to an actual coal seam. He also has done *Toth*, a 1983 memorial to gold mining at Rapid City, S.D. Info.: A. Leicester, 1504 S. Tyrol Trl., Golden Valley, MN 55416.





WANTED

PAPER PROPOSALS are being solicited for the jointly held annual conventions of the Popular Culture (PCA) and American Culture (ACA) assocs., April 2-6, 1986, in Atlanta, Ga. Papers will be presented in almost 100 areas for each association, including several related to IA topics: Art & Architecture, Connecticut Culture, Geography, History, Museums, Technology & Society (all PCA), and City Cultures, Environment/Technology, High Tech, Historic Pres. & Living History, Material Culture, Transportation, Work Experience/Work Environment, Archeology & Unearthing the Past, and River & Water Cultures (all ACA). Proposal submission deadline is Oct. 1. For full program descriptions, including all areas, chairpersons and addresses, contact Ray Brown, Popular Culture Dept., Bowling Green St. Univ., Bowling Green, OH 43403.

A STUDY OF CORPORATE MUSEUMS is being conducted by Victor J. Danilov, president and director of Chicago's Museum of Science & Industry. He would like to receive information about the founding, nature, and purpose of corporate museums. Address queries or materials and photos to Danilov at CMS&I, 57th St. & Lake Shore Dr., Chicago IL 60637.

Business Archives Newsletter

HISTORIC BURROUGHS PRODUCTS and component parts are wanted by Burroughs Corp. for display. Early digital computing systems manufactured 1950-70 are particularly desired. Anyone having information about the location of obsolete Burroughs equipment is invited to contact Mark Coir, Archivist, Burroughs Corp., One Burroughs Pl., Detroit MI 48202 (313-972-7350). The corporation was founded in St. Louis in 1886. Company archives hold significant collections pertaining to the development of the information processing industry in the U.S.

Several research projects of IA interest are reported in the Soc. for Historical Archaeology Newsletter:

GRAND CANYON RR. Research was begun on the 60-mile link between Williams, Ariz., and the Grand Canyon. The road was first put into service from Williams to mines north of the town and gradually was extended until it reached the south rim of the Canyon in 1901. At that point it began to haul passengers to the Canyon and did so, except briefly during WWII, until 1968, when superseded by auto travel.

Along the RR were several stops, including water stops, mining towns, ranches, and loading points for sheep and cattle. With few exceptions, these have been completely abandoned, some for many years. Two of these towns are now under study: Apex and Anita, located about 50 and 40 miles north of Williams, respectively. Surveys so far indicate remains of platforms for portable RR buildings, a few concrete or stone buildings which served as homes or RR workers' barracks, and abandoned line shacks associated with mining. The platforms are interesting. Many of the early buildings were carried into the area by the trains themselves and then lifted onto the ground to serve as mobile homes, shops, cook shacks, &c. When the RR closed down in 1968, these were simply lifted back onto the cars and taken away. Reseach is being done chiefly by Albert Richmond Jr. and Charles A. Hoffman, Northern Ariz. Univ.

NEW MEXICO COAL MINING. The Research Section of the Lab. of Anthropology, Mus. of N.M., has been engaged in a project near Soccoro where highway construction activities will cut through portions of the historic coal mining town of Carthage. Coal was first mined from the area in 1856 by Union troops stationed at Ft. Craig on the Rio Grande. In its prime from 1880 to 1900 with over 1,600 miners, Carthage today consists of abandoned mines, coke ovens, an old RR bed, structural foundations with associated trash deposits, and a cemetery. The archeological remains may represent some of 10 VAF PAPER PROPOSALS. The Vernacular Architecture Forum is soliciting proposals for presentations at the 1986 Annual Meeting, May 7-10, Kingston, N.Y. Papers will focus on interpretive, interdisciplinary approaches to vernacular architecture. Proposals also are invited for presentations in a special session on Hudson River Valley and N.Y. State subjects and a methodological session examining the underlying assumptions that frame VA methods of inquiry. Proposals may be either for 20-min. formal papers or for 10-min. work-in-progress reports. Selection of papers will be made on the basis of theoretical or methodological contribution to the study of VA based on original fieldwork or research. Proposals (400 words max.) should contains an abstract with specifics related to scope, argument, and methodology. Deadline for submission is Jan. 1, 1986, with accepted papers due April 1. Send three copies of the proposal to Michael Ann Williams, 1986 VAF Papers Chair, Dept. of Geog., 220 Davenport Hall, 607 S. Mathews, Univ. of Ill. at Urbana-Champaign, Urbana IL 61801. For further annual meeting info.: Neil Larson, VAF Program Chair, Box 164, Stuyvesant NY 12173.

AVAILABLE

NATIONAL MUSEUM ACT GRANTS will offer support in the following NMA programs in 1986: Graduate/Professional Education & Training, Museum Internships, Seminars, Services to the Field, Special Studies & Research, and Stipends to Individuals for Conservation Studies. All applications must be by or through museums or related agencies and institutions. Deadlines are Sept. 14 or Dec. 14, 1985, depending on the program. *NMA Guidelines for 1986* is available from Nat'l Museum Act, Arts & Industries Bldg., Smithsonian, Wash. DC 20560 (202-357-2257).

CORPS OF ENGINEERS HISTORICAL PUBLICATIONS available from the U.S. Govt. Printing Office are listed with prices on Not. 63, N-559, from USGPO, Supt. of Docs., Wash. DC 20420.

CURRENT RESEARCH

the earliest known structures associated with late 19th-C coal mining in N.M. Repetitive construction styles suggest that some buildings were built in units, as would be expected in company-owned coal towns or RR communities.

And reported in the Newsletter of the New England Chapters, SIA:

BOSTON METRO SEWERAGE SYSTEM. Suzanne Spencer-Wood and grad students at the Univ. of Mass./Boston have been researching the IA of sewer systems in the Boston metro area. The city's three original systems remain in use: the first was constructed 1876-84, followed by the North Metropolitan Sewerage System, 1889-96, and the Southern Metropolitan, 1895-1904. Never before compiled, this construction history was assembled from Eliot Clarke's 1885 *Main Drainage Works of the City of Boston*, and the Annual Reports, 1889-1983, of the various sewerage commns. Field research recorded the condition of surviving pumphouses and their machinery.

Research found most of the sewerage lines still in use in their original form. Some of the original pumping stations survive, including a few steam pumping engines, which the city plans to remove soon.

In Boston's Main Drainage, the future is uncertain for the 1883 Calf Pasture Pumping Station. This earliest station is used during rains and overflow, with 1930s electric pumps replacing the original Worthington and Leavitt steam pumping engines. The latter's 36-ft. flywheel was one of the world's largest. In the N. Metro system, the last operating 1899 triple-expansion Reynolds-Corliss type radial steam pumping engine, along with an 1895 inoperative one, remains in use in the 1912 East Boston Pumping Station (replacing the 1895 building, burned in 1908). The engines are slated for removal within two years. A vandalized 1911 Reynolds-Corliss engine is in the 1895 Deer Island station, abandoned since construction of a new treatment plant in 1968. S.S.-W.

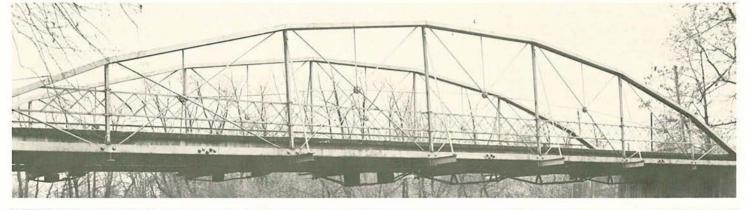
IA PHOTOS FEATURED IN OHIO HISTORY MAGAZINE

The Ohio Historical Society publishes Timeline, a super-high-quality bi-monthly magazine. The Feb.-Mar. 1985 number features "Engineering and Enterprise: Early Metal-Truss Bridges in Ohio" by David A. Simmons [SIA], with 35 splendid full color bridge photographs, including the cover shot. In the same issue is "Buckeye Steel: A Photographic Documentary." Examples from both are below. Copies (\$5/ea., \$18/yr.) from *Timeline*, 1985 Velma Ave., Columbus, OH 43211-2497.



OHIO BRIDGES. Left: Falling Rock Camp Bridge, near Newark, cl872 Post truss. Right: Zoarville Station Bridge, 1868 modified Fink through-truss (only known U.S. example), by Smith, Latrobe & Co. Below; Mallaham Bridge, near Columbus Grove, 1876 Morrison I-Beam Bowstring. Ohio Hist. Soc. photographs.





BUCKEYE STEEL CASTINGS CO. photos, from 1917 glassplate negatives. *Below*: Using a concrete "gun" during ladle-lining process. *Right*: Pouring molten metal into molds from the ladle. *Ohio Hist. Soc. photographs*.



19th-CEN. CABLE-CAR ROOMS UNEARTHED IN SAN FRANCISCO

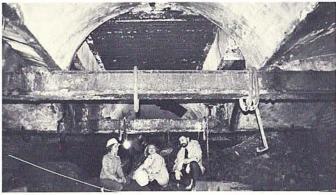
Two below-grade vaults from the California Street Cable RR Co., sealed since 1891, were uncovered accidentally almost 100 years later in 1982-83 by workers rebuilding the cable-car system in San Francisco. The city contracted with William D. Sawyer [SIA] for further research. Sawyer, a cable-car historian, produced further finds and recorded the room interiors and contents. The vaults have since been destroyed.

The first room, found in Nov. 1982 on Nob Hill at California & Larkin streets, contained the winding machinery for the CSCRR from 1877 until 1891. The 110x30-ft.-room held the idler wheel, winders, and drive gear, along with tension apparatus. Nearby, in the basement of the Nob Hill Residence Club, Sawyer located the original fireproof engine-room that housed two 250-hp engines and three locomotive boilers. The structure above had contained the company's offices and storerooms.

Construction on the Leland Stanford-financed line, San Francisco's third cable system, was begun in 1877. It opened the next year, and was extended a year later. Later expansion necessitated moving the company's powerhouse in 1891. The above-ground structure was torn down and the basement rooms were sealed and forgotten. The original plans and drawings were lost, but a description of the installations had been published in an 1878 issue of *Engineering News*.

The following August came a second major find when the 1877 tension-wheel vault was discovered beneath Kearny St. across from the Bank of America. Unlike the other room, this one contained machinery—the oldest extant cable-car equipment. Measuring and removing pieces from the 30-ft.-deep, brick-arched vault, Sawyer managed to save one tension-wheel segment, tension carriage, one crown pulley pedestal bearing, and pieces of rail and slot rail. If interested in additional details, write Sawyer at 1010 Bush St., S.F., CA 94109.





CABLE-CAR FIND. The Calif. & Larkin sts. winding room, from above (*icop*) and below (*center*). Demolished in 1983. The cast-iron tension-wheel carriage (*right*) is removed from the vault at Calif. & Kearny sts. William Sawyer photographs.



EXHIBITS

SHOT EXHIBIT AWARD PLANNED. A significant program to recognize excellence in museum exhibits on topics relating to the history of technology is being finalized by the Society for the History of Technology (SHOT), according to *Artifactory*, newsletter of SHOT's Special Interest Group in Technology Museums (TEMSIG). TEMSIG was responsible for the awards program proposal, which has received a \$5,000 matching grant from the Charles Edison Fund of East Orange, N.J. Although the nature and frequency of the award has not yet been determined, no monetary gift is proposed. Any museum exhibit will be eligible for nomination and nominees will undergo a substantial review process. The first award is not expected before SHOT's 1986 meeting. Further info. from Ed Pershey, TEMSIG Chairman, Edison Nat'l Historic Site, Main St. & Lakeside Ave., W. Orange NJ 07052.

GEORGIA TEXTILE MILLS are featured in "LaGrange, 1828-1978: Evolution of a Textile Center," a travelling exhibit focusing on this community's mill life. Info. on availability and scheduling: Troup County Historical Society-Archives, 136 Min St., P.O. Box 1051, LaGrange GA 30241.

ONTARIO RAIL. The Hamilton Museum of Steam & Technology will present the story of the Toronto, Hamilton & Buffalo Rwy. through Dec. Info.: HMS&T, 900 Woodward Ave., Hamilton, Ontario (416-549-5225). OSIA Newsletter "VERMONT WORKERS, VERMONT RESOURCES: CLAY, WOOD, METAL, STONE," the first statewide labor history exhibit produced in Vermont, is now touring the state. It is cosponsored by the Brattleboro Museum & Art Center and the Vt. Labor History Society. For info. about the exhibit catalog and schedule, contact BM&AC, Brattleboro VT (802-257-0124).

THE GREAT WESTERN RAILWAY'S 150 years of service (1835-1985) is honored in a special anniversary exhibition at Temple Meads Rwy. Terminus, Bristol, England. Built in 1840 after plans by engineer Isambard Kingdom Brunel, Temple Meads is the oldest extant major RR station in the world.

BAVARIAN INDUSTRY. A three-volume exhibit catalog is available for two special exhibits on the social history of technology in Bavaria, organized by Haus der Bayerischen Geschichte. The Kunsthalle in Augsburg hosted the exhibit "Aufbruch ins Industrie Zeitalter," which treats the beginning of Industrialization in Bavaria from 1750 to 1850. The Germanisches Nationalmuseum, Nurnberg, hosted the second exhibit, "Leben und Arbeiten im Industriezeitalter." The Nurnberg exhibit reviewed industrial developments and their impact on Bavarian society from the mid-19th-C to the present. Both closed this summer. The catalog is DM 48 from Haus der Bayerischen Geschichte, Koenigstrasse 11, 8000 Munich 22, West Germany.

Artifactory SIA Newsletter, Vol. 14, No. 2, 1985

BOGARDUS CAST-IRON BUILDING DESIGNATED N.Y.C. LANDMARK



The SIA membership unanimously adopted a resolution at the Annual Conf. in Newark commending the N.Y City Landmarks Preservation Commn. for protecting a large cast-iron building attributed to James Bogardus by designating it an official N.Y.C. Landmark. Conf. tour-goers viewed the landmark on the SoHo cast-iron district walking tour. Pres. Helena Wright's letter of transmittal to Commn. Chairman Gene Norman expressed the Society's particular gratification at the designation since such action had been urged at an earlier annual conf. In both instances, the resolutions had been proposed by the Friends of Cast-Iron Architecture.

N.Y.'s newest landmark, known as 254 Canal Street, is a handsome five-story palazzo-style structure built in 1856-57 at the corner of Canal and Lafayette. Each of its iron street-facades exhibits repeating tiers of tall, arched, double-hung windows. Bogardus's innovative metal fronts-of which this is the largest surviving example-permitted an



unprecedented expanse of wall to be made of glass, resulting in a degree of natural interior illumination unmatched in contemporary masonry structures. These iron-front buildings were preferred by Victorian businesses not only for their offices and showrooms, but also for their efficient and economical ease of erection thanks to prefabricated metal parts. The facades could be highly ornamented at modest cost, since the elegant decoration could be cast in multiples.

The Bogardus landmark is located in a neighborhood of unpretentious two- and three-story brick structures that was rapidly being transformed into the city's "midtown" of the era. The commanding presence of the new iron building set a new standard. Today, this is the edge of Manhattan's expanding Chinatown and is one block east of the ebullient Cast-Iron Historic District known as SoHo. The owner is considering converting it from a loft building of small factories to modern office space for professionals and others serving the Chinese community and SoHo.

Sometimes cited as the first iron-front is John Haviland's 1830 Miner's Bank in Pottsville, Pa., which used iron plates veneered on a loadbearing brick wall. Bogardus, however, invented a prefabricated, selfsupporting all-iron front, first employed to modernize Dr. John Milhau's little pharmacy at 183 Broadway in 1847, now recognized as the first true ironfront. A year later, Bogardus built the famous Laing Stores nearby which, over a century later, would be disassembled with the utmost care and stored by the N.Y.C. Landmarks Commn. for reerection-only to be stolen, smashed, and sold for scrap.

A significant precedent for 254 Canal St. was the large iron building that Bogardus, along with Robert G. Hatfield of N.Y., completed in 1851 in Baltimore for A.S. Abell, publisher of the Baltimore Sun. Like 254 Canal, it was a large corner building with two iron facades, five stories high, with extremely large window areas. The tall, trabeated first and second stories combined with round-headed windows on upper floors, and the strong horizontal lines of a cornice at each storyas well as an assertive roof cornice-make these widely separated buildings first cousins in design. Of the two, the "Sun Iron Building", destroyed in Baltimore's disastrous 1904 fire, is the more famous but the N.Y. building is larger.

254 Canal Street, New York City. Becket Logan photograph.

The Canal St. structure was built for George Bruce, a historic figure in his own right, who had immigrated from Scotland in 1797 and became a major inventor and producer of metal foundry type for the fledgling printing industry. It is possible that he and Bogardus, both leaders in devising broad uses of cast metal, were good friends in the tightly-knit scientific and industrial community of early-19th-C N.Y. I have speculated that Sun publisher Abell, also an innovative businessman-the first to use pony express and the telegraph to gather news and the first to use new methods of typesetting and printing-was acquainted with Bruce who, with his brother David, established the first U.S. type foundry and who introduced stereotyping for newspaper printing. Might not Bruce have brought to Abell's attention his inventive neighbor in N.Y. who was just starting to build cast-iron prefabs? Bogardus and Abell are known to have talked as early as 1849 about a building made of iron to house the Sun's new plant (see David G. Wright, Baltimore City Cast Iron, FCIA, 1978).

According to N.Y.C. tax records, Bruce had 254 Canal St. built in 1856-57. He owned the site on which stood small wooden buildings and a mill, all of which burned in March 1856. He rebuilt with style, choosing cast-iron architecture. Meanwhile, Bogardus, whose factory for manufacturing his successful eccentric mill in his own iron building at Center St. close to Bruce's long-established type foundry also on Center, was promoting his iron prefab invention. To do so, he published a now-famous pamphlet describing the structure's advantages and listing clients for whom he had built. The first edition in 1856 listed Abell and Harper Bros. but didn't mention Bruce. The second edition, 1858, does list Bruce along with a swelling roster of new clients. This helps fix the construction as late 1856 into 1857 and corresponds with records. Still, the pamphlet does not record addresses. Could another structure have been built for Bruce? The ironclad linkage is yet to be documented.

The landmark designation of the Bogardus building came during the week in which the Friends concluded its 15th year. FCIA sent every member of the Commission an honorary membership card bearing a small magnet on the reverse for identifying iron architecture. M.G.

SITES & STRUCTURES

ASME LANDMARKS. Detroit Edison's District Heating System was named a Nat'l Historic Mechanical Engineering Landmark by the American Society of Mechanical Engineers in May. Opened in 1903 with 3,000 ft. of mains and 12 customers, the system's unique underground network now provides energy in the form of steam, hot water, and chilled water to over 600 customers through 53.6 miles of mains. The Basic Oxygen Process Steel-Making Vessel, introduced in 1955 by McLouth Steel Products Corp., Trenton, Mich., also was named an ASME landmark. Molten pig iron at 2,600 degree F. from the blast furnace is carried in 200-ton thermos-bottle cars to an oxygen process building where the BOP vessel is charged with 40-ton loads of the hot pig plus scrap and fluxes. An air-cooled oxygen lance jets oxygen at 4,000 fps onto the molten surface, activating chemical reactions that refine the iron and convert it to steel. Compared to other contemporary processes, the conversion time was dramatically shortened while the steel quality was higher, due to the low nitrogen content. Today approximately 60% of all steel made in the U.S. utilizes the basic oxygen process. Brochures describing each landmark are available from the ASME Public Info. Dept., 345 E. 47th St., NY NY 10017 (212-705-7740).

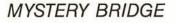
WILL SHE OR WON'T SHE? What's to be the fate of U.S. Steel's Dorothy Six blast furnace (1964) in Duquesne, Pa.? When last visited [SIAN 1985(1):6], Dorothy, once the world's largest blast furnace, had been granted a delay in demolition by USS which agreed to review a worker-supported economic study. In April, however, USS rejected the Locker-Abrecht Assoc.'s (N.Y.) conclusion that the Duquesne works could be restarted with a \$90 million investment and could sell steel slabs profitably to companies which now buy imported products. Faced with a rescheduled demolition date, the latest of several, workers vowed at a May rally to block the wreckers with their bodies if necessary. [The Dorothy Six situation is an ironic reversal of many preservation battles where local job-seekers demand demolition to get new plants with new jobs. Here, the complex's continued operation is seen as the workers' only hope for jobs. Ed.]

BINGHAMTON NY'S LACKAWANNA (DL&W) STATION will be renovated following removal in May of legal obstacles preventing the sale from Conrail to Bryden-Trozze Architects, who plan a \$326,000 project to turn the station into office and retail space. D.M. THE END FOR TIFFANY'S/NEWARK? The future of Tiffany & Co.'s old silverware and stationery plant in Newark is in jeopardy. The company, which has gone through recent changes in management, has announced the closing this year of the huge factory at 815 Highland Ave., where meticulous workers have turned out prized silver since the 1890s. The brick building and its park-like setting will be sold after remaining employees are retired or transferred. The first major plant of the N.Y. jeweler, this has long been considered one of the finest industrial structures in the city. The Newark Landmarks & Pres. Commn. has urged the company to seek landmarks designation, thus entitling a buyer to tax benefits. *N.J. Preservation Perspective*

CURIOUS REUSE DEPT. Opening in 1908, the concrete-arch bridge over the Deerfield River between Buckland and Shelburne, Mass., carried streetcar traffic. When the trolley line was abandoned in 1927 and weeds began to crowd the old tracks, Antoinette Burnham envisioned a "bridge of flowers," which the local ladies' club then created. Through the succeeding half-century, this novel five-span concrete planter blossomed into a colorful attraction known far and near. Deteriorating concrete brought threats of demolition until in the early 1980s the community raised over \$580,000 for structural rehabilitation. In 1982, neighboring gardeners uprooted the vines and perennials, loaded them into their cars, and dug them back into their own gardens. During the subsequent two years, the bridge, stripped and under repair, was a barren and unhappy sight, according to local gardener Carrolle Markle, who felt a pressing responsibility to make it bloom again as fast as possible. By the end of the 1984 season, Markle had succeeded. Now, it's returning to its former flowered glory as bridge-cum-garden path-sweet peas and morning glories twine the railings, accompanied by a profusion of daisies, sunflowers, hollyhocks, purple sage, and wisteria, followed in the fall by yellow and orange mums-everything scheduled to bloom in sequence through the seasons with just the right array of colors. Yankee Magazine

ELIZABETH NJ'S CNJ STATION (1893), designed by Bruce Price, will be rehabbed by the Elizabeth Development Co., a non-profit corp. Guided by Price's original working drawings and other research, they plan to restore the building's exterior brick envelope to prepare it for sale and eventual reuse. Because of the station's prominent siting at the crossing of the Central N.J. and Pennsylvania RR lines, its 75-ft. clock tower has long served as a landmark for commuters.

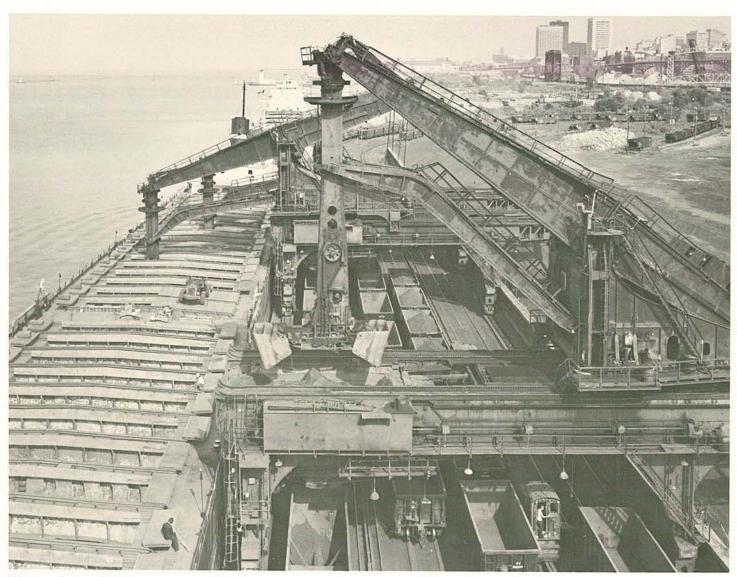
N.J. Preservation Perspective



This "mystery bridge" is submitted by Charles Hyde [SIA], who asks if anyone can identify the truss type or the bridge fabricating company for this rare truss recently located in a Michigan roadside park, near Gaylord in Otsego County.

Scratching his head, Hyde wonders, "Which are the tension and which are the compression members?"





Hulett ore unloaders (above & below), Pennsylvania Rwy. Ore Dock, Cleveland. Jet Lowe photographs for HAER.

IT'S CLEVELAND IN '86!

When built in 1911-12, the Pennsylvania Rwy. Ore Dock at Cleveland was the largest ore-unloading dock on the Great Lakes. It featured four Hulett unloaders with bucket capacities of 17 tons, a 15-ton-cap. ore stocking bridge, and a one-million-ton ore storage yard. The Hulett unloader, invented and developed by Clevelander George H. Hulett (1846-1923) in the 1890s, revolutionized the handling of iron ore by reducing labor costs and unloading times. Hulett unloaders eventually were in use at almost every port on Lake Erie, and their widespread adoption led to larger boats especially designed to accommodate the Huletts.

The Pa. Dock, still in use, will be among the sites visited as part of next spring's SIA 15th Annual Conf., to be hosted by the Western Reserve Historical Soc., June 12-15. Stouffer Inn on the Square (1918), part of Cleveland's famous Terminal Tower complex, will serve as conf. HQ.

Other possible tour sites include LTV Steel (formerly Republic Steel) and ALCOA's die-forging press [ASME Landmark]. A planned sixmile boat trip up the Cuyahoga River will afford excellent views of more than a dozen bridges, including the Center Street Bridge (1901), the city's last remaining swing bridge. Mark your calendar! *SIA Newsletter*, Vol. 14, No. 2, 1985 *C.P.M.*



CALENDAR

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

Sept. 4-7: Annual Meeting, Assoc. for Preservation Technology, San Francisco. Inc. tour of the Gladding McBean Terra Cotta Mfg. Plant. Info.: Western Chap. APT, Box 42458, S.F. CA 94142-2458.

Sept. 10-13: Annual Meeting, Am. Assoc. for State & Local Hist., Topeka, Kan.

Sept. 20-21: 4th Annual Conf., Soc. for the Preservation of Old Mills, Lancaster, Pa. Inc. tours of five operating mills. Info.: Roy Wagner, Box 19, R. D. 2, Quarryville PA 17566.

Sept. 25-27: 5th Int'l Congress on the Weathering & Protection of Stone, Lausanne, Switzerland. Organized by ICOMOS Specialized Int'l Committee on Stone. Info.: V. Furlan, Laboratoire de Conservation de la Pierre, Ecole Polytechnique Federale de Lausanne, Chermin de Bellerive 32, 1007 Lausanne.

Sept. 27-28: Annual Meeting, Lexington Group in Transportation History, Memphis, Tenn. Inc. special Memphis-Pine Bluff rail trip. Info.: Don L. Hofsommer, 1010 Zephyr, Plainview TX 79072.

Sept. 28: ROEBLING CHAPTER ANNUAL IA SYMPOSIUM, Drew University, Madison, N.J. Info.: Thorwald Torgersen, P.O. Box 429, Hackettstown NJ 07840 (201-852-8630).

Sept. 30: Deadline for paper proposals, SIA 15th Annual Conf. June 12-15, 1986, Cleveland, O. Send to Darwin H. Stapleton, Dept. of Interdisciplinary Studies, Case Western Reserve Univ., Cleveland 44106.

To Sept. 30: Exhibit, "Fish & Feel Fit: The History of South Bend Bait Co.," Discovery Hall Museum, South Bend, Ind. South Bend Bait (1900-64) became one of the largest manufacturers of fishing products in the U.S.

To Oct.: Exhibit, "Roanoke Designed, Built & Run," Roanoke Transportation Museum, Va.

Oct. 7: Conference, "The R&D Pioneers: A Critical Look at General Electric, DuPont, AT&T Bell Laboratories, and Eastman Kodak, 1900-1985," Hagley Museum & Library. Info.: Hagley R&D Pioneers Conf., P.O. Box 3630, Wilmington DE 19807 (302-658-2400).

Oct. 9-13: Annual Meeting, Nat'l Trust for Hist. Pres., Seattle.

Oct. 17-19: Annual Meeting, Society for the History of Technology, Dearborn, Mich.

To Oct. 18: Exhibit, "Miles Laboratories: The First Century," Indiana Hist. Soc., Indianapolis. Originally at Discovery Hall in South Bend; new artifacts have been added from the Miles archives.

Oct. 20-22: Annual meeting, Assoc. for Science-Technology Museums, Richmond, Va. Info.: ASTC, 1413 K St. NW, Wash. DC 20005 (202-371-1171).

Oct. 22-25: Symposium, "Industrial Heritage—Conservation Strategies," Lyon Vaulx-en-Velin, France. Info.: Council of Europe, Architectural Heritage & Urban Policies Div., 67006 Strasbourg Cedex 6, France (Telex Strasbourg 870943).*

Oct. 24-27: SIA FALL TOUR, SLOSS FURNACE, BIRM-INGHAM, ALA. Info.: Sloss, P.O. Box 11781, Birmingham 35202 (205-254-2367).

Nov. 1: Conf. on Historic Bridges, Ohio St. Univ., Columbus.*

Nov. 1-3: 6th Annual Lowell Conf. on Industrial History, on "The Popular Perception of Industrial History," Lowell, Mass. Info.: Robert Weible, Lowell Nat'l Historical Park, 169 Merrimack St., Lowell MA 01852 (617-459-1027).

Dec. 27-30: Annual Meeting, Am. Hist. Assoc., New York City.



1986

Jan. 1: Deadline for paper proposals, Vernacular Architecture Forum Annual Meeting, May 7-10, Kingston, N.Y.*

Jan. 8-12: Meeting of the Soc. for Historical Archaeology/Conf. on Underwater Archaeology, Sacramento, Calif. Suggested post-conf. tours include the San Fran. Maritime Museum and Bale Grist Mill. Info.: Peggy Scully, SHA Program Chair, Lowie Museum, Kroeber Hall, Univ. of Calif., Berkeley CA 94720.

Jan. 13-17: A special session on the successful rehabilitation of historic bridges is being developed for the annual meeting of the Transportation Research Board, Wash. D.C. Info.: Howard Newlon Jr. [SIA], Va. Hwy & Trans. Research Council, Box 3817, Univ. Sta., Charlottesville VA 22903-0817.

Apr. 2-6: Annual conventions, Popular Culture & American Culture assocs., Atlanta, Ga.*

June 12-15: SIA 15TH ANNUAL CONF., CLEVELAND, OHIO.*

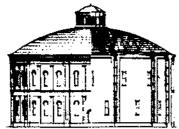
To Sept. 1986: Traveling exhibit, "Rhode Island's Lighthouses: Past, Present, Future," opening at the Newport Tourism & Convention Center. Info & schedule: Sarah Gleason [SIA], R.I. Office of Info & Ed., 83 Park St., Providence 02903 (401-277-6800).

*Find details on this event elsewhere in this issue.

The *SIA Newsletter* is published four times a year by the Society of 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 S20; couple, S25; institutions S25; contributing, S50; sustaining, S100; student, S15. Send check payable to SIA to Treasurer, Room 5020, National Museum of American History, Smithsonian Institution, Washington, D.C. 20560; all business correspondence should be sent to that office. Editorial al correspondence should be sent to ROBERT M. FRAME III, Editor *SIA Newsletter*, P.O. Box 65158, St. Paul, Minn. 55165-0158.

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

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<u>COSSONS NEW SCIENCE MUSEUM DIRECTOR</u>. London's Science Museum has appointed a successor to Dame Margaret Weston who will retire next March after a distinguished tenure. It was under Dame Margaret that the Museum essayed in the concept of outpost museums as a means of broadening its geographical range and the depth of certain collections. The most ambitious ex-London holding under this program is the magnificant National Railway Museum at York.

The new director is to be Neil Cossons, whose career as director of industrial and technological museums has been one of sequential successes. He is perhaps best known for having made the celebrated museum complex centered about the Iron Bridge of Coalbrookdale the world-renowned memorial to the Industrial Revolution that it has come to be. Less than two years ago he departed Ironbridge to assume the directorship of the National Maritime Museum at Greenwich, which would appear to be the only loser under the present rearragnement,

There can be little doubt that Cossons, if true to form, will institute a variety of happy changes at the Science Museum, some of which probably will be seen within minutes of his passing through the front door.

CALL FOR PAPERS -- AMERICAN SOCIAL HISTORY. The Fashion Institute of Technology (FIT!!) is planning a symposium: "The Triangle Shirtwaist Factory Fire [25 March 1911]: 75 Years of Commerce & Conscience in America" for Saturday 22 March 1986 in conjunction with an exhibit on the Fire. Proposals for papers in American social history are solicited. While the matrix of the symposium is the Fire and the history of labor in the textile and apparel industries, proposals are sought in the broad range of social concern--including work, women, immigration, and causes--in American history from 1911 to the present.

Abstracts of not more than one page should be submitted to: Prof Richard Martin, Executive Director, Shirley Goodman Resource Center, Fashion Institute of Technology, 227 West 27th St., New York 10001. Abstracts must be in hand by 15 NOVEMBER 1985.